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A

DICTIONARY OF MEDICINE

INCLUDING GENERAL PATHOLOGY, GENERAL THERAPEUTICS
HYGIENE AND THE DISEASES OF WOMEN AND CHILDREN

BY VARIOUS WRITERS

EDITED BY

RICHARD QUAIN, BART., M.D. LOND., LL.D. ED., F.R.S.

President of the General Council of Medical Education: Member of the Senate of the University of London
Hon. M.D. Trin. Coll. Dublin: Hon. M.D. Royal University of Ireland
Fellow, late Vice-President and Senior Censor of the Royal College of Physicians
Hon. Fellow of the Royal College of Physicians of Ireland

Physician Extraordinary to Her Majesty the Queen

Consulting Physician to the Hospital for Diseases of the Chest, Brompton
and to the Seamen's Hospital, Greenwich

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ASSISTED BY

FREDERICK THOMAS ROBERTS, M.D. LOND., B.Sc.

Fellow of the Royal College of Physicians: Fellow of University College
Professor of Materia Medica and Therapeutics, University College
Physician and Professor of Clinical Medicine, University College Hospital
Consulting Physician to the Hospital for Consumption and Diseases of the Chest, Brompton

AND

J. MITCHELL BRUCE, M.A. ABDN., M.D. LOND.

Fellow of the Royal College of Physicians
Physician and Lecturer on the Principles and Practice of Medicine, Charing Cross Hospital
Physician to the Hospital for Consumption and Diseases of the Chest, Brompton

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NEW EDITION, REVISED THROUGHOUT AND ENLARGED

IN TWO VOLUMES

VOL. I. : ABDOMEN—LYSIS

M-A35

LONDON
LONGMANS, GREEN, AND CO.
1894

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PREFACE

1894

THE Preface to the original issue of this Dictionary, which will be found at page vii of the present volume, contains a statement of the motive which originally induced the Editor to enter on the preparation of the work. Briefly, that motive was supplied by a desire to place in the hands of the practitioner, the teacher, and the student, a means of ready reference to the accumulated knowledge which we possessed of scientific and practical Medicine, rapid as was its progress, and difficult of access as were its scattered records.

That the object in view was successfully attained, has been rendered abundantly evident by the reception accorded to the Dictionary. Since its appearance in 1882 more than 33,000 copies have been issued in this country and America, whilst the Editor personally has received most gratifying assurances of the value and utility of the work.

Having made this reference to the past, he has now to say that the motive which then influenced him is felt with greatly increased force at the present time. Never in the history of Medicine has progress been so rapid as during the last twelve years. Not only has our knowledge of old and familiar facts been improved, but an entirely new development of our science has occurred, more especially with reference to the causation of disease and, it may be added, the preservation of health. It had therefore become necessary to make a complete revision of the work. In the performance of this duty, it has been the aim of the Editor to combine what was good in the original, amended as experience suggested, with such new matter as proved to be acceptable after full consideration.

In order to accomplish these objects, the several articles have been revised by the original writers, so far as this has been practicable. When death unhappily prevented such revision, the task was committed to other not less competent writers. The services of equally competent contributors

were secured for the preparation of new articles. To these gentlemen, friends and colleagues, the Editor offers his grateful thanks for the ability and zeal with which they have discharged the duties undertaken by them. He has the gratification of feeling that the contributors to the Dictionary may regard with great satisfaction the result of their labours.

The Editor has also to speak with sincere thanks of the valuable services which have been rendered him by his fellow-labourers, Dr. FREDERICK T. ROBERTS and Dr. J. MITCHELL BRUCE. In the Preface to the former Edition he stated that without the help afforded by them he would have found it impossible to accomplish the undertaking. He appreciated then the marked ability by which their assistance had been characterised, and he desires now to repeat the expression of his appreciation, recognising that their services have been rendered of much greater value by their increased experience. He has on these grounds felt it a pleasing duty to place the names of these gentlemen on the title-page as his Assistant-Editors. At the same time he feels it right to say that he is personally responsible for the work, of which no portion has been issued without being carefully revised by him. He has also heartily to thank his friend Mr. JOHN HAROLD, Medical Registrar to Charing Cross Hospital, not only for his contributions to the Dictionary, and for the assistance which he has rendered in revising the proof-sheets and passing the work through the press, but also for the pains which he has bestowed upon the conduct of the necessary correspondence with various writers, and in collecting the materials.

It only remains to state that the work, consisting now of two volumes, has been entirely reprinted in larger type, that the number of pages has been increased from 1,834 to 2,518, and that 43 new illustrations have been added to those in the former Edition, so that the illustrations now amount to 181.

LONDON: *May* 1894.

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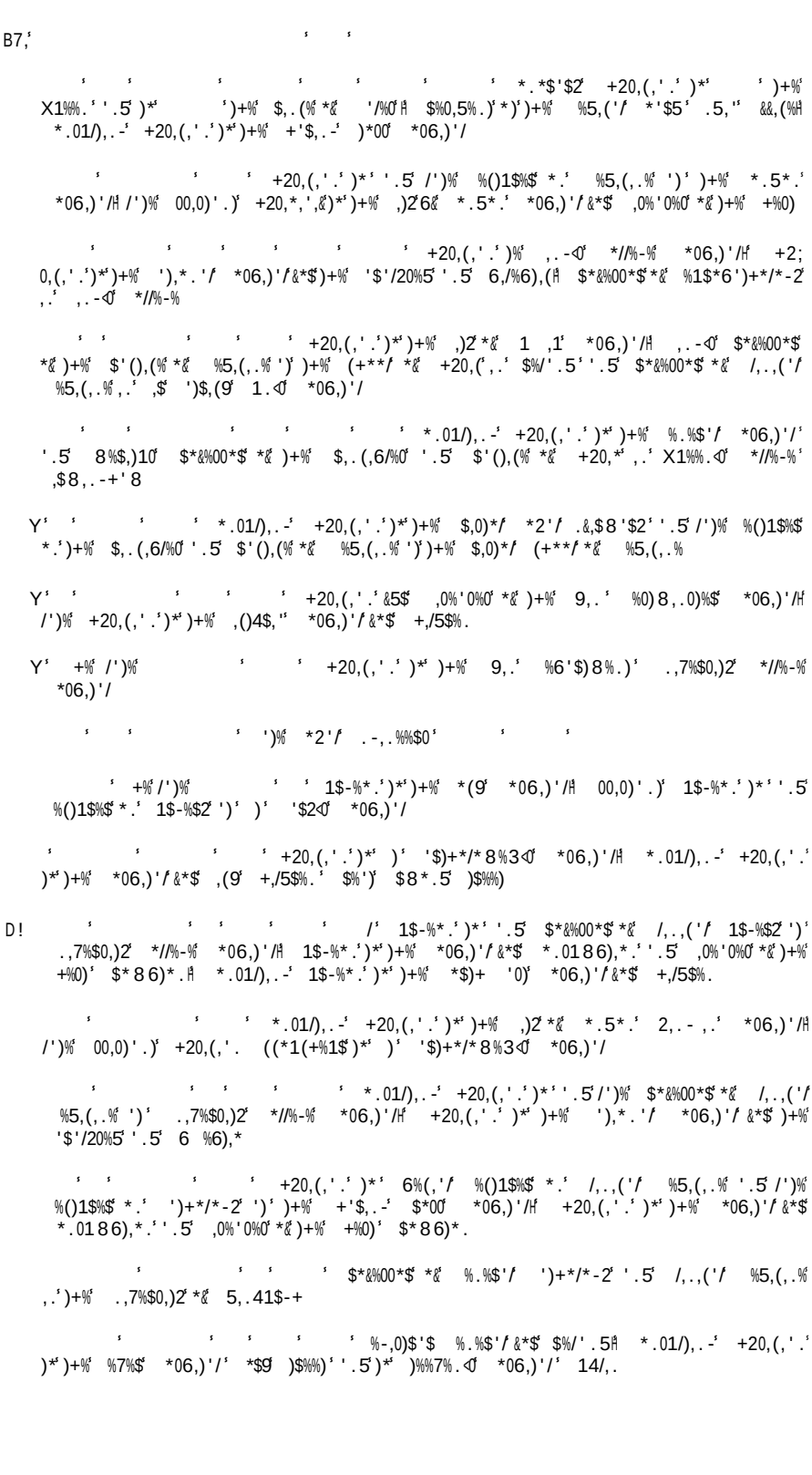

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(' . '/H A(R)+%' , . &%$,*$ ('7'H A R')+%' 60*'0' 810(/%H 0')+%' 6%/7,0' *&')+%' 9,5 . %7H A&R)+%' 06, . '/ (' . 'H *$' , ')+%' . $%)%$' 4,/, '$2' 6'0; 0'-%0' *$ *%0*6+'-10H)+%' *$5%$' -,7%. '$%6$%; 0%.)0')+%'$%/'),7%'&$%E1%. (2'*&')+%'&')'/*$%01/)H *$ A@R 42'%B+'10),*. '*$ 02. (*6%' +%' 51$';),*. '*&' &%' &)%$')+%'$16)1$%'*&'&$,%' . %1$208' +'0' $'. -%5' &$*8' '' &%3' 8, . 1)%0')*' 0%7%$'/ 3%%90' '(*. 0%(1),7%'&'/0%' '. %1$208'$%)$*; 6%$,)*. %'/' , .' 0,)%', 0' 06%(,'//2' (+'$')%$,0%5' 42' &%%4/%' 61/0'),*. ' *&')+%')18*1$ ' ' . 5' 5,8, . 0+%5' *$ '$%0)%5' (,$()5'),*. ' , .')+%' &%8*$'/ ')%$2'*&'*. %' *$4*)+'0,5%0

! "+%') ')$%')8%.)' *&' '45*8, . '/' . %1$208'8'24%'(*. 0,5%$%5'1. 5%$')+$%%' +%'50G) '<:)/ ' ' . 5' ' 3 ' ' . 5' " " ' ' ')$%')8%.)' (*. 0,0)0' , .' 6$%001$%' '66/,%5')*')+%' '*$)'' *. ')+%'6$*B,8'/0,5%'*&')+%'0'('*$'0,81/)' . %*10/2' *. ')0' 6$*B,8'/' . 5' 5,0)'/ 0,5%0' 42' 8%' . 0' *&')*1$. ,E1%)0' 0*' '0' (*86/%)%/2')*' 0)*6')+%' (,$(1/'), *. ' +%' 4*3%/0'0+*1/5'4%'&,$0&'3%//8*7%5' '. 5'&$%%5'&$*8'&/')10H ' . 5'51$, . -')+%' (*.),. 1'. (%' *&' 6$%001$%')+%' 6'), %.)' +*1/5' 4%'9%6)'1. 5%$')+%', . &/1%. (%' *&' (+/*$*&*$8'*$ %)+%$' 0' ''$1/'(*86$%00, *. '0+*1/5' . *)' 4%' %86/*2%5' '4*7%')+%'/%7%/'*&')+%'51*5%. 18' ,7%'('0%0'&' . *)' 8*$%', . '3+,(+' ''(1$%'3'0' %&&%()%5' 42')+%0%'8%'. 0' +'7%' 4%%. '$%6*$)%5' +%'*4>%()'0*1-+)'*' 4%''))', . %5' 4%, -')+')' *&' %&&%(), . -' $'6,&/'(*'-1/'), *. ', . ')+%'0'(')+%' 6%$,*5'51$, . -' 3+,(+' 6$%001$%' . %%50')*' 4%' (*.), . 1%5', . ')+%0%' ('0%0'7'$,%0'&$*8')+$%%' E1'$)%$0'*&' . '+*1$')*')%. ' +*1$0' . 5' ''+'/&' W +%$%06'(%'&*$')+%''66/,('), *. ' *&'6$*B,8'/' 6$%001$%'5*%0'. *)'%B,0)'5,0)'/ 6$%001$%''/*. %' 8'2'4%')$,%5' . 5%$' ' ' (,$(180)' . (%0' 6$%001$%'). 10)'4%'10%5'3,)+' ('$%' '0' , . &/'8; 8'), *. ' *&')+%'6%$,)*. %18' *$ *&')+%' 4*3%/0' +'0'4%%. '9. *3. ')*' $%01/)' &$*8',) '/7' . * 6. . ()1$%' . 5')+%', .)$*51(), *. ' *&', $*. ' 3, $%' 8)*')+%' . %1$208'/'0'('A **$%<0')$%')8%.)R' +'7%' '/0*' 4%%. ' %86/*2%5' . ' '' 08'//6$*; 6*$), *. ' *&'('0%0')+%'/')))%$' 8%)+*5'+'0'4%%. '))%. 5%5'3,)+' ''&'7*1$'4/%$01/)

%//, . -+'8', .)$*51(%5')+%'6/. ' *&')$%');

8%.)'42' ' /" ' ' . 5%$')+,0'6/. '6%$&%()'$%6*0%' *&'8, . 5' ' . 5' 4*52',0' '0' &)1' '0'6$'(),('4/%')*' 4%'$. ', .)', . %5H)+%' 4*3%/0'4%, . -' 9%6)' 8*5%$')%/2'&$%%' ' . 5')+*' 5,%)'$2'$%0)$,()%5')*' !' *C' *&'0*+50' . 5'D' *C' *&'/,E1,50'5', /2' ((*$5, . -')*')+%'8%)+*5'+'0'4%%. ' 0'8%6$,. (,6/%'41)', 0'8*$%$, -,5')+%'6'),%.)', 0' 0)$,()/2'(*. &, . %5')*')+%'+*$,C*.)'/'6*0)1$%'&*$' '6%$,*5'7'$2,. -'&$*8'%, -+)')*')+,$)%%. '3%%90' '0' 5%)%$8, . %5'42')+%'%&&%()'16*. ')+%' . %1; $2088'*7%8%.)', . '4%5'4%, . -' %&&%()%5'3,)+' (' 1), *. H 3+,/0)'42' '' 06%(,'/' $$' . -%8%.)')+%'4*3%/0'. 5')+%'4/'55%$'8'2'4%%'7'(1')%5' 3,)+*1)'5,0)1$4' . (%'*&')+%'4*52' *$4$%'9; &'0)'@' *C' *&' 3+,)%' 4B%'5' . 5' 41))%$' 3,)+' @' *C' *&' (*(*'' *$' 8,/9' '$%' '//*3%5H &*$ 5, . %$' '" *C' *&' 8%')' 3,)+' " *C' *&'6*)')*%0' *$' 4$%'5' . 5' *C' *&' 3')%$' *$ (/'$%)H ' . &/ &*$ 0166%$' @' *C' *&' 4$%'5' . 5' 41))%$' . 5

@' *C' *&' 8,/9' *$)%' b' +%')*)'/' 8*1.)', &&')+%')3%.)2 &*1$'+*1$0'3*1/5'4%'0*/,50' !' *C= /,E1,50'?' *C' +,0'020)%8'8,-+)'4%', . '0*8%' 5%-$%%' $%/'B%5', &')+%' 6')., %.)' 6$*7%5'$%0),7%' ,/5' /'B'),7%0' . '. 5' 6,')%0' '0' $%E1,$%5' '$%')+%' *. /2' 8%5,(, . %0' 10%5' %. ' ('0%0'*&')+%' 01((%00&1/')$%')8%.)' *&' '*$),(' . %1$208' 42')+,0' 8%)+*5' +'7%' 4%%. ' 5%0%0*&')+%' 1&. %//' 45*8, . '/' . %1$208'3'0'0*/,5,&,%5', . ')3*' , . 0)'. (%0' &)%$')%')8%.)' %B)%. 5, . -' *7%$')+,$)2 0%7%. ' . 5')3%.)2 *. %' 5'20' $%; 06%(),7%/2

&')+%'7'$,*10') ' '-%.)0' 0%5'3,)+' ''7,%3')*' &'7*1$, . -' *$ %&&%(), . -' ''5%6*0,)' *&'/' 8, . ')%5' &,4$, . ' , . ')+%'0'(' '(%)')%' *&'/%'5' ,*5,5%' *&'6*)'00,18' ' (*. ,)%' . 5'%$-*), . 'A'5; 8, . ,0)%$%5'+26*5%$8,('//2R' '/*. %' (/', 8' ');)%.), *. ' *5,5%' *&'6*)'00,18' 8'2'4%' -,7%. ' 3,)+' '57'.)'-%' , . ' 5*0%0' *&' !')*' @!' -$ ')+$,(%'5',/2'3,)+' ''7,%3')*'$%51(, . -'7'0(1/'$') ^0,*. ' ' . 5')+%$%42'$%/,%7, . -'6', . ' ' . 5'6$*; 8*), . -' 5%6*0,), *. ' , . ')+%'0'(' +,/0)'6%$&%()' $%0)', . ')+%'$%(184%.)'6*0)1$%' . 5' ''$%0)$,()%5' 5,%)'$2' '$%' *40%$7%5' +%'/')))%$' '$%' +*3; %7%$')+%'8*$%', 86*$)' .)'&')(*$0', . ')+%')$%'); 8%.)' $' ' '/&*1$' +'0' $%6*$%5' 0%7%$'/('0%0'01((%00&1//2')$%')%5'42'8%' . 0' *& ,*5,5%' *&'6*)'00,18H ' . 5' . ' %B'86/%' *&' '' 0,8,/'$' 9, . 5' 3'0'0140%E1%.)/2'614+0+%5'42' ,$' 2*%' 1(93*$)+' $' $,80+'3'+'0' $%(*$5%5' . '%B'86/%' *&'(1$%'8', . /2')+$*1-+')+%'10%'*&'('*. ,)%' . ' '/' *'0%0')+%''//*3'(%' *&'/,E1,50'810)'4%'$%51(%5')*')+%'/*3%0)'6*0; 0,4/%'0)' . 5'$5'3+,/0)'%B($%), *. ', 0'6$*8*)%5' /(*+*+%'0),81/' .)0'8'2'4%'-,7%. ' , . '08'// E1' .),)2' . 5')'/*. -', .)%$7'/0', &')+%'61/0% %B+,4,)'5%4,/,)2' . 5')+%'6'), %.)'(*86/', . '*&' '0%. 0'), *. ' *&'0, . 9, . -H *)+%$3,0%')+%2'0+*1/5' 4%'6$*+,4,)%5

+%') ')$%')8%.)' '0' '66/,%5')*' '45*8, . '/' . %1$208'3,//4%&*1. 5'5%0($,4%5' , . ')+%''$),(/%' # ' ,0%'0%0'*&'&" $ +%''66/,('), *. ' *&' '' &%3'/%%(+%0'&*//*3%5' 42' '' 3'$8'6*1/),(%', 0'7%$2'%&,&,(''*,*10' , . ' $%/,%7, . -' 6', . ' +%' +26=%$8, *' 10%' *& 8*$6+, . %', 0'0),// 8*$%'$'6,5/2'%&&%(),7%

$ % & ' ' ()' *

3 53 ' %" ! ' 4 ' 3 &% (%)' (*' +%$, ('-' . /. *0' ' & ' !

3 53 ' 63 ! *' ' *& G 1)' +))/%' 8*$%' ,// 4%' . %%5%5', . ')+,0' '$),(/%')+' . ')*' -,7%' '' 4$,%& *1)/, . %' *&')+%' . ')1$%' *&')+%' '&&%(),*. 0')*' 3'+')+%' '45*; 8, . '/' 3'//0' '$%/,'4/%' '0' 8*0)' *&')+%0%' '$%41)' /*('/' &*$8 0' *& 5,0%'0%0' 3+,(+' '$%' &. 2 5%0($,4%5', . ')+%$6'$)0' *&')+,0' 3*$9' +%' 6'$,%)'/ 6%$,)*. %18' 3, ' 4%' %B(/15%5' &$*8' (*. 0,5%$'),*. ' '0',)0' 8*$4,5' (*. 5,),*. 0' '$%')$%')%5'*&'0%6'$')%/2

' '$& %(')*(G ' +%' 09, . ' (*7%$, . -')+%' '45*8%. ' 8'2'4%')+%'0%')' *& 7'$,*10' %$16),*. 0' &$%' $'0+' *&')JER+*,5' &%7%$' ,0' (+,%&/2'*40%$7%5' *7%$')+,0' $%-,*.

+'7% 4%%.' &,$0)' *4/,)%$')%5' ,.')+%' /,.%' *&')$'.0,)' 42' '5+%0,7% ,.&/' 8 8 '),*.' *&')+%,$' *66*0%5' 01$&'(%0' ,.')+,0' 3 '2' .' '40(%00' &*$8%5',.')+%'/,7%$'A'.5')+,0' +*/50' -**5' '/0*' &*$)+*0%' *&'' 8 *$%' '(1)%' (+'$'()%$R' 8 '2')$'7%/')+$*1-+')+%' /'2%$0' *&')+%'6%$,)*.%18 ' '.5' 8 '2' 6*,.)')+$*1-+')+%' '.)%$,*$ 3 '// *&')+%' '45* 8%.

+%.' '.' '40(%00' 5,0(+'$-%0' ,)0' (*.)%.)0' '$%' 0%%.')*' 4%' %,)+%$' '),(9' 2%//*3' 5 ' 610' *$ 610' 0)',.%5' 3,)+' 4/**5' *$' *)+%$3,0%' (*/*1$%5' 01(+' '0' 4/'(9' *$' 4/1,0+ -$%%.H' *$')+%' 610' 8 '2' 4%')+,.' '/8*0)' 3')%$2' 8,.-/%5' 3,)+' &/'9%0' *&' /2 8 6+H ,)' 8 '2' 4%' ,.*5*$*10' *$' &*%),5' *$' ,$$,)'),.-')*')+%' 09,.' , # ' 40(%00%0' 8 '2' /0*' (*.)',.' 0/*1-+0' *&',001%' &*$%,-.' 4*5,%0' 8 '00%0' *&',.06,00')%5' 610' '0' +'$5' *(('0,*.'//2' '0' ('/(1/,' &$'-8%.)0' *&' 5%'5'4*.%'*$'('/(1/,'*&'7'$,*10'9,.50' *8%;),8%0' '' (+$*.,(' '40(%00' (%'0%0')*' %./'$-%H' '.5',&')+%' ,$$,)'),*.' 3+,(+' *(('0,*.%5',)' (*8%0')*' .'.%.5',)' 8 '2'5,8,.,0+'42' '40*$6;),*.'*&' 3+')'1.5%$' 01(+' (,$(180)'.(%0' +'0' 4%%.')%$8%5'42' ,$' '8%0' '-%)'' ' '40(%00H)+,0')%$8'0$%0,51'/ɬ4%,.-' '/0*' '66/,%5')*' '.' '40(%00'3+,(+'+'0' &*$8%5')')+%' 0,)%' *&' *5' ,.&/'8 8 ')*$2'6$*(%00%0''/)+*1-+')+%0%' 8 '2' .%7%$' +'7% '57'.(%5' 6$%7,*10/2')*' ()1'/ 01661$'),*.

+%' 0 ' *&' .'2' '40(%00',0' /'$-%/2',.; &/1%.(%5' 42')+%' 0)')%' *&')+%' -%.%$'/ +%'/)+' .'6%$0*.0' *)+%$3,0%' $*410)' .'' '40(%00'(*8; 8*./2' $1.0' .' '(1)%' (*1$0%H ,.')+*0%' 3%'9%.%5' 42' '(1)%' ,//.%00' 01(+' '0' 0('$/%)' &%7%$' *$)26+10')+%2' &*$8' E1,(9/2' 41)' $%' 0/*3/2'$%(*7%$%5'&$*8' '.5' 0%7%$%/2')'B' 42' '.'%B+'10),.-'5,0(+'$-%')+%' 6*3%$0' *&')+%' 6'),%.)' %$0*.0',.'&%%4/%'+%'/)+' +%$%5,)'$2' *$' '(E1,$%5'101'//2'01&&%$'&,*8')+%' (+$*.,(' '.5'5,&&10%5'&*$8 0H ' '.5'(+$*.,(' '&&%(),*.0'*&' ,.)%$.'/ *$-'.0''0' *&')+%' /,7%$' *$ 9.5.%20' '$%' .*)' ,.&$%E1%.)/2' '00*(,')%5'3,)+' +%' 5%; 7%/*68%.)' *&' 01(+' '40(%00%0 . ! +%'('10%*&' '.' ' '40(%00' 8 '2'4%' .',.>1$2'01(+' '0' '4/*3' *$' 6$%001$%' '0' *&)%.' +'66%.0',.' 6%$0*.0' 3%'9%.%5' 42' (*.),.1%5'&%7%$H %B6*01$%H *$')+%',$$,)','.*.' *&' '' &*$%,-.' 4*52' *$')+')' *&' ''6*,0*.',.)$*; 51(%5' &$*8' 3,)+*1)' .')+%' /'0)' ('0%')+%' '40(%00',0' *&)%.' 5,&&10%5' 40(%00' $1.,.-' '.'(1)%' (*1$0%' 8 '2' /0*' 4%' 51%')*' '' &*$%,-.' 4*52' *$')*' '.',$$,)'.)' &$*8' 3,)+,.' '0' 3+%.' ,)' &*//*30' .%($*0,0' *&' '' 6*$),*.' *&' 4*.%' *$')+%' %0('6%' *&' 1$,.%' ,.)*')+%'),001%0' *&')+% 6%$,.%18 ')' /0*' '$,0%0',.' **,8%B,*.' 3,)+' 4/**5 6*,0*.,..-' '0',.' 7'$,*10' &%7%$0' '.5' '&&%(),*.0'5,0),.-1,0+%5' '0' 0%6),(' +%' ('10%' *&' '' # " ' '40(%00',0' 101'//2' &*1.5',.' (+'.-%0' 3+,(+'-*' 3,)+' 5%6*0,)0' *&' '')14%$; (1/*10'(+'$')(%$H *$',)',0'&*1.5',.')+%'(+'.-%0' 3+,(+' 0/*3/2' *((1$' '$*1.5' '.' ,$$,)'),.-

4*52' 01(+' '0' '' $%.'/' ('/(1/10H *$' (+$*.,(' ,.&/'8 8 '),*.' 8 '2' (1/8,.')%' ,.' *.%' *&')+%0%' (*//%(),*.0' *&' 8')1$*' +%2' 8 '2' /0*' &*$8' ,.' 6'$)%' 3+,(+' '$%' /*.-' (*.-%0)%5',.' (*.%B,*.'3,)+' *40)$1()%5'7%.*10',($(1/'),*.' ,) / (9'.5')+%2' 8 '2' &*//*3' *$' (*.5,),*.0' (/*0%/2' '//,%5' 8 '2' &* *3')+%' *((/10,*.' *&' ' 8 ',.' '$)%$2' '.5')+%' (*.0%E1%.)' (1)),.-' *&& *&')+%' 0166/2' *&' 4/**5')*' '' 6'$),(1/'$ $%-,.*.

' & G= +% 0286)*.'0' *&' '.' ' '40(%00' '$%')+*0%' *&' '' /*(-/',.&/'8 8'),*.' 3,)+'(*.0),)1),*.'/5,0)1$4'.(%',&')+%' '40(%00',0' *&' '.2'0,C%H &*//*3%5'42' ''0%.0%' *&'(*/5' *$' '()1'/ ,7%$,.-'3,)+',.($%'0%' *&'6',.' '.5' 03%//,.-')%.5%$.%00' ' .5')+$*44,.-' +%)%.5%$.%00' ('.' 4%' $%(*-.,0*5',.')+%' ('0%' *& 8*0)' 40(%00%0H '.5',&'610',0' &*$8%5' '.2; 3+%$%' .%'$')+%' 01$&%(%')+%' 6$%0%.(%' *&')+% &/1,5',0' 5%)%()%5' 42',)0' &/1()1'),*.' +% 0%7%$,)2' *&')+%' 6',.',0' 81(+',./1%.(%5' 42')+%' 0,)%' *&')+%' '40(%00' '0' 3+%.')+%' 610',0' +%/5' 5*3.' '.5' +,.5%$%5' &$*8' 6*.),.-' 42' 5%.0%' 0)$1()1$%0' 01(+' &%0(+%1' 6%(' 0286)*80' 8 '2' '/0*' '$,0%' ,.' (*.%B,)8'3,)+')+%' 0,)1',),*.' *&')+%' 0),61/'),*.' '0' 3+%.' 1$-%.)' 5206.*%'' ,0' ('10%5'42')+%' 6$%001$%' *.')+%' /'$2.B' *&' '.'40 0' 5%%6/2'0%')%5')+%' 4'0%' *&')+%')*.-1%' ' +%' 0,)%' *&')+%' '40(%00',&'014(1)'.%*10',0' $%(*-.,0%5' 42',)0' $'6,506$%'5,.-' '.5' 8 '2' 4%' 0 (()%5',&' *)+%$' 0,-.0'6*,.)*' '' 6')' 0')+%' 0,)%' *&')+%' '40(%00',' 3+,(+'5,&&10,*.',0')+%' $1/% &' # ' '40(%00')+%$%',0'0%/5*8' '.2'%7,; 5%.(%',.),)0' %'$/2'0)'-%' +%' 0286)*80',&' '.2' '$%')+*0%' *&'/,.-' +%' /)+' '.5' &*$')+% $%0)' B%' 8 '$9%5' 42')+*0%' *&')+%$' (+'.-%0' &$*8'3+,(+')+%' '40(%00',' '.' 1)(*8%' +10',.' 5,0%'0%' *&')+%' +,6 >*,.)' *$' *&')+%' 06,.%'1./%00' '.' '))'(9' *&' 0+,7%$,.-'(+'.(%0')*' '))$'()'))%.),.*.' '.' '40(%00',0' .*)' '0' '$1>%' 0106%()%5'1.),/,)' +'0' 4$*9%.')+$*1-+',)0' &,$0)' /,8,)0' '.5' +'0' '))',.%5' (*.0,5%$'4/%' 0,C%' 1$'/,8,)0' 5*' .*)' 6%$8,)' '.'%B'8,.'),*.'*&)+%' 0286)*80' 3+,(+' 0%$7%')*' 5,0),.-1,0+ 4%)3%%.'(+$*.,(' '40(%00' '.5'*)+%$' 03%/ .-0' 01(+' '0'%B)$'7'0')%5' 4/**5' *$' 0*&)')18*1$0' %06%(,'//2' 8 '/,-.'.)' .8*1$'!H 41)')+,0' ,0')+%' /%00' $%E1,0,)%' &*$',&' '' 5*14)',.' .2' ('0%' '$,0%0',)' ('.'4%' ')' *.(%'0*/7%5' 42')+%',.)$*; 51(),*.' *&' '' -$**7%5' .%%5/%' *$' *&' '' &,.%)$*('$',.)*')+%' 03%//,.-' +%')$1%' 61/0'),*.' *&' .' '.%1$208' 01&&,(,%.)/2')%//0',)0' .')1$%' '.5',0' .*)' %'0,/2'8,0)'9%.' &*$')+%' ,861/0%' 0*8%),8%0'-,7%.')*' '.' '40(%00'42' .''5>'(%.)' '$)%$2

+ G +%' (+,%&' /*('/' 7'$,%),%0' *&' '40(%00%0'3+,(+' '$%'/,9%/2')*'4%' 8%)' 3,)+',.' 8%5,('/' 6$'(),(%' 8 '2' 4%')+10' '$$' .-%5 G' ' 14(1)'.%*10' *$' 8*$%' 5%%6/2' 0%')%5' '40(%00%0',.')+%'/,8 40',.'(*.%B,*.'3,)+'/*3' &%7%$0' %$20,6%/'0'620%8,'' ^ ' @' 40(%00%0' *&'/*('/' *$,-.,.'.')+%' 3'//0' *&')+%' '45*8%.' *$'(+%0)' "' 40(%00%0' *$,-,.'),.-' ,.' 0%$*10' 8%84$'.%0' ' %$)',.' 06%(,'/' '40(%00%0' '00*(,')%5'3,)+'5,0%'0%5'4*.%' 0' 60*'0'.5

(*.0),)1%.)' *&')+%' ($10)' *&' &'710' A'(+*$R' '.5' 4%/*.-0')*')+%' -$*16' *&'&1.-*,5'6/'.)0' 5%.*8,.')%5' ' ')' (*.0,0)0' *&' 06*$%0' 06*$,5,'' *$')14%0' &,//%5' 3,)+' 06*$%0' '.5' %86)2'4$'.(+%5')14%0' *$' 82(%/,18

& # 3 '3'0')+%' &,$0)' 5,0(*7%$%5'*&')+%' %6,6+2)%0' *&')+%09,.''65',.' (*86/,8%.)')*' *.%'*&',)0'%'$/2'*40%$7%$0' (+ ./%,.'+'0'4%%.' .'8%5'& # "' # " 3 ')',0'0166*0%5')*'4%')+%''-%.)'*&'(*.)'-,*.',.'&'710H ,)'+'0' '/0*' 4%%.' &*1.5',.')+%' /**0%' (% 0)$')(1$%' 4%.%')+')+%'.',/,.'*.2(+*-$26+*0,0

% $ '

3 % 3'A5'6$,7H' .5'B6=61'(*/*1$R' 40%.(%' *&' (*/*1$H' '.' '(+$*8')*10' *$' (*/*1$/%00'0)')%' *&''.' 01'//2'(*/*1$%5',001%' 51%')*' '40%.(%' *&'6,-8%.)' .'$%&%$%.(%')*')+%' 09,.' '(+$*8'' ,0' 02.*.28*10' 3,)+' /%1(*5%$8''/4,.,08' '.5' '/6+* ,0' '

'3 ' '" 12 '' ' '

3&%' 3 ! 3*' A5'6$,7H B = ,' (*/*1$H' .5' 0,-+)R G= *$% *$'/%00'(*8; 6/%)%' ,.'4,/,)2')*' 5,0),.-1,0+' (*/*1$0' &,$*8' %'(+'*)+%$' '3 ' ,0*$5%$0'*&

/ = (,50''$%' (*.0)'.)/2'6'00; ,.-'*1)' *&')+%' 4*52' 42')+%' /1.-0')+%' 09,.' '.5')+%' 9,5.%20' +%0%' '(,50' '3%' %B(%6)')+%'08'/H E1'.),)2',.)$*51(%5'&,$*8' 3,)+*1)' ,.')+0'&*$8'*&' '(,5'0')0' *&' (%$)'.' '$),(/%0' *&'**5''$%' &*$8%5'3,)+,.')+%'4*52'42')+%' 5,0,.)%-$'),*.' '.5'*B,5'),*.' *&')+%'),001%0' '.5'&**5' &')+%'*B,5'),*.' &*$-'.,(' 014;0)'.(%0',.')+%' 020)%8' 3%$%' (*86/%%')+%' 0*/%' 6$*51()0' *&')+%,$' (*8410),*.' 3*1/5'4%' ('$4*.,(' '(,5'3')%$'' .5'1$%'H 41)' 0')+,0' *B,5'),*.',0' .%7%$' '()1'//2'(*86/%%')*')+%$' 6$*51()0' 0'/')(),(' '(,5'*B'/,(' '(,5'1$,(' '(,5'^(''$%'&*$8%5H' .5')+%',.($%'0%5'*$' 5,8,.0+%5'6$*51(),*.'*&'+%0%',.)%$8%5,'$2' 6$*51()0'8'2'4%'$%-'$5%5'0')+%'8%'0,.$%'*&')+%'(*86/%)%.%00'3,)+'3+,(+')+%'*B,5'),*.' 6$*(%00%0'$%'4%,..-'6%$&*$8%5',.')+%'4*52' +%'E1'.),)2'*&'(,5'8'))%$'6'00,.-')+$*1-+')+%'4/**5'*.',)0'3'2')*')+%'/1.-0')+%'098' '.5')+%'9,5.020',0'(*.0,5%$'4/%H0,.(%',)'+'0' 4%%.'0+*3.'66$*B,8')%/2')+')''+%'/)+2' 8'.'*&%/%7%.'0)*.%'3%,-+)'1.5%$'*$5,.'$2' (,$(180)'.(%0'6'00%0'42')+%'&,$0)')3*'54'.' .%/0''.''7%$'-%'*&??P!'-$'88%0'A'4*1)'@?' *1.(%0R*&'('$4*..('(,5'5',/2''.5')+')')+%' '(,5'%B($%)%5'42')+%'9,5.%20',.')+%'0'8%' 6%$,*5',0'%E1,7'/%.)')*')3*'-$'88%0'A'4*1)' GH'-$',.0R'&($20)'//,0%5'*B'/,('(,5H3+,/0)')+%'7*/'),/%'&')2'(,50'6'00,.-'*&&'3,)+')+%' 03%')'+'7%'.*)'2%)'4%%.'0'),0&'()*$,/2'('/(1;/')%5')',0'%7,5%.)')+')',&')+%'$%-1/'$'%/,8,.;.')%'.'*&''(,50'42''.'2'*&')+%0%'(+'..%/0'4%',.)%$&%$%5'3,)+'+%2'3,//)%.5')*'((181;/')%',+')+%' 020)%8' (,5,)2''*$' %B(%00'*&'('(,5',.')+%'4*52')+%$%&*$%'5%6%.50'*.')3*' ('10%0G8' ( ) ' "')+%'$%01/)'*&',.(*86/%)%'*B,5'),*.'*&')+%'%/%8%.)0'*&')+%'),001%0''.5')+%'&**5H<' "'

"' "')*)' '(,5'&*$8%5'%,)+%$',.' .*$8'/*$'4.*$8'/ E1'.),),%0' *)+')+%0%' ('10%0'+*3%73''$%'-%.%$'//2'&*1.5''(),.-',.'(*.;>1.(),*.' B,5'),*.',0',86%$&%()/2'6%&*$8%5'3+%.'.',.01&&,(,%.)'E1'.),)2'*&'*B2-%.',0',.)$*51(%5',.)*')+%'4*52'*3,.-')*',.01&&,;(,%.(2'*&')+%'$%06,$')*$2'('()')+%'$%01/)'*&5,0%'0%'*$0%5%.)'$2'+'4,)0H*$'15,%.')+%'4/**5',0'6**$',.'$%5'(*$610(/%0')+%'('$$,%$0'*&'*B2-%.''0',.'/%19'%8,'H $&,*8'&1.(;),*.'/5%$'.-%8%.)'*&0*8%/'$-%-/'.5'01(+''0')+%'/,7%$'3+%$%'*B,5,0,.-'6$*(%00%0'$%%B)%.0,7%/2'('$$,%5'*.' -',.-')+%'8')%$,'/0'0148,))%5')*')+%',.&/1%.(%'*&')+%'*B2-%.'3,)+,.')+%'4*52'8'2'4%'0*',.($%'0%5'0',0')+%'('0%',.'&%4$,/%(*.5,),*.0'*$',.'-%.%$'/6/%)+*$'',.51(%5'42'*7%$&%%5,,9-''.5',.01&&,;(,%.)'%B%$(,0%')+')')+%'0166/2'*&'*B2-%+'%'2'6$*7%.01&&,(,%.)'&*$')+%,$'(*86/%)%(*8410),*.'%&%(),7%'%/,8,.'),*.'*&'A+%''(,50'&*$8%5'3,)+>.')+%'4*52',0'51%'%,)+%$')*'5,0%'0%5'(*.5,),*.0'+,(+'6$%7%.)')+%'/1.-0'09,.''.5'9,5.%20'&$*8'%B%$(,0,.-')+%,$'$%06%(),7%'&1.(),*.0'6$*6%$/2'*$')*'3'.)*&')+%'6+20,*/*-,('/0),81/10'3+,(+'%B(,)%0')+%8')'3,'4%'0%%.')+%$%&*$%')+')''(,5),)2'8'2''$,0%'.-',.&/1%.(%'*&'5,0%'0%H'*8'2'4%'(E1,$%5'*$',.+%,$%5''0')+%'6%.'/)2'*&')$'.0-$%00,*.'*&'(%$)','/'30'*&'+%'/)+G'0')+%'$%01/)'*&'1.&'7*1$'4/%+2-,%.,(' (*.5,),*.0' .')+%' &*$8%$' ('0%'(,5,)2',0'*./2'0%(*.5'$2'' .5',0'-%.%$'/2'014*$5,.')%')*')+%'5,0%'0%'6$*51(,.-',)''.5'+'0'$'$%/2')*'4%'(*.0,5%$%5''='$)'&$*8'&)H3+,/0)',.')+%'/')))%$,.0)'.(%''(,5),)2',0'101'//2''),&,$0)')+%'*./2')$*14/%'/%'5,.-'+*3%7%$',&'5,0$%-'$5%5')*'0%(*.5'$2'8,0(+,%&

22 . ! +%'81(*10'8%84$'.%0' '.5'09,.'(+,%&/2'01&&%$',.'.''(,5,)2' +%'&*$8%$'4%(*8%'014>%()')*' (')'$$+' 6$*51(%5'.*'5*14)'42')+%',$$,)'),.-'6$%0%.(%'*&')+%'('(,5'(,5,)2'8'2')+10'('10%'4$*.(+,),0'-'0)$*;,.)%0),.'/(')'$$+''.5'()'$$+'*&')+%-%.,)*;1$,.'$2')$'()' *8%),8%0')+%''(,5',0'6*1$%5'*1)',01(+'E1'.),),%0'&$*8')+%'81(*'8%8;4$'.%*&')+%'0)*8'(+'0')*'4%%>%()%5'&$*8')+%'8*1)+' .')+%0%'('0%0'5,-%0),*.',0'(*.;0,5%$'4/2',.)%$&%$%5'3,)+'42')+%')*' '(,5'(*.5,),*.'*&')+%'-0)$,('>1,(%' *8%),8%0'+*3%7%$')+,0''(,5,)2'*&')+%'0)*8'(+',0'6$*;51(%5'42''.'*66*0,)%'(*.5),*.G)+%'5%&,;(,%.(2'*&')+%'5,-%0),7%&/1,5''.5'(*.0%E1%.)''(,5'&%$8%.)','),*.'*&')+%'&**5'4.*$8'/'(,5,)2'*&')+%'1$,.%'.*)*.2'6$*51(%0'')'$$+*&')+%'1$,.'$2'6'00'-%0'41)'42'5%(*86*0,.-')+%'0'/)0'*&'1$,('(,5',.')+%'('10%0''5%6*0,)+,/0'-,7,.-'$,0%)*')'(90'*&'-$'7%/'*$/%'5,.-')*')+%'&*$8')*.'*&''(,9810'(,5,)2'8'.,.;&%0)0',)0%/&',.')+%09,.'42')'(90'*&'%$=+%8''+%$6%0'%(C%8''.5'1$),('$,'' U+%18'),0$'))**'8'2'4%(*.0,5%$%5''0''5,0%'0%'$%01/),.-'&$*8')+%'&*$8',.*.'*&''(,5''&&%(),.-'(+,%&/2'&,4$*10'.5'0%$*10'8%84$'.%0H.*'*.%'('.3,).%0')+%'%.*$8*10'E1'.),),%0'*&'(,503%')'6*1$%5'*1)''.5')+%'+,-+/2''(,5'1$,.%

,.')+%' '(1)% &*$8' *&')+,0' 5,0%'0%' 3,)+*1)' '(9.03/%5-,.-')+')' . ' ,. ($%'0%5' &*$8'),*.' *&' '(,5' ,0')'9,.-' 6/'(%' 0*8%3+%$%' ,.')+%' 4*52H')+*1-+' 6%$+'60' 1.3,//,.-')*' (*8 8,)' *.%0%/&')*' '((%6)' . 2' *&')+%' 7,%3 0' +,)+%$)*' '57'.(%5' '0')*')+%' . ')1$%' *&')+%' '(,5

' . ') 2 *$' (/,.,(' /' 61$;
6*0%0' '.' %0),8 '),*.' *&')+%' '(,5,)2' *&')+%'
1$,.%&1$.,0+%0')+%'6+20,(,' .'3,)+' . ' '66$*B;
,8 ')%' (/1%' '0')*')+%' '8*1.)' *&' '(,5' &*$8%5'
,.' '.5'6'00,.-' *1)' *&')+%'4*52' +,0',0'5*.%'
42' */!%(),.-')+%'1$,.%' &*$)3%.)2 &*1$'+*1$0'
6/'(,.-' 8HH' (' *&') +,0',.' '4%'9%$' '.5')+%.'
'55,.-' '' 0*/1),*.' *&' 0*5,18' +25$')%' A0)' .;
5'$5,0%5' ')+')' ' (('e'0! '-$' 8 8%' *&' ($20;
)'//,0%5' *B'/,(' (,5R &$* 8' '' *+$<0' 41$%))%')
,)/')+%' &/1,5',0' .%1)$'/,0%5' +%' .18 4%$' *&'
((<0' *&')+%' 0)'.5'$5' 0*/1),*.' $%E1,$%5')*'
%&&%()')+,0' ,0')*' 4% 8 1/),6/,%5' 42' 0 /' 3+,(+'
-,7%0')+%'6%$(%.)'-%' '(,5,)2',.')%$8 0' *&' *B'/,('
'(,5' *' '0(%$)',.'&$* 8')+,0')+%')*)'/' 8 *1.)'
*&' '(,5',.')+%')3%.)2 &*1$'+*1$0< 1$,.%',0' *.2'
'' 8 ')%$' *&' ('/(1/'),*.' *' 8 1(+' 5%6%.5;
%.(%' 8 10)' .*)' +*3%7%$' 4% 6/'(%5' *.')+%'
1$,.%' '0' '' 8%'.0' *&' %0),8 '),..' %B(%00' *$
5%&,(,%.(2' *&' '(,5',.')+%' 020)%8 H ,)' 0*8%;
),8 %0' +'66%.0')+')',.'+,-+/2' '(,5' (*.5,),*.0'
)+%' 1$,.%',0' '/9'/,.%' +,0' '0' $' %.(%'
*.%0' +'0' 0+*3.' 8 '2' *((1$' 3+%.' /'$-%'
E1'.),),%0' *&' ' ,5'&/1,5' '$%' 6*1$%5' *1)' *&')+%'
0)*8 '(+H ' .5' $*1)'/*.-' '-*' *40%$7%5')+')'
,.')+%'%(C%8 '' *&' -*1)2' 6%$0*.0')+%' 1$,.%' 0*'
/*.-' '0')+%' 5,0%'0%' 6%$0,0)%5' 3 '0' %,)+%$' *&'
/*3' '(,5,)2' *$' '/9'/8%' 41)')+')')+%' 0140,;
5%.(%' *&')+%'%(C%8 '' 3 '0' &$%E1%.)/2' &*//*3%5'
42' '.' *7%$ '(,5' (*.5,),*.' *&')+%' 1$,.%' '(;
(*86'.,%5'3,)+'$%.'/' .5' 7%0,(' /' (')'$$+

G +%' -%.%$'/' ,.5,('),*.0' &*$*
)+%')$%')8%.)' *&' '(,5,)2' (*.0,0)' ,.')+%' 6$*;
8*),*.' *.' *&' *B,5'),*.' ' '.5')+%' %/,8,.'),*.' *&'
)+%' '(,50' &*$8%5' (),7%' +'4,)0' 3+,(+' 6$*;
8*)%')+%'61/8*.'$2' .5'(1)'.%*10' &1.(),*.0'
0+*1/5'4%' %.(*1$'-%5' +%' 5,%)' 0+*1/5' 4%'
>10)' 01&&,(,%.)')*' 8%%)')+%' 6+20,*/*-,('/' $%;
E1,$%8%.)0' *&')+%' 4*52H ,)' 0+*1/5' (*.0,0)'
(+,%&/2' *&' &,0+' &*3/' -' 8%' ' .5' %--0H 0'(;
(+'$,.%' '.5' &'$,.'(%*10' '$),(/%0' 4%,.-' %B;
(/15%5' 3%%)' '.5' (+%'6' 3,.%0' 0+*1/5' 4%'
'7*,5%5H &*$')+*0%' 3+*' ('.*)' '&&*$5')*'
61$(+'0%' -**5' 3,.%'61$%' 06,$,)0' '.5' 3')%$'
,0')+%' 4%0)' 0140),)1)%' '$/04'5' 0'/)0' *$
$,%5$,(+0(+' '3')%$' 8 '2'4%-,7%.',&')+%$%',0'
81(+' '45*8,.'/'6/%)+*$'H)+%'+'4,)'*&')'9,.-'
8%$(1$,'/0' '0' '' $%/,%&' &*$')+,0' (*.5,),*.',0')*'
4%' 5%6$%('0')%5' /9'/,.%' 8%5,(,.%0' '$%' &$%;
E1%.)/2' '58,.,0)0$%$5' 3,)+' '7,%3' *&'.%1)$';
/,0,.-')+%' %&&%()0' *&' '(,5H)+%,$' %86/*28%.)'
&*$')+,0' 61$6*0%' 0%%80'+*3%7%$'E1%0),*.'4/%'
+%'/')%' $' '$9%0'0)')%5')+')'+%' '58,.,0;
)$')',*'&'4,('$4*.')%*&'6*)'00,8.'A'&'7*1$,)%'
$%8%52' ,.' ')'(,5' 5,0%'0%OR')+*1-+' $%.5%$,.-'
)+%' 1$,.%' '/9'/,.%' .' $%'/,)2' ,.($%'0%0' 7%$2'
/'$-%/2')+%' %B($%),*.' *&')+%' *$-'.,(' '(,50'
+,0' ,0' .*)')*' 4%' 3*.5%$%5' ')' 3+%.' 3%' (*.;
0,5%$')+')')+%' 4,('$4*.')%' '/)+*1-+' '/9'/,.%'
,.' $%' ()',*.',0' ,.' (*.0),)1),*.' ' .' ' '(,5' 0'/)

,/1)%' .,)$,(' .5' +25$*(+/*$,(' '(,50' .,7%.'
,.' 8*5%$')%' 5*0%0' '4*1)' *+%' +*1$' 4%&*$%
8%'/0' (%$)',./2' +'7%' '' 6*3%$&1/' *B,5,0,.-'
%&&%()' '.5'5,8,.,0+')+%'E1' .),)2' *&'1$,(' '(,5'
%B($%)%5',.')+%' 1$,.%' .' ('0%0' 3+%$%')+%'
'(,5,)2',0' 8' .,&%0)/2' 51%')*' 5%&%(),7%' *B,5';
),*.' (*.0%E1%.)' *.' 6*7%$)2' *&' 4/**5' &$*8'
5,8,.1),*.'+%'$%5'(*$610(/%0',$*.' .5'&**5'
8 10)' 4%' &$%%/2' -,7%.'

22-

G ,',',* = 140)'.(%0'3+,(+'
(*84,.%' 3,)+' '/9'/,0' '.5'5%0)$*2')+%,$'6*3%$'
*&')1$..-' $%5' /,)8 10 6'6%$' 4/1%' *0)' *&'
)+%' (,50' /0*' $%55%.' 4/1%' /,)8 10' .5'+'7%'
'0*1$')'0)%'H 41)'0*8%G&*$%B'86/%'('$4*/,('
'(,5G=6*00%00' .%,)+%$'*&')+%0%'6$*6%$),%0

G (,50' 8'2'4%' 5,7,5%5',.)*'
" 0 " ' *$ " ' '.5' 0 " ' +%'
8,.%$'/' '(,50' 10%5',.' 8%5,(,.%' '$%' *$,('
'$4*.,(' +$*8,(' 25$*(+/*$,(' 25$*4$*'
8,(' ,)$,(' ,)$* +25$*(+/*$,*' +*06+*$,('
1/6+1$,('.5' 1/6+1$*10' '(,50' = %'*$-'.,('
'(,50')+10'%86/*2%5',.((/15%' %),(' %1C&*,('
'$4*/,(' '$4*.,(' +$20*6+'+,(' ,)$,%'
'//,(' 25$*(2'.,(' '(3' /%,(' '/,%2/,%'
'.,(' '$)'$,(''.5' '&*$,'.,*

G +%' 0)$*.-%$' '%,50=01/6+1$,*'
.,)$,(' +25$*(+/*$,(' *)**8,*' -/'(,'/' '*%),*'
.5'/')(),(''(,50G5%0)$*2'.,8)5'),001%0''.5'
')' 0' ('10),(0' 3+%.' '66/,%5')*')+%' 01$^(%'
+%.'03'//*3%5')+%2'6$*51(%')+%'0286)*80'
&' ,$$,)'.)' 6,0*.,.-',' ' *0' -R' .'
'.),5*)%'&*$')+%0%'6*,0*.0'3+,(+',0''/3'20')'
+'.5',0'('$4*.')%'*&'/,8%',.')+%'&*$8'%,)+%$'
&'3+,),..-'$' *&' 6/'0)%$'(+,66%5'&$*8')+%'
.%'$%0)'3'//')+%$' .),5*)%0' '$%' '/9'/,.%'
('$4*.')%0' .5'4,%'$4*.')%0'>,/9',*/' '.5'
0*'6' ,/1)%5''(,50')'9%.',.)*')+%' 8*1)+'
,.(%$'0%')+%'0%($%),*.'*&'0'/,7'H '.5'+25$*;
(+/*$,('(,5'&*$80'.',86*$)'.)'(*.0,)1%.)'
&')+%'-'0)$,(>1,(%'3,)+*1)'3+,(+'5,-%0),*.'
5*%0' .*)'-*' *.' b +%.' '40*$4%5',.)*'
)+%' 4/**5'5,/1)%''(,50' '()' *.')+%' +%'$)'
-%.%$''//2'0/*3,.-',)0'61/0'),*.0'.5'$%51(,.-'
)+%')%86%$')1$%' +%2' '$%' %B($%)%5',.')+%'
1$,.%' '.5'8,/9

4 G ,)$,(''(,5',0'%86/*2%5''0''('))0),('
'66/,(''),*.')*'6,/%0')*'6*,0*.%5'3*1.50'.5'
)*'06$%'5,..-'*$' 1.+%'/)+2' 0*$%0' /'(,'/'
'(%),(''(,5',0'10%5')*'5%0)$*2'(*$.0'*$'3')$)0'
,/1)%5''(%),(''(,5'*$'7,.%-'$',0'66/,%5''0''
/*),*.')*' $%/,%7%' +%'5'(+%H)*' ''//'2')+%'
,)(+,..-'*&' 6$1$,-*'/,(+%.''.5'60*$,'0,0H)*'
(+%(9'6%$06,$'),*.H '.5'0*8%),8%0')*'+'0)%.'
)+%' 66%'$'.(%'*&'%B'.)+%8')*10' %$16),*.0'
,/1)%5''(,50'%06%(,''//2I',()$,('')'$)'$,('.5'
+25$*(+/*$,(' '0' 3%/' '0' '(,5')'$)$')%' *&'
6*)'00,18''$%''58,.,0)0$%5',.'&%7%$0''0'$%;
&$,-%$'.)0'4%('10%')+%2'$%/,%7%')+%'5$2.%00'
*&')+%' 8*1)+' '.5'5,8,.,0+')+%')+,$0)'42'
,.($%'0,.-')+%' 0%($%),*.'*&'0'/,7''' '0' 3%/' '0'
/*3%$')+%')%86%$')8 L'.5'61/0%$')%' .5%$'
)+%' /,9%' (,$(180)'.(%0')+%' *$-'.,(' '(,50'
'(%),(' (,),$,(' '.5')')$)'$,(' 3+%.'(*84,.%5'
3,)+''/9'/,.%'('$4*.')%0',.''')0')%'*&'%&&%$;
7%0(%.(%'*$*)+%$3,0%'&*$8'(*86*1.50'3+,(+

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- 42 +%' 5,&&%$%.),'/ 5,'-.*0,0' '(.%' ,0' 101''//2' %'02' 3+%.')+%' 28 8%)$,('/ 5,0)$,41),*.'*&')+%' %$16),*.' ' .5',)0' 6%$,*5' & 5%7%/*68%.)' '$%')'9%.' ,.)*' %*.0,5%$'),*8' +%')3*' %$16),*.0' 3,)+,' 3+,(+',)' ,0' 8*0)' /,9%/2')*' 4%'(*.&*1.5%5''$%' A&R' (%$)'..'&*$80' *&' '(.%' $*0'(%'' A-1))'' $*0%'R' '.5' A<R' '(.%;/,9%' 5%$8')* 026+,/,0' (.%' 8'2' 4%0)' 4*' 5,0),.-1,0+%5' &$*8' '(.%' $*0'(%'' 42')+%' &'(')+')',0' /'))%$' 5,0%'0%' ,0' (+,%&/2' 8%)' 3,)+',.' 8,55/%' /,&%'' .5',0' '/3'20' '))%.5%5' 3,)+'8*$%' *$'/%00'-%.%$'/ (*.-%0),*.'*&'(%'' .5')+%' &'(%'' .5')+%' 014>%(),7%' 0%.0'),*.0'*&'41$.,.-' *$'),.-/,.-G(+'$')()%$0'3+,(+''$%' '40%.)',.' (*8 8*.' '(.%' (.%' $*0'(%'' ,0' %B(/10,7%/2' (*.&,.%5')*')+%' &'(%' 3+,/%' **8 8*.' '(.%'))'(90'/0*')+%'0+*1/5%$0'.5'4'(9(.%/,9%'026+,/,)(' %$16),*.0'3%'$%' 4%0)' 5,0'),.-1,0+%5'42')+%' '40%.(%*&'(*8%5*.%0H '.5' 42')+%')%.5%.(2')+%' 6,8 6/%0' +'7%')*' ' ,.)*' -$*160' 3+,(+' '$%' .*)' /3'20'028;8%)$,('/' '.5' *)' 0)$,()/2' (*.&,.%5')*')+%' '(.%' $%-,*.0' *8%' *)+%$' 026+,/,),('028 6')*8 0'3*1/5'6$*4'4/2'4%' /0*'6$%0%.)

3 % , +%$%',0' '.',..)%$%0),.-'%$16;),*.' (*8 8*./2' ('//%5' '' ') /'' 3+,(+' $%E1,$%0' '' 7%$2' 4$,%&' .*),(%' '.-%.%$'/ '66%'$'.(%')+%' 6,8 6/%0' $%0%84/%')+*0%' *&' '(.%' 41)' $%' .*)' %06%(,''//2' '00*',%')%5' 3,)+' (*8%5*.%0' +%' %$16),*.' ,0' 101''//2' (*.&,.%5')*')+%' 0('/6' '.5' 166%$6'$)' *&')+%' &*$%+%'5' +%' 0*'$0' &*$8%5' 42')+,0' 5,0%'0%' '$%' 81(+'5%%6%$')+''.')+*0%' *&' (*8;8*.' '(.%' '.5' 7%$2' (/*0%/2' $%$%84/%')+%' 6,)0' /%&)' 42'08''// 6*B' +%' $%-,*.' '&&%()%5' '.5')+%' (+'$'()%$' *&')+%' 0('$0' '$%' '01&&,(,%.)' -1,5%')*' 5,'-.*0,0

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($*8%-'/2',0'-%.%$'//2''00*(,')%5'7$,)+'%./'$-%8%.)'*$'')$*6+2'*&')+%')+2$*,5'4*52H'.5'%./'$-%8%.)'*&')+%'+28 10'-/'.5'+'0'4%%.'*40%$7%5' .')+$%%'6*0)8*$)%8'%B;'8,.'),*.0')18*1$0'*&')+%'6,)1,)'$2'4*52'+'7%'4%%.'8%)'3,)+

- o &G.')+,0'5,0%'0%')+%'4*.%0'*&')+%'+'.50' '.5'&%%)' '$%'7%$2'-$%')/2'%./'$-%5'41)')+%'/*.-'4*.%0'5*'.*)'%0('6%')+%'.')1$'/'6$*8,.%.(%0''.5'%/%7'),.*.0'4%,.-'%B'--%$')%5'0*8%),8%0')*')+%'5,;8%.0,*.0'*&'%B*0)*0%0' +%'0('61/[')/'7,;(/%0''.5')+%'0)%$.'/'%.50'*&')+%'$,40'4%(*8%'E1,)%'8'00,7%H)+%'/*3%$'>'3' '/0*' '0018%0'7'0)'6$*6*$),*.0')+%'/*3%$')%%)+'06$%'5,.-'*1)'.5'6$*>%(),.-'&'$',.'&$*.)'*&')+*0%'*&')+%'166%$'>'3' +,0'-,7%0'' (+'$'()%$,0),('66%'$'.(%')*')+%'&'(%'3+,(+',0')+')'*&''.'%--'3,)+')+%/'$-%'%.5'5*3.3'$50''0'*66*0%5)*')+%'7'/'*&'82B*%5%8''.5')+%',.7%$)%5

%--'0+'6%'*&'*0)%,),0'5%&*$8'.0'3,)+'4*)+'3+,(+'5,0%'0%0' '($*8%-'/2'8'2'4%'(*.'&*,85%5' +%'166%$'>'3'.5')+%'($'.,'/4*.%0'*(('0,*.'//2'6$),(,6')%',.')+%' +%'4*.%0')+*1-+'%./'$-%5'5*'.*)'4%(*8%(1$7%5H'41)')+%'06,.%',0'*&)%.'4%.)'0*')+%'6'),%.)'/*0%0'(*.0,5%$'4/2',.'0)')1$% +%'('$),/'-%0'*&')+%'.*0%''%'$0'%2%/,50''.5'/'$2.B'8'2'4%')+,(9%.%5H)+%'/'0)'(+'.-%'6$*4'4/2'((*1.),.-'&*$'.'*((0,*.'/-$%')'/)%$'),*.',.')+%'7*,(% +%014(1)''.%*10'),001%0''$%'.*)'*47,*10/2''/)%$%5' +%'09,.'8'2'4%'1.(+'.-%5'41)'*.')+%'&'(%',)',0''6)')*'4%(*8%(*'$0%''.5')*'0+*3'(/%'$/2')+%'*$,&,(%0'*&')+%'03%')-/'.50' +%K+',$'5*%0'.*)'4%(*8%')+,.''0',.'82B'(%5%8'' $*& 0%6%$06,$'),*.''.5')+,$0)''$%-%.%$'//2'6$%0%.) +%')*.-1%',0'%./'$-%5''.5')'0)%'8'2'4%81(+',86',$%5' /,.5.%00',0'.*)',8(*88*.'&$*8')$*6+2'*&')+%'*6),(' .%$7%'6*00,4/2'(*.,%()%5'3,)+''(6,)1,)'$2')18*1$' +%'0%.0%*&'08%' ,0'*&)%.',86',$%5H)+')'*&'+%'$,.-'5*%0'.*)''66%'$')*'4%'8*5,&,%5'.*$'5*%0')+')'*&')*1(+ +%$%'8'2'4%0+*$).%00'*&'4$%')+,.-'5%;6%.5,.-'16*.'0)+8'),(''0)'(90''.5')+%'+%'$)'8'2'4%+26%$)$*6+,%5' +%'1$,.%',0'.*)'101'2'4.*$8'/' +%')%86%$')8%',0'.*)'$',0%5' +%',.)%//%()'$%8',.0'6%&&() 325!!M ',0'.*)'.%(%00'$2')*',.5,(')%+%'5,&&%$%.(%'4%)3%%.')+,0'5,0%'0%''.5'*0)%,),0'5%&*$8'.0'*$'82B*%5%8'G6$'(),('//2')+%'*./2')3*'3,)+'3+,(+',)'('.'4%(*.&10%5'4%('10%')+*1-+')+%$%',0'(%$)','./2''016%$&,(,'/$%0%84/'.(%')*'%'(+')+%'6*,.)0'*&'5,7%$-%.(%''$%'3,5%' +%'02 8 6)*8 0'+'7%'4%%.')0'))%5'0*8%3+')'5*-8'),('//2'&*$')+%'0'9%'*&'4$%7,)2'H'.5' '*./2''&%3'*'0%0'+'7%'0'2%)'4%%.''((1$')%/2'*40%$7%0',)',0'6$*4'4/%')+')0*8%'%&')+*0%'+%$%'0%)'5*3.'8'2'4%&*1.5')*'4%',.(*$%()'*$.*)'(+'$'()%$,0),(# 'G' *.%' *&')+%' .18%$*10'8%)+*50'*&')$%')8%.)'+,)+%$)*' '66/,%5',.''($*8%-'/2'+'7%'6$*7%5'*&')+%'0+-+)%0)'10% &N!35' '1

'A* ,&''$'2H'.5')K L'' &1.-10R G- . G='(+$*.,(5,0%'0%' '))%.5%5'42')+%'&*$8'),*.'E&'4;0(%00%0'(+$*.,(',.)%$0),),'/'..&/'88'),*.0'*$')18*1$ 9%-$*3)+0'*&'-$'.1/'),*.),001%'51%)*',.&%(),*.'42''&1.-10 9.*7$''0'& 7" ') 'G +,0'5,0%'0%'3+,(+'%06%(,'//2'&&%()0'+*$.%5'('))/%'.5'03,.%'.5'+'0'/*.-'4%%.'9.*3.'1.5%$'7'$,*10'.'8%0'0'*((1$;$,.-',.')+%8'+'0'51$,.-')+%'/')0)'&% '2%'$0'4%%.'6$*7%5')*'4%'.*)',.&$%E1%.)',.'8'.')0'6'$0),(,.')1$%'3'0'5,0(*7%$%5',.' ?MD'42'*//,.-%$' +*.'8%5')+%'6'$'0),)%& " 7 ')+%'$'2&1.-10'.' ?MM' '0$'%/''.5',.' ?MP' *.&,(9'5%0($,4%5'('0%0',.')+%+18'.'014>%()'*'.5'0+*3%5')+%,$,5%.),)2'3,)+')+%''.,8'/'5,0%'0%' ,.(%)+')',8%.18%$*10',.0)'.(%0'*&')+%'5,0%'0%'+'7%'4%%.

observed; with chronic abscesses, especially in the liver, lungs, bones and periosteum, intestinal canal—especially the large intestine—and more rarely in other positions, *e.g.* in the brain, as in recent cases recorded by Dr. Delépine and others.

General Characters of the Disease.—In the lower animals actinomycosis frequently produces indurated masses of connective-tissue growth, which tend to become calcified; hence the name 'woody tongue' applied to the affection in cows. In man there is a tendency rather to the formation of chronic abscesses. Infection usually appears to occur by the alimentary canal or air-passages, the virus entering through carious teeth, the crypts of the tonsils, pharynx, &c., or more rarely by direct aspiration into the lungs. Most commonly it tends first to produce destructive changes, for example, in the jaws (upper and lower), the wall of the pharynx, or the mucous membrane of the alimentary canal. In the jaws a process of gradual necrosis may occur. From the upper jaw it is apt to spread to the periosteum in front of the vertebræ, or to the base of the skull, leading to chronic periosteal abscesses, followed by caries, sometimes with retro-pharyngeal abscess. It may next invade the tissues of the neck, forming deep-seated abscesses. Not infrequently in man, however, the liver is the first organ obviously attacked. It has been shown that a primary infection of the mucous membrane of the intestines, especially the large intestine, may occur, and not improbably the infection of the liver is secondary to this. Affection of the lungs may take place by direct aspiration of the virus, or possibly through infection extending from the mediastinum, which has been reached through the œsophagus. Infection of the brain and other parts may take place either through the lymphatics or through the blood.

Anatomical Characters.—Four varieties of the chronic inflammatory process have been determined in actinomycosis:—

First, when upon a free surface, as the mucous membranes, the formation of masses of epithelium containing the fungus has been observed, together with subjacent ulceration.

Second, when occurring upon a free surface, as in serous cavities or within the periosteum, tumour-growths may occur, formerly mistaken (when periosteal) for osteo-sarcomas.

Third, the formation of masses of dense granulation-tissue or sarcoma-like tumours, which may become fibroid or calcified, but remain indurated. Allied with this there may be an infiltration with firm granulation-tissue.

Fourth, the production of chronic abscesses, which soften slowly, causing widespread infiltration and necrosis of the tissues, but are not usually accompanied by marked inflammatory reaction. In the pus from these abscesses, which is usually thick, yellow, and somewhat lumpy, may be found minute yellowish granules or masses, varying in size from the most minute particles visible with the naked eye, to the size of about $\frac{1}{20}$ inch in diameter, of yellowish colour, ovoid or rounded, and of slightly greasy feel. Under the microscope these are found to consist of masses of the ray-fungus.

On microscopical examination of prepared sections, especially in the firmer nodules, the characters can be better seen. Various modes of staining may be employed, for which the reader is referred to special technical works, gentian-violet, fuchsin, and methylene

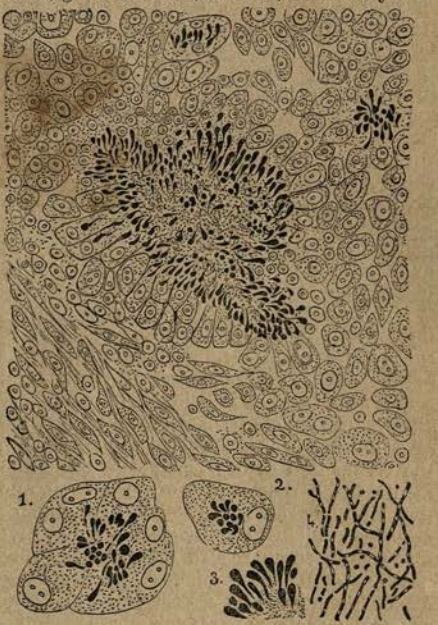

Fig. 1.—The wood-cut shows the characters of a minute centre of growth in an actinomycosis nodule from the tongue of a cow. The upper portion is sufficiently described in the text. The mass of fungus is represented as much less dense than in reality, otherwise no detail could be shown. (Magnified about 800 diameters.)

The lower four small figures show the characters seen in the same growth under a somewhat higher power. (1) A group of cells (? one cell in a state of division) containing a cluster of the clubbed filaments. (2) A single cell with actinomyces growing in it. (3) A group of clubbed hyphæ much larger than the others. (4) Filaments from centre of mass, showing bacillus-like characters, and false branching; resembling cladothrix.

blue being amongst the most suitable reagents. The structure is composed of granulation-tissue, either small or large-celled, frequently with branching and spindle cells, resembling spindle-celled sarcoma. Scattered through the granulation-tissue are deeply stained masses, which form the centre of more typically arranged masses of cells. The fungus itself, when seen in the smaller nodules, is usually composed of a central

6*$),*.' (*.)',.,.-' (*(*.0 /,9%' 4*5,%0' '.5' 5%/,(')%' 4$'.(+,.-' 4'(,//10 /,9%' &,/'8%.)0')')+%' 6%$,6+%$2' *&')+%' 8 '00')+%' &,/'8%.)0' '$%' '$$'.-%5'0,5%' 42' 0,5%' '.5' $'5,'//2')+%,$' *1)%$' %B)$%8,),%0' 4%,..-'03*//%.' '.5' 41/4*10' /**9,..-'*$*/14 9%' 8 8%5,')%/2'01$$*)85' ,..-')+%0%' ' C*.%' *&'/'$-%' %6,)+%/,*,5' -$'.1' /'),*. (% 0' 8 '2' 4%' *40%$7%5')+%' (%//0' 0*8%;),8%0' 4%,..-'$$'.-%5'$'5,'//2' '.5'$%0%84/,.-' (*/1.8'$' %6,)+%/,18'),/' &1$)+%$' *1)' '$%' %6,)+%+*,5' (%//0' ,.' /'2%$0H' '.5' 4%2*.5')+%0%' $%' 08'//%$' (%//0' -$'51'//2' 8%$-,.-' ,.)*')+%' 01$$*,85,.-' -$'.1/'),*.),001%' *.0,5%$'4/%' 7'$,%),%0' *&'0)$1()1$%' '$%'+*3; %7%$' *40%$7%5'3+,(+' .%%5' .*)' 4%' 5%)','/%5' +%$%' +%' %6,)+%/,*,5' (%//0' 8'2' 4%' 0('.)2' *$',$$%-1/'$/2' '$$'.-%5' '.5' *&' 08'/' 0,C%' .' -%.%$'/' '$$'.-%8%.)')+%0%' *%.))%0' $%('//0*8%3+')')+')' *&' '.' %/%8%.)'$2')14%$(/%' &*//,(/%' +%' 8'00%0' *&' &1.-,' '/0*' 6$%0%.)' 7'$,%),%0' +%.'*&'/'$-%'0,C%')+%2'&,$%E1%.)/2' 0+*3' C*.%0' *&' ('/(,&,(','.' /14 0+'6%5' 4*5,%0' 8'2' '/0*' 4%' &*,85'0(')))%$%5' 8*$%' ,$; $%-1/'$/2')+$*1-+')+%' 8'00' +%' 4$'.(+,.-' 5%/,(')%')+$%'50' 8'2' 4%'.18%$*10' $0(''.)2H' .5' 8'00%0' *&' (*((10 /,9%' 4*5,%0' 8'2' 4%' *40%$7%5

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+%'%B)%$,*$'*&')+%'('601/%0'6$%0%.)0'(%$)',.' ,86*$)'.)'&%')1$%0' +%'('601/%0')+%80%/7%0' 8'2'4%/'$-%'*$'08'//''((*$5,.-')*')+%'0)'-%' *&')+%'5,0%'0%''.5')+%'.')1$%'*&')+%,$'(*.;)%.)0'41)'%7%.'3+%.')+%2''$%'08'//',)'8'2' 4%'0'&%/2'001 8%5')+')''*.%'),8%')+%2'3%$% ./'$-%5'.'/'('0%0')+%2'3,/'4%'&*$85' (/*0%/2'.5'0)$*.-/2'5+%$%.)')*'.%,-+4*1$,.-' 0)$1()1$%0' *8%'*&')+%0%'0)$1()1$%0''$%'*& -$%')',86*$)'.(%'&*$ %B'86/%')+%' 0%8,; /1.'$'-'.-/,''.5')+%'7'0)'6/%B10'*&'.%$7%0' '00*(.')%5')+%$%=)+'..'3+,(+'86*$)'.)' (+'.-%0'+'7%'4%%.'&*1.5' +%0%'6')+*; /*-,('/(*.5,),*.0'+'7%'4%%.'0*'*&)%.'*40%$7%5' '.5'0*'('$%&1/2'.*)%5')+')')+%2'('..*)'4% /**9%5'16*.''0''((,5%.)'/(*.(*8,)'.)0'*&')+% 5,0%'0%5'6$*(%00'41)'$')+%$'6')$'.5'6'$(%/ *&',)''.5',.''//'6$*41,+)2''0'-,7,..'' (/1%)*'0*8%*&')+%'8*0)'8'$9%5'6+%.*8%.''*&)+%'8'/'52' $*'5/2',)'8'2'4%'0',5')+')')+%0%'(+'.-%0'(*.0,0)',.''-$%')+,(9%..-' *&')+%'(*$8%(),7%'),001%'01$$*1.5,..-')+% .%$7%&,4$%0''.5')+%'-'.-/,*.(%//0'=7,.-' $,0%')*'0*8%)+,..-'/,9%'(*86$%00,*.'.5'1/),; 8')%'5%0)$1(),*.'*&')+%0%'%/%8%.)0' +,0' *((1$0'4*)+',.')+%'(%$%4$*06,.'/.%$7%&,4$%0' '.5',.')+*0%'8*%'.,.),,8)%/2'(*..%()%5' 3,)+')+%'-'.-/,*.,('020)%8' +%'.%$7%(%//0' 8*$%*7%$'.'$%'.*)',.&,$%E1%.)/2'5%%6/2'6,-; 8%.)%5

+%'7,%3'(*88*./2'+%/5''0')*')+%''()1'/ 6')+*/*-2'*&' 55,0*.<0'5,0%'0%',0')+')',)0 6+%.*8%.''$%'51%')*')+%'.%$7%/%0,*.0'>10)' 5%0($,4%5''.5'.*)')*')+%'5%0)$1(),*.'*&')+% 016$'$%.='('60,5%0')+*1-+')+%'%B'()'8*5%' ,.'3+,(+')+%2'6$*51(%')+%0%'%&&%()0',0''); 6$%0%.)'''8%$%'8'))%$'*&'06%(1/'),*.' (; (*$5,.-')*'.*)+%$'7,%3')+%'5%0)$1(),*.'*&)+%'016$'$%.'/'4*5,%0',0')+%'('10%'*&')+% 6$*8,.%.)'02806)*80''.5')+,0',0'0166*$)%5' 42'$''(1.''0')+%'$%01/)'*&'+,0'06%()$*; 0(*6,('*40%$7'),*.0'*.')+%'4/**5''.5'1$,.% %'4%/,%7%0')+')')+%'&1.(),*.'*&')+%0%'4*5,%0' ,0')*'0%6'$')%'%&&%)%'6,-8%.)0''.5')+%,$' '((*86'.2,.-'6$*)%,50'+%.')+%2''$%' 5,0%'0%5')+%0%'%/%8%.)0''$%'.*)'$%8*7%5' 41)'(,$(1/')%',.')+%'4/**5')+%'6,-8%.)0'*$)+%,$',.(*86/%)%'8%)'4*/,)%0'6$*51(,.-'6,-; 8%.)'),*.'*&')+%'09,.''.5'81(*10'8%8; 4$'.%0''.5'66%'$,.-'*&)%.'.,.')+%'1$,.%''0' +0%8')*6*$6+2$,.H)+%'6$*)%,50'0%)),.-' 16')*B,('%&&%()0''.5'/%'5,.-')*'&1$)+%$'5%;)%$,*$'),*.'*&')+%'4/**5'3,)+',)0'(*.0%; E1%.(%0

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&&/ ' ' -*')H '.5'

7*,(%R G&'6%(1/,'$' /)%$'),*.'*&')+%' $%0*.; '.(%'*&')+%'7*,(%' '0'+%'$5' *.' '10(1/)',*.' *&')+%'(+%0)'(*86'$%5')*')+%'4/%'),.-'*&''-*')' '

' ' ' ' ('10%H '.5' Y52*0' 3*$5R G +')'4$'.(+'*&'6')+*/*-,('/0(,%.(% 3+,(+'5%'/0'3,)+')+%'('10'),*.'*&'5,0%'0%' ' '10%0'*&

G +,0')%$8',0')+%'5%0,-.';),*.'*&''6$*6%$)2'42'3+,(+'%/%8%.)'$2''.5' (*86*1.5'0140)'.(%0'81)%'3,)+'*.%''.*)+%$' '.5'&*$8'.%3'(*86*1.50')',0')+%$%&*$%' ''6$*6%$)2'3,)+'3+,(+'(+%8,0)0'$%'6$,.(,; 6'//2'(*.(%$.%5' 1)')+%',5%'0'01--%0)%5')*')+%'(+%8,0)'42')+%')%$8'&,,.,)2'$%'/0*')+*1-+'/%00'%B6/,(,)/2'%B(,)%5',.')+%'8,.5'*&)+%'6')+*/*-,0)' .5'*&')+%')+%$'6%1),0)'42' W(%$)',.'(/'00%0'*&'&'()0'&$%E1%.)/2'&'//,.-' 1.5%$')+%,$'*40%$7'),*.' +%'6')+*/*-,0)' &*$',.0)'.(%'9.*30'')+')'0'/,.%'*$%'$)+2' 8'))%$',0'7%$2'6$*.%')*''((181/')%',.')+%' 8,50)'*&'5%-%.%$')%5'),001%',.')+%'3'//0'*&''.

'$)%$2'$*&''('$5,'('7'/7%'0*''0')*'-,7%$,0%)*''6')(+'*&'0('/(,&,(),*.'<H +%'9.*30')+')' ,.''-*1)2'6%=%.)' $')%'*&'0*5,18*0)'6)')*''((181/')%''.5'&4$8'0(+'/9'0)*.%0<,.')+%),001%0''$*1.5''&/%()%5'>*,.)0'H +*'9.*30')+')' +*3%7%$',)' 8'2'4%' '58,.,0)%$%5' 0%.,(',.' 6*,0*.*10'5*0%0')%.50')*'6$*51(%',.&/'88';),*.'*&')+%''/,8%.)'$2'('.'/')+')'0)$2(+.,.%' '()0' ,)+'6$%&%$%.(%16*.')+%'.%$7*10'020)%8' '.5')+')',.'*$5,.'$2'('0%0'*&'/%'56*,0*.,.-')+,0'8%)'/'.,.)%$&%$%0'%06%(,'//2'3,)+')+% .1)$,),*.'*'*&')+%'%B)%.0*$'810(/%0'*&')+% &*$%'$8' 66/,('),*.0'*&')+%'0'8$'.*),*.',')+%'5%6'$)8%.)'*&')+%$'6%1),(0'$%'%E1'//2' &'8,/,'$',.'$%06%()')*')+%'(),*.'*&'8'.2' 5$1-0')'8'2'4%'$%-'$5%5'0'.'0(%$),.%5' &'()')+')',*5,5%'*&'6*)'00,18')%.50'%06%(,'//2')*',.&/1%.(%')+%'4*52''.5')+')'4$*8,5%'*& 6*)'00,18'+'0''*'/%00'(%$),.'.',. 8*5,&2,.-')+%'.1)$,),*.'*&')+%'.%$7*10'(%.)$%0' ,.'8'.2'1.+%'/)+2'0)')%0' -',.')+%$%'0''' 3+*/%'(/'00'*&'0140).(%0'3+,(+'3+%.')'9%.' ,.)*')+%'020)%8'+'7%'3+')%7%$')+%,$'*)+%$ '(),*.0'8'2'4%' '.',85*14)%5'%&,%*)',. 8*5,&2,.-')+%'&1.(),*.'/' '(),7,)2'*&')+% 9,5.%2' %'+'7%',.'.,$,)%'*&'82/''.5',. .,)$*-/2(%$,.%'$%8%5,%0'6*00%0,..-''$%8'$9; '4/%',.&/1%.(%'*7%$')+%'1.0)$,6%5'810(1/'$ &,4$%0'*&')+%')$%$,%0''.5'4$*.(+,' '%/0%'*7%$')+%'.%$7%(%.)$%0'42'3+,(+')+%2'' $%' (*.;)$*//%5' %'+'7%,.'3**$'$''.'-%.)'3+,(+' '()0'%06%(,'//2'16*.')+%'8*)*$'0,5%'*&')+% .%$7*10'020)%8H''.5'3%'+'7%',.'5,-.)'/,0'.' ,86*$)'.)' $%8%52' +,(+'' 8,50)',)0'*)+%$' %&,%())' 0%%80'*'+'7%'' 5%(,5%5'6*3%$' *& ,86$*7,.-')+%'(),7,)2'*&')+%('$5,'(-.-/,' +%'$%(%.)'6$*-$%00'*&')+%$'6%1),(0'%.(*1$; '-%0' ')*'+*6%)+')'8*$%'.5'8*$%'*&')+%0% 06%(,&,(' %&&%()0'*&'5$1-0'3,//'4%''((1$')%/2' 5%)%$8,.%5'0*')+')'+%$'.*),*.',.'*&'8 6/,%5'42')+%')%$8' '' 8'2'&)%$' '),8%'+'7% '' 5%%6%$' 8%'.,.-')+'.'')' 6$%0%.)'&*$')+% 6$'(),),*.%$'*&'8%5,(,.%'

' ' /

G&' 8%)+*5'*&')$%')8%.)' 3+,(+'(*.0,0)0',.'6*1$,.-'' &/1,5'101'//2' 3')%$'%,)+%$'(*/5'*$'3'$8'16*.')+%'6'),%.)' ' +%$''%1),(0'*&H'.5'/

U ' ' G= +% 6*$),*.'*&')+,0'(*.),.%.)'/2,.-/ %)3%%.'<<g'.5'?Fg'0*1)+' I /'),)15%='.5' ?g' .5'?@g'%')0'/*.-,)15%'.5' ,.(/15,.-' '6%' *=*=,=2' ')'/' %(+,Y'.'/'.5

= Y#$' '8%0' /'9%'0)0,)%0')+')' 3%'8 10)'/**9'%/0%; 3+%$%')+'.')*' (+%8,0)=' &*$')+%' .')1$%'*&')+%' $%; '(),*.0'4%)3%%.' /,7,.-'18')))%$' .5')+%' $%'-%.)0' 3,)+'3+,(+'3%'8'2'4$,.-')+%8',.'(*.)'()''.5')+')')+,0'6$*4/%8'3,//'4%'0*/7%5'3+%.' 06%()$*0(*6,(' (+'$')(%$0'*&')+%'%/%8%.>)0'$%'4%))%$'=*3.' %' +*/50')+')'.*)'.2''$%'=*B,(''(),*.0'.*)'(+%8,('/' '(),*.0'41)'/0*')+')'8%'3+*/%'5,$%()''(),*.'A*& 8%)'//,('0')0R*.')+%'8*'0)',86*$)'.)'&1.(),*.0'*& /,7,.-'8'))%$',0''6+20,('/'8*/%(1/'$''(),*.'5%)%$; 8,.%5'42')+%'.184%$'.5'(+'$')(%$*&')+%'+'$8*.,(' 7,4$'),*.0'*&'3+,(+')+,',$%',.%.)0'$%')+%'0%')

)+%& $'.-%& . ')')%' '.5')+%& $'.07''/'
)+.0 %84$'(,.-')+%$%-,*.'')' 6$%0%.)' '7',/;
'4/%& &*$ +%'/)+ $%0*$)0' '.5 %B(/15,..-')+%&
$%(%.)/2''(E1,$%5 $,),0+' '.5 %$8'.')%$$,;
)*$,%0

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7'$2,.-' %B)%.)'(+'$'()%$,0%5 -%.%$'//2 42''
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6'$)0 03'862'.5 8'/'$,*10 .5 A<R 6'
,./'.5$%-,*.'$,0,.-',.')%$$'(%0)*'L*HHH &%%)
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5,0)$,()'0(%.5,.-',.'6/')%'1B'0')+%',.)%$,*$
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8*<HH)*' L*HHH &%%)' &&*$50 %B(%//%.)' 0,)%0
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)*' 4%&*1.5''))+%''/),)15%'*& !!!'')*'F!!!'
&%%)''*.')+%'7'0)'$*//,..-'-$'002'6/',.''*$) '
*&3+,(+')+%& $'.-%& $%%')')%')+%' $'.0;
7''/''.5')+%' '$*' ,0)$,()' *&')+%'!a=
'$%')+%'4%0)'%B'86%0' %$%')+%'(/,8')%',0
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'.5/,'4,/,)2')*' %B)$%8%0'*&')%86%$')1$%'
)+*1-+')+%'.,-+)'$%(*$5'0%/5*8'&'//0'4%/*3'
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'6% */*.2 G' '6% */*.2' (*.0,0)0'
*&'%')0%$.''.5'3%0)%$.'6$*7,.(%0'6$%0%.),.-'
7'$,%),%0'*& (/,8')%' '((*$5,.-')*' %/%7'),*.'
& 3+,(+')+%' ,./'.5'6$),*.0'$%'&'$'6$%&%$;
'4/% 0')+%'$',.2'0%'0*.'*((1$0',.')+%'3,..)%$'
,.')+%' 3%0)''.5',.'0188%$',.')+%'%0)0)%$.'
6$*7,.(%')+%'3%)'0%'0*.'8'2'4%'7*,5%5'42'
)$'7%//,..-'&$*8'*.%')*')+%'*)+%$' +%'-%.%$'/
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-$%')'5$2.%00H8*5%$')%'+%')H08'//'$',.&'//'
6$%(,6,)')%5',.'+%'72'0+*3%$0'*.''' 08'//'
.184%$'*&'5'20H'.5''7'$,'4/%''8*,8)'*&'
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+%')' 3+,(+',0')%86%$%5'42'$',.')+%'/'$-%$'
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0188%$'8%''.4%,.-'D"L' '.5')+%'3,.)%$'F"LH
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3,)+'8'.2'0*(,'/'57'.)'-%0

+%+,-+%$'6/')%'1'*&')+%'(*/*.2'(*.)',.0
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&,.%'(/%'$'5$2'(/,8')%'3+,(+',.')+% 3$,)%$0'
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*&'6+)+,0,0' +%'$',.&'//,0'?',.(+%0'5,0;
)$,41)%5'*7%$'D'5'20'41)'*((1$$,.-',(+,%&/2',.'
0188%$' '.5'0+'$6'&$*0)' ,0' *((0,*.05/2'
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" - 'A @?!'&%%)R'C # 'AF@!!'
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(/,8')%0')+%/'0)'6/'(%4%,.-'(*,8%()%5'42'$',/
3,)+' /,3'/ *$)+'''.5'3,)+,.'%'02''((%00'
*&'0%7%$'/0)'),*.0+,-+%$''.5'/*3%$',.'%/%7';
),*.' +%'$',.&'//,0' K"P',.(+%0''.5')+%'
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-' A@?F!'&%%)R' '.5'$ 'R '
A@MP@&%%)R' '$%4*)+' '((%00,4/%42'$',/''.5'
)+*1-+')/*3%$'/),)15%0'%.>*2'7%$2&,.%(/,;
8')%0' ')+%'&*$8%$')+%'+18,5,)2',0'D@6(
)+%'7%$'-%'0188%$'8'$,8)1.'P L' '+')+%'
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$'.-%' $%%' Z)')%'aG$ " "'
A F !'&%%)R',0')*'4%'$%(*88%.5%5''.5'1.;
5*14)%5/2)+%' $'.-% $%%')')%'*&&%$0'
6.'.2'57'.)'-%0',.',)0'7'0)') '.5'5$2'
(/,8')%'41)',)'0), /'('90'$',/3'2'(*881.;
(),*.')+*1-+')+,0',0'6$*>%()%5' '5$'3;
4'(9')**',0')+%'*((1$$%.(% &510)0)*$80')*'
3+,(+',)',0'/,'4/%')' /*%8&*.)%,.')+%'
'7%$'-%'8'B,818'&*$')+%0,B'+*))%0)'8*.)+0'
*&')+%'2%'$',0'?@g '+')+%'7%$'-%'8,.,;
818'FFL')+%'+18,5,)2'FF'6('')+%'$',.;
&'//D PM',.(+%0''.5')+%'.184%$'*&'$',.2'
5'20'M!' '),%.)0'$%'4/%')*'0/%%6$',.')+%'
6%.''',$'%>(%6)'51$,.-''08'//'6'$)'&')+%'
3,.)%$'3+%.'.,-+)' &$*0)0'6*(3''.5',.'
)+%'$',.2'0%'0*.H''.5'42'5'2')+%'*1)5**$
/,&%('.'4%')+*$*1-+/2'('$$,%5'*1)',),)+%$*.'
)+%')$%9'*$'3+,/%$%0,5,.-''')'''&%$8

+%' $'.07''/ I +%' $'.07''/,0')'
81(+')+%'0'8%%/%7'),*.''0')+%' $'.-%
$%%')')''41)',0'0',5')*'+'7%''' 8*,0)%$'
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'.5'P 0'+'7%'4%%.'$%(*88%.5%5'0'
01,)'4/%'0)'),*.0'&*$,.7'/,50
')'/G +%'(*/*.2'*& ')'/'0,)1')%5'
)*')+%' '*&')+%'6%' */*.2'+'0''')$*6,('/
(/,8')%='.5',0'5,0),.-1,0+%5'&*$,)0'/1B1$,'.)'
7%-%)'),*.''.5'8*,0)%$'(/,8')%' 0',.)+%' 6%
/.2')+%'(*'0)'5,0)$,()',.(/15,.-'1$4'.'
,0'.*)'01,)'4/%'&*$,.7'/,50'41)')+%'0/*6%0'*&'
)+%' $'9%.04%$-' *1.)',.0'3+,(+'0%6'$')%'
')'/&$*8')+%' $'.-%' $%%')')%''$%'(**/%$
'.5'8*$%'0'/14$,*10

%$%'P 2 -'A" !!'&%%)R'I 'A" FD@
&%%)R''.5'S #G''(*.%()%5'3,)+'
1$4'.'42'$',/G*&&%$')+%',.7'/,5'8'.2'
'57'.)'-%0',.''5$2'(/,8')%'3'$8%$')+'.'
)+')'*&')+%' $'.-%' $%%')')%''.5'&',$/2'
6$*)%()%5'&$*8'(*/5'3,.50H''.5')+%2'+'7%'
6$*7%5'*&'-$%')'4%.%&,)',.'4$*.(+,),0''.5'
'0)+8'

+%'8%'.'..1'/)%86%$')1$%'*&'6 '
%#2 0')+%'('6,)'/'*&')'/'A@PP!'&%%)R'
M'8,/%0'&$*8')+%'0%''0'D ML')+%'
3,.)%$'4%,.-'D!L''.5')+%'0188%$'DPL'3+,/0)'
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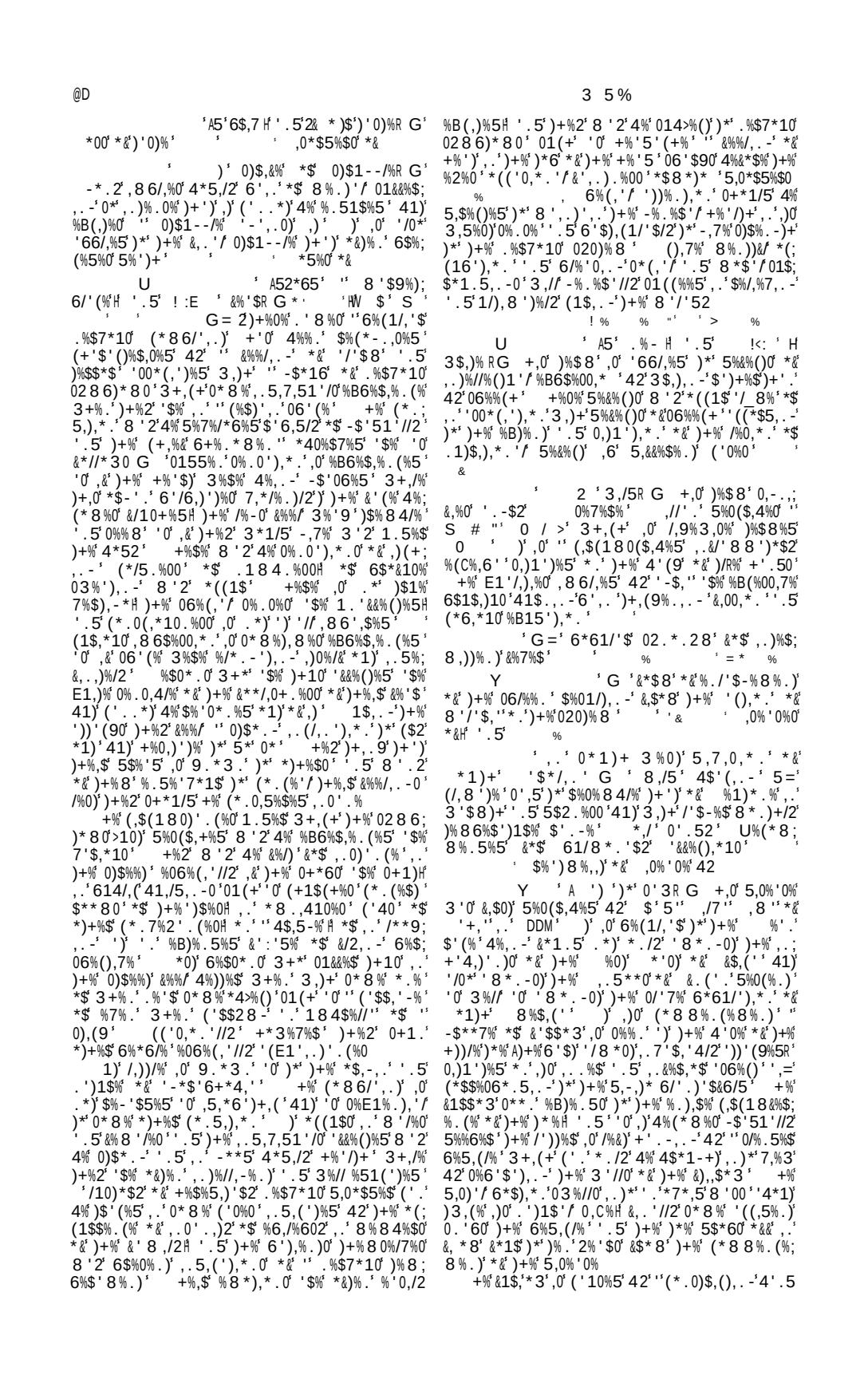

(+$*.,(' 4$*.(+,),0' '.5' ')%/%()'0,0' +'7%' '//'
4%%.' 01((%00&),//2')$%')%5' 42')+,0' 8%)+*5'
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8*0)'5,&&,(1/)'+$' %7%.' ,86*00,4/%')*' %86/*2'
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10%&1//2' 5%7%/*6')+%' +%'/)+2' 6*$),*.0' *&'
/1.-Ĥ 41)' ,)',0' (*.)$' ,.5,(')%5' ,.' 62$%B,'/
('0%0' '.5'8'2'6$*7%'5'.-%$*10'42',.51(,.-'
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7%.)' *$' $%8*7%')+%' %&&%()0' *&'(*//'60%' '.5'
$%)$'(),*.'*&')+%' (+%0) 3'5/' +%',.+'/'),*.'
&'(.5%.0%5' ',$' 0+*1/5' '/0*' 4%' *&' 10%',.'
(%$)',.'&*$80'*&'('$5,'(' 5,/')'),*.'%06%(,'//2'
)+')'51%')*'8,)$'/,.(*86%)%.(%' 86$*7,.-'
'0',)' 5*%0')+%' -%.%$'/.1)$,),*.',)' 8'2'+%'
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.') +%' '58,.,0)$'),*.' *&'(*.5%.0%5' ',$' &(
00,)),.-< 0+*1/5' /'0)' &$*8')%.')*'),$)2'
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'/),)15%0',)' 8'2')+%$%&*$%' 4% %86/*2%5',.'
6%$0*.0'3,)+' 4'5/2' 5%7%/*6%5' (+%0)0H' '.5'
%7%.' ,.' 6+)+,0,0',)' 8'2'42',.($%'0,.-')+%'
'8*1.)' *&'4/**5',.')+%'+8-0'6$%7%.)'('0%';
),*.'.5'6$*8*)%''40*$6),*.'*&')+%'6$*51()0'
.'5,0%'0%' *&')+%' $,-+)'0,5%%' *&')+%' +%'$)' ,)'
3*1/5' '00,0)'+%'&/*3'*&'4/**5'&$*8')+%'7%,.0'
,.)*')+%' /1.-0' 41)' ,)' ,0' .*)' /,9%/2')*' 4%'
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,.-')*' '/5%.41$-'3%'+'7%')+%'6+20,('/'
'.),5*)%'&*$%86+20%8''.5',.'+,0'+'.50')+%'
8'>*$,)2'*&' 1(+'6'),%.)0''$%'0',5')*' +'7%'
4%%.'%,)+%$'(1$%5'*$'$'5,('//2'4%.%&,)%5')'
+'0'/0*' '&&*$5%5'-$%')'$%/,%&',.'0*8%'('0%0'
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)+%$'/*('/'66/,(''),*.0'*&')+%'6+20,('/
6$*6%$),%0'*&')+%',$'0'0%%.',.'06,$'),*.'
(166,.-' 1.*5<0'4**)' .5',.&/'),*.'5%0($,4%5'%/0%3+%$%',)'+,0'3*$9'

G .')'/2'*.')+%' %5,)%$;
$'.%'.'(*'0)'4%)3%%.' .' %8*'.5' %.*''
8,/5'4$'(,.-'3,.)%$'$%0*$)'0+%/)%$%5'42'
+,//0'%B_a6)'*.')+%'0*1)+' .5'%'0)' *8;
6'$'),7%/2'&$%%'&$*8'3,.5'.5'510)'
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G&'0)')%'*&'3+,)%.%00'*$' '40%.(%'*&
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),001%0' (*.0%E1%.)' *.' 5%&%()' *&'6,-8%.)'
&*$8'),*.' +%' 3'.)' *&' (*/*1$' 8'2'4%'
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8'2'4%'/,8,)%5')*''06*)'*&'08'//'5,8%.0,*.0Ĥ
$')+%$%'8'2'4%'8'.2'01(+'06)0'*&'7'$,'4/%'
%B)%.)'5,06%$0%5'*7%$')+6'01$&'(%'*&')+%'4*52'
'.5'-,7,.-'$,0%')*')+%' '66%'$'.(%'3+,(+',0'
5%.*8,.')%56,%5'(' Ĥ 3+%$%'0',.' .,;
7%$0'/'/4,..08')+%'5%&%()'*&'6,-8%.)',0'.*)'
$%0)$,()%5')*')+%',.)%-18%.)'41)',0'%06%(,'//2'
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*&')+%'%2%4'//

1 % 2 %$0*.0''.5'.,;
8'/0''&&%()%5'3,)+'/4,..08'$%'('//%5'
")'3*1/5'0%%8'8*$%'(*$$%()')*'/,8,)'
)+%')%$8'/4,.*')*' *./2',.')+%',.)%-18%.)'41)'/,9%;
3,0%',.')+'%2%4'//' .')+%')$1%'/4,.*'
)+%$%&*$%')+%',&&,,.',0' +,)%'.5'6,.9'.5'
8*$%'*$'/%0D')$'.06'$%.)''.5')+,0'4*)+',.')+%'
&',$%$'.5',.')+%'5'$9%$'$'(%0'*&'8'.9,.5Ĥ
41)',1'(%$)','.'*&')+%'/')))%$'3+%$%')+%'6,-;
8%.)'$2'&1.(),*.',0'0,8 6/2'5%&%(),7%''.5'.*)'
)')'//2'3'.),.-')+%'(/*1$'*&')+%'09,.'&&,&)2'
4%'-$%2'*$')'3.2''.5'8*$%'$/%00'7'$,*/')%5'
'.5'&$%(9/%5' +%'+',$'0*8%),8%0'*&''61$%
0,/7%$2'*$'*6'E1%'3+,)%'&&,'2'4%'5,7%$0%/2'
),.-%5'3,)+'2%//'3'*$'$%5Ĥ*((('0,*.'//2',)'0
&/'B%.'*$'6*00%00%0'' -$%2,0+'+1%Ĥ'.5',.'
0*8%',.0)'.(%0')+%'3+*/%'4*52',0'(1 %5
3,)+''3+,)%'5*3.' +%',$,0',0'-$%2'*$'6,.9'
,.''((*$5&).5%'3,)+')+%'5%.0,)2'*&',)0'&,4$*10'
0)$1()1$%''.5')+%'(*.0%E1%.)'&'(,/,)2'*&'6%.%;
)$'),*.'*&')+%'(*/*1$'*&',)0'7'0(1/'$'/'2%$Ĥ*$'
'0'-%.%$'//2'+'66%.0',.')+%'.%-$*',)',0'4/1%'
+%'616,/,0' *.)$'()%5''.5'4$,-+)/2'$%5'&$*8'
)+%'40%.(%'*&')+%'0($%%.'*&'6$*)%(),*.'101'//2'
'&&*$5%5')*')+)+%'(+*$*,5'8%84$'.%'42',)0'6,-;
8%.)'$2'/'2%$Ĥ''.5'&*$')+%'0'8%'$%'0*.')+%'
$'20'*&'/,-+)'6%.%)$'),.-')+%'0(/%$*),('.5',$,0'
-,7%''4$8,'.(2'*&'66%'$'.(%')*')+%&1.510'
&')+%'%2%4'//' +%'40%.(%'&'6,-8%.)',.'
)+%'%2%4'/'',0'6$*51(),7%'*&'0%7%$'/'6%(1;
/,'$,),%0'*&'(+'$'()%$',.')+%''/4,.*'.')+%'
&,$0)'6/'(%')+%'%B(%00'*&'/18,.*10'$'20'6%.%;
)$'),.-')+%'(*')0'*&')+%'2%4'//,.)%$&%$%0'3,)+'
)+%'(*$$%().%00'*&'+,0'7,0,*.Ĥ+,0'$%),.'%'$%
,.)*/%$'.)'*&'/,-+)Ĥ+%'0)**60'+,0'+%'5'*$
5$**60'+,0'%2%/,50')*'0+%/)%$'+,0'%2%0Ĥ+%'
0%%0'3,)+'8*$%'(*8&*$)',.')+%'5,8.%00'*&'
%7%.,.-')+'.',.')+%'/,-+)'*&')+%'01.Ĥ4%',0'
.%'$0,-+)%5Ĥ''.5')+%$%',0',.'8'.2'('0%0'.'
0(,//'),.'*&')+%'%2%4'//0

, , G /4,.,08',0'8%)'3,)+' ,

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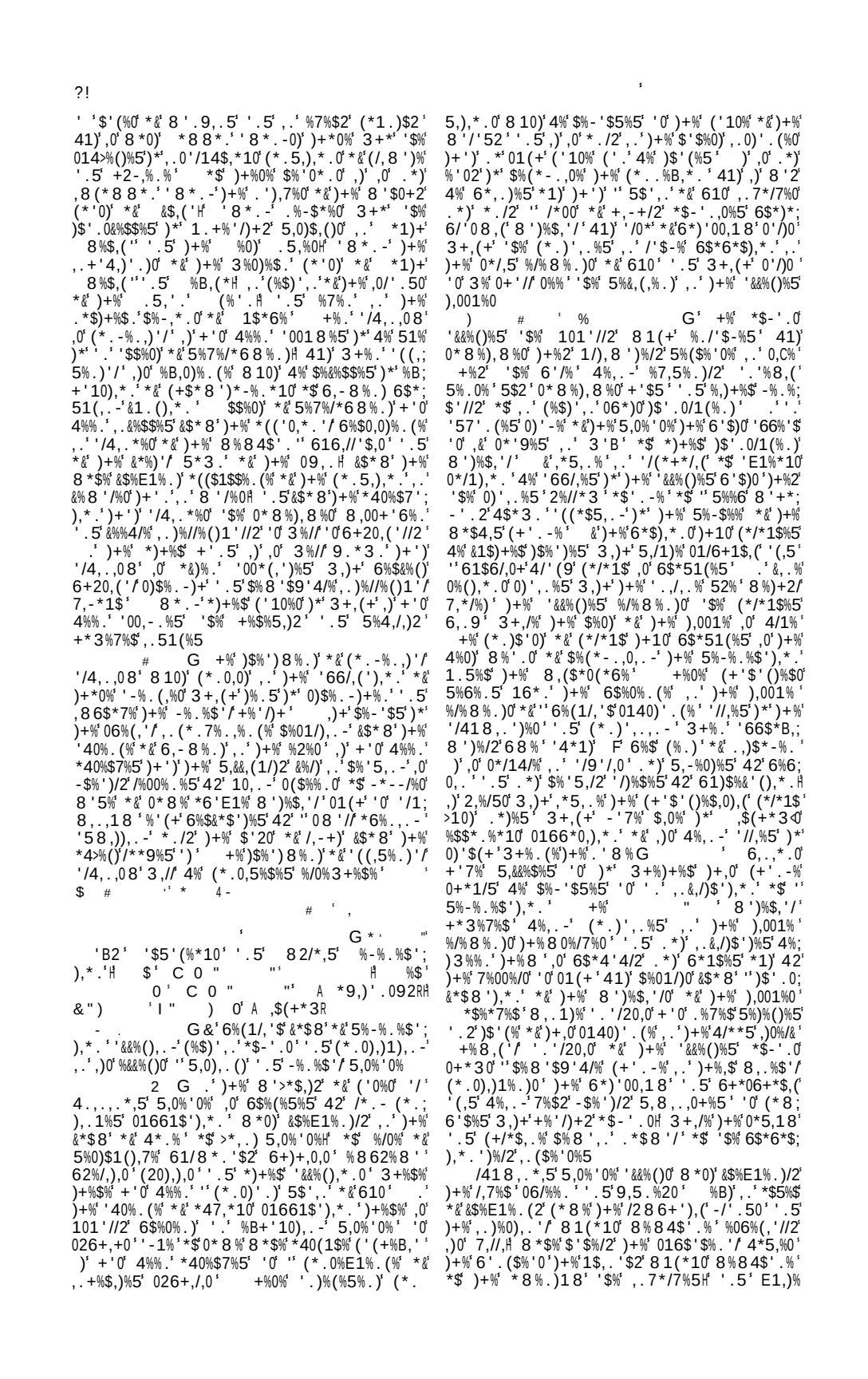

$ · G= /418,.1$,'ᵏ+'0ᶠ 4%%.ᶠ 0',5ᶠ)*ᶠ *((1$ᶠ ,.ᶠ (*.0%E1%.(%ᶠ *&ᶠ 7'$,*10ᶠ (*.5,:),*.0ᶠ ᶠ 0ᶠ (+'.-%0ᶠ ,.ᶠ)+%ᶠ 4/**5'(+'.-%0ᶠ ,.ᶠ)+%ᶠ (,$(1/'),*.ᶠ(+'.-%0ᶠ ,.ᶠ)+%ᶠ9,5.%2ᶠ +10ᶠ '40),..%.(%ᶠ&$*8ᶠ0'/)ᶠ*$ᶠ''5,%)ᶠ *&ᶠ%-.0ᶠ '/*.%ᶠ ,0ᶠ0',5')*ᶠ6$*51(%ᶠ'/418,.1$,''ᶠ42ᶠ'/)%$,.-')+%ᶠ (*.0),)1),*.ᶠ*&ᶠ)+%ᶠ 4/**5ℍ ᶠ.5ᶠ ᶠ.ᶠ '/)%$'),*.ᶠ ,.ᶠ)+,0ᶠ &/1,5ᶠ ,0ᶠ 0166*0%5ᶠ)*ᶠ 4% 6'$)/2ᶠ)+%ᶠ ('10%ᶠ *&ᶠ)+%ᶠ '/418,.1$,''ᶠ*40%$7%5ᶠ,.ᶠ +,-+ᶠ &%7%$0ᶠ0('$/'),.ᶠ 5,6+)+%$,'ᶠ ᶠ.5ᶠ *0)%* ᶠ ᶠ /'(,'ᶠ +%ᶠ'/418,.1$,''ᶠ*&ᶠ+%'$) 5,0%'0%ᶠ5%; 6%.50ᶠ*.ᶠ(+'.-%0ᶠ,.ᶠ)+%ᶠ,($(1/'),*.ᶠ.ℍᶠ ᶠ.5ᶠ)+'ᶠ *&ᶠ.%6+$),0ᶠ*.ᶠ'/)%$')*.0ᶠ,.ᶠ)+%ᶠ9,5.%2ᶠ .ᶠ *$5%$ᶠ)*ᶠ5,0),.-1,0+ᶠ8*$%ᶠ(/%'$/2ᶠ4%)3%%.ᶠ)+%ᶠ 5,&&%$%.)ᶠ9,.50ᶠ*&ᶠ'/418,.1$,''ᶠ3%ᶠ8'2ᶠ5,7,5%ᶠ)+%8ᶠ,.)*GA8ℝ ᶠ '/418,.1$,'ᶠ,.ᶠ3+,(+ᶠ 0*8%ᶠ*)+%$ᶠ'/418,.*10ᶠ4*52ᶠ)+'.ᶠ0%$18ᶠ '/418,.ᶠ,0ᶠ6$%0%.)ℍ A<ℝ ᶠ'/48.,.1$,''ᶠ,.ᶠ 3+,(+ᶠ 0%$18ᶠ''/418,.ᶠ &$%E1%.)/2ᶠ'(%*).ᶠ 0Q6'.,%5ᶠ 42ᶠ -/*41/,.ᶠ '66%'$0ᶠ,.ᶠ)+%ᶠ 1$,.%ᶠ .ᶠ ᶠ'/418,.1$,''ᶠ)+%$%ᶠ,0ᶠ'/3'20ᶠ0*8%ᶠ (+'.-%ᶠ%,)+%$ᶠ,.ᶠ)+%ᶠ(,$(1/'),*.ᶠ)+$*1-+ᶠ)+%ᶠ 9,5.%2ᶠ*$ᶠ,.ᶠ)+%ᶠ 0)$1()1$%ᶠ*&ᶠ)+%ᶠ 9,5.%2ᶠ ,)0%/&ᶠ .ᶠ ᶠ'/418,.1$,'')+%ᶠ'/418,.*10ᶠ 4*52ᶠ6'00%0ᶠ*1)ᶠ)+$*1-+ᶠ)+%ᶠ 9,5.%2ᶠ3,)+*1)ᶠ)+%$%ᶠ4%,.-ᶠ.2ᶠ'/)%$'),*.ᶠ%,)+%$ᶠ,.ᶠ,)0ᶠ(,$ᶠ (1/'),*.ᶠ*$ᶠ0)$1()1$%

A ℝᶠ . " G +%ᶠ (+,%&ᶠ'/41; 8,.*10ᶠ4*5,%0ᶠ*((1$$,.-ᶠ,.ᶠ&'/0%ᶠ'/418,.1$,''ᶠ '$%ᶠ+'%8*-/*4,.ᶠ%-- '/418,.ᶠ -/*41/,.ᶠ ᶠ.5ᶠ %.(% *.%0<0ᶠ'/418,.ᶠA'/418*0%R ᶠ '%8*; -/*4,.ᶠ*((1$0ᶠ,.ᶠ)+%ᶠ1$,.%ᶠ3+%.%7%$ᶠ4/**5ᶠ,0ᶠ 6$%0%.)ᶠ,.ᶠ,)ᶠ, ᶠ 8 # / ᶠ.ᶠ3+,(+ᶠ('0%ᶠ ,)ᶠ,0ᶠ(*.)ᶠ,.%5ᶠ,.ᶠ)+%ᶠ (*$610(/%0ℍ *$ᶠ,)ᶠ 8'2ᶠ *((1$ᶠ&$%%ᶠ, ᶠ '0 , Rᶠ)+%ᶠ 4/**5ᶠ (*$610(/%0ᶠ 3+,/%ᶠ 0),/ᶠ (,$(1/'),.-ᶠ,6ᶠ)+%ᶠ 7%00%/0ᶠ +'7,.-ᶠ 1.5%$-*.%ᶠ 0*/1),*.ᶠ +,0ᶠ 8'2ᶠ$%01/ᶠ&$*8ᶠ)+%ᶠ,.+'/'),*.ᶠ*&ᶠ'$0%.,1ᶠ $%))%5ᶠ+25$*-%.ᶠ*$ᶠ&$*8ᶠ)+%ᶠ,.)$*51(),*.ᶠ *&ᶠ4,/% '(,50ᶠ*$ᶠ*&ᶠ''/'$-%ᶠE1'.),)2ᶠ*&ᶠ3')%$ᶠ ,.)ᶠ* 7%,.0ᶠ '%8*-/*4,.ᶠ,0ᶠ=0*ᶠ&*,85ᶠ ,.ᶠ)+%ᶠ1$,.%ᶠ,.ᶠ6'$*B20ℍ/+'%8*-/*4,.1$,'ᶠ 41)ᶠ)+%ᶠ ('10%ᶠ*&ᶠ)+%ᶠ 0*/1),*.ᶠ *&ᶠ 4/**5ᶠ (*$610(/%0ᶠ,6ᶠ)+,0ᶠ5,0%'0%ᶠ,0ᶠ1.9.*3.ᶠ -- ᶠ '/4,1.,.ᶠ,0ᶠ%B($%)%5ᶠ42ᶠ)+%ᶠ 9,5.%20ᶠ'.5ᶠ '66%'$0ᶠ,.ᶠ)+%ᶠ1$,.%ᶠ3+%.%7%$ᶠ,)ᶠ,0ᶠ,.>%()%5ᶠ 5,$%()/2ᶠ,.)*ᶠ)+%ᶠ (,$(1/'),*.ᶠ *$ᶠ 1.5%$ᶠ)+%ᶠ 09,.ᶠ*$ᶠ3+%.ᶠ),)ᶠ,0ᶠ'40*$4%5ᶠ1.(+'.-%5ᶠ&$*8ᶠ)+%ᶠ 0)*8'(+ᶠ *$ᶠ $%()18ᶠ +%.ᶠ)'9%.ᶠ,.)*ᶠ)+%ᶠ0)*8'(+ᶠ,)ᶠ,0ᶠ101''//2ᶠ(*86/%)%/2ᶠ5,-%0)%5ᶠ 4%&*$%ᶠ,)ᶠ 1.5%$-*%0ᶠ '40*/1),*.ℍ 41)ᶠ 3+%.ᶠ)'9%.ᶠ,.ᶠ01(+'/'$-%ᶠE1'.),),%0')+')+%ᶠ3+*/%ᶠ *&ᶠ,)ᶠ('.*)ᶠ4%ᶠ5,-%0)%5ᶠ6'$)ᶠ*&ᶠ,)ᶠ,0ᶠ'40*$4%5ᶠ 1.(+'.-%5ᶠ'.5ᶠ,0ᶠ%B(%)%5ᶠ,.')+%ᶠ1$,.%ᶠ +10ᶠ''5,%)ᶠ(*.0,0),.-'%B(/10,7%/2'*&ᶠ%--0'%06%(,''//2ᶠ 3+%.ᶠ (*.),.1%5ᶠ&*$ᶠ0%7%$'/ᶠ5'20ᶠ6$*51(%ᶠ &'/0%ᶠ'/418,.1$,''ᶠ.5ᶠ/'$-%ᶠ%.%8')''*&ᶠ%--0ᶠ +'7%''0,8,/'$ᶠ%&&%()ᶠ,.ᶠ'.,8'/0''.5ᶠ6$*4'4/2ᶠ '/0*ᶠ,.ᶠ 8'.ᶠ %.(% *.%0<0ᶠ'/418,.ᶠ,0ᶠ*&ᶠ 7%$2ᶠ$'$%ᶠ*((1$$%.(%ᶠ)ᶠ,0ᶠ&*1.5ᶠ,.ᶠ*0)%*; 8'/'(,'ᶠ ,9%ᶠ%-- '/418,.ᶠ,)ᶠ,0ᶠ%B($%)%5ᶠ 42ᶠ)+%ᶠ9,5.%20ᶠ3+%.ᶠ,)ᶠ,0ᶠ,.>%()%5ᶠ1.)*ᶠ)+%ᶠ (,$(1/'),*.ᶠ*$ᶠ,.ᶠ/'$-%ᶠE1'.),),%0ᶠ,.)*ᶠ)+%ᶠ ,.)%0),.%ᶠ)ᶠ,0ᶠ'/8*0)ᶠ,&ᶠ.*)ᶠE1,)%ᶠ,5%.),('ᶠ 3,)+ᶠ)+%ᶠ +%)%$*'/418*0%ᶠ 3+,(+ᶠ ,,+.%ᶠ &,.50ᶠ)*ᶠ4%ᶠ*.%ᶠ*&ᶠ)+%ᶠ 6$*51(0ᶠ*&ᶠ,86%$&%() 5,-%0),*.ᶠ)ᶠ0%%80ᶠ6$*4'4/%ᶠ)+')ᶠ)+*0%ᶠ('0%0ᶠ *&ᶠ'/418,.1$,''ᶠ3+,(+ᶠ'66%'$ᶠ)*ᶠ 5%6%.5ᶠ*.ᶠ ,86%$&%()ᶠ5,-%0),*.ᶠ'$%ᶠ51%)*ᶠ)+%ᶠ 6'00'-%ᶠ ,.)*ᶠ)+%ᶠ020)%8,(''(,$(1/'),*.ᶠ*&ᶠ'/418,.*10ᶠ 4*5,%0ᶠ3,.(+ᶠ+'7%ᶠ.*)ᶠ1.5%$-*.%ᶠ)+%ᶠ6$*6%$)$'.0&*$8'),*.ᶠ,.ᶠ)+%ᶠ'/,8%+)'$2ᶠ('.'/*$ /,7%$ᶠ ʙ ᶠℍᶠ.5ᶠ $ $ A@ℝᶠ ᶠ / G .ᶠ)$1%ᶠ'/41ᶠ 8,.8,''ᶠ)+%$%ᶠ810)ᶠ4%ᶠ0*8%ᶠ(+'.-%ᶠ%,)+%$ᶠ ,.ᶠ)+%ᶠ(,$(1/'),*.ᶠ*$0)$1()1$%ᶠ*&ᶠ)+%ᶠ9,5.%2ᶠ &*$ᶠ0%$18 '/418,.ᶠ 5,&&%$0ᶠ &$*8ᶠ)+%ᶠ *)+%$ '/418,.*10ᶠ4*5,%0ᶠ>10)ᶠ*.%5ᶠ,.ᶠ.*)ᶠ 4%,.-ᶠ%B($%)%5ᶠ42ᶠ)+%ᶠ+%'/)+2ᶠ9,5.%2ᶠ *8%$%-'$5')+%ᶠ'/)%$'),*.0ᶠ,.ᶠ)+%ᶠ(,$(1/'),*.ᶠ3+,(+ᶠ 6$*51(%ᶠ'/418,.1$,''ᶠ0ᶠ*&ᶠ)3*ᶠ 9,.50ᶠ , ᶠ,.($%'0%5ᶠ6$%001$%ᶠ*&ᶠ4/**5ᶠ,.ᶠ)+%ᶠ$%.'/ ᶠ$)%$,%0ℍ ALℝᶠ,.($%'0%5ᶠ6$%001$%ᶠ ,.ᶠ)+%ᶠ$%.'/ 7%,.0ᶠ .($%'0%5ᶠ6$%001$%ᶠ ,.ᶠ)+%ᶠ'$)%$,%0ᶠ 8'2ᶠ5%6%.5ᶠ%,)+%$ᶠ*.ᶠ-%.%$'/ᶠ+,-+ᶠ'$)%$,'/)%.0,*.ᶠ*$ᶠ16*.ᶠ'.ᶠ,.($%'0%5ᶠ/*('/ᶠ0166/2ᶠ*& 4/**5ᶠ)*ᶠ)+%ᶠ9,5.%2ᶠ*3,$=')*ᶠ5,/')'),*.ᶠ*&ᶠ)+% $%.'/ᶠ$)%$,%0ᶠ01(+'0ᶠ&/ᶠ//*30ᶠ5,7,0,*.ᶠ*&ᶠ)+0,$ 7'0* 8*)*$ᶠ .%$7%0ᶠ B6%,8%.)0ᶠ0%%8ᶠ)* 0+*3ᶠ+*3%7%$ᶠ)+')ᶠ,.($%'0%5ᶠ)%.0,*.ᶠ,.ᶠ)+% $%.'/ᶠ')%$,%0ᶠ5*%0ᶠ.E)ᶠ6$*51(%ᶠ'/418,.1$,'' .5ᶠ)+')+%ᶠ*./2ᶠ(+'.-%ᶠ,.ᶠ(,$(1/'),*.ᶠ3+,(+ᶠ 3,//ᶠ('10%ᶠ,)ᶠ,0ᶠ,.($%'0%5ᶠ6$%00,1%ᶠ,.ᶠ)+%ᶠ$%.'/ 7%,.0ᶠ *.-%0),*.ᶠ*&ᶠ)+%ᶠ$%.'/ᶠ7%,.0ᶠ 8'2ᶠ4%6$*51(%5ᶠ42ᶠ/,-')1$%ᶠ*&ᶠ)+%ᶠ$%.'/ᶠ')%$,%0ℍ ''.5ᶠ3+%.ᶠ)+%ᶠ &/*3ᶠ*&ᶠ4/**5ᶠ)+$*1-+ᶠ)+% 9,5.%2ᶠ,0ᶠ)%86*$'$,/2'$$%0)%5ᶠ42ᶠ/,-')1$%ᶠ*&)+%ᶠ '$)%$2')+%ᶠ1$,.%ᶠ0%(8%)%5ᶠ'&)%$ᶠ)+%ᶠ$%; 8*7'/ᶠ*&ᶠ)+%ᶠ/,-')$1%ᶠ,0ᶠ'/418,.*10ᶠ %.*10ᶠ (*.-%0),*.ᶠ*&ᶠ)+%ᶠ9,5.%2ᶠ'/0*ᶠ*((1$0ᶠ3+%.; %7%$ᶠ)+%ᶠ *.3'$5ᶠ&/*3ᶠ*&ᶠ7%.*10ᶠ4/**5ᶠ,0 *40)$1()%5ᶠ%,)+%$ᶠ42ᶠ'ᶠ/,-')1$%ᶠ*.ᶠ)+%ᶠ$%.',ᶠ 7%,.0ℍ42ᶠ)+%ᶠ6$%001$%ᶠ*&ᶠ'')18*1$ᶠ*$ᶠ*&ᶠ)+% 6$%-.'.)ᶠ1)%$10ᶠ16*.ᶠ)+%8'*$ᶠ)+%ᶠ7%.ᶠ''('7'ℍ 42ᶠ5,0%'0%ᶠ*&ᶠ)+%ᶠ/,7%$ᶠ*40)$1(),.-ᶠ)+%ᶠ7%.ᶠ' ('7'ℍᶠ*$ᶠ42ᶠ5,0%'0%ᶠ*&ᶠ)+%ᶠ+%'$)ᶠ*$ᶠ/1.-0ᶠ 01(+ᶠ'0ᶠ)$,(106,5ᶠ*$ᶠ8,)$'/ᶠ$%-1$-,)'),*.ᶠ*$ (+$*.,(ᶠ 4$*.(+,)0ᶠ'.5ᶠ%86+20%8'ᶠ +%)%86*$'$2ᶠ'/418,.1$,''ᶠ0*8%),8%0ᶠ*40%$7%5ᶠ '&)%$ᶠ(*/5ᶠ4')+,.-ᶠ8'2ᶠ'/0*ᶠ4%ᶠ51%)*ᶠ7%.*10ᶠ (*.-%0),*.ℍ '.5ᶠ,)ᶠ,0ᶠ6$*4'4/%')+')ᶠ'/418,.; 1$,''(*.0%E1%.)ᶠ16*.ᶠ/%0,*.0ᶠ*&ᶠ)+%ᶠ.%$7*10ᶠ 020)%8ℍ,0ᶠ51%ᶠ$')+%$ᶠ)*ᶠ)+%ᶠ(+'.-%0ᶠ3+,(+ᶠ)+%0%ᶠ6$*51(%ᶠ,.')+%ᶠ(,$(1/'),*.ᶠ)+'.')*ᶠ'.2ᶠ 5,$%()ᶠ'(),*.ᶠ*&ᶠ)+%ᶠ.%$7%0ᶠ16*.ᶠ)+%ᶠ),001%0ᶠ *&ᶠ)+%ᶠ 9,5.%2ᶠ,)0%/&ᶠ +%ᶠ'/418,.1$,''ᶠ*4; 0%$7%5ᶠ'&)%$ᶠ7'$.,0+,.-ᶠ)+%ᶠ09,.ᶠ,0ᶠ6$*4'4/2ᶠ 51%)*ᶠ)+%ᶠ$%)%.,)*.ᶠ*&ᶠ0*8%0140)'.(%ᶠ3+,(+ᶠ '(0ᶠ0''6*,0*.ᶠ +%ᶠ0)1()1$'/ᶠ(+'.-%0',.ᶠ)+%ᶠ9,5.%2ᶠ3+,(+ᶠ('10%ᶠ'/41$*,.1$,''ᶠ$%ᶠ'(1)%ᶠ '.5ᶠ(+$*.,(ᶠ,.&/'88'),*.ᶠ3'B2ᶠ5%-%.%$';),*.ᶠ .5ᶠ(,$$+*0,0ᶠ ᶠ ᶠ9ᶠ- # G DBEᶠ .ᶠ ᶠ'/418,.1$,''ᶠ 3+%$%ᶠ+0%8*-/*4,.ᶠ'66%'$0ᶠ,.ᶠ)+%ᶠ1$,.%ᶠ)+%)$%')8%.)ᶠ,.5,(')%5ᶠ,0ᶠ)*ᶠ(*1.)%$'(0ᶠ)+%ᶠ0*/1;),*.ᶠ*&ᶠ4/**5(*$610X/%0ℍ'.5ᶠ&*$)+,0ᶠ61$6*0% E1,.,.%ᶠ,0ᶠ7%$2ᶠ*&)%.ᶠ 0%&1/ᶠ ,%.ᶠ*)+%$ 9,.50ᶠ*&ᶠ'/418,.ᶠ'66%'$ᶠ,.ᶠ)+%ᶠ1$,.%ᶠ'.5 '$%ᶠ6$*4'4/2ᶠ51%ᶠ)*ᶠ,86%$&%()ᶠ5,-%0),*.ᶠ)+%)$%')8%.)ᶠ,0ᶠ)*ᶠ-,7%ᶠ0*8%ᶠ'$),&,(,'/ᶠ5,-%0),7% &/1,5ᶠ $0%.,(ᶠ,0ᶠ'/0*ᶠ10%&1/ᶠ U%-'$5,.-')+*0% ('0%0ᶠ*&ᶠ*0)%* 8'/'(,'ᶠ,.ᶠ3+,(+ᶠ %.(% *.%0<0

'/4*8,B,'*(%),$0' 3%')8&*$)8,',)%/2'9.*3'7%$2'/,))/%

A@R' .' '/4. .1.*$,'' 5%6%.5,.-'7%.*10'(*.-%0),*.'')+%'*40)'(/%')*' &$%%'(,$;(1/'),*.'0+*1/5'4%'$%8*7%5',&'6*00,4/%H''.5')+%'(*.-%0),*.'/%00%.%5'4*)+' 42'5$'3,.-')+%'4/**5'&$*8')+%',.)%$,*$')*')+%'01&'(%*&')+%'4*52''.5'42'('10,.-'(*.)$')(),*.'*&')+%'$%.'/'7%00%/0'+%'4/**5'8'2'4%'5$'3.'&$*8')+%',.)%$,*$')*')+%'01&'(%'42'8%'.0'*&'3'$8'4')0H'41)',.'0*8%'%'0%0')+%0%'6$*7%',.>1$,*10'$')+%$')+'.'10%&))/''.5')+%'%86/*28%.)'*&''3%)'6'(9'3+,(+'+'0''0,8,/'$'%&&%()'*.')+%'5,0)$,41),*.'*&'4/**5'3,)+*1)'%B(,),.-')+%'+%'$)','0')*'4%'6$%;&%$$%5'166,.-'*7%$')+%'/*.0','0'0%8(%''4/%',)'6$*4'4/2''()0'42'('10,..-'$%&/%'(*.)$')(),*.'*&')+%'$%.'/'7%00%/0'$')+%$')+'.'42''()1'//2'5$',.,.-'4/**5''3'2'&$*8')+%8'+%')*.%'*&')+%'$%.'/'7%00%/0'8'2'4%',.($%'0%5'42')+%'%86/*28%.)'*&'5,-.)'/,0',U),(0RH''.5')+,0'5$1-',0'10%&1/'%7%.'3+%.'.*'('$5,'(' 5,0%'0%',0'6$%0%.)''/)+*1-+',)0'-**5'%&&%()0''$%'0),'8*$%'8'$9%5'3+%.')+%'(*.-%0),*.',0'5%6%.5%.)'*.'5,0%'0%'*&')+%'+%'$)'+%('*.)'5$',.'*&'/418.'&$*8'4*52'*((')0,*.0''.)%8,''3+,(+'.*)'*./2'6$*51(%0'8'.2'1.6/%'0'.)'0286)*80'41)'%.50')*'('10%'&'))2'5%-%.%$'),*.'*&'7'$,*10'*$-'.0'&$*8'3+,(+')+%$%',0'.*'$%'0*.')*'4%;/,%7%')+')'+%'9,5.%20''$%'%B%86)'+%'5;8,..0)$'),*.'*&',$*.')+%$%&*$%',0')+%'(+,%&8%5,(..'/'$%8%52',.'0)$1()1$'/'5,0%'0%'*&')+%'9,5.%20')',0'10%&1/'42'5,8,..0+,.-'*$$%8*7,.-')+%'0286)*8'0'*&'.0%.''.5')+%)%.5%.(2')*'&'))2'5%-%.%$'),*.'(*.0%E1%.)')+%$%*.H''.5'/0*'42',.($%'0,.-')+%')*.%'*&')+%'7%00%/0')+10'5,8,..0+,.-')+%'/*00'*&'/418,.'$%/$1

'G'$,,,*,$'G'/41'8*0%0'$%'6$*)%,5'4*5,%0'5%$,7%5'42')+%''(),*.'*&5,-%0),7%'&%$8%.)0'A6%60,.'(+,%&/2R'16*.'/418,.0''.5'-/*41/,.0''.5',')+%,$'6$*6%$),%0'8'2'4%'(/'00%5''0',.)%$8%5,')%'4%)3%%.')+%0%'6$*)%,50''.5')+%'&,.'/'6$*51()'*&'5=%0),*.'A6%6)*.%R'+%2''$%'&*$8%5'51$,.-'.')1$'/5,-%0),*.',.')+%'0)*8'(+''.5''/0*',.''$),&,(,'/5,-%0),*.

U,='.2'7'$,%),%0'*&'/41'8*0%0'+'7%'4%%.'5%0($,4%5'(*//%(),7%/2'%$8%5'+%',.5,7,51'/'4*5,%0'5,&&%$0*8%;3+')''((*$5,.-''0')+%2''$%'&*$8%5'&$*8'/418,.0'A'/418*0%0R'*$'-/*41/,.0'A-/*41'/*0%0R'&*$''/'6$'(),('/'61$6*0%0')+%')%$8'/418*0%',0')+%'4%0)')*'10%'+%'&*$80'*&'/418*0%',86*$)'.)',.'8%5,(,.%''$%#'.5'W')+%'/'0)'4%,.-'(/*0%/2''//,%5')*'6%6)*.%

% % G '$A0%.(%'*.%0'/418,.'&',0',.0*/14/%',.'3')%$'41)'0*/14/%',.'5,/1)%'0'/,.%'0*/1),*.0'&$*8'3+,(+',)',0'6$%(,6,)')%5'42'+%')',&'.*'&$%%'('(,5',0'6$%0%.)'.'0*8%'('0%0',)',0'6$%(,6,)')%5'42'+%')'&'!*'6$%'('0%0'.)'0*8%'('0%0'.)'0*8%'('0%0'.)'0*8

'/418,.' 4%,.-' '40%.)' 0' "' $1/%' +*3%7%$' '/48.*0%' .5'6%6)*.%' '$%'6$%0%.)',.'0*/1),*.' ,.')+%' 1$,.%' .'0%'$(+,.-'&*$')+%0%'%*'-1' /'4/%'/418,.' 810)'4%'40%.)' *$',&' 6$%0%.)' $%8*7%5'42'&,/)$'),*.''&)%$'(*'-1/'),*.' +%' &*//*3,.-'8%)+*50'$%')+%$%&*$%')*'4%'10%5HGW %')')+%')*6'*&')+%'(*/18.'*&'1$,.%',.''')%0)')14%',')+%'101'/'3'2'41)' 3,)+*1)')+%' '55,;),*.'*&'(,5' &' "(/*15,.%00' '66%'$0',' ,0' 51%')*')+%' 6$%(,6,)'),*.'*&'(*'-1/'4/%' '/41;8,.' *&'6+*06+')%0' *$' *&'+%)%$*' '/418*0%' A %.(% *.%0<0' '/418,.R' *.),.1%')+%'+%');,.-')*')+%' 4*,/,.-6*,.)H')+%' (/*15,.%00',&' 51%')*'+%)%$*' '/418*0%' 3,/' (%'$'16')+')' 51%')*'6+*06+')%0' '.5' '/418,.'3,/' $%8',.' 55' "' 5$*6' *&' '(%),(' '(,5H')+%' 6+*06+')%0' 3,/' 4%' 5,00*/7%5' 16')+%' (*'-1/')%5' '/41;8,.' 3,/' $%8',.' ,.0*/14/%' ' 6$%(,6,;)')%',.' 1$,.%')+%.' ('10%5' 42' "' 8*5%$')%'+%')' '.5' $%5,00*/7,.-'*.' 4*,/,.-',0' +%)%$*' '/418*0%' +,0' 8'2' 4%' 7%$,&,%5' 42' 5%)%$;8,.,.-')+%' %B'()')%86%$')1$%')' 3+,(+')+%' 6$%(,6,)'),*.'*((8 0' +%)%$*' /418*' %',0'6$%;(,6,)')%5' 4%)3%%.' ?g' .5'F!g' 'A !PK g' .5' @@g' '+R' 0%$18 '/418,.' *$' -/*41/,.' ')' M"g MFg' 'A D" g' .5' DMg' '+R' .5'6+*0;6+')%0'*./2'3+%.'.%'$')+%'4*,/,.-6%,.)H)+,0' /'0)'6$%(,6,)')%' '/0*' $%5,00*/7%0' *.' (**/,.-' &')+%'1$,.%'(*.)',.0' '/418,.'*$'-/*41/,.' ,)' 810)'4%'4*./%5''&)%$')+%''55,),*.''*&''5$*6'*&' '(%),(' '(,5''.5'&,/)%$%5' +%'&,/)%$%5'1$,.%' 810)'+%.'4%)0)%5'&*$' '418*0%',0' ,.5,(')%5'42')+%'/'0)')%0)'>10)'8%.),*.%5H,.''55,),*.',)'-,7%0'"(+'$'()%$;,0),(' .,)$,(' '(,5'4%'55%5'5$*6'42'5$*6' ''6$%(,6,;)')%'&*$80'3+,(+'5,00*/7%0'*.'+%'),.-'$%;'66%'$0'*.'(**/,.-'$%5,00*/7%0'*.'+%'),.-'.5'0*'*.'')+,0',0'6%$&%()/2'(+'$'()%$,0),(' *&')+%'4*52'0,.(%')+%'0,8,/'$'6$%(,6,)')%'*&'/418,.'*$'-/*41/,.'5*%0',.5,00*/7%$*.'+%'),.-' 2'.%,)+%$'*&')+%0%'$%'(),*.0',0'5%1)%$*'/418*0%'*$'6%6)*.%',.5,(')%5'.'.5'1$,.%0'(*.)',.,.-')+%0%')3*'4*5,%0'A*.%'*$4*)+'*&')+%8R'$%')+*0%'101'//2'(/'00%5'0'%B'86/%0'*&'06%6)*.1$,'<+%,$'6$%0%.(%',0'0+*3.'42')+%'&*//*3,.-')%)0'3+,(+'810)'4%'66/,%5''&)%$'+%)%$*'/418*0%'+'0'4%%.'0+*3.')*'4%'40%.)''.5'&)%$'(*'-1/'4/%''/418,.'+'0'4%%.'$%8*7%5HGA'R' ,$*6'*&'5,/1)%'0*/1),*.'*&'(*66%$'01/6+')%''55%5')*'+%')+%'1$,.%'&*//*3%5'42'.'%B(%00'*&'/,E1*$'6*)'000%'(' 10%0'' 68+,0+$%5'(*/*1$'),*.'A4,1$%)'$%'(),*.RH*$''5$*6'*&'5,/1)%5'%+'/,.-0'0*/1),*.'8'2'4%'55%5')*')+%'1$,.%'.5')+%.'*&'/,E1*$'6*)'000%',&'.%;(%00'$2'&')+%'5%1)%$*'/48.*0%'.5'6%6;)*.%''$%'6$%0%.)',.'08'/'E1'.),)2')+,0'$%;'(),*.',0'.*)'*4)',.%5'ADR+%'8,.%',0''55%5'5$*6'42'5$*6')*''0')1$')%5'0*/1),*.'*&6,($,('(,5H4)+'5%1)%$*'/418*0%'.5'6%6)*.%'(1$')%'5'.'5'$%'$%5,00*/7%5'*.'+%'),.-')+10'5,0),.-1,0+,.-')+%8'&$*8'81(,.'.'5'&$*8''/4)1.,.

+%'*./2''((1$')%'3'2'*&'5,0),.-1,0+,.-5%1)%$*'/48.*0%'&,*8'6%6)*.%',0')*'0+'+%')+%'(/%'$'8,.%',.''')%0)'14%'3,)+'0*/,5'.%1)$'/'88*.,18'01/6+')%'&')+%'1$,.%-,7%0')+%')3*')%0)0'>10)'5%0($,4%5''.5'-,7%0''6$%(,6,)')%'3,)+'88*.,18'01/6+')%',)'(*.;)',.0'5%1)%$*'/418*0%'&',)'-,7%0'+%')%0)0''.5'.*'6$%(,6,)')%'3,)+')+%'0'/)',)'(*.)',.0'6%6)*.%'.5')+%'.*.%'*&')$1%'66%;)*.1$,''')*'%7'6*$')%')+%'1$,.%')*''108'//41/9

$*)*'/418*0%'+'0'.*)'0'2%)'4%%.'&*1.5',.'1$,.%

A /)' "G +,0',0'*&'41)(/,))/%'(/,.,('/'7'/1%')'8'2'4%'5*.%'42'6$%;(,6,)'),.-''8%'01$%5'E1'.),)2'*&'1$,.%3,)+''/'$-%%B(%00'A)%.'),8%0',)0'41/9R'*&'/(*+*/'(*/;/%(),.-'5$2,.-''.5'3%,-+,.-')+%'6$%(,6,)')%'*%G +%'6$%0%.(%'*&'/4 8*0%0''.5'6%6)*.%0',.')+%'1$,.%',0''6')+*/*-,('/'.*)''6+20,*/*=('/'6+%.*8%.*.'+%0%4*5,%0'$%'&*$8%5'51$,.-'.*$8'/'5,-%0),*.'42'6%60,.''.5'+25$*(+/*$,('(,5',.')+%')0)*8'(+''.5'6%6)*.%0'$%''/0*'&*$8%5',.'6'.($%'),('5,-%0),*.'1)'/)+*1-+')+%2''$%')+10'&*$8%5,.')+%'-'0)$*,.%0),.'/'('.'/')+%2''$%.*)&*1.5',.')+%'40*$4%.)'7%00%/0'*&')+%0)*8'(+''.5',.)%0),.%'.''.2'66$%(,4/%'E1'.),)2H.%,)+%$',')+%7%,.0'.*$',.')+%'(+2/%7%00%/0'.')+%'-%.%$'/020)%8,('7%,.0'.5'/286+'),(0')+%2''$%'.*)'6$%0%.)H'.5')+%,$'*()$$$%.(%','$)%$,'/4/**5',.'08'//E1'.),),%0',0'%B)$%8%/25*14)&1/'0)/2')+%2''$%'.*)'6$%0%.)',.')+%/,7,.-'),001%0'.*$',.')+%'&/1,50'3+,(+'4')+%)+%8'&')+%2''$%'&*1.5',.')+%'8,.%')+%2''$%')+%$%&*$%'%,)+%$'5%$,7%5'&$*8')+%'-'0)$*;,.)%0),.'/'('.'/'*$'$%'&*$8%5'&$*8'0*8%6')+*/*-,('/'.5),*.'.',.')+%'),001%0'*$'6%$;+'60',.')+%'4/**5',)+'$%-'$5')*')+%,$'&,$0)0*8(%',)',0'E1,)%'$%'0*.'4/%')*'0166*0%')+')+%'8%)'8*$6+*0,0'6$*4'4/2',.)*'0%$18'/418,.R'3+,(+'/418*0%0''.5'6%6)*.%0'.*$8'//2'1.5%$-*'3+%.'60'00,.-')+$*1-+')+%,.)%0),.'/'3'//'8'2'.*)')'9%'6/'(%',.'(%$)',.'5,0%'0%0'3+%$%'40*$6),*.',0'5%&,(,%.)''.5')+)+%2'8'2')+10'6'00',.)*')+%'(,$(1/'),*.''.'5'4%%B($%)%5'42')+%'9,5.%20',.')+%'8,.%'+,0'+*3%7%$',0''8%$%'(*.>%()8%')*'%B6/',.')+%*((1$%.(%'*&'06%6)*.1$,''<A'/418*08,'R',.'0*8%'('0%0'*&'(+$*.,('5206%60,''3,)+'5,/')%50)*8'(+'+%'0%(*.5'0*8(%'*&')+%'*$,.-.'*&'/418*0%0''.5'6%6)*.%0',.')+%'4*52',0''(*8'6+%')%5'*.%'&')+%0%'4*5,%0''$%'&*$8%5',.'.2'*$-''.'),001%'$&*8')+%'4*52')+%2''$%'40*$4%5',.)*')+%'4/**5''.5')+%.',$'2',.)*')+%'1$,.%'&*$8%5'1$,.%'/418*0%'H)+')'5%1)%$*'/418*0%'6'00%0'*1)(+,%&/2'0'6%6)*.%H'.5')+')'6%6)*.%',0'1.(+'.-%5'0',)'6'00%0'&$*8')+%'4/**5',.)*+%'8,.%'+%'0'8%'&'()0'6$*4/2'+*/5-**5'&*$)+%'+18'.'*$-'.,08

%.(%*.%0<0''/418,.'A+%)%$*'/48.*0%R'3'0'&,$0)'&*,85',.')+%'8,.%'*&''%'0%'*&

"M

0)% 8'/'%,&)H '.5' ,$(// '&*..5' '0,8,/'B' 4*5=, .')+%' 5,0%'0%5'4*.%0' +,0')+%.' ,0' '' (/%'$' ('0%' %B($%),*.' *&')+%' ' 4.8*0%& &$*8')+%' 5,0%'0%5' 6')$')+%' %B($%),*.' *&' '' 6$*)%,5' 3+,(+',0' *1)0,5%')+%' .*$8'/' 6$*)%,5' 8%)'4*/,08'*&')+%' 4*52' '0,8,/'$'/418*0%' +'0'/0*' 4%%+' &*1.5',.' '' ('0%'.*)' *&' *0)%*; 8'/'(,'' 41)' *&' -/2(*01$,'' A *3%$0R' .')+%' ('0%' *&' '/' '40(%00%0' 3+%)+%$' '(1)%' *$' (+$*.,(',..'%..,62%8''' .5'61$1/%.)'6%$,)*.,),0' '/418*0%0' A*$' 6%6)*.%0R' '$%' &*1.5',.')+%' $,.%' %$%)+%' %B6/'.'),*.',' ,0' 0,86/%' 0,.(%')+%' 610'(*.)',.0'/418*0%0''.5')+%0%' '$%' 0,86/2' %B($%)%5' 42')+%' 8,.%''&)%$' '4; 0*$6),*.',..)*')+%' 4/**5' .')+%' ('0%' *&' '40(%00%0''.5'*&*0)%* 8'/'(,'')+%$%' '$%'(*/; /%(),*.0'*&'(%//0'3+,(+'1.5%$-*'5,0,.)%-$'),*.H)+%' 6$*)%,50')+%' (%//0'(*.)',.' A(*.0,0),..-' '/8*0)' 0*/%/2' *&' (*'-1/'4/%' '/418,.' '.5' -/*41/,.R 4%(*8,.-' 6')$)/2')$'.0&*$8%5',.)*' '/418*0%0' b +%)+%$')+,0')$'.0&*$8'),*.')'9%0'6/'(%'42')+%''-%.(2'*&4'()%$,''6$%0%.)'0%)'&$%%'42' ,.')+%'610'*$*&''5,-%0)3%'&%$8%.)'0%)'&$%%'42')+%'52,..-'(%//',0'.*)'')'6$%0%.)'9.*3.'A $,0' 5,0,.)%-$'),*.''.5'-$'51'/5%')+' *&'%B15%5' (%//0' ,)+')+%'&*$8'),*.'*&''/418*0%0'6$*; 4'4/2'%B6/',.0')+%'*((1$$%.(%'&'/48.*01$,'' .5'6%6)*.1$,'',.'6+)+,0,0',.'6.%18*.,'',. %6,5%8,(' (%$%4$*06,.'/8%.,.-,),0',.' ('0%0' *&'(.(%$' .5'*)+%$' 8'/,-.'.)'-$*3)+0',.')+%'61%$6%$'/0)'%',.')26+*,5'&%7%$' .5',. *$-'.,(*+7%$5,0%'0%' .'6+*06+*$10 6*,0*.; ,.-')+%$%' ,0' '/0*' -$%')' 5,0,.)%-$'),*.' *& 8'.2'),001%0' .5'*$-'.0' .5' '/418*01$,'' A6%6)*.8,'R' *((1$0H,.'0(1$72' .5' 1)%,.; &%(),*10' 5,0%'0%0' A%06%(,'//2' 8%'0/%0R' /0*',)' ,0'0*8%),8%0'6$%0%.)

.%&*$8 *&6%6)*.+$,'' +'0'4%%.' '0($,4%5')*' '.' *$,-,.',.')+%' 9,5.%2 (% 0',.' ('0%0' *& (+$*.,(' .%6+$,),0' 3+%$%' 0*8%' *&')+%' %*' '-1/'4/%' '/418,.'3+,(+',0'4%,.-' (*.),.1'//2' %B%$%)%5',0' (+'.-%5',.)*' '/418*0%' *$6%6;)*.%' %6)*.1$,'' 8'2',.5%%5''/)%$.')%'3,)+' '/41.$,.1$,'',.')+%0%'('0%0''.5'6%6)*.%'8'2' 4%6$%0%.)' 0'3%/' '0' '/418,.' %6)*.1$,'' 3,)+' '/418,.1$,'',0'.*)' 1.(*88*.',.' '5; 7'.(%5'(+$*.,(6+),+,0,0

/418*0%' .5'6%6)*.%' '$%' '/0*' &*1.5',.')+%'1$,.%',.' 8'.2'*)+%$' (*.5,),*.0',.'3+,(+' .*' %B6/'.')',*.'*&',+$'6$%0%.(%',0'%7,5%.)H 01(+' '0',.' 8'.2' &*$80' *&',.&/'88')*$2' %$16),*.0'*&')+%'09,.',.'6%86+,-10',.'$1),' ('$,''.5',.'.%$7*10'5,0%'0%0G (%$%4$'/+%8,; 6/%-,''*$'602(+*0%0

2 2 0G $*8')+%''((*1.)'-,7%.'*&)+% 6')+*/*-2'*&'/418*01$,'''.5'6%6)*.1$,'',)' 3,/'4%0%%.')+')')+%2''$%'*./2')*'4%'$%-'$5%5' '0'0286)*8'),(''*&'*)+%$'-$'7%$'6')+*/*-,('/ (*.5,),*.0H '.5'.*' 028=80'('.'4%'7%$2' 5,$%()/2''0($,4%5')*')+%'6$%0%.(%'*&'/418*0%0' .5'6%6)*.%0'/'4*52'0' '00*(,')%5'3,)+')+%' 5,0%'0%0' 3+,(+'+'7%'4%%.''/$%'52'%.1; 8%$')%5' 1)')+%$%''$%'(%$)',.'6+20,*/*-,('/ %&&%()0'*&')+%0%'6$*)%,50'3+,(+''$%',86*$)'.)')*'$%(*//%()' +%.',.>%()%5',.)*')+%'(,$(1/';),*.'*&''5*-''/418*0%0'A'.5'6%6)*.%0')*' '

/%00'%B)%.)R'8'$9%5/2'$%51(%')+%'4/**5' 6$%001$%''.5'6$*51(%'(*8''.5'5%')+'3+,/%')+%'4/**5''$%8',.0'1.(*'-1/')%5'&*$''/*.-'),8%''&)%$'5%')+' +%0%'%&&%()0''$%'.*)' .%(%00'$,/2''00*(,')%5'3,)+''*$')+$%')%.%5'42')+%'6$%0%.(%'*&'/418*01$,'',.'8'.H6*00,4/2' 4%('10%')+%''8*1.)'*&'/418*0%'6$%0%.)',.')+%'4/**5')'*.%),8%',0'.%7%$'0)^(,%.)')*' 6$*51(%')+%8' .5'3+%.'01(+''66%'$'.(%0' '0'(*8''.5'1.(*'-1/')%5'4/**5''&)%$'5%')+' '$%'*40%$7%5',.')+%' 5,0%'0%0''/$%'52'%.1; 8%$')%5')+%2''$%'0($,4%5'%,)+%$'')*')+%' $%01/)'*&')+%'-$'7%/%0,*.'*.')+%'4*52'-%.%; $'//2'$)+%'4$',.',.'6'$),(1/'$'*$')*')+%' $%))8%5'(+%8,('/6$*51()0'*&')+%'3'0)%'*& 8*$4,5'),001%0'')'8'2'4%')+')'/418*0%0' '.5'6%6)*.%0'&*$8'*.%'-$*16'*&')+%0%'3'0)%' 6$*51()0''',5,.-')+%'6$*51(),*.'*&'(*8''.5' *&'6*0)8*$)%8'&/1,5,)2'*&')+%'4/* 5

.*)+%$'6+20,*/*-,('/%&&%()'*&'/418*0%0' ,0')+')'*&'6$*51(,.-'&%7%$'3+%.',.>%()%5',,,)*')+%'(,$(75')*$2'020)%8' +%'&%7%$',0')*'0*8%' %B)%.)'6$*6*$),*.'/)*')+%'5*0%''.5',0'6$*; 51(%5'%7%.'3+%.')+%'5*0%',0',.01&,,(,%.)')*' ('10%'(*8''.5'&%/'*&'4/**5 6$%001$%''.5',. ',8'/0'A01(+'0'$'44,)0R'3+*0%'(,$(1/'),*.' .5'(%$%4$18'$%'.*)'&&%()%5'42')+%'6*,0*.' b +%)+%$')+%'&%7%$'*&'(+$*.,(6+)80,0',0' 6')/2'51%')*')+%'40*$6),*.'*&'8%0%''/41; 8*0%0',0'.*)'2%)'0%))/%5H')+,0',0'0,86/2'' 01--%0),*.'4'0%5'*.')+%'&'()0'"'

((*$5,.-')*'$1'6$%0%.)'9.*3/%5-%',) 8'2'4%'0','5')+')'+)+%'(/,.(%'&,('.(%' *&''/',=%'8*1.)'*&'6%6)*.%'$'/418*0%' ,.')+%'1$,.%',0'.'%B)%.0,7%'(%//'A'.5'6$*;)%,5R'5,0,.)%-$'),*.',.')+%'4*52HK',.'8'.2' ('0%0',.5,('),..'610&*$8'),*.

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,.,((*+*/H'6,$,)'*&' ,.%' A = = R

/(*+*/',0')+%'6$*51()'*&''6$*(%00'*&&%$8%.;)'),*.',.51(%5'42')+%''().*.'*&''8,($*0(*6,(' &1.-10' '6*.'(%$)',.'9,.50'*&01-'$' %06%(,=2'-$'6%01-'$'41)'/0*'16*.')+')' 5%$,7%5'&$*8'8%5,&&%$%.)'7'$,%),%0'*&0)'$(+' .5',.')+%'0'8%'8'..%$'16*.'8,/901-'$' .')+,0'6$*(%00''6%(1/,'$'8%)'8*$6+*0,0')'9%0'6/'(%'42'3+,(+''/(*+*/'.5'('$4*.,(' (,5''$%'6$*51(%5',.'(*.0,5%$'4/%''8*1.)' *-%)+%$'3,)+'7%$2'8,.1)%'E1'.),),%0'*& 01((,.,(''(,5'-/2(%$,.%''.5')+%$'4*5,%0

/(*+*/'8'2''/0*'+%'6$*51(%5'02.)+%),; ('//2'&$*8',)0'%/%8%.)0G('$4*.'+25$*-%&,' '.5'*B2-%.

0'/(*+*/',0'7%$2'7*/'),/%'4*,/,.-')'M@g' '+'AM?g'R',)'8'2'4%0%6$')%5'42'5,0),/; /'),*.'&$*8')+%'3')%$'3,)+'3+,(+',)'/'0')'&,$0)' (*84,.%5')+%$8%'.0'810)'4%$%0*$)%5')*' ++*3%7%$',.'*$5%$')*'0%6$')%'+%'1/),8')%' 6')0'*&')+,0'3')%$''0''0)$*.-'))$'(),*.' %B,0)0'4%)3%%.')+%')3*'/,E1,50

/(*+*/'5,/1)%5'3,)+''4*1)'U'6%$(%.)'*&' 3')%$''.5'014>%()%5')*')+%''(),*.'*&''.*)+%$' 8,($*0(*6,(' &1.-10',0'*B,5,0%5',.)*'/5%+25%' '.5''(%),(''(,5

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' ((, 66/,%5')*')+%' 8*5%$')%' .*)')*' ('10%' ,.)*B,(*),*. ' '()' &*$
09,//' '/(*+*/ 6$*51(%0' '' 0.0'),*.' *&' (**/;)+%' 8 *0)' 6'$)',.')+%' 0' 8 %' 3 '2 41)'' '0' .'
.%00'51%')*' ,)0' $'6,5'%7'6*$'),*.Ḥ41)', &')+%' '55,),*. '/ %&&%()')+%2' 6$*51(%' '' 5,0), .()' 5%;
'66+(*),*.' 4%' (*.),.1%5' 01&&,(,%.)/2' /*. -' ($%'0%' *&')%86%$')1$%' ,.')+%' 4/**5' /'0),.-'
"' ,0' %B(,)%5' +%'/')')%$' %&&%()' %.01%0' + '/& '. +*1$ *$' 8 *$%' 0' &'$ '0')+%' 8 '))%$'
,8 8 %5,')%/2' ,&' '/(*+*' ,0' 4$*1-+)' ,.)*' (*.; + '0' +,)+%$)*' 4%%.' %B6/',.%5')+,0' /'))%$' %&&%()'
)'()' 3,)+' '' 8 1(*10' 8 %8 4$'.%')0' 0)0$*.-' 5%6%.50' 16*.' '' 5,$%()/2' 5%6$%00,.-',.&/1%.(%
'))$'(),*.' &*$' 3')%$' 0%%8 0')*' 4%')+%' (+,%&' B%$)%5'42'/(*+*'/16*.')+%'3*$9,.-'(%//0'*&)+%
('10%' *&')+,0' '(),*. 4*52' '.5'16*.' '')%86*$'$2'6'$'/20,0' *&')+%
/(*+*/ ,0' '' 6*3%$&1/ " ' 6$*4'4/2' 7'0* 8*)*$'.%$7%0' +%'/'))%$',0' &*//*3%5'*&
&$*8')+%' &')()')+')' ,)' ,0' ('6'4/%' %7%.' 3+%.' (*1$0%'42'5,/')'),*.'*&')+%'016%$&,(,'/7%00%/0'
5,/1)%5' *&' 6$%7%.),.-')+%' 5%7%/*68$.%')*' 5%.'.'(*&,0%E1%.(%
6),('-%$80'01(+' '0' 7,4$,*0' '.5'4')()%$,'' '0' *&' 6'$'/20,.-')+%' '(),7,)2' *&')+*0%'
3%/' '0' *&' 6'$'/20,.-')+%' '(),*. '/$%'52'&*$8%5 T " ' '.5' 0/,-+)/2' 5,/1)%5' 3,)+' 3')%$'
+%$%',0' 0('$(%/2' '.2' *)+%$')+%$'6%1),('/(*+*/ 6$*8*%0')+%' &1.(),*.'/' '(),7,)2' *&'
'-%.)')+%' " " '' *&'3+,(+' 7'$,%0'0*')+%)*0)*8'(+')+%'+%'$)'' .5')+%'4$',.Ḥ3+,/0)'
81(+''((*$5,..-')*')+%'5*0%'-,7%.' .' ' '/,8,)%5',.&/1%.(%'16*.')+%0%'*$-'.0',&'+*3;
T " ' '.5' 0/,-+)/2' 5,/1)%5' 3,)+' 3')%$' %7%$')+%' 5*0%' *&' '/(*+*/ 4%' *&)%.' $%6%')%5'
'/(*+*/ 6$*8*%0')+%' &1.(),*.'/' '(),7,)2' *&' ,)' $%'5,/2' '00,8,/')%5' '.5' 4%(*8,..'
)+%)*0)*8'(+')+%'+%'$)'' .5')+%'4$',.Ḥ3+,/0)' 5,&&10%5')+$*1-+*1)')+%' 020)%8' 1.5%$-*%0'
'' /,9%'E1'.),)2' /'$-%/2' 5,/1)%5' %B%$)0' 41)' ''
(*8410),*.' ('$$,%5' '42')+%' (%//0' 4%,,='
,8,)%5',.&/1%.(%'16*.')+%0%'*$-'.0',&'+*3;
%7%$')+%' 5*0%' *&' '/(*+*/ 4%' *&)%.' $%6%')%5'
$%'5,/2' '00,8,/')%5' '.5' 4%(*8,..'
5,&&10%5')+$*1-+*1)')+%' 020)%8' 1.5%$-*%0'
(*8410),*.' 3,)+,.')+%',001%0' *&')+%' 4*52'
,86'$)0' 3'$8)+')*')+%8' '.5' 2,%/50' 7,)'/
&*$(%' &*$')+%' 6%$&*$8'.(%' *&')+%,$' 7'$,*10'
&1.(),*.0' ,81/)'.%*10/2' 3,)+')+,0' (*.;
0186),*.'*&'/(*+*/')+%'4*52'*&')+%'(*.0188%$'
,0' *&)%.' *40%$7%5')*' -',.' ,' &')G'(,$(18;
0)'.(%' 51%')*' 0,86/%' ((181/'),*.')+%' &')'
&1$.,0+%5' 42')+%' &**5' $%8','.,.-' ..41$.%5'
,.')+%'),001%0'4%('10%')+%' 8*$%' (*8410),4/%'
'/(*+*/ &1$.,0+%0')+%' 3'$8)+'$%E1,$%5'/%'2=
,.-'.*'.%(%00,)2' &*$')+%'5,6*0%+25$*('$4*.'
)*' 4%10%5'&*$')+')' 61$6*0%' ' E1'.),)2' *&'
!!' (14,(%.),8%)$%0' *&' '/(*+*/ ' '
A'4*1)')+$%%' '.5' '+'/&'&/1,5' *1.(%0RG%E1,;
7'/%.)')*' '4*1)' *.%' /,)$%' *&' +,.%' 3,.%'
8%5,18' 0)$%.-)+G,0' 01&&,(,%.)')*' 0166/2'
4%)3%%.'*.%)+,$5' '.5'*.%E1'$)%$')+%'3+*/%'
'8*1.)'*&'3'$8)+'$%E1,0,)%'&*$')+%'+18'.'
4*52'51$,.-')+%')3%.)2&*1$'+*1$0' +%'
3'$8)+'0*' 0166/,%5'('..*)'4%8%'01$%5'42'
'')+%$8*8%)%$'+*3%7%$'.2'8*$%')+'.'('.'
)+')'&1$.,0+%5'42')+%',.)%$.'/'(*8410),*.'*&'
)+%$'+25$('$4*.0'01(+''0')+%'*,/0'.'5'
01-'$0' +%'014>%(),7%',86$%00,*.'*&',.;
($%'0%5'3'$8)+'101'//2'%B6%$,%.(%5''&)%$'
)'9,.-''/(*+*/,0'3%/'9.*3.''.5'+'0'*&)%.'
4%%.'%B6$%00%5',.'&,-1$%0' %(%.)'%B6%$,;
8%.)0'+'7%''/0*')'4/,0+%5')+,0'&')(')'3,)+'
$%-'$5')*')+%'$%06,$'),*.' +%'E1'.),)2'*&'
)+%',.+'/%5''.5'%B+'/%5''.$',.'+%'/)+2'8%.'
3'0',.(%'0%5'42'M')*'P'6%$'(%.)Ḥ,.'*.%'
,.0)'.(%''&)%$')'9,.-'(+'86'-.%'42' F'6%$'
(%.)
' ' ' '0),//'01&&,(,%.)/2

8*5%$')%'.*)')*' ('10%',.)*B,(*),*.' '()'&*$
)+%'8*0)'6'$)',.'+%'0'8%'3'2Ḥ41)''0'.'
'55,),*.'/'%&&%()')+%2'6$*51(%''5,0),.()'5%;
($%'0%'*&')%86%$')1$%' ,.')+%'4/**5'/'0),.-'
+'/& '. +*1$*$'8*$%' 0'&'$ '0')+%' 8'))%$'
+'0'+,)+%$)*'4%%.'%B6/',.%5')+,0'/')%$'%&&%()'
5%6%.50'16*.''' 5,$%()/2'5%6$%00,.-',.&/1%.(%
%B%$)%5'42'/(*+*/16*.')+%'3*$9,.-'(%//0'*&)+%
4*52' '.5'16*.''')%86*$'$2'6'$'/20,0'*&)+%
7'0* 8*)*$'.%$7%0' +%'/'))%$',0'&*//*3%5'*&
(*1$0%'42'5,/')'),*.'*&')+%'016%$&,(,'/7%00%/0'
6'$),(1/'$/2')+*0%'*&')+%'+%'5',.'(*&,0%E1%.(%
&'3+,(+''/'$-%$'01$&'(%'&'4/**5',0'%B6*0%5'
'.5')+%'/*00'*&'+%')'42'$'5,'),*.',.')+%
',$',0',.($%'0%5')+%'%86%$')1$%'*&')+%'(,$;
(1/'),.-'&/1,5'4%,.-')+10'/*3%$%5Ḥ3+,/0')+%
(*8410),*.'('$$,%5' '42')+%' (%//0'4%,,='
$%)'$5%5')+%'-%.%$'),*.'*'&'4%(*8*)+,0'
0*1$(%',0'5,8,.,0+%5' +%'E1'.),)2'*&'()1'
4*.,(''(,5'%/,8,.')%5',0')+10'5,8,.,0+%5''0'
,0''/0*')+%''8*1.)'*&'1$%''%B($%)%5' &)%$
)+%' *$-'.,08' +'0' 4%(*8*)0'.1$%5')*' +%'
'(),*.'*&'/(*+*/')+%0%'%&&%()0'16*.')+%)%8;
6%$')1$%'*&')+%'4/**5''$%'/%00'5,0),.()/2'*$
8'0*8%'('0%0'.*)''//'8'$9%5
+%''-$%%'4/%'%B(,)%8%.)''),&,$0)'('10%5'
42'01(+'5*0%0'*&'/(*+*/,0'01((%%5%5'42''$%;
'(),*.'*+'>'()%$,0%5'42'/'00,)15%'.5'5$*30,;
.%00')+%/'))%$'(*.5,),*.'101''//2'/'0),.-'/*.-%$
)+''+%6$%7,*10'*.%'*&'%B+,/'$'),*.
+%02 8 6)*8 0'*&',.)*B,(''),*.'6$*51(%5'42'
0 '5*0%0'*&'/(*+*/'$%'01&&,(,%.)/2' %//
9.*3.' +%.')+%' '4.*$8'/'(*.5),*.'*&'
%B(,)%8%.)',.')+%'4$',.' ,51(%5'42')+,0'
0),81/'.)'+'0'4%%.'9%6)'6'/8*0)'3,)+*1)'
,.)%$8,00,*.'&*$''/%.-)+'*&'),8%Ḥ*$'3+%.'
,)',0'0155%./2'3,)+5$'3.\'&)%$')+%'*$-'.'+'0'
4%%.'/*.-'014>%()%5')*',)Ḥ')+%'5,0)1$4'.(%
4$*1-+)'*4*1)',0'0*'-$%')'.'5'6%$0,0)%.)'('0')*
$%01/',.''(*86/%)%'*7%$)+$*3'*&')+%'$%'0*.;
,.-'&'(1/),%0''.5')+%'(*.5,),*.'9.*3.''0'
"'%.01%0')')+%'0'8%),8%
)+')')+,0'6%$.,(,*10',.&/1%.(%',0'4%,.-'%B%$)%5'
16*.')+%'(%//0'*&')+%'4$',.'&')))2''((181/';
),*.0'8'2')'9%'6/'(%'.'*)+%$'*$-'.0'6'$;
),(1/'$/2',.')+%'/,7%$'+%')$)''.5'(*..%(),7%
),001%0Ḥ)+%'4/**5 7%00%/0'4%(*8%'5,0%'0%5Ḥ
'.5',.'8'.2',.0)'.(%0'(,$$+*0,0'*&')+%'/,7%$'
9,5.%20''.5'8%.,.-%0'8'9%0',)0''66%'$'.(%'
'0'6'$)'*&')+%'-%.%$'/5,0*$5%$'*&'.1)$,),*.'
+%0+$,.9,.-'*&'(*..%(),7%'),001%'(+'$'()%$;
,0),(''*&')+,0'/'0)8%.),*.'%5'(*86+(''),*.'
0%%8 0')*'5%6%.5'16*.')+%'5,$%()'&$$,)'),*.'
('10%5'42')+%'6$%0%.(%'*&'1.*B,5,0%5''/(*+*/
.5%$'*$5,.'$2'(,$(180)'.(%0''.5''&)%$
)+%'(*.0186),*.''*&'8*5%$')%'E1'.),),%0'*&
'/(*+*/''*./2'0/,-+)'$'(%0'*&',)'$%')*')+%'
5%)%(%)%5',.')+%'1$,.%''.5'0),/'/%00',.')+%
4$%')+'.5'6%$06,$'),*.' '/*.-'0%$,%0'*&
%B6%$,8%.)0'8'5%'42')+%'3$,)%$<0'00,0)'.)'
$'*5/'%.5%$'*.'+%'/)+2'8%.''.5'..8'/0'
6$*7%5')+')'/)*-%)+%$')')+%'8*0)'Z6%$(%.)'
$%'66%'$0' +%'&)%(%0'5*'.*)'(*.)',.''.2
'/(*+*/')'//' 0'$%-'$50')+%'4$%')+'61$%
'/(*+*/,86'$)0'.*')',.)')*')+%'%B+'/'),*.0
*&')+%'4*52Ḥ)+%')+%$0''.5'&10%/*,/'*.')+%

)+%$' +'.5' 5' ' $%'0*.' *&')+%,$' 4%,. -' /%00' $%'5,/2' (*8410),4/%' ' ,0' 7%$2' /,9%/2')+'}' '/(*+*/' ^' *86/%)%/2' *B,5,0%5' ,.)*.' ('$; 4*.,(' '(,5' '.5' 3')%,' 51$,. -')+%' 6$*(%00' *&' '00,8,/'),*.Hª ' /%'0)' .*' *)+%$' 0%(*.5'$2' 6$*51()0' $%01/),. -' &$*8' 5)0' 5,0,.)%-$'),*.' +'7%' '0'2%)'4%%.'5%)%()%5

1(+' ,86*$)'.(%' ,0' 0*8%),8%0' 0),/ª ');')'(+%5')*')+%' %B6%$,8%.)0' *&' '//%8'.5' %$$,.' '.5' 3*2',.' 5,0(100,*.0' *.' '/(*+*/' +%2' '00%$)%5'>10)')+%' (*.)$'$2')*')+%' '4*7%' .0),%' '.5' 16$5' ,.' -/'.5'+'5' '/$%'52' 6$*7%5')+%,$' *.(/10,*.0')*'4%%$$*.%*10Hª)+%' .%3' %=%$,8%.)' 3+,(+' *5/'%.5%$' ('$$,%5' *1)' 3,)+' -$%')' 8,.1)%.%00' +'7%' $%8*7%5' %7%$2' 5*14)'*.')+%' 014>%()

$ 4 7$/9 ' 77/ ! +%$%'('.' 4%'.*' 5*14)')+')' '' +%'/)+2' *$-'.,08'016; 6/,%5'3,)+'01&&,(,%.)' &**5',0' ('6'4/%' *&' 6%$; &*$8,.-' ' ',)0' $%-1/'$' &1.(),*.0' 3,)+*1)' $%E1,$,.-'.2'06%(,,5/2' (*8410),4/%' 8')%$,'/ &*$')+%' -%.%$'&,*.'*&'+%')' '.5')+%' 5%7%/*6; 8%.)'*&'7,)'/' &*6(%' 1)')+%' ('0%' '0018%0' '' 5,&&%$%.)' '06%()' 3+%.' ..' 0,(9.%00'3+,/%')+%' 8%)' 8*,8+*0,0' *&'),001%' -*%0' *.' 3,)+',)0' 101'/' (),7,)2' *$' 3,)+',.($%'0%5' %.%$-2' '0' +'66%.0',.' 8'.2' 5,0%'0%0')+%' 0)*'8'(+' $%&,,08-')*' '((%6)' *$')*' 5,-%0)' *$5,.'$2' &**5' &',/0')*' 0166/2' 8')%$,'/')*' (*86%.0')%' &*$')+,0'3'0)%' %$%',)',0')+%.')+')' '' 8')%$,'/3+,(+' (' .' 4%' 8*0)' $%'5,/2' '00,8,/')%5'42')+%' 020)%8' '.5'3+,(+'42',)0' 016%$,*$' (*8410),4,/,)2' 06'$%0')+%' 0'(,/&/(%' *&'.,8'/'),001%',0'%06%(,'//2'('//%5'&*$H' .5' 01(+' '' 8')%$,'/3%'+'7%',.' '/(*+*/' /'$-%/2' # ' *&' '/(*+*/' /'$-%/2' 5,/1)%5'3,)+'3')%$''$%'-%.%$''//2'3%/')*/%$')%5' 42')+%' 3%'9%0)')*8'(+H' .5')+10' -,7%.')+%' '40*$6),*.'' .5'*B,5'),*.'*&')+%'06,$,)'-*%0' *.' 35,+*1)'5,&&,()5)2' *$' %&&*$)' *.')+%' 6'$)' *&')+%' 6')%.)0'0%8

((*$5,.-')*')+%'%B6%$,8%.)0*&' $' $'.9' /'.5' .5'*)+ $0')+%' 41$.,.-' *&' K '-$'88%' *&'/(*+*/2,%/50'01&&,(,%.)' +%')')*' $',0%')+%')%86%$')1$%'*&'0%7%.'/,)$%0'*&'3')%$'8g H' .5')+%' 41$.,.-' *&'8SH'-$'88%' *&' (*5/,7%$' *,/ 01&&,(%0'&*$'.,.%'/,)$%0' *3',.')'9,.-')+$%%')'4/%06**.&1/0' *&')+%' *,/' 5',/2' 3%' 2,%/5' '4*1)')+%' 0'8%' '8*1.)' *&' 3'$8)+')*')+%' 4*52' '0',0' -,7%.' 42' &*1$')'4/%06**.&1/0' *&' '40*/1)%' '/%**/NG}+%' E1'.),)2' *.)',1%5',.' '' 4*))/%' %&' /,-+)' (/'B%)' *$' +*(9' +%' *,/' +*3%7%$',0' 5,-%0)%5' '.5' *B,5,0%5' 42')+%' *$-'.0'6&')+%' 4*52' 3,)+' 5,&&,(1/)2'3+,/%'&*$')+%' '00,8,/'),*''*&')+%' '/(*+*/'0('$(%/2' '.2' %B%$),*.' *&')+%' 3*$9,.-' (%//0',0' $%E1,$%5' +10',)' (' .'4%5%8*.0)$')%5H42'('/(1/'),*.' '0' '4*7%' 8%.),*.%5')+')' +%') 6$*51(,.-' 8')%$,'/' 01&&,(,%.)')*' 0166/2' .%'$/2' *.%')+,$5')+%' 3+*/%' '8*,8)'*&' 3'$8)+' $%E1,$%5' 42')+%' 4*52' 3,)+,.')3%.)2 &*1$' +*1$0' ,0' *&&%$%5',' '' E1'.),)2'*&' 8HH'-$'88%0'A'4*1)')+$%% '15' +'/&'&/1,5'*1.(%0R'*&'/(*+*/' .')+,0' 0%.0%' '/(*+*/',0' '' H &*$' 3%' 810)' $%-'$5' '0'&**5'.*)' *./2')+%'41,/5,.-' 8')%$,'/' 41)' ' '0140)'.(%0' 3+,(+'42')+%,$'(*8410),*.

,.',)0'),001%0' '&&*$5' 3'$8)+')*')+%' '.,8'/ *$-'808' '.5' 42'±0*' 5*,.-' (*.)$,41)%')*3'$50')+%' 6$*51(),*.' *&' 7,)'/' &*$(%' '.5' 9%%6'16')+%' 6*3%$0' *&'%.51$'.(%' /(*+*/')+%$%&*$%'5,/1)%5'3,)+' ')'/%'0)'P!'6%$'(%.)'*&' 3')%$'A,.' '.2'(*.7%..%.)' &*$8'*&'4%7%$'-%R' 8'2'4%' -,7%.' 3,)+' '57'.)' -%',.' 08'/' 41)' *&) $%6%')%5'5*0%0',.' 8*0)' *&')+%' '(1)%' '.5' (+$*.,('5,0%'0%0'3+%$%',)',0'5%0,$%5')*' 010)',.')+%'0)$%.-)+' *&')+%'6')&*,,&' 41)'3+%$%' ')'+%' 0'8%'),8%')+%' 5,-%0),7%' *$-'.0' &$*8' '.2' ('10%'$%&10%')*')*/%$')%' ' 8*$%' 0140)'.),'/ &*$8'*&'.*1$,0+8%.)'')'/%'0)',.'AX1'.),),%0)+')' 3*1/5' '.03%=)+%'.%(%00,),%0'*&')+%' ('0%' .' 01(+'('0%0',)',0'(%$)',./2'.*)' 01&&,(,%.)')*' ('// '/(*+*/8%$%/2'' " ' &''/(*+*/0%$7%5' +%$%' *./2',.')+%' E1'/,)2'*&' '' 0),81'.)',)0' %&&%()' 3*1/5' 0**.' 6'00' '3'2' /%'7,.-')+%' 6'),%.)' 8*$%' %B+'10)%5')+'.' %7%$H' &*$')+%' +18'.' *$-'.,08',0'0*' (*.0),)1)%5')+')' ,)' ('..*)' 4%' 5$,7%.')*' 6%$&*$8',)0' &1.(),*.0' 42')+%' '66/,(')',*.' *&' 8%'01$%0')+'&'0,86/2' 0),81'/)%'3,)+*1)'01>,6/2,.-'0*8%.%3'&*$(%')*')'9%')+%' 6/'(%' *&'),3)' 61)' &*$&&,' 42')+%' *$-'.0' *&')+%' 4*52'1.5%$')+%' ,86)50%' *&' %B(,)%8%.,' *')'9%' '&'8,/,'$',//10)$'),*.' '/((&&,*/)+10'-,7%.'0),81'/)%0'.*' 8*$%')+' 5*%0')+%' 4 ' (*8410),4/%'(*'/'34,(4'3%' 61)',.'08'//E1'.),),%0' 6*. ''/'.-1,5'&,$%')*' 6$%7%.)',)0'-*,.-'%.),$%/2'*1)

%(%.)'%B6%$,8%.)0',.')+%'3$,)%$<0'/'4*$';)*$2'A %66%$)R'+'7%'(*.)$,41)%5')+%'&*//*3,.-'&'()0')*'8,0'6'$)'*&')+%'E1%0),*.' 3%.)2')*' MF' (14,(' (%.),8%)$%0' *&' '40*/1)%' '/(*+*/')'9%.',.'3')%$'*$,.')+%'&*$8'*&'6*$)'4$'.52'*$' 06'$9/,.-'+*' 9' 42'+%')+2' '51/)0'3+*' 3%$%''((10*8%5')*') L' .*' '/(*+*/*$' *./2'' 8*5%$')%' E1'.),)2'+'$5/2' '/)%$%5')+%' E1'.),)2'*&')+%' (*.018%=' *B2-%.'.' .5' /,9%; 3,0%'/%&)'1.'/)%$%5'*$' 7%$2'0/>-+)/2'5%(%'0%5')+%'%B($%),.'('.(,5 +%' 6$,.(,6'/'6*,.)',.')+,0'$%01/)',0')+%' 1.(+'.-%5'0)'.5'$5'*&')+%' (*.018 6),*.'*&' *B2-%.' %'9.*3')+')'+%' (*.01$.%5'/(*+*/ ,0'41$.)',.')+%'*$-'808''' 8,.1)%'E1'.),)2' %B(%6)%5' +%'/(*+*/3'0')+10'1.'4/%')*' ,.($%'0%'*B,5'),*.''0',)0' '57%$0'$,%0'+'7%' 0),/ª(*.),.1%5')*''00%$)Hª,)'+'5'.*)'(*.)$,41)%5')*''8*$%'$'6,5'3'0),.-'*&')+%'*$-'.,08Hª.*$ +'5',)'8'5%')+%' $%-1/'$' %E1 /8'$(+'*&')+,0' 3'0),.-',$$%-1/'$'.5'0/*3' .')+%'(*.)$'$2',)' +'5' 0140),)1)%5',)0%/&' 0,86/2' 'Z &1%/,.' *$5%$')*' 010)',.')+%'.*$8'/')%86%$')1$%'*&' /,&%')+%' %B,0)%.(%'*&' 3+,(+',0'.%(%00'$2')*' 9%%6')+%' 3+*/%'8'(+,.%',.'8*),*.' /(*+*/' '()0'+%$%'-%.%$'+2'06%'9,.-'&)0',&'3*'+'5' -,7%.')+%' 6%$0*.'%B6%$,8%.)%5'16*.'*,/' *$ 01-'$' '6')$'*&)+%5,=*''+/%'*B2-%.'3+,(+' 3*1/5'0%$7%'&*$'*B,5,0,.-'*)+%$'0140)'.(%0' 0%$7%0'&*$')+%'(*8410),*.'*&')+%'/(*+*/''.,/ 9%%60')+%8',.)'()'&*$')+%'*$-'.,08

' '*&' '/(*+*/'()'6*3%$&)5/2' 16*.')+%'4$',.''.5'+%')' '.5'$%')+%$%&*$% 0%$7,(%'4/%'0'$%'/0),81/'.)0',.'('0%0'3+%$% ,)',0'5%0,$'4/%')*'%B(,)%')+%'(%$%4$'/'.5'(,$(1; /')*$2'020)%80')*'-$%')%$''(),7,)2' %'810)

!

. *)' &*$-%)' +*3%7%$')+')' 3+,/%' %B(,),. -')+,0' ,. ($%' 0%5' '(),7,)2' 01(+' 5*0%0' 5*' . *)' %/%7')%')+%')%86%$')1$%' *&')+%' 4*52H * .')+%' (* .)$' $2' 3+%$%')+%' %&&%()' ('. ' 4% 8%' 01$%5',)' ,0' &*1 . 5')+')')+%2' 5%6$%00' ,)' '' /,))/%' 2' (* .), . 1,. -')*' %B+,4,)' 01(+' 5*0%0' 3%' ('. ' 0* 8 %), 8 %0' A, . ' %$20,6%/'0' 61%$6%$'/ 6%$,)* . ,),0' ' . 5' 0, 8 ,/'$' 5,0%' 0%0R' /*3%$ &%4$,/%'+%')' 42' '/(*+*/ 3+%$%' %7%. ' E1,. . %' 6$*7%0' , .%&&%()1'/' +%' (* . ; 0%E1%. (%0' *&')+,0' 5%(/, . %' *&' &%7%$ +%')' '$%' '. ', 8 8%5, ')%' $%0)*$'),*. ')*' (* .0(,*10 . %00', &' 5%/,$,18' *$')0 16*$' +'0' 4%%. '6$%0%.)H ' . 5',. ' . 2' (' 0%' '' -%. %$'/ , 86$*7%8%.)', . ')+%' &%%/; , . -0' *&')+%' 6'),%.)' *55' . 5' +,0' 0(+**/' 4%&*$%')+%' '66/,('),*. ' *&')+%')+%$8*8%)%$' ('//%5')+,0' # ' ' ' 3+,/%', . ' $%'/,)2')+%', 86$*7%8%.)', 0')*' '' -$%')' %B)%.)' 51%)*')+%' 5,8, . 1),*. ' *&' &%4$,/%' 5,0)1$4' . (%' 0' &%7%$' 6'),%.)0' (' . ')*/%$')%'/'$-%' E1' .),),%0' *&'/(*+*/ 3,)+*1)' 0+*3, . -' ' . 2' 0, - . '*&', .)*B,; ('),*. ' ,)' ,0' ''//*3'4/%' ' . 5' 0*8%),8%0' %7%. ' . %(%00'$2')*' $,0%', . ')+%' 0(' /%' *&' 5*0%0' 4%2*. 5')+%'/,8,)0' *5$, . '$,/2' 6$%0($,4%5 &'/')%'2%'$0' /(*+*/ +'0' 4%%. ' -,7%. ' 51$, . -')+%' . ,-+)')*' +%(),(' 6+)+,0,('/' 6'),%.)0' 0' '' 6$%7%.),7%' '-',. 0)' (*6,*10' . 5' %B+'10),. -' '))'(90' *&' 03%'),. -' ' . 5' 3,)+' '' -$'),&2,. -' '8*1.)' *&' 01((%00' 1(+' 6'),%.)0' (%$)',. /2')*/%$')%')+%' $%8%52' 81(+' 4%))%$')+' . ' +'0' +,)+%$)*' 4%%. ' -%. %$'//2' 0166*0%5')' . %%5' +'$5/2' 4%' 0',5')+')', . ' ('0%0' *&' ('$5,'(%B(,)%; 8%.)' . *)' $%01/), . -' &$*8' &%7%$' '/(*+*/ ,0' ')' /%'0)')*' 4% 10%5' 3,)+' '1,,*. ' . & $& ' ' . %' *&')+%' 8*0)',86*$)' .)'41)')')+%' 0' 8%), 8%' 8*0)' 5,&&,(1/)'6*, .)0' &*$' 5%(,0,*. ', 0')+%' %B' ()' . ';)1$%' ' . 5' E1' +)2' *&')+%' '/(*+*/(' 5$,. 9')*' 4% 6$%0($,4%5' *$' ''/*3%5')*' '' 6'),%.)' 3+*' 8 '2' $%E1,$%' '/(*+*/ , . ' 0*8%' &*$8' *$' 0 " ' ' ' 61$%' (/'$%)' +*(9'*$' *0%//%'3, . %' '$%')+%&*$8 0' *&' '/(*+*/8*0)')*' 4%' $%(*8 8%. 5%5' *-. '(' (+'86'-. %' */5' -, . '*$' 3+,092' . ' . 5')+%' +%'7,%$' *1)+%$. ' 3, . %0' 8' 2' '/0*' 4% 10%5' ((*$5, . -')*'(,$(180)'. (%0' 1)' 3+'); %7%$' 5$, . 9' 8' 2' 4%# 0%/%()%5',)' 8 10)' ')' /%'0)' 4%' &$%%' &$*8' &, , 0%/*, /')*' 01(+' . '%B)%.)')+')' '+%'/)+2' 8' . '%7%. ' '&)%$', 84,4, . -' ''(*. 0$%5; '4/%' E1' .),)2' 3, /' . *)' &%%/' ' . 2' *)+%$' %&&%()0')+' . ')+*0%' *&' '' 61$%0),8 1/10H)+')' ,0')*' 0'2' ' . ' -$%'4/%' %B+,/'$'),*. ' *&' 06,$,)0' . %,)+%$ W '((*86' . ,%5'42' ''0%. 0%' *&'3%,-+)', . ')+%'+%'5' . *$&*//*3%5'42')+')' 6%$0,0)%.)' *7%$&,//, . -' *&')+%' (%$%4$'/ 7%00%/0' ' . 5' 51/. %00' *&' ,5%'0 W (+'$')()%$,0),(' *&')+%' 6+20,*/*-,('/ %&&%()0' *&' &10%/ *,/ +%' ' A0*' ('//%5' &$*8')+%,$' *,/2' E1'/,),%0R' (*. 0,0)' (+,%&/2' *&'6$*62/'41)2/' ' . 5' '82/' '/(*+*/0' *&'3+,(+')+%' /'0) . '8%5'&*$80')+%'/'$-%)'6$*6*$),*. ' . ' *$5%$')*' %B' 8, . %' ' . 2' 06%(,8%. ' *&' '/(*+*/ 3,)+' $%&%$%. (%')*',)0' 61$,)2' &$*8')+%0%' *4>%(),*. ' 4/%' (*. 0),)1%.)0' ,)', 0' . 2' . %(%00'$2')*'$14' ''&%3'5$*60'4%)3%%. ')+%' 6'/80' *&')+%' + . 50' &*$+'/&' '8, . 1)%' 42' 3+,(+' $'6,5' %7'6*$'),*. ', 0' ('10%5' ' . 5')+%. ')*' 08%//')+%' 8*,0)' 06*)' /%&)' *. ' %,)+%$' 6'/8' &')+%' '/(*+*/ 4%' 61$%' . *' *5*1$' 3+')%7%$ 0+*1/5' $%8', . ' '0' %)+2/' '/(*+*/ %7'6*$')%0' 7%$2' E1,(9/2H ' 82/'/(*+*/' *. ')+%' (*.)$' $2' , ' ' 81(+' /%00' 7*/'), /%' ' . 5' ,&' 6$%0%.)', . ')+% /,E1,5' 3,/' . *)' +'7%' %7'6*$')%5'0*')+')' ,)0 6%(1/,'$' . 5'1. 8,0)'9'4/%' *5*1$3,/' $%8', . ')*' '))%0)',)0' 6$%0%. (%' '0' . ', 861$,)2', . ')+% 06%(,8%. '%B' 8, . %5 +,0')%0)' ,0' . *)' '66/,('4/%')*')+%' 8*$% (*86/,(')%5' /,E1%1$0' . 5' 3, . %0' '0')+%0%' '// (*.)', . ' (%$)' , . ' *5*$,&%$*10' *$-' . ,('6$, . (,6/%0' *&)+%,$' *3 . '3+,(+' 8, -+)'5,0-1,0%')+%'08%/'*&)+%' &10%/' *,/' +%', . *&%. 0,7%' E1'/,)2' *&' . 2' -,7%. ' 6$%6'$'),*. ' '0' '' 3, . %' *$' 06,$,)' (' . ' *. /2' 4%' $%/,%5' 16*. ' 3+%. ' *. %' 9. *30' 42' %B6%$,%. (%')+')' ,)' 61$%'H ' . 5')+%. ',)0+*1/5' '/3'20'4%'*4)', . %5', &'6*00,4/%' &$*8')+%' 0'8% 0*1$(%'0*' '0')*' %. 01$%' 1. ,&*$8'61$,)2 *' &'(,/,)')%')+%' 6$*(%00'*&' %0),8'), . -')+% E1' .),)2' *&' . 2' 6'$),(1/'$'4%7%$'-%' . %(%00'$2')*'4%' 58, . ,0)%$%5', . ' *$5%$')*' 6$*51(%''-,7%. ' %&&%()' ')' 4/%' ,0' 014>*, . %5' 0+*3, . -')+%' 6%$; (%.)' -%' &' 40*/1)%' /(*+*/(' .)', . %5', . '7%$; ' -%' 06%(,8%. 0' *&')+%' 5,&&%$%.)' 9, . 50' *&' 3, . %' 4%%$' ^(', . '(*88*. '10% & ' & # ' " / /" ' "G 18,00'A''&%$8%.)%5'/,E1*$'8'5%'&$*8'8,/9'*$39%2R' &$*8' ')*'7?*/'6%$'(%.)' %&,$',0')+%'0'8%'41)' 5%$,7%5'&$*8')+%'8,/9'*$'3+%2'*&')+%'(*3'3+,/0)' 918,00'(*8%0'&$*8')+%'8,/9'*$3+%2'*&')+%'8'$'' *)+'(*.)', . '81(+'('$4*. ,('(,5'3+,(+'$%.5%$0')+%8'%'0,/2'5, -%0),4/% ( ) * '+)', ' -)$*' ' $' . $'/)'# 0$# '$)'#) ' -)$*'1'$'22'. $'/)'# ! */3 , -)$*'2'$'21'. $'/)'# $4!)'5 '6/$) '!))"'*7)'8$ '-)$*' 22'$'2', $'/)'#) 7"' 7'!')$'3)' 94 4) '-)$*'1'$' '. $' /)'# *$' " ' ' *. %'3,/'. %%5')*' -,7%' . ' '51/)'5',/2' . *)' /%00')+' . ')+%' %E1,7' ; /%.)' *&' &,&)2' (14,(' (%.), 8)*%0' A'4*1)')3*' &/1,5' *1. (%0R' *&' *40*/1)%' '/(*+*/', . ' 5,7,5%5' 5*0%0' 3,)+, . ' . ' +*1$' *$')3*' '9, . -')+,0' '0' ''0)'$),. -6*, .)')+%' 5*0%' 01,)'4/%' &*$%'(+' , . 5,7,51'/'(' 0%' (' . '4%' %0),8')%5' '((*$5, . -/2 +%' -$%')' E1' .),)2' *&' ('$4*. ,(' ,(,5' (*. ;)', . %5', . '(%$)', . '0$*$/, . -'2 3, . %0' '()0' 16*. ')+%')%86%$')1$%' *&' '' &%7%$' 6'),%.)' 81(+' , . ')+%' 0' 8%' &'7*1$'4/%' 8' . .%$' '0')+%' '/(*+*/ ,)0%/&H ' . 5' 3+%. ' '/(*+*/ ,0')*' 4%')'9%. ' '0' '' &**5',)' 3*1/5' 0%%8')+')')+%', 86$%-. '), *. ' 3,)+' ('$4*. ,(' ,(,5'&' (,/,)')%0',)0' 40*$6), *. ')+')+' 0'4%%. '0')'%5')+10'&'$3,)+'$%-'$5')*')+%' 10%*&' '/(*+*/ , . ' 0,(9. %00' '66/,%0')*' (+,/5$%. ' '0' 3%/' '0')*' '51/)0'0 &'(*1$0%. *' $%'0*. '4/%' 6%$0*. ' 3*1/5' '((10)*8' +%'/)+2' (+,/5$%. ')*')+%' 10%*&' '/(*+*/,(' 4%7%$'-%0H 41)', . '('0%0'*&'5,0%'0%'$%'//2' -**5' . 5' 61$% 3, . %' *$' 4$' . 52' (' . ' 4%' '57' .)'-%*10/2' %86/*2%5'%7%. '&*$', . &' .)0'%,)+%$' 0' '' 7 " ' . ' " ' *$' "' / ' ' ' '((*$5, . -')*' (, $(180)' . ('0' *$' (" ' ' '/(*+*/ +'0' 4%%. ' 016%$ ⸢ . -/,0+'4%%$' 3,/' (*.)', . ' ''/,))/%' 8*$%'41)'+% 3$,)%$' +'0' 8'5%' . *' 6%$0*. '/' %B' 8, . '),*. ' '0')% %B'()/2'+*3'81(+

0%5%5' 42' 7'$,*10' 8*$%' 8*5%8' '-%.)0' *& 3+,(+' ('$4*/,(' .5' 0' ,*2/,(' '(,50' 8 '2' 4%' 8%.),*.%5' '0')+%' 8*0)' .)

0'$%-'$50')+%'(*6,*10'%B6%$,8%.)'/'/,)%$';)1$%'*.' '/(*+*/' .5',)0' 8%5,(,.'/6$*6%$),%0')+%' 3$,)%$' 3*1/5' $%&%$')*' 10' 8 0 "' # '6# - 0 ' %$/,.' ??D'66'"F ' K"P@' '.5')*' $*&%00*$'7' '(0(+0'.5' ,0*3.' 6'6%$0',.')+%' $'.0'(),*.0'*&')+%' *.-$%00&*$' .)%$.'/ %5,(,.%' ,%04'5%.' ???'66'M!' "" ' +%')3*'6'6%$0'+'7%'/0*'4%%.'$%6$,.)%5' ,.')+%'0'8%7*/18%' ! ' $1'A *..R

, ,/ ' 'G' '(7'

), 'G' '=' +,0')%$8',0''66/,%5')*')+%'5,7%$0%'6')+*/*-,('/ 6$*(%00%0' '.5' '))%.5'.)'0286)*80' ('.0%5' 42')+%'%B(%00,7%,.-%0),*.'*&'/(*+*/,('4%7%$; '-%0' +%0%' '$%'7%$2'5,&&%$%.)' '((*$5,.-'0' '/'$-%'E1'.),)2',0'(*.018%5''))'*.(%'*$'))' 0+*$)' ,.)%$7'/0'*$'08''//%$'E1'.),),%0' '$%')'9%.'+'4,)1'//2H+%.(%')+%2''$%0145,7,5%5' ,.)*')+*0%'51%)*' ' '.5'AFR' # " ' '/(*+*/,08' *')+%' &*$80'*&'/(*+*/,(' 6*,0*.,.-'4%/*.-' '(1)%' (')'$$+' *&')+%'/,; 8%.)'$2'81(*0'8%84$'.%'$'6,5'(*8' '0*8%'('0%0'*&'5%/,$,18')$%8%.0''.5'(%$)',. 06%(,'/'&*$80'*&'(1)%',.0'.,)2H3+,/0)'*')+%' # " '(/'00''$%'$%&%$%$%5')+%'6$*/*.-%5' (*.-%),*.0')+%'&'))2'.5'(*.%(),7%),001%' 5%-%.%$'),*.0'*&')+%'7'$,*10'*$-'.0'.5'),001%0'8*0)'('0%0'*&'5%/,$,18')$%8%.0'.%$; 7*10'&&%(),*.0'*&'0/*3'*.0%)'.5'(*1$0%'.5')+%'('(+%B,0%'3+,(+',.'7'$2,.-'(*84,.'),*.0' '))%.5''(*.),.1*10/2',88*5%$')%'(*.0186;),*.'*&'/(*+*/

.6 ! +')'*$5,.'$2'7,.,(' *$%)+2/' '/(*+*/',.'.2'.5'%7%$2'0+'6%',0''%&; &,(,%.)'%B(,),.-'('10%'*&'01(+' # " ''&&%(),*.0' ,0'4%2*.5''5*14)H8*$%*7%$'3%'&,.5')+')')+%'8*$%'(*.(%.)$')%5')+%'&*$8',.'3+,(+',)' ,0')'9%.')+%'8*$%'01$%/2'.5'$'6,5/2'$%')+%2',.51(%5''.5')+')''/)+*1-+'0*8%'4%7%$; '-%0'-,7%''-$%')%$'/,'4,/,)2')*' (%$)',.'&*$80' *&5,0%'0%')+'.')*'*)+%$0'2%)'+%'1/),8')%'),001%(+'.-%0'6$*51(%5'42''/'$%'6$'(),('//2' 0,8,/'$''.5'*&''8'$9%5/2'5%-%.%$'),7%(+'; $'(0)%$' +%'68%0)'/(*+*/,(' &/1,50'3, ''/0*' ,.51(%')+%' '&*$80H41)'0*8%'*&')+%' 6+%.*8%.''*40%$7%5',.')+%' 3*$0)'('0%0'*&' '/(*+*+(' 6*,0*.,.-'+'7%'4%%.'$%&%$%5'3,)+' 0*8%'6$*4'4,/,)2')*''58,B)1$%'3,)+'&,,0%/'*,/' %00%.),'/'*,/'*&'3*$83**5'%*%(1/10',.5,(10' '.5'*)+%$'0140)'.(%0'8*$%'5%/%)%$,*10'%7%.')+'.'*$5,.'$2''/(*+*/,)0%/&' ' D;'H '.5'

+%' "0' '*&''0155%.'5%; 4'1(+'01(+'0'&%0),7%'-')+%$,.-0'%B'86/%'*& (*86'.,*.0'5%0,$%'*&'$%/,%&'&().''.B,%)2'.'5' 8%/'.(+*/2'^'0('$(%/2'$%E1,$%'8%.),*.' (1)%'/(*+*%(*8''',0'-%.%$'//2'51%')*')+%' $'6,5'(*.0186),*.'*&''/'$-%'E1'.),)2'41)' *(('0,*.'//2',)'0'('10%5'42')'9,.-''08'//%$' E1'.),)2',.')+%'6$%0%.(%'*&'0*8%'06%(,'/ (*.5,),*.'01(+'0'0)'$7'),*.'6$*/*.-%5'%B; 6*01$%')*'(*/5''*$'5%4,/,)'),.-'5,0%'0% +$*.,('+'4),)1'/'5$,.9,.-',0'1.5*14)%5/2' # ',.'8082'('0%0H.*)')+')'+%''.; (%0)*$0'+'7%'.%(%00'$,/2'4%%.'5$1.9'$50'41)')+')'+%'&'8,/2',0'*&'1.0)'4/%'.%$7*10'*$; -'.,0'),*.''.5')+')')+%'.%1$*),(')',.)'3+,(+' 0+*30',)0%/&',.'0*8%'8%84%$0',.'01(+''&&%(;),*.0''0'%6,/%602'+20)%$,''',.0'.,)2=',0' 8',&%0)%5',.')*)+%$0'42''.',.)%.0%'($'7,.-' &*$'/(*+*/'*8%),8%0''6%$.,(,*10'%51(';),*.'42'&*0)%$,..-'+'4,)0'*&',.51/-.(%',.'%'$/2' 2*1)+'+'0'/%5')*'0140%E1%.)'%B(%00H''.5')+% 6$%0($,4,.-'*&'),81/'.)0'+'0'*((('0,*.'//2' 4%%.'6$*51(),7%'&0,8,/'$'+'$8'.')+%' %B6%$,%.(%'*&')+%'3$,)%$')+%'%B+,4,),*.'*& /'$-%'5*0%0',.'&%7%$0'.'5''(1)%'&&%().*.0'+'0' .%7%$'5*.%)+,0G,.5%%5',.'0%7%$'/',.0)'.(%0' '-$%')'5,0/,9%')*'0),81/'.)0'+'0'4%%.'6$*; 51(%5H41)')+%' 10)*8'*&'$%(*88%.5,.-' 08'/'E1'.),),%0')*'2*,8-'6%*6/%'.'5'38%.' '0' '$%8%52',.'+26*(+*.5$,'0,0' .%1$'/-,''.5'//,%5'5,0*$5%$0'*$')*'$%/,%7% 5%4,/,)2' 2 '*$')+%'&,),-1%0',.(,5%.)')*')+%,$'5',/2',&%'('..*)4%')**'0)$*.-/2' 6$*)%)0)%5'-',.0)' +%'%&&%()'*&' ,0'7%$2'8'$9%5' $%3%$0'614/,('.0'6*)8%.' '.5')+%$0'3+*')$'5%',.'/(*+*/'$%''0''' (/'00'7%$2',.)%86%$')%H'.5'0*&,$%E1%.&/2' '$%'(*88%$(,'/)$'7%//%$0'*3,.-')*'6%(1; /,'$,),%0',.')+%,$'8*5%'*&')$'.0'(),.-'410,; .%00' %5%.)'$2'%86/*28%.)0'4%,.-'8*$% 8*.*)*.*10''$%'8*$%'4'.%&,/')+'.'*1); 5**$'*((16'),*.0' %(+'.,(0'5$,.9'8*$%' &,%%/2')+'.''-$,(1/)1$'/'/'4*1$%$0H3+,/0)' .,-+)/'4*1$%$0'('48%.'0',/6$0'3+%.'*' 0+*$%'4$%3%$0k5$'28%.'.'77,%0'6,)8%.' '.5'6155/%$0'(*.018%''.'%.*$8*10''8*1.)' *&'/(*+*+(' &/1,50' '" " '01(+' '0'5*8%0),('1.+'66,.%00'$')%'*&'3'-%0'.; +%'/)+2'53%//,.-0'4'5'5$,.9,.-'3')%$'*$'08' ,.)%$8,))%.)'0166/2''$%',86*$)'.)'&')*$0',.)+%'('10'),*.''*&'5$1.9%.%00' .5%$'0*8% (,$(180)'.(%0''/(*+*+(' %B(%00%0'5*'/%00' ,.>1$2')+'.'101'/'&*$'%B'86/%',.'6%$0*.0' 3+*0%'%86/*28%.)'/%'50')*'(*6.*10'03%'),.-' *$'.%(%00,)')%0'41.5'.)'%B%$(,0%',.''9%%.' ',$H'.5'0*8%(*.0),)1),*.0'$%0,0')+%'4'.%&1/ ,.&/1%.(%'*&'/(*+*/')*'''$%8'$9'4/%'%B)%.) # G:'/'$-%'8*1.)'*&'$5%.)' 06,$,)0'()0'*.')+%'.%$7%(%.)$%0'0''.'$(*),(' 6*,0*.''.5'('10%0'$'6,5'5%')+'42'(*8'' 8'%$'E1'.),),%0'6$*51(%',.)*B,(''),*.''('(*86'.,%5'3,)+'*$&*//*3%5'42''.')(1)%'*.' -%0),*.''.5'(')'$$+'*&')+%''/,8%.)'$2'('./ %06%(,'//2'*&')+%'0)*8'(+'.5'51*5%.18' '4,)1'/'5$'85$,.9,.-'42'/)%$,.-')+%' (+%8,('/(*86*0,)*.'*&')+%'4/**5''.5' (+%(9,.-')+%'.*$8'/'(+'.-%0'*&',)0'(*$610(/%0' %B%$)0''.',.>1$,*10',.&/1%.(%*.')+%'.1$,),*.' *&')+%')0012'+,0'.)%$7%0''.5'&)%$3'$50'8',.;)',.%5'42'5%-%.%$'),*.'*&')+%,$'(*)0''.5'&,$%

(*.5,),*.'01(+'0'0)'$7'),*.'6$*/*.-%5'%B; 6*01$%')*'(*/5''*$'5%4,/,)'),.-'5,0%'0% +$*.,('+'4),)1'/'5$,.9,.-',0'1.5*14)%5/2' # ',.'8082'('0%0H.*)')+')'+%''.; (%0)*$0'+'7%'.%(%00'$,/2'4%%.'5$1.9'$50'41)')+')'+%'&'8,/2',0'*&'1.0)'4/%'.%$7*10'*$; -'.,0'),*.''.5')+')')+%'.%1$*),(')',.)'3+,(+' 0+*30',)0%/&',.'0*8%'8%84%$0',.'01(+''&&%(;),*.0''0'%6,/%602'+20)%$,''',.0'.,)2=',0' 8',&%0)%5',.')*)+%$0'42''.',.)%.0%'($'7,.-' &*$'/(*+*/'*8%),8%0''6%$.,(,*10'%51(';),*.'42'&*0)%$,..-'+'4,)0'*&',.51/-.(%',.'%'$/2' 2*1)+'+'0'/%5')*'0140%E1%.)'%B(%00H''.5')+% 6$%0($,4,.-'*&'),81/'.)0'+'0'*((('0,*.'//2' 4%%.'6$*51(),7%'&0,8,/'$'+'$8'.')+%' %B6%$,%.(%'*&')+%'3$,)%$')+%'%B+,4,),*.'*& /'$-%'5*0%0',.'&%7%$0'.'5''(1)%'&&%().*.0'+'0' .%7%$'5*.%)+,0G,.5%%5',.'0%7%$'/',.0)'.(%0' '-$%')'5,0/,9%')*'0),81/'.)0'+'0'4%%.'6$*; 51(%5H41)')+%' 10)*8'*&'$%(*88%.5,.-' 08'/'E1'.),),%0')*'2*,8-'6%*6/%'.'5'38%.' '0' '$%8%52',.'+26*(+*.5$,'0,0' .%1$'/-,''.5'//,%5'5,0*$5%$0'*$')*'$%/,%7% 5%4,/,)2' 2 '*$')+%'&,),-1%0',.(,5%.)')*')+%,$'5',/2',&%'('..*)4%')**'0)$*.-/2' 6$*)%)0)%5'-',.0)' +%'%&&%()'*&' ,0'7%$2'8'$9%5' $%3%$0'614/,('.0'6*)8%.' '.5')+%$0'3+*')$'5%',.'/(*+*/'$%''0''' (/'00'7%$2',.)%86%$')%H'.5'0*&,$%E1%.&/2' '$%'(*88%$(,'/)$'7%//%$0'*3,.-')*'6%(1; /,'$,),%0',.')+%,$'8*5%'*&')$'.0'(),.-'410,; .%00' %5%.)'$2'%86/*28%.)0'4%,.-'8*$% 8*.*)*.*10''$%'8*$%'4'.%&,/')+'.'*1); 5**$'*((16'),*.0' %(+'.,(0'5$,.9'8*$%' &,%%/2')+'.''-$,(1/)1$'/'/'4*1$%$0H3+,/0)' .,-+)/'4*1$%$0'('48%.'0',/6$0'3+%.'*' 0+*$%'4$%3%$0k5$'28%.'.'77,%0'6,)8%.' '.5'6155/%$0'(*.018%''.'%.*$8*10''8*1.)' *&'/(*+*+(' &/1,50' '" " '01(+' '0'5*8%0),('1.+'66,.%00'$')%'*&'3'-%0'.; +%'/)+2'53%//,.-0'4'5'5$,.9,.-'3')%$'*$'08' ,.)%$8,))%.)'0166/2''$%',86*$)'.)'&')*$0',.)+%'('10'),*.''*&'5$1.9%.%00' .5%$'0*8% (,$(180)'.(%0''/(*+*+(' %B(%00%0'5*'/%00' ,.>1$2')+'.'101'/'&*$'%B'86/%',.'6%$0*.0' 3+*0%'%86/*28%.)'/%'50')*'(*6.*10'03%'),.-' *$'.%(%00,)')%0'41.5'.)'%B%$(,0%',.''9%%.' ',$H'.5'0*8%(*.0),)1),*.0'$%0,0')+%'4'.%&1/ ,.&/1%.(%'*&'/(*+*/')*'''$%8'$9'4/%'%B)%.) # G:'/'$-%'8*1.)'*&'$5%.)' 06,$,)0'()0'*.')+%'.%$7%(%.)$%0'0''.'$(*),(' 6*,0*.''.5'('10%0'$'6,5'5%')+'42'(*8'' 8'%$'E1'.),),%0'6$*51(%',.)*B,(''),*.''('(*86'.,%5'3,)+'*$&*//*3%5'42''.')(1)%'*.' -%0),*.''.5'(')'$$+'*&')+%''/,8%.)'$2'('./ %06%(,'//2'*&')+%'0)*8'(+'.5'51*5%.18' '4,)1'/'5$'85$,.9,.-'42'/)%$,.-')+%' (+%8,('/(*86*0,)*.'*&')+%'4/**5''.5' (+%(9,.-')+%'.*$8'/'(+'.-%0'*&',)0'(*$610(/%0' %B%$)0''.',.>1$,*10',.&/1%.(%*.')+%'.1$,),*.' *&')+%')0012'+,0'.)%$7%0''.5'&)%$3'$50'8',.;)',.%5'42'5%-%.%$'),*.'*&')+%,$'(*)0''.5'&,$%

;V

E1%.)/2'*&')+%+%'$)',)0%/&' *$%*7%$'''/(*+*/f 6$*4'4/2',.)%$&%$%0f '3,)+')+%'.1)$,),*.' *&')+%'(%// %/%8%.)0f*&')+%'7'$,*10f*$-'.0f'0f ,)'(,$(1/')%0f)+$*1-+'')+%8Hf''.5',)'$%)'$50f)+%'%/,8,.')',*.'*&'%&&%)%'8')%$,'/0G('$4*.,(' '(,5'1$,(''(,5''.5'1$%'

' % G D18'& '& 7 # G $' %'18*.)')+10f5%0($,4%0f)+%' '66%'$'.(%0f3+,(+'+%'*40%$7%5',.')+%'0)*8'(+' *&' /%B,0f)' '$),.' '&)%$' '.' %B(%00f*&' '/(*+*+(' 0),8 1/'.)0 G0 ..%$' 8%8 4$'.%' 8*$4,5Hf(*.0,5%$'4/%f %$2)+%8''.5f0*8%' '6+)+*10f6')(+%0f*.')+%' %B6*0%5'01$&'(%Hf 0%($%),*.0f7,),'')%5< .'''.*)+%$' *(('0,*.' 0 8'/f5$*60f*&' -$18*10f4/**5' %B15%5'&$*8')+%'01$&'(%')+%'81(*10f(*7%$,.-'3'0')+,(9%$')+'.'(*88*.''.5')+%' -'0)$,(' >1,(%0f3%$%' 8,B%5'3,)+'''/'$-%'6$*6*$),*.'*&')+,(9'$*62' 81(10f''.5' 81(* 61$1/%.)' 8'))%$'0/,-+)/2'),.-%5'3,)+'4/**5< +%'6*0)8*$)%8''6; 6%'$'.(%0f,.'''('0%'*&'$'6,5'(*8''.'''6'),%.)' ')' ,-<0f*//%-*06,)'/''&)%$')'9,.-')+$%% 6,.)0f*&'$'3'3+,092'3%$% G=.)%.0%f,.>%(;),*.'*&')+%'7%00%/0f*&')+%'62/*$,(' %.5'*&')+%' 0)*8'(+''.5'51*5%.18'3,)+'''6%(1/,'$ 4/'.(+,.-'*&')+%'81(*10f8%884$'.%'4%)3%%.')+%8'-,7,.-'$,0%')*'''7,7,5'0('$%)''$4*$%0(%.)' '66%'$'.(%*.'''3+,)%'-$*1.5Hf)3*'*1.(%0f *&'4/**52f0%$18',.')+%'6%$,('$5,'/'0'('.'5' '4*1)'0,B)%%.'*1.(%0f,.')+%'$,-+)'6/%1$'/f ('7,)2'A)+%'/%&)'4%,.-'*4/,)%$')%5'42f*/5'5; +%0,*.0Rf H 5*14/%'6.%18*.,'''*&')+%'/*3%$' /*4%0Hf%B)$%8%'(*.-%0),*.'*&')+%'9,5.%20Hf.5' %.-*$-%8%.)'*&')+%*'/'$-%'7%,.0f*7%$')+%' 6*0)%$,*$'6'$)'*&')+%'4$',.' *.)$'$2')*')+%' 101'/'0)')%8%.)0'.*'*'/(*+*/,(*5*1$(,]1/5'4% 5%)%()%5',.')+%'4$',.''.5')+%$%'3'0'.*',.; ($%'0%'*&'&/1,5',.',)0f7%.)$,(/%0' +%'+%')' /,7%$'''.5'9,5.%20f3%$%'&'))2H 41)')+%0%' (+'.-%0f3%$%'6$*4'4/2'*&'*/5%$'5')%' .' 0,8,/'$'('0%0f %7%,>,%'+'0f.*),(%5''''4$,-+)' $%5'(*/*1$,.-'*&')+%'61/8*.'$2'),001%'Hf3+,/0)' '$5,%1'&*1.5'61/8*.'$2''6*6/%B,%0f,.')3*' ('0%0'.'.5'8%.,.-%'/'+'%8*$$+'-%0f,.'&,7%' *)+%$0' %')+'&$*8' '5%/,$,18')$%8%.0f /%'7%0f.*'8'$9%5'(+'$'()%$0'8%.,.-,),0f'.5' (*'$0%'4$',.-/%0,*.0f'$%'%B)$%8%2'$'%'3+,/0)' 6.%18*.,''',0f81(+'8*$%'(*88*.' &)%$' $%6%')%5')'(90''0f3%/'0f,.'*/5'5.89'$50' &'))2'5%-%.%$'),*.'*&')+%'7,0(%$'''.5'7'$,*10f *)+%$'(+$*.,(' (+'.-%0f'$%'&*1.5 W#' # ' & # G +%'8*1.)' *&' &')',.')+%'4/**5',0f,.($%'0%5'*$',)'4%(*8%0f 8*$%'7,0,4/%' +$*.,(' (*.-%0),*.''.5'()'$$+' *&')+%'0)*8'(+'/%'5,..-')*''')$*6+2'*&')+%' -/'.5(%0f'.5''.',.($%'0%',.')+%'01481(*10f (*.-%),7%),001%',0f7%$2'(*.0)'.)'41)'(+$*.,(' 1/(%$',0f.*)'&$%E1%.)' +%'/,7%$',0f')'&,$0)' %./'$-%5'&$*8'(*.-%0),*.''.5'8'2'(*.),.1% 0*'&$*8''0140%E1%.)',.&,/)$'),*.'3,)+'&')H 41)'8*$%'&$%E1%.)/2',)'0+$,.90'*3,.-')* (,$$+*0,0' *4'$'%86+20%8''(+$*.,(' 4$*.; (+,),0''.5'+26*0)'),('6.%18*.,''''$%'(*8; 8*.' +%'+%')$)',0f&/'442'5,/')%5''.5' 6$%0%.)0f&')2',.&,/)$'),*.'*$%7%.'5%-%.%$';),*.'*&',)0f810(1/'$'),001%Hf41)',)'8'2'4% +26%$)$*6+,%5'6$*4'4/2''0f''$%01/)'*&'(*; %B,0)%.)'5,0%'0%'*&')+%'9,5.%20' +%'$)%$,%0f '.5'%.5*('$5,18'$%'0)155%5'3,)+'')+%$*; 8')*10f5%6*0,0)0Hf)+%'('6,//'$,%0f'$%'(*.; -%0)%5''.5')+%'7%,.0f7',(*0%' +%'9,5.%20f %B+,4,)'')+%'&')2'*$'8*$%'(*88*./2')+%' -$'85'$'&*$8'*&' $,-+)<0f5,0%'0%' +% 810(/%0f'$%'6'/%''.5'&/'442''.5'%7%.'.'')+% 4*.%0f&*$8'),*.'*&'&'4f)'9%0f6/'(%''')')+% %B6%.0%'*&')+%'4*.2')%B)1$%' +%'.%$7*10f (%.)$%0f'$%'')$*6+,%5''.5')*1-+Hf)+%'(*.; 7*/1),*.0f'$%0+$1.9%.Hf)+%'.$7%(%//0f'.5' .%$7%&,4$%0f'$%'3'0)%5Hf''.5''.',.($%'0%5' '8*1.)'*&'0%$*10f&/1,5'%B,0)0f,.')+%'7%.)$,(/%0f '.5'014'$'(+.*,5'06'(%' +%'4.*$8'/'5; +%0,*.''*&')+%'51$'''8')%$')*')+%'($'.,18')+%'/'$-%' '((+,*.,'.'4*5,%0')+%'*6'E1% '$'(+.*,5''.5')+%')+,(9%.%5'6,''8')%$''//)%0),&2')*''.'%B'--%$')%5'5%7%/*68%.)'*& &,4$*10f),001%' (('0,*.'//2'+0%8*$$+'-* ,.)*'*$*0*&)%.,.-'*&')+%'4$',.'(*.0%E1%.)' *.')+%'5,0%'0%5'0')%'*&',)0'4/**5 7%00%/0f,0f 8%)'3,)+' +%',.($%'0%'*&'(*.%(),7%'),001% ,0f%06%(,'//2'8'$9%5',.' "- ''.5 %B6/',.0f)+%'%8'(,')%5'66%'$'.%%'6$%8';)1$%/2''-%5'/**9'01.9%.'(+%%90''.5'3$,.9/%5 (*,8)%.'.(%'3+,(+')+%2'-%.%'//2'6$%0%.)' +%'# ''.5'2 " "- '*.')+%'(*.)$'$2' '$%/*'5%5'3,)+'&')'.*)'*./2',.')+%'7,0(%$'' 41)',.')+%'014(1)'.%*10f),001%''.5')+% *8%.)188H.5'+%.(%')+%0%'014>%()0f'$%'(*$; 61/%.)'3,)+'*,/2'09%.0f''.5'6$*8,.%.)'45*; 8%.0'%7%.'3+%.')+%'&'(%''.5'%B)$%8,),%0f '$%'3'0)%5' *1)2'5%6*0,)0f'$%'/0*'&$%E1%.)' +%0%'5,&&%$%.(%0'+*3%7%$''$%.*)'.%'$/2'0*' 40*/1)%''0f,0f8',.)',.%5'42'8''.2'3$,)%$0' /(*+*/,('6'$'/20,0f,0'51%')*''81/),6/% 6%$,6+%$'/.%1$,),0'/%'5,.-')*''$*6+2'*&')+% 810(/%0f0166/,%5'42')+%'&&%()%5'.%$7%0' +% 6$%0%.(%'*&''7'$,'4/%'8*1.)'*&'5$*602' '(*.-%0)%5'6+'$2.B'(+$*.,('//2',.&/'8%5' %*.>1.(),70%')1$-,5'(6,//'$,%0''.5'*((0,*.; ''//2'6'61/%0f'*&'(.%'$*0'(%''*.')+%'&'(%'(*8; 6/%)%')+%'8*$4.5''.')*82'*&')+%'(*.&,$8%5')*6%$' +%'.%($*602',.' # ' " " ' 5,0(/*0%0f.*'06%(,&,('(+'$'()%$0 ' & '5" ("'G'.')+,0f0)')%')+%'01((%00,7%'.5'7'$2,.-'8%.)'f 6+%.*8%.''')+%'5,0*$5%$0f*&'(*88*.'.'.5 06%(,'/f0%.0%''.5'*&')+%'8*)*$'66'$')10''$% 3%//9.*3.' +%0%''$%&*//*3%5'42'1.%'02' 0%.0'),*.0f'.5')%.5%.%00',.')+%'%6,-'0)$,18' 7*8,),..-'*$'$%)(+,.-'+%'5'(+%''.5'7%$),-*' 3,)+'5,8.%00f'.5'*((')0,*.''//2'2%//*3.%00'*& 7,0,*.''.')0)**6,.-''.5'$,0,.-''-',.'K +%)*.-1%',0f&1$$%5')+%''66%),)%',0f/*0)''.5')+%$%',0f''(.%0)'.)'&%%/,.-''*&')+,$0)' +% 1$,.%',0f(*6,*10f''.5'6'/%'41)'&)%$3'$50' 4%(*8%0f0(''.)2''.5'/*'5%5'3,)+'/,)+')%0' +%'(*,8)%.'.(%',0f0''//*3''.5')+%'-%.%$'/ /'00,)15%''.5'5%6$%00,*.''$%'7%$2'8'$9%5 @' & '& # ' G '0+-+)'('0%0f *&')+,0f(*.5,),*.''6$*/*.-%5'5$*30,.%00f,0f)+%'(+,%&'02806)*8'41)',.')+%'8*$%'0%7%$% &*$80f)+%'6'),%.)',0f E1,)%',.0%.0,4/%Hf)+% 6*3%$'*&'8*),*.',0f,.'(*86/%)%''4%2'.(%H

)+%' 4$%')+,. -' ,0' 0)%$)*$*10H)+%' &'(%' ,0' .01' /2' 6'/%')+%' &&%')1$%0' $%8',.,. -' 028; 8%)$,('/H)+%' 616 0' '$%' -%.%$''//2' 5,/')%5')+*1-+')+%2' 8'2'4%' (*.)$'()%5' *$'1.%E1'/H)+%' 61/0%' ,0' 0/*3' '.5' /'4*1$%5H)+%' 09,. ' &%%/0' (*/5' '.5' (/'8 8 2H' .5')+%')%8 6%$';)1$%' ,0'/*3 G,.' *.%' ('0%' ,)' &%/H)*' P@g' '+' +%$%' 8'2' 4%' '/418,.1$,'H '.5' *((';0,*.''//2')+%' 1$,.%' .5' &0%(%0' '$%' 6'00%5',.; 7*/1.)'$,/2

"' # " ' & # ' G' +%' %'$/,%0)' 0286)*80' *&')+,0' &*$8' '$%' 810(1/'$)$%; 8*$0'%06%(,''//2'.'3'9,.-H5,0)1$4%5'0/%%6'H .*,0%0',.')+%'%'$0H51/'+%'5'(+%H*(('0,*.'/7%$),-*H '.5' 5,0*$5%$0' *&'7,0,*.' &')+%$%'4%'/0*'' &*1/4$%')+'0/,-+)/2>'1.5,(%5'%*.' >1.(),70 '3')%$2' %2%0''.5' &/'442' &%')1$%0' 3,)+' *$' 3,)+*1)' 6'61/%0' *&' (.%' $*0'(%'' '$*)85')+%' .*0%'.5'8*1)+')+%' (*84,.'),*.' ,0' 7%$2' (+'$'()%$,0),(' $$,)'),7%' 5206%6),(' 0286)*80G)+%') ' *&' 1&%' /'.5' '.5')+%' 0,-.0' *&' (*88%.(,.-' *$' '()1'/ (,$$+*0,0' *&' $,-+)<0' 5,0%'0%' *$' *&' &')2'+%'$)'&$%E1%.)/2'(*%B,0)

& # ' ,.' ,)0' 8,/5%$' &*$80',0' 8'$9%5'42'5,0)$%00,.-'6',.0',.')+%'%B)$%8,),%0' %06%(,''//2',.')+%'/%-0',.($%'0%5'*.'5%%6'6$%0; 01$%' $%5.%00' .5' *%5%' %$' &')+%'&%%)' .5' +'.50'$%0)/%00.%00',.0*8.,'' .5''-$'51''//2',.($%'0,.-'/*00' *&'6*3%$'4%-,.,.-' ,.')+%' /*3%$' /,840' .5' &)%$3'$50' %B)%.5,.-')*')+%' &*$%'$8' .5'$8(%$)',.'3,)+')+%'/%-0'3,5%'6'$)H '.5' 0166*$)'42'0),(90'*$'42'.'')%.5'.)',0'*&)%.' $%E1,$%5' 3+,/0)' 3''//8-' +%' +'.50' '$%' ,$$%-1/'$' .5'>%$92',.')+%,$'8*7%8%.)0H '.5')+%' $%&/%B%0' %06%(,''//2')+%' 6')%//'$)%.5*.' $%&/%B' '$%' 5,8,.,0+%5'*$'/*0)' +%' 6($*.%,' '.5'%B)%.0*$0'*&')+%'/%-')+%'%B)%.0*$'810(/%0'*&')+%')+,-+'.5'0140%E1%.)/2')+%'%B)%.0*$0'*&')+%'&*$%'$8'.5')+%')$,(%60''$%' 8'$9%5/2''))$*6+,%5'.5'%B+,4,)')+%'!$%'(),*.0'*&'5%;-%.%$'),*.<' F '

.',)0' 8*0)'0%7%$%' &*$80'.0%0)+%0,''01(;(%%50')*'+26%$9%0)+%0,'.5'(*86/%)%6'$'/20,0'*&')+%'4*7%'810(/%0'/%'5,.-')*''(*.5,),*.'*&')'/,6%0'%E1,.*7'$1 0'*&')+%'&%%)'.5'3$,0);5$*6'*&')+%'+'.50'8'2'(*8%*.H '.5'-'.-$%.%' +'0' *((0,*.''//2' 4%%.' .*),(%5'*00'*&'8%8*$2''.5'*')+%$'602(+,('/5,0)1$;4'.(%0''$%('*88*.' /%')+',0'-%.%$''//2'51%')*'0*8%'(%$%4$'/(*86/,('),*.'*$')*'6.*%''&$*8'6'$%0,0'*&')+%'$%06,$')0*2'810(/%0 'C ' '' G' +,0'&*$8' *&''/(*+*/,088' *(('0,*.''//2' 016%$7%.%0' *.' *''0,.-/%'5%4'1(+'41)',)'81(+'8*$%'&$%E1%.)/2''&%()0')+%'(+$*.,(' 5$,.9%$')' -%.%$''//2'(*8%0'*.'51$,,='''5$,.9,.-4*1)'41)')+,0'8'2'+'7%')%$8,.')%5'4%&*$%')+%')'(9'(*8;8%.(%0' .' 0*8%'%'0%0',)' ,0'1.5*14)%5/2'5%)%$8,.%5' 6$*/*.-%5'40),.%.(%'&$*8'&**5'8%.)'/ 5,0)$%00'01$-,('/*6%$'),*.'*$'.>1$2'*$')+%'*.0%)'*&''.'(1)%'5,=' 0%'' /*.-' 3,)+')+%',.-%0),*.'*&'/(*+*/H ,.'*)+%$'%'0%0'.*'('10%'41)')+%'/'0)'('.'4%')$'(%5' +%'&,$0)'0)'-%',0',.5,(')%5'42',.'4,/,)2')*')'9%'&**5H 8'$9%5''.B,6)2''.5'$%0)/%00.%00H)$%8*$'*&')+%'7*/1.)'$2'810(/%0H &1$$%5''.5')$%81/*10')*.-1%H (**/09,.''3+,(+',0'&$%E1%.)/2'4')+%5',.'6%$06,$'),*.H (*/5'+'.50''.5'&%%)H ''.5''0*&)'3%'9'61/0%' +%$%',0'(*86/%),.0*8.,''*$'0+*$)'6%$,*50'*&'0/%%6' '$%',.)%$$16)%5'42')%$$,&2,.-'5$%'80''.5')+%'6'),%.)<0' .,-+)0''$%')*$8%.)%5'42'7,0,*.0'*&'+*$$,5',.0%()0'$%6),/%0''.5'*)+%$'*4>%()0'61$01,.-'+,8''.5'%/15,.-'+,0'))%86)0')*'%0('6%&$*8')+%8'*$')*'0%,C%')+%8' //10,*.0'*&'+%),$,..-''$%'.*)'1.(*88*./2''55%5H 41)')+%'0%.0%'*&'08%/',0'81(+'8*$%'$'$%/2',.7*/7%5' &')+%$%%',0'.*'86$*7%8%.)')+%0%')$*14/%0'.*)'.'/2'+'1.)'+,0'.,-+)0'41)'6%$0,0)',.')+%'5'2,8%H +%'4%(*8%0'8*$%',.(*+%$%.)'+,0'8%.)'/'/,%.';),*.',.($%'0%0'.'5'))%86)0')'01,(,5%'$%'(*888*.'' +%'616,/0''$%'.*3'-$%')/2'(*.;)$'()%5'41)')+%$%',0'.*'+,.')*/%$'.(%'*&'/,-+)' +%'61/0%'E1,(9%.0''.5',0'7%$2'&%%4/%'*$%7%.'5,($*),(H '.5')+%'-%.%$'/'02 86)*80'4%(*8%'8*$%'8'$9%5' '6$*/*.-%5'0/%%6'8'2'*((1$',.')+,0')%'-%'.5')+%'5,0%'0%'10')%$8,.')%'&',/0H)+%'61/0%'4%(*8%0' 8'//'3%'9''.5')+$%'52H)+%')%8*$',.($%'0%0H)+%')*.-1%'-%)0'5+2'.5'4$*3.',.')+%(%.)$%H'6%$0,0)%.)'(*8''7,-,/'.5'01+01/10')%.5,.18'(*8*.H)+%'6'),%.)')'/90',.(%00'.)/2''.5'6,(90')')+%'4%5(/*)+%0H&,.'//2'5%')+'10+%$%5',.'42''5%/10,7%('/8'*$')'9%0'6/'(%',.''6'$*B2080'*&'7,*/%.(%'+%'3$,)%$'+'0'9.*3.'%'0%0',.'3+,(+'.'))'(9'*&'5%/,$18')$%8%.0'/3'20'4%-'.'42'0%7%$'/0%7%$%'%6,/%6),&*$8'&,)0

F' & # '5" " G +%'&*$80'*&',.;0'.,)2'('10%5'42'/(*+*/,08'$%' " ' '.5' " # # " ' .5' " ' .')+%'&,$0)'+*8,(,5'/,8 61/0%0''.5',.')+%'0%(*.5'0)$*.-'01,(,5'/)%.5%.(,%0' ' ' ' " ' " ' ' ' '$%''55%5')*')+%'*)+%$'0,-.0'*&'5%/,$,18')$%8%.0' ,.*8.','',0'6%(1/,'$'&*$8'*&',.0'.,)2',.'3+,-+')+%'6'),%.)'4$%'90'*1&' ,.)*' 6'$*B2080' *&' /(*+*/,(' %B(%00')%.5%'3,)+'7,*/%.)'0)$'.-%'*$'%7%.',.;5%(%.)'()0'51%')*''66'$%.)/2'1.(*.)$* '+/%'8*$4%,%)2'(''/*.-',.)%$7'/'*&'0*4$,%)2'.5'(+'0),)2' +%0%'6'),%.)0'+'7%'-%.%$''//2'0*8%'+%$%^'$2')',.)H '.5'.*)',.&$%E1%.)/2'%7,5%.(%0')+*1-+'*&)%.'0/,-+)'*&''8*$4,5'8%.)'/0)'%'82'4%5%)%()%5',.')+%',.)%$7'/0',&'7%$2'('$%&1//2'/**9%5'&*$'5''!'$,%),%0'*&

& G *0)'*&')+%0%'+'7%'4%%.'/$%'52'5%0($,4%5'41)'(+$*.,(' 5%.9%$0%06%(,''//2'/,'4/%')*'6.%18*.,''*&''/*3')26%'.5')*'(1)%'6+)+,0,0' %/,$,18')$%8%.0',0')' (*86/,()%5'3,)+'83,,.-,),0H'(1)%' '/(*+*/,(' -'0)$,(' (')'$$+'8'2'+%&*//*3%5'42'>'1.5,(%H'.5'(%$%4$'/'+'08*$'$4'-%'8'2'%*8%'*.' ,.' '' 5$1.9%.'&,)' %86*$'$2' '/418,.1$,'' ,0' *((0,*.=2'('10%5'42')+%',.-%0),*.'*&'/'$-%'E1'.),),%0'*&06,$,)0''.5'%7%.'*&'4%%$

- G +%'5,'-.*0,0'*&' '/(*

+*/,(' - '0)$,(' (' ')'$$+'*&',.0' .,)2'&$*8''/(*+*/' ' .5'*&'*,.*8' .,'' 5%6%.50'*.'*4)' . , . -'' ')$1%+,0)*$2' (1)%'' '/(*+*/,(' (*8'' (' .' *. /2' 4% 5,'-.*0%5' 3,)+' (%$)',.)2' 42' %86)2,.-')+%' 0)*8'%+'' .5'%B'8,.,.-',0'(*.)%.)0' %$%*5*1$'*&')+%' 4$%')+',0'E1,)%'&'//'(,*10'H' .5')+%' 3$,)%$' ')'(+%0' 41)'/,))/%',86*$)'.(%')*')+%' 0)')%'*&')+%' 616,/0'*$')*')+%'-%.%$'/ &%')1$%0'*&')+%' (*8''*.71/0,*.0' 0*8%;),8%0'10+%$',.')+%' (*.5,),*.H' .5' '6*6/%B2' 8'2' '$,0%'&$*8')+%' ((,5%.)'/ $16)1$%'*&' ''4/**5 7%00%/3+,0)' ''6%$0*.',0'5$1.9' 6,18; 6*,0*.,.-' ('.' *./2' 4%' 0'),0&'(0)*$,/2' %/,8,; .')%5' 42' %B'8,.,.-')+%' (*.)%.)0' *&')+%' 0)*8'(+' $0%8,(' 6*,0*.,.-' 8'2' 4%' 5,';-.*0%5' 42')%0),.-')+%' 1$,.%')+*1-+' +%$%' '.' %/%8%.)'*&' 1.(%$)',.)2',0',.)$*51(%5' 42')+%'*(('0,*.'/ *((1$$%.(%'*&' '/418,.1$,'',.' '/(*+*/,(' (' 0%0H)+%' 6$%0%.(%'*&'+26%$)$*6+2'*&')+%'+%'$)'*&' 5$*602'*&'%')0',.')+%' 1$8%'*$*)+%$'(+'.-%0')26,('/*&' $,-+)<0' 5,0%'0%'810)'5%(,5%')+%' E1%0),*.' %/,$,18')$%8%.0',0'*((0',*.'//2'0%6'$')%5'3,)+'5,&&,(1/)2'&$*80*8%&*$80'*&',.0'.,)2'.*)'('10%5'42'5$,.9H 41)',.')+%'/')%$'('0%0' '.*)'8%$%')%$$*$0'*$' +'//1(,.'),*.0' '$%' *&' 6$,8'$2' ,86*$)'.(%' +%'5%/,$,18'*&'(1)%'&%7%$0' .5'6.%18*.,'' 8'2'4%8,0)'9%.'&*$'5%/,$,18'$)$%8%.0'H41)')+%'62$%B,''+,0)*$2'*&')+%'('0%' .5'6+20,('/'(*.5,),*.'*&')+%' 6'),%.)' -1,5%')*' '' (*$$%()'5,'-.*0,0',&')+%'6*00,4,/,)2'*&'%$$*$'4%'$%8%84%$%5' # '')5(*+*/,08' +'0'4%%.'8,0)'9%.'&*$'0*8%'(+$*.,(' .%$7*10' '&&%(),*.0'01(+' '0' /*(*8*)*$' ')'B2'(+$*.,(' 0*&)%.,.-'.5'81/),6/%'0(/%$*0,0'*&')+%'.%$7%' (%.)$%0'6'$'/20,0' '-,)'.0' (+$*.,(')$%8*$0'&$*8'8%)' ,(' 6*,0*.0'0%.,/%'5%8%.),'' .5' (*88%.(,.-'-%.%$'/6'$'/20,0' +%' (*$$%()' +,0)*$2' .5' '' ('$%&&&,'%B'8,.'),*.'*&')+%' 6'),%.)''$%%06%(,''//2',86*$)'.)',.'5,'-.*0,.-' '/(*+*/,(' 6'$'/20,0'&$*8'*)+%$'.%$7*10'&&%(),*.0'%06%(,''//2'&$*8'/*(*8*)*$')'B2'.5' /%'56'$'/20,0' .'//')+%0%'8'/'5,%0' 0286)*80'$%6$%0%.)'4%0,5%0')+*0%'(*88*.')*')+%8''.5')*'(+$*.,(''/(*+*/,08' : . ! .')+%''(1)%'&*$80'*&'/(*+*/;,08')+%'6$*-.*0,0',0'&'7*1$'4/%0*'&'$'0')+%',88%5,')%$'))'(9',0',.'E1%0),*.' .'(1)%'(*8'')+%' 6'),%.)' -%.%$'//2' 41)' 42' .*'8%'.0',.7'$,'4/2'$'//,%0'&$*8')+%0)')%'*&',.0%.0,4,/,)2H 41)'+%' .'25,%'&$*8')+%'016%$;7%.),*.'*&'' 7%$2'$'6,5'6.%18*.,'' +%'6$*-.*0,0',.'5%/,$,18')$%8%.0',0'&'7*1$'4/%'.,'2*1.-'014>%()0H 41)',)0'-$'7,)2',.($%'0%0'3,)+'%7%$2'))'(9''.5'3,)+')+%'(*%B,0)%.(%'*&' 5,0%'0%' *&')+%' 7,0(%$'' %06%(,''//2' *&')+%'+%')'/,7%$'*$' 9,5.%20' '),%.)0'3,)+'8'$9%5'02886)*80'*&'&'))2'+%')'*$',.'3+*8'6.%18*.,'' 0%)0' ,.' 41)' $'$%/2' $%(*7%$' +$*.,(' '/(*+*/,08' 8'2'4%')%86*$'$,/2''$$%0)%5H 41)')+%' 1/),8')%' ,001%',0',8&*$'))$8')%/2'*0'' $1/%'*./2')*'*' (%$)',.'&*$')+%'+'4,)' ,0',.' 8*0)' ('0%0')**' 0)$*.-')*' 4% 4$*9%.'*&&' *$' %7%.')*' 4%' (+%(9%5'&*$' .2' /%.-)+%.%5'6%$,*5' %.)'/,86',$8%.)'6%$;0,0)%.)'$%8*$0'')'B2'.5'0,-.0'*&'(*'$0% 4$',. /%0,*.0' '$%' %06%(,''//2'0,-.,&,('.)' *&''06%%52')%$8,.'),*. ! +%' 0 ' " # 51%')*' '/(*+*/,0'8*0)'$'6,5/201451%5'423'0+,.-' *5)')+%' 0)*8'(+' 3,)+' (*6,*10'5$'1-+)0'*&')%6,5'3')%$' .5')+%.'-,7,.-'1'0',.%'61$-%' &*$80'*&''/(*+*/0+*1/5'4%$,-,5/2''40)',.%5'&$*8H .5')+%'5,%)'810)'4%0,86/%'.5')'9%.',.''&/1,5'&*$8'&*$''5'2'*$)3*' '00,7%'%B%$(,0%',.')+%'*6%.'',$'*$',&)+%'6'),%.)'4%'7,-*$*10''4$,09'$,5%*.'+*$0%;4'(9',0'7%$2'4%.%&,(,'/ .'('0%0'*&' '(*..I')+%'0)*8+(4'0+*1/54%''(*.(%'86),%5'42'8%'.0'*&')+%'0)*8'(+'6186' */5' '&&10,*.'&*//*3%5'42'%.%$-%),('&$,(),*.'.5')+%' '66/,(''),*.'*&'4*))/%0'&,//%53,)+'3'$8'3'')%$'0*' '0')*' 9%%6' 16')+%')%8;6%$')1$%'3,/'-%.%$'//2' $%7,7%')+%' 6'),%.)' '/7'.,08'.,')+%'&*$8'*&')+%',.)%$$16)%5'(1$$%.)'8'2'*&)%.'4%'%86/*2%5'3,)+''57'.;)'-%' &')+%' 6'),%.)'4%' 0)$*.-' '' 08'$)'61$-%'*$',&' %'9'' 8,/5%$'*.%'3&//'4%' '//)+%'&)%$)$%')8%.)')+')',.%(%00'$2 C ' " ' 810)'4%')$%')%5'5,&&%$;%.)/2',')+%'2*1.-''.5',.')+%'*/5' .'&,$0)'))'(90',.'2*1.-'0)$*.-'014>%()0''&)%$'' 0155%.'5%4'1(+'(*86/%)%'40)%.),*.'&$*8'*'/;(*+*/'/,-+)'.5'%'0,/2'00,8,/')%5'&4*5'A8,/9'5,%)R' 8*5%$')%' 61$-'),*.'.5'*(('0,*.'//2')'$)'$')%5'.),8*.2',.'5*0%0'*&'&$*8'*.%')3%/&)+')*'*.%%,-+)+'*&' '-$',.'('$%&)5/23')(+%5'+'7%'4%.'8*0)'%&&,(''(,*10',.')+%3$,)%$<0'+'.50'&')+%'6'),%.)'+'0')3*'*$)+$%%$%0)/%00'.,-+)0'.,.'01((%00,*.'4$*8,5%'*&6*)'00,18'A)+,$)2'-$',.OR'*$'(+/*$'/'+25$')%'A)3%.)2'-$',.OR'8'2'4%'-,7%.'0%6'$')%/2'*$'4%))%$',.'(*84,.'),*.''')',.)%$7'/0'*&'&*1$+*1$0'1.),/'0/%%6',0'6$*(1$%5'*$'01/6+'./A)+,$)2'-$',.0R'I 41)'0')+%'5,0%'0%',0'06*.;)'.%*10/2'(1$'4/%'0%5'),7%0'810)'.*)'4%610+%5'.'%B6%$,%.(%5'''))%.5'.)'0+*1/54%'/3'20'6$%0%.)'41)'.*'&*$8'*&'8%(+';.,(/'$%0)$','.)',0'6%$8,00,4/%'.'*/5%$'('0%0''8,/5'68-%'0+*1/54%-.')+%')$%')8%.)H'.5'/,-+)'41)'7%$2'.*1$,0+,.-'&**5'0+*1/54%''58,.,0)%$%5''')'0+*$)',.)%$7'/0' ,/9'4%%&)%''$'3'%--0'4%')%.'16' ,)+' 8,/9'0)$*.-'0*160''.5'01(+''$),(/%0''$%')*'4%-,7%.'&$%%/2H 3+%.'42'('$%&1/'8'.'-%8%.)'.5'-**5'.1$0,.-''' 7%$2'0%7%$%'))'(98'2'4%',)5%5'*7%$''.5'.')1$'/0/%%6'3,//$%)1$.',.'&$*8')+$%%')*'&,7%'5'20' +%'%'$/2'58,.,0)$'),*.'*&'0%5'),7%0',0')*' 4%'5%6$%;(')%5'H 41)'0+*1/5')+%'$%0)/%00.%00'6%$0,0)',.'06,)%'*&'('$%&1/'.5''00,51*10'&%%58-''')&1//5*0%'*&'/'15'.18'A,EBBB G=B/R')'4%5),8%,0'*&'-$%)'7'/1%'.)'A4$'.52'3+,0902*1)R'*&)%.'01((%%50'&')+%$%'4%'.2')%.5%.(2')*'02.(*6%'*$',&'6.%18*.,''0+*1/5'(*8%'.'0'3%/'0',.'('0%0'(*86/,(')%5'3,)+'0+*(9'0'01$-,('/',.>1$,%0''&$%%'10%'*&0),81/').0

,0 ,86%$'),7%' 26*5%$8,(' ,.>%(),*.0 *& 8*$6+,.%' '.5 /'$-% 5*0%0 *& 5,-,)'/,0' '$% $%(*88%.5%5 42 8'.2 '1)+*$,)%0H 41)')+% 3$,)%$ +'0 0%%.' -$%')' +'$8' '))%.5')+%,$' &$%% %B+,4,),*.' +%' ('1),*10 ,.+'/'),*.' *& (+/*$*&*$8 7'6*1$'+'0 *('('0,*.'//2 (1)' 0+*$)' .' '))'(9 42 ,.51(,.-' 0/%%6 41)' ,)' 81(+' 8*$% &$%E1%.)/2 &$1/0' %(+'.,('/ $%0)$',.) ,0 0%/5*8',& %7%$'.%(%00'$2',&')+% 6'),%.) 4% 6$*6%$/2 .1$0%5' '.5' '))%.5%5')*' //+ 8%)+*50 *&0%/& 5%0)$1(),*.'8 10)' 4% ('$%&1//2 -1'$5%5 '-',.0)' 6'55%5 $**8' 3+%.' $%E1,$%5' '.5' '7',/'4/%' ,0 *&)+%)8*0) 4%.%&,)

+%' -$%')' 5%0,5%$')18' ,.' # " ' ' # 83 ' ,0)*' 0140),),1)% '.' %'0,/2 5,-%0)%5' '.5'.*1$,0+,..-'5,%)' &*$)+%' '/(*+*/,(' 0),81; /'.)0' 3+,(+' ('.') +%.' 4% 0'&%/2' 5,06%.0%5' 3,)+' '/)*-%)+%$' +%' 6$'(),),*.%$<0 >15-; 8%.)' '.5'+,0 9.*3/%5-%*&)+% " ' '$% 7%$2',86*$)'.)',.')+%' 8'.'-%8%.)' *&)+%0% ('0%0')$*.-' 8%') 0*160' '.5'-**5' 06%(,; 8%.0 *&)+%' (*.(%.)$')%5' 6$%6'$'),*.0 *& 8%')' '$%*&-$%')'7'/1%' +%' 0)$,()/2 8%5,; (,.'/)$%')8%.)' 3,/(*.0,0)',.')+% '58,.,0;)$')',*.'*& 4,))%$*).,(0'01(+'0 .1B' 7*8,(' E1,.,.%'.,.'08'//'5*0%0'%'/184''*$-%.),'.H 3,)+' ('$8,.'),7%0'01(+' 0 06,$,)' *& (+/*$*:; &*$8' '$8*$'(,'' .5' ('60,(18' /9'/,0' %&&%$7%0(%.)' 8,B)1$%0'.5 +25$*(2'.,(' ('(,5' '$% 6%(1/,'$/2 10%&1/ ,&')+%'0)*8'(+' 4% ,$$,); '4/%' +%' (*.5,),*.'*&')+%'/,7%$' .5'4*3%0 0+*1/5' 4% ('$%&1//2' $%-1/')%5' $*8,5%' *& 6*)'00,18',0' ,.'-%.%$=')+%' 4%0)'0%5'),7%')*' %86/*2'-',.0)')+%' ,.0*8.,'')+*1-+ (+/*$'/ +25$')%' ,0' 8*$% (%$)',.H 41)')+%' /'))%$' 0+*1/5'*./2' 4%' -,7%.'*(('0,*.'//2'/%0)')+% 6'),%.)' '(E1,$%')+%' +'4,)' *& &$%E1%.)/2' $%; 0*$),.-')*' ,)' .' /*.-0)'.5,.-' ('0%0' (*5' /,7%$'*,/''$0%.,(',.'08'//'5*0%0''.5'*B,5%' *& C,.(' +'7%' '.5'.%'-**5'41)')+%2'$%E1,$%' '/*.-' '.5' 6$*)$'()%5' '58,..0)$'),*.' +*0; 6+*$10'+'0' 4%%.' *& .*' 10%' 3+')%7%$' ,.'))+% ('0%0',.' 3+,(+'))+%' 3$,)%$' +'0')$,%5',)H 41)' 08'//'5*0%0' *&)+%' 8*$% %'0,/2' '00,8&,'4/%' 6$%6$'),*.0 *& ,$*.' '$%' *((''0,*.'//2' 3%// 4*$.%'.'.5' '$%)+%.' 8*0)'10%&1/' +%' ($'7; ,.-' &*$ 5$,.9',&'1$-%.)' 8'2' 4% (+%(9%5' 42' 08'//'5*0%0' *&'*6,18'41)',)+,0 5$1-' 8 10)' 4% %B+,4,)%5' 3,)+' %B)$%8%' ('1),*.' 15,(,*10' 016%$7,0,'*.'.5',.'.7%)%$')%' ('0%0' '' $%; 0,5%.(%',.' '' 6$*6%$' '02/$1''' $%')+%' *./2' 8%'.0' &$*8' 3+,(+' '.2' 6%$8'.%.)' 4%.%&,)' ('.'4% %B6%()%5' 40*/1)%' '40)%.),*.' &$*8' '/(*+*/(1$%0' '/8*0)' %7%$2'('0%' *&' '/(*+*/,(' 6'$'/20,0' 1.%00',)' +'0' 4%(*8% E1,)%'+*6%; /%00H '.5'8 '00'-%' '.5'8,/5'(,.$%.)0' *&%/%(;)$,(,)2' $%' *& 0%$7,(%',.' $%0)*$,.-')+%' ')$*: 6+,%5' 8 10(/%0' +%')$%')8%.)' *&',.0'.,)2' ,.51(%5' 42' '/(*+*/,08' 3,/(.*)' 5,&&%$' &$*8')+')'$%(*8%.5%5',.'*)+%$'&*$8 0*B(%6)',.' '.'%.&*$(%5''40),.%.(%'&$*8',)0'('10% ' %

' ? ' - ' *8

Y ' ,.' '$'$,' G

+'/24%')%' 3')%$0' '.5' +25$*6')+,(' %0)'4; /,0+8%.)' ' ' %

' , 0 ' (*/5R G ' 3*$5',86/2; ,.-'%B)$%8%'(*/5.%00'*&')+%' 4*52'10%5'*./2' 3+%.',)' '$,0%0',.'(*..%B,*.'3,)+' '.',.)%$.'/ 8*$4,5'0)'%' 01(+''0' (+*/%$'' *$'' 06%(,'/ &*$8'*&'8'/,=' .)'$%8,))%.)'&%7%$

' = ' '$8' 3,.)%$' (/,8')%' %'.',3,.)%$')%86%$')1$%' D g' + */,'4/%')*' $'6,5'(+'.-%0' ^'72'$',.0'.*)',.&$%E1%.)' ' ; ' $%')8%.)'(' ,0%'0%'42

/ = **5'*$'/,8%.)'&1$.,0+%0')+%' %/%8%.)0' $%E1,$%5'&*$')+%' -$*3)+' '.5' 8',.)%.'.(%'*&')+%'*$-'.,08H '.5')+$*1-+' ,)0' '(),*.'3,)+')+%' *)+%$' /,&%' &'()*$G ''$' &*$8 0')+%'0*1$(%'*&')+%'6*3%$'8'.,&%0)%5 +%'/,8%.)'*&'*$-'.,08 0'45*E-='*')+%' 7%-%)'4/%'(/'00',0'5%$,7%5'&$*8')+%',.*$-'.,(' 9,.-5*8' .5%$')+%',.&/1%.(%'*&')+%' 1.0 $'20')+%'%/%8%.)0'*&',.*$-'.,(' 6$,.(,6/%0'$% '66$*6$,')%5',.'01(+''8'.%$'0')*'/%'5')*')+%' (*.0)$1(),*.'*&'*$-'.,(' (*86*1.50'.5' 8%%)')+%'$%E1,$%8%.)0'*&'-$*3)+' +,0'(*.; 0),),1)%0')+%'8',.'*6%$'),*.'*&'7%-%)'4/%/,&% '.5',.',)'3%'+'7%'8%'0*1$(%'*&')+%'/,8%.)' *&'.,8'/0'3+,(+'('.'*./2''66$*6$,')%'*$; -'.,(' (*86*1.50''.5'3+,(+',%,)+%$'5,$%()/2' *$',.5,$%()/2'5%$,7%')+%0%' (*86*1.50'&$_.')+%'7%-%)'4/%'9,.-5*8' 0')+%'0*/'$'%.%$-2' %86/*2%5',.')+%' (*.0)$1(),*.'*&'*$-'.,(' (*86*1.50')+$*1-+')+%''-%.(2'*&')+%'7%-%;)'4/%'*$-'.,08'4%(*8%0'/*(9%5'16',.')+% (*86*1.5'&*$8%5'01(+'(*86*1.5'$%6$%0%.)0' 8'))%$'(*84,.%5',)+''5%&,.,)%''8*1.)'*& /')%.)'&*$(%'.')+%'%86/*28%.)')+%$%&*$%' *&'*$-'.,(' 8'))%$'0''/,8%.)'42'.,8'/0'3% +'7%')*'/**9'16'.',)'.*)'*./2''0'2,%/5,.-')+% 8')%$,'/ $%E1,$%5'&*$')+%' (*.0)$1(),*.'.'.5' 8',.)%.'.(%'*&')+%'4*52'41)''0'(*.)',.,.-' '.5'0166/2,.-')+%'&*$(%'3+,(+',0'%7*/7%5' ,85%$'7'$,*10'&*$80'42')+%'*6%$'),*.0'*& '.,8'/,&% /,8%.)'(*.0),)1),.-')+%'0*1$(%&$*8'3+,(+')+%'0%7%$'/ %/%8%.)0'4%/*.-,.-')*')+%'4*52' '$% 5%$,7%5',)' &*//*30')+')')*'0',0&2')+% $%E1,$%8%.)0'*& /,&%',)'8 10)' *.)',.'/)+% %/%8%.)0')+')' '$% %.(*1.)%$%5')',0'.*)' +*3%7%$' 3,)+')+%' %/%8%.)0',.' '' 0%6'$')% 0)')%')+')'3%'+'7%')*'5%'/'41)'3,)+')+%0 6$*; 51()0'&*.'1)1$%',.'3+,(+')+%2'$%'7'$,*10/2' (*84,.%5 +%' " ' '0' 0166/,%5' 42'.')1$%' '$% $%0*/7'4/%'42'.')/20,0',.)*' '' 7'$,%)2' *& 5%&..,)%' (+%8,('/ (*86*=50' +%0%'(*.0),1)%')+%' " ' *8%' '$% (*88*.')*'4*)+' '.,8'/'.5'7%-%;)'4/%'&**5''0'&*$,.0)'.(%'*/418,.' ('0%,.' &')0' ^(H*)+%$0' '$% 6%(1/,'$')*' %,)+%$')+% '.,8'/'*$ 7%-%)'4/%9,.-5*8')'$(+'&*$ %B'86/%',0'8%)' ,)+' *./2',.'7%-%)'4/%'.5' -%/')8%*./2',1''.,8'/6$*51()0 ,)+'$%&%$%.(%)*')+%'=8%.)''$2'6$,.(,6/%0' ,)'8 10)'4%1.5%$0)**5')+')',.'*'('0%'5*')+%2' %B,0)',.'.')1$'/6$*51()0',.''.',0*/')%5'&*$8' '.5'.*0,.-/%''/,8%.)'$2'6$,.(,6/%',0'('6'4/%

)*' *6%.' +25'),5' (20)0' ,.')+%' /,7%$H' .5')*' %0)'4/,0+' ,001%0' 8 8 *.,'' .%1)$'/,0%0')+%' &*$8,(' '(,5' 3+,(+' $%.5%$0' 7%.*8*10')+%' 0),.-0' *&'4%%0'' .)0' '.5' 8*0E1,)*%0' '.5',0')+%$%&*$%' '66/,%5')*' $%/,%7%')+%' 6',.' 3+,(+')+%2' ('10%' +%' ,.)$'7%.*10' ,.>%(),*.' *&' 8 8 *.,'' +'0'4%%.'$%(*8 8%.5%5' 0' '.' .);;5*)%',.'0.'9% &*,0*.,.-H41)')+%'7'/1%*&')+%' $%8%52',0' .*)' %0)'4/,0+%5' ,B%5'3,)+' *,/'0*' '0')*' &*$8' '' /,.,8%.)' '8 8*.,'' ,0' 10%5' '0' '' $14%&'(,%.)' ,.' 0*$%')+$*')0'4$*.(+,),0' $+%18'),('6',.0''.5'.%1$'/-,' ')',0',.+'/%5')*' $%/,%7%' +%'5'(+%H '0' '' $%0)*$'),7%',.'02.; (*6%' .5' 0+*(9' 3+%.' ,)' $',0%0')+%' 4/**5' 6$%001$%'H' .5')*' &'(,/,)')%' %B6%()*$'),*.' ,.' (+$*.,(' 4$*.(+,),0' /9'/,0' '58,.,0)%$%5' '&)%$' 8%'/0' ()' '0' .)'(,50'' .5'$%/,%7%'+%'$); 41$.' K +%.' -,7%.' 4%&*$%' 8%'/0')+%2',.; ($%'0%')+%' 0%($%),*.' *&' -'0)$,(' >1,(%' E1,(9%.' 5,-%0),*.' .5' $%/,%7%' 3%,-+)' ')')+%' %6,-'0;)$,18' 6',.' 4%)3%%.')+%' 0+*1/5%$0' '.5' &/')1/%.(%' ,('$4*.')%'*&'0*5,18',0'101''//2' -,7%.'&*$')+,0'61$6*0%'41)'3+%.')+%'0)*8'(+' ,0'7%$2',$$,)'4/%'/,E1*$'6*)'000%',0'6$%&%$%5' '0',)',0'(*.0,5%$%5')*'+'7%' '' 0%5'),7%' '(),*.' *.')=,%81(*10'8%84$'.%' /9'/,0'66%'$')*' /%00%.')+%' $% .0&*88',).*.' *&' -/2(*-%.' .)*' 01-'$' .5')+%2'$%' 10%5'*.')+,0' ((*1.)',.' 5,'4%)%0' ,E1*$'6*)'00[' 0*8%),8%0' +%/60')*' ,&%51(%*4%0,)2' /9'/,0'$%' 10%5',.')+%')$%')8%.)' *&' 0($*&1/'' $+%18',)0&'-*1)' .5' +)+,'0,0H41)',.')+%')3*'/'0) 8%.),*.%5' 5,0%'0%0'/,)+,'',0'(*.0,5%$%5')+%' 8*0)'7'/1; '4/%' 3+,/0)' 6*)'0+' ,0' 6$%&%$%5')*' 0*5''0')+%' 1$')%*&' /,)+,18',0' 8*0)'0*/14/%'.5')+%' 1$')%*&'0*5,18'/%'0)' 0*' +%' 0'/)0' *&'(%$)',.'*$-',('(,50' 01(+' '0')+%' '(%)')%*$' (,)$')%' 8'2' 4%' %86/*2%5' '0' $%8*)%' .)'(,50')*'$%.5%$')+%' 1$,.%'/9'/,.%'0')+%2' 1.5%$-*' (*8410),*.'.5' '$%(*.7%$)%5',.)*' ('$4*.')%0',.')+%'4/**5' /9'/,0'$%'-,7%.')*'/%00%.')+%'(,5,)2'*&')+%'1$,.%',.,&/'88';),*.'*&')+%'4/'55%$'*$'1$%)+$''.5'6*)'0+',0' %86/*2%5'0' '' 5,1$%),('..'5$*60,%0' .''(; (*1.)'*&',)0'0),81/'),.-'(),*.'*.')+%'+%'$)' .5'$%06,$'),*.'88*.,'',0'58,.0)%$%5',.' '52.'8,(' (*.5,),*.0' .5',.'(+$*.,(' 4$*.; (+,),0' & "' /%$

' .5' *)+%$' G (G .' '/9'; /*,5',0' '' 0140)'.(%'&*$8%5',.')+%'),001%0'*&' '6/'.)'*$'*&'.'.',8'/'+'7,.-'' 5%&,.,)%' (*8; 6*0,),*.' '0' $%-'$50')+%' 6$*6*$),*.0'*&')+%' (+%8,('/%/%8%.)0'*&'3+,(+',)',0' (*86*0%5' .5'('6'4/%'*&'(*84,.,.-'/,9%'.'')'/9'+'3,)+' (,50')*' &*$8' 0'/)0' //'/9'/*,50'(*.)',.' .,)$*-%.H'.5'//'%B(%6)'(*.,.%',(*),.%''.5' 06'$)%,.%'(*.)',.'*B2-%.

%0,5%0' '/9'/*,50')+%$%' '$%' *)+%$' '(),7%' 6$,.(,6/%0'&*1.5',.'6/'.)0'3+,(+'+'7%'/0*' *' 6*3%$&1/',.&/1%.(%'*.')+%'.,8'/%(*.*82' 41)'5*'.*)'6*00%00''')+%'(+%8,('/6$*6%$),%0' >10)'0)'%5

7 & 4 ' & ' > ' +%0%' '$%' 4$,%&/2'%B6$%00%5',.')+%' '4*7%' 5%

&/.,),*.' +10' 8*$6+,.%'&*$'%B'86/%'*.%'*&')+%' '/9'/*,50'*&'*6,18'+'0' '/3'20')+%'(+%8,('/ (*86*0,),*.' $%6$%0%.)%5' 42')+%'&*$81/'' .5',)' 8'2'1.,)%3,)+''(%),('(,5')*'&*$8'('(%)')%'*&'8*$6+,.%'>10)'0'6*)'0+'8'2'1.,)%3,)+')+%'0'8%'('(,5')*' 6$*51(%'('%)')%'*&'6*)'00,18' 1)')+%'86,$,('/&*$81/'' 1 ,- ›'$%6$%0%.)0'*./2')+%'6%$(%.)'-%'(*86*0,),*.'*&')+%'0140)'.(%',.')+%'0,86%0)'.184%$0''.5'5*%0'.*)'%B6$%00'+*3')+%')*80'*&')+%'5,&&%$%.)'%/%8%.)0''$%'$%/')%5')*'%'(+')+%$' L$'>10)'0'%)+2('/(*+*/'3,)+%' *86*0,),*.' = ',0'4%;/,%7%5'42')+%'(+%8,0)'&$*8',)0'4%+'7,*1$')*;3'$50')+%$'4*5,%0')*'(*.),'''0$'5,(/%=‹*$-$*16'*&'')*80' = ›'+'7,.-'(%$)',.'(+%8,('/6$*6%$),%0'%0'84/,.-')+*0%'*&''4'0%'01(+''0'6*)'00,18' H'.5'>10)'0'),0'$'5,(/%' > ›'8'2'$%6/'(%'*.%'*&')+%'+25$*-%.0'*&'3')%$'0*

'0')*'&*$8'/(*+*/A > ›')' = 'e' ;' RH

0*'(+%8,0)0'+'7%'-**5'$%'0'*.'&*$'4%/,%7,.-')+')' '/9'/*,50'4%/*.-')*')+%'-$*16'9.*3.''0' / /" '*$' 3+,(+''$%$%'//2''88*.,'' =',.'3+,(+'*.%'*$'8*$%'*&')+%' ')*80'*&+25$*-%.'$%'$%6/'(%5'42''$'5,(/%H,.'*)+%$'3*$50')+2'$%' 88*.,'' 4'0%0' (*84,.,.-'3,)+' /3,)+*1)'%/,8,.'),*.'*&' > ' *0)'/9'/*,50'$%'5%$,7',7%0'*&'62$,5,.%)',0'*47,*10')+')'3*'*$'8*$%'/9'/*,50'8'2'$%0%84/%'%'(+'*)+%',.'6%$(%.)'-%'(*8;6*0,),*.''.5'0),/'4%'7%$2'5,&&%$%.)'4*)+',.')+%,$'(+%8,('/ ''.5'.%(%00'$,/2',.')+%,$'6+20,*/*-,('/'(),*.' +10'0)$2(+.,.%'E1,.,.%' '.5'(,.;(+*.,.%'A X <; < R'5,&&%$*.'/2'8''‹&%3'')*80'*&'('$4*.'*$*&'*B2-%.'8*$%'*$/%00H41)')+%2'+'7%'5,&&%$%.)'6+20,*/*-,('/'(),*.0'0+*3,.-')+')+%,$'(+%8,('/0)$1()1$%'3+,(+',0'.*)85,(')%5',.')+%0%'&*$81/[' 810)'/0*'4%5,&&%$%.)' +%'6+20,*/*-,('/'(),*.'*&'+'/9'/*,5'8'2'/0*'4%'8*=&,%5'42'(*84,.,.-',)'3,)+''.*)+%$'0140)'.(%'6*,.)%5'*1)'42' $18 $*3.'' .5' $'0%$'(*8;6*1.50'*&'0)$2(+.,.%'3,)+'8%)+2/'%)+2/''.5'8 2/'5*'.*)'6$%0%.)'+)+%' 3%// 9*3.'6+2;0,*/*-,('/'(),*.'*&')+')'0140)'.(%'.'/*-*10')*')+')'*&'3**$'$'

$ % G= +%'/9'/*,50''.5')+%$'(;),7%'6$,.(,6/%0'8*0)'&'8,+'$')*')+%'6+20,(,''$%'H G' *$6+,.%' 6*8*$6+,.%' '$(%,.'*5%,.%' +%4',1%' '$(*),.%' '6'7%$,.%'H)$*6,.%' 2*0(2'8,.%' 2*0(,.*' ')1$,.%H',(*),.%H' *.,%H' +20*0),-8,.%*$ 0%$,.%H)$2(+.,.%' $1(,.%H X1,.,.%' ,.(+*.,.%',.(+*.,.%'+%*4$*8,.%H' (*.,),.%H' '&&%,.%H' *('.,.%H+%*4$*8,.%H' (*.,),.%H' %$')$,.%H' ,-,;)'/,.'H 1$'$,.%H 10('$,.%H ' .)*.,.H $-*')*6+'.)+,.' *$')+%'89'/*,5'0140)'.(%0'&*$85',.'5%'5'4*5,%0' '.5',.',8'/),001%0' ' G

$5 ' ' 7 ' ')',' ' ' ' '" ' D E' '" G ' 0 ', ' 0 ' ' ' ') + 7 ' #'0 0 ' ' ' '" ' E'*$"G)+10H , ' ' ,

*$'- G +%' 8 '>*$,)2' *&' '/9'/*,50' '$%
&*$8%5' 42'6/'.)0' +%'&1.(),*.'3+,(+')+%2'
0140%$7%' ,.')+%'%(*.*82'*&')+%'6/'.)' ,0' .*)'
9.*3.' *8%'6/'.)0'6$*51(%'*./2'*.%'/;
9'/*,5' 3+,/%' ,.' *)+%$0')3*' *$' 8*$%' '$%
&*$8%,' &%3'*&')+%' '/9'/*,50'+'7%' 4%%.'
6$*51(%'02.)+%),('//2'42')+%'(+%8,0)

C &*((('' G= /9'/*,50' +'7%'
7'$,*10'5%-$%%0'*&'6+20,*/*-,('/'(),7,)2'3+%.'
,.)$*51(%'.)*')+%'.,8'/'4*52' .6\'$%'
0/*3',.')+%,$' '(),*.'.5''/'$-%'5*0%' ,0'$%;
E1,$%5')*'6$*51(%'.2'*40%$7'4/%'%&&%()H 3+,/%'
)+%$0' '()' 8*$%' $'6,5/2' .'.5''$%'0' 6*)%.)'
)+')' %7%.'''8,.1)%' 5*0%' 8'2' 5%0)$*2' /,&%'
86'$%'&*$' %B'86/%'.'$(*),.%'.%'*&')+%'
'/9'/*,50'*&'*6,18'3,)+',.(*),.%')+%'' /9';
/*,5'*&')*4'((*' %.)2')*'+,$)2'-$'.'0'*&'
)+%' &*$8%$' +'7%' 4%%.')'9%.'42')+%'+18'.'
014>%()'3,)+*1)'6$*51(,.-'.2'8'$9%5'0286;
)*80'3+,/%')+%')3%.),%)+'6'$)'*&''-$'.'*&'
)+%/')))%$'8'2',.51(%'0286)*80'0*'0%7%$%'0'
)*')+$%')%.'5%')+')',0''/0*'3%/'9.*3.')+')'
'/9'/*,50'8'2'+'7%''5,&&%$%.)'9,.5'*&''(),*.'
.'5,&&%$%.)'.,8'/0' +10'*.%&*),$)+'&''
-$'.'*&''(*86/%B' (+'$')()%$',.'5*-'3+,/%'
)+$%%'*$'%7%.'&*1$'-$',.0'8'2'4%'-,7%.')*''
$'44,)' 3,)+*1)'('10,.-'.2'8*$%'8'$9%5'
%&&%()'+'.'5,/')'),*.'*&')+%'616,/' .'(*.;
0,5%$,.-')+%'6+20,*/*->('/'(),*.0'*&')+%0%'
0140)'.(%0')+%' &*//*3,.-'%.%$'/,0'),*.0'
8'2',.')+%'6$%0%.)'0')%'*&'0(,%.(%'4%'8'5%'
)%.)'),7%/2 G ' 0''-%.%$'/'$1/%')+%'8*$%'
(*86/%B')+%' *$-'.,(' 8*/%(1/%' '.5')+%'
-$%')%$')+%'018' *&',)0')*8,(' 3%,-+)')+%'
8*$%',.)%.0%'3,/'4%')+%''(),*.' &')+%'014;
0)'.(%' @' 140)'.(%0'3+,(+'06/,)'16'E1,(9/2'
,.)*' 0,86/%$' 4*5,%0' 6$*51(%' $'6,5' 41)'
)$'.0,%.)'6+20,*/*-,('/'%&&%()0H 3+%$%'0'014;
0)'.(%0' 3+,(+' $%0,0)' 5%(*86*0,),*.'.'.')+%'
4/**5'*$'),001%0' 8'2'6$*51(%'.*' '66$%(,'4/%'
$%01/)0'&*$' '),8%'41)'3+%.')+%2'5*' 4%-,.'
)*'4$%'9'16'+%' %&&%()0' '$%' 0155%.'.'5'7,*;
/%.)'.5'101''//2'/'0)'&*$' '(*.0,5%$'4/%'),8%
"' /9'/*,50'+'7%'&$%E1%.)/2'''5*14/%''(),*.'
.'5,&&%$%.)'6')$)0'&''-$%')'6+20,*/*-,('/'020;
)%8H'.5')+%,$',(),*.',.''6')$),(1/'$'-$*16'*&'
'.,8'/0'3&&/'5%6%.5'*.')+%'$%/'),7%'5%-$%%'*&'
5%7%/*68%.)'*'&')+%'6')$)0'*%&)+%'020)%8'.'
)+')'-$*16' +10'8*0)'*&')+%''/9'/*,50'*&'
*6,18'+'7%'01(+'''5*14/%'(),-.=''(*.71/;
0,7%''(),*.'$%0%84/,.-')+')'*&'0)$2(+.,.%'51%
)*')+%,$',.&/1%.(%'*.')+%'06,.'/'(*$5''*$*.'
)+%'8*)*$'(%.)$%0'..')+%'4$',.H)+%2'+'7%'8*$%
(*),('*$'0*6*$,&,('(),*.'$%0%84/,.-')+')'*&'
'.,%0)+%),(0'51%')*')+%,$',.&/1%.(%'*.'%.0*$2'
(%.)$%0'.,'')+%'4$',' %.(%',.''.,8'/0'
3+%$%')+%'06,.'/'020)%8'6$%5*8,.')%0''0',.'
&$*-0'!9'/*,50'()'0'(*.71/0'.)0'
3+,/%',.')+%+,-+%$'8'88'/0')+%,$'6$,.(,6'/'
'(),*.',0''66'$%.)/2'*.')+%'.(%6+'/,('(%.)$%0'
3+,(+'7%'.*3'4%(*8%'/'$-%/2'5%7%/*6%5
'00,.-')*')+%'(*.0,5%$'),*.'*&')+%''(),*.'*&'
)+%',.5,7,51'/'0140)'.(%0'3%'(''.*)'5*'8*$%'
)+'.'-,7%'42'3'2'*&'%B'86/%''''4$,%&')'
*&'%1,>8*3/%5-%'$%-'$5,.-''&%3'*&')+%8

' *$6+,.% JRG'.'/9'/*,5
&' 6,18' .')+%'&$-')+,0'0140)'.(%'+'0'
'.''(),*.'$%0%84/,.-')+')'*&'0)$2(+.,.%')'
&,$0)')+%$%',0''0')'%'*&'-,)'),*.'&*//*3%5'42'
%)''.,('06'08 0H&,.'//2''//'$%&/%B'(),*.0',+'
(/15,.-')+*0%'*&')+%'+%'$)'.5'*&'$%06,$'),*.'
'$%'6'$'/20%5' -%*.0'+'7%'4% .'&*1.5')*'
6*00%00''$%8'$9'4/%'6*3%$'*&'3,)+0)'.5,.-'
)+%',.&/1%.(%'*&')+,0'5$1-G'.'*$5,.'$2'0,C%5'
4,$5'$%E1,$,.-'4*1)'3*'-$',.0')*'9,';,)'
'44,)0'4%(*8%'6'$),'//2'0*8.*/%.)'0+*3''
)%.5%.(2')*' $%&/%B'06'080'.5')*/%$')%''
/'$-%'5*0%G0'2'4*1)'*.%+'/&')*'*.%'-$',.'
6%$'6*1.5' %,-+)'*&')+%'.,8'/' .')+%'5*-'
)+%',.)$'7%.*10',.>%(),*.'*&'%7%.'*.%)%.)+'
*&''-$'.,.'A&*$''08'//'.,8'/R('10%0''-,)';
),*.'&*//*3%5'42'0/%%6H)+%'61/0%'.5'$%06,;
$')*$2'8*7%8%.)0''$%'0/*3%5H')+%'08'///%$'
'$)%$,%0'4%(*8%'A')/%'0)'51$,.-'*.%'0)'-%R'
(*.)$'()%5'0*' 0')*' ('10%'.''1-8%.)'),*.'
&'-%.%$'/4/**5'6$%00!$%H')+%'616&/',0'(.;
)$'()%5'H'.5',&')+%'5*0%'4%/'$-%'5%')+'8'2'
4%'6$%(%5%5'42'(*.71/0,*.0' .')+%+,-+%$'
8'88'/0'8*$6+,.%''()0'(+,%&/2'*.')+%0%.0*$2'
'66'$')10'4*)+'6%$,6+%$'/'.5'(%.0%'/
@')+%$'/9'/*,50'*&'*6,18'+'7%'/0'*'4%%.'
..7%0),-')%5'HG A'R' '$(%,.'A>',>, =',0''
61$%'+26.*),('('10,.-'6$*&'*1.50/%%6' 7%',
,.'/'$-%'5*0%0',)'5*%0'.*)'6$*51(%'(*.71/0,*.0'
ALR' *5%,.%'A>',>, 'R'+'0''.''(),*.'
8',./2b'/,9%')+')'*&'8*$6+,.%'A(R' +%'
4',.%'A>-» =''(10%0'')%)'.,('(*.71/0,*.0'
)+10'$%0%84&,.-'0)$2(+.,.%'A5R' '$(*'
),.%'A« ;J R',0'0/,-+)/2'.'$(*),('41)'
0)$*.$,2'(*.71/0'.)' '6'7%$,.'
«8 '('10%0''0*8.,&%$*10'(),*.'+/,%')+')'
&'.'$(%,.')',0'%7,5%.)')+%$%&$%')+')'
6,18'3+,(+'8'2'(.)',.'8*$%'*$'/%00'*&''//'
&')+%0%'0140)'.(%0'810)'+'7%''.''(),.'*.'
)+%'4*52'*&''7%$2'(*86/,(')%5'(+'$')()%$
6*8*$6+,.%'A S Sf $H<R''5%$,7'),7%'
*&'8*$6+,.%'+'0'.*.%'*&')+%'(+'$'*)%$&%),%'
'(),*.0'*&')+')'0140)'.(%'41)''()0'(+,%&/2'0'
''7'0(1/'$'5%6$%00'.)'.'5''0''.'%8%),(
9')$2*+.,.%' A>,*=*=>=)+%+'
/*,5'*&')$2(+.40'.1B'7*8,('' .')+%'&$*-'
7%$2'8,.1)%'5 0%0'('10%'(*.71/0,*.0'*&''//
)+%'7*/1.)'$2'810(/%0''%B(,)%5'42'6%$,6+%$'/
,$$,)')*.' +%0%'(*.71/0,*.0''$%' 51%')*')+%'
'(),*.'*&')+%'6*,0*.'*.'*.')+%'06,.'/'*$5''0'
)+%2'6%$0,0)'&)%$'5%('6,)'),*.' .'3'$8;
4/**5%5''.,8'/0')+%'$%&/%B'(+'$'()%$'*&')+%'
(*.71/0,*.0',0''/%00'%7,5%.)H)+%2'+'7%'8*$%'
&''').,('(+'$')()%$'.5'(+,%&/2''&&%()')+%'
%B)%.0*$0' +%'%B'()' '*&')+%'
6*,0*.'*.')+%'(*$5',0'1.9*3.'41)',.'0 8%'
3'2'*$*)+%$',)'+%,-+)%.0',)0'$%&/%B'0%.0,4,/,)2'
%')+',0'101''//2')+%'$%01/)'*&'06+2B,''&$*8'
'$$%0)'>.'06'08'*&')+%'$%06,$')*$2'8%(+'.,08'
41)',)'8'2'$%01/)'&$*8'%B+'10),*.' $1(,.%'
A>>,=- > >R''.*)+%$' 140)'.(%&*1.5',.'.1B'
7*8,('' '66%'$0')*'+'7%''.''(),*.'/,9%')+')'
*&'0)$2(+.,.%'41)'8*$%'&%%4/%
')$*6,.%'A = '0 RG)+%'L+,%&'/9';
/*,5'*&')$*6''4%//'5*..'' .')+%&$*-',)'('10%0'
)%)'.,('$%&/%B'06'080' %$4,7*$*10'.,8'/0

F!

U ' A*YY*&' ' . *)+%$Ĥ ' .5' 2%/6')+%' +' .5R G ' 6%(1/,'$' 5,0)1$4' . (%ĺ *&' (1)' . %*1Ơ 0%. 0,4,/,)2' , .' 3+,(+' '')' (),/%' 0%. 0'),*. ' ,0' $%&%$$%5')*' ' . *)+%$' 6 '$)' *&')+%' 4*52')+' .')+%' 0%')' *&' ' ()1 'ĺ, 8 6$%00, *. Ĥ *$')*' '' (*$$%06*. 5, . ' 6 '$)' *&')+%' *66*0,)%' 0,5%' *&')+%' 4*52 ' ' ' ,0*$5%$]' *&

G' '

' U 'A'Y,43,>-' ''&*BR' ' '&' & 9' & ') / 6 0 ') " ' $' & Ĥ %$' . 2 4

(G' ' .*. (*.)'-,*1Ơ ')$*6+,(' 5,0%'0%' *&')+%' +',$' 5,0), . -1,0+%5' 42')+%' $'6,5' 5%7%/*68%.)' *&' 8 *$%' *$' /%0Ơ (,$(1/'$' 435' 6')(+%0Ĥ, .' $'$%' ('0%0')+%' 4'/5. %0Ơ ,0' -%6%$'/

7,) G= /*6%(,'' '$%')'' ,0' 8 *0)' (*8; 8*. '*. ')+%' 0('/6' '. 5',0' -%. %$'//2' /, 8 ,)%5')*')+')' $%-,*. ')+%' *((,61)' 4%, . -')+%' 6 '$)' 8 *0)' &$%E1%.)/2' '&&%()%5' .' 0*8%' , .0)' . (%0')+%' +%' $5' '. 5' %2%4$*30Ơ 01&&%$' '. 5' , .' 7%$2' $'$%' ('0%0')+%' 3+*/%' *&')+%' +',$' ,0' /*0)' /*6%(,'' '$%')'' ,0' 101''//2' (*. &, . %5' %,)+%$')*' '' 0, . -/%' $*1. 5'6%$&()/2' 4'/5' 06*)' *$')*' 0%7%$'/' 06*)0' ,$$%-1/'$/2' 0(')%$%5' '4*1)')+%' 0('/6Ĥ 3+%. ' +*3%7%$')+%' 5,0%'0%' '))' (90')+%' *((,61)',)' ,0' *&)%. ' $*1-+/2' 028 8%)$,(' /' +%' 0' 8%' $%8 '$9' '66/,%0')*')+%' %2%4$*30' . 5' %2%/' 0+%0' ' . 5')*' ''/7%$2' 0%7%$%' ('0%0' 3+,(+' +'7%' '' 0)$*. -')%. 5%. (2')*' 4%(*8%' 028 8%)$,(' /' ' (+'$'()%$,0),('&%')1$%' *&')+%' 8 %' %' ,0')+%' $'6,5,)2' 3,)+' 3 (4')+%' +',$' &'//0Ơ *&&*7%$' ''/,8,)%5' '$%' '/%'7, . -'7%$2'&%3' ,&' . 2' 0)1860Ơ *. ')+%' 4'/5' 6')(+' 3+,(+' ,0' 4*1. 5%542' +',$*&' 66'$%.)/2' . ')1$'/-$*3)+' +%. ' +*3%7%$')+%' +',$' $*1. 5')+%' '$%'' (*8%0Ơ *1)'7%$2' %'0,/2',)' 8 '2' 0'&%/2' 4%' 6$%; 5,(0%5')+')')+%' 06*)' 3,/Ĥ ,. ($%'0%' ,' 0,C%' +%' 6')$' '&&%()%5' ,0' 0*8%), 8%0Ơ 6, . 9%$')+' . ')+%' 01$*)85, . -' 09, . '+1)' 81(+' 8*$%' (*8; 8*. /2' ,)' ,0' *&')+%' 0'8%' (*/*1$' *$' 6'/%$' +%$%' ,0' 0*8%), 8%0Ơ ''0/, -+)')*8+6+2' *&')+%' 09, . ''0' 3% ''0'*&')+%' +',$' 0*')+')')+%' '$%'' +'0' ''0+'//*3' (166%5' (+'$'()%$Ĥ)+, 0', 0' *8; 6'$'), 7%/2'$'$%' ' . 5')+%$%&*$%' ('. .*)' 4%' 5'%' 0, 86/2')*')+%' /*00' *&'+',$

4 # 35 ' $ ' G +%' ('10%0' *&' '/*6%(,'' '$%')'' '$%' . *)'9. *3. ' +%' , 8; 85, ')%' *$, -, . ' *&')+%' 5,0%'0%' ,0' 6$*4'4/2' 0*8%' . %$7% 5,0)1$4' . (%'/%'5, . -')*' ')$*6+2'*&')+%' $**)0' *&')+%' +',$' . 5' 0*8%), 8%0Ơ *&')+%' 09, . ' +,0' 7, %3', 0' (*. &, $8%5'42')+%&$%)')+')')+%$%' ,0' *((' 0, *. ''//2')+*1-+' $'$%/2' '')%8; 6*$'$2'/*00' *&' 0%. 0, 4, /,)2' *7%$')+%' '$%'Ĥ ' . 5' %7%. '3+%. ')+, 0', 0' . *)')+%' ('0%')+%' 09, . ', 0' /%00' 0%. 0,), 7%')*', $$,)' .)0')+' . ', 0' . *8%' /' *8%;), 8%0')+%' /*00' *&'+',$', 0' 6$%(%5%5'42' . %5& -, (' 6', . 0' *$')%. 5%$. %00' *. ' 6$%001$%' 41)' 8 *$%' (*8 8*. /2')+%$%' '$%' . *' 014>%(), 7%' 0%. 0'), *. 0' +%' 5,0%'0%', 0' $')+%$' 8 *$%' (*8 8*. ', . ')50, , 5' +**5' ' . 5' 2*1)+')+' . ', . ' 8, 55/%' /, &%' 3+, /%' ,)' , 0' 0%/5*8' 0%%. ' , . ' */5' '-%Ĥ)+N' 3$,)%$' +'0' +*3%7%$' 8%)' 3,)+' *. %' ('0%' , . ''' 8' .

Ł)+%' 0%($%)*$2' . %$7%0' *&' -/' . 50' ' . 5' '/0*')+%' . %$7%0' *&', . 7*/1.)'$2' 810(/%0')' ('10%0' (*/5' 03%')0' '' &%%+/%' (,$(1/'), *. ' . 5' &', .); , . -'Ĥ ''/'$-%' 5*0%' ('10%0' 5%')+' +2'&', /1$%' *&' $%06,$'), *. ' '))%. 5%5' +2' 0%7%$%' (*. 71/0, *. 0' +%' 4/**5 6$%001$%' &'//0')' &, $0)' 41)' ,)' 8 '2')+%. '$, 0%' ' . 5')+%' 61/0% $')%' , 0' $'6, 5' , (*;), . %' &, $0)' 0), 81/')%0' &)&, 5)+%. ' 6 '$' /20%0')+%' %. 50' *&')+%' 7' -, ', . ')+%' +%' $)

"' *(', . %' A >>\=> H; ĺG'&, $*8' $2')+$*B2/*. ' ('' +, 0', 0' '' /*(' /' . 0%0)+%), (' '(), . -'*. ')+%')%$8, . '), *. 0' *&')+%' . %$7%0' *&')+%' 09, . ' . 5' *&' 81(*10' 8%84$' . %0')0' -%. %$'/' (), *. ' $%0%84/%0')+')' *&' ('&&%, . %', . ' 08 '// 5*0%0' /%00%. , . -'&'), -1%', . '/'$-%$' 5*0%0' ('10, . -' 3%'$, . %00' 5%'&, %00' . '. 5', . '4, /,)2')*')+, . 9' (/%'$/2')0' '(), *. ' 0' &, $0)' *. ')+%' (%$%; 4$18')+%. ' *. ')+%' 8%51//' ' . 5' /'0)/2' *. ')+%' 06, . 'ĺ (*$5' %$2'/'$-%' 5*0%0' 8 '2' ('10%' (*. 71/0, *. 0' *&' (%$%4$'ĺ *$, -, . ' *$' 51%')*' 6'$'/20, 0' *&')+%' $%06, $')*$2' (%.)$%Ĥ)+%' 0%. 0*$2' (*/18. 0' *&')+%' (*$5' '$%' 6'$'/20%5' 3+, /%')+%' 8*)*$' '$%' 1. '&&%()%5' 8 '/' 5*0%0' $', 0%')+%' 4/**5 6$%001$%' '. 5' E1, (9%. ')+%' 61/0%Ĥ /'$-%' 5*0%0' +'7%')+%' $%7%$0%' %&&%()' +%' 0%($%), *. 0' '$%' -%. %$''//2' 5, 8, . , 0+%5

' , /*('$6, . %'A S , H<RG&, *8' , /*; ('$610' 6%. . '), &* 10' *$' '4*$'. 5, ' , /*('$; 6, . %'0), 81/')%0')+%'0%($%)*$2' . %$7%0' *&'-/' . 50' ('10, . -'%06%(,'//2' *6, *10' 0%($%), *. ' &$*8')+%' 0'/, 7'$2' . '. 5'03%') -/' . 50')' /0*', . ($%'0%0')+%' 0%($%), *. ' &$*8')+%' 4$*. %'&$*8')+%' -/' . 50' *&')+%' 0)*8' (+' . 5' , .)%0), . %0' . '. 5' &$*8')+%' 9, 5. %20')' W5*%0' . *)', . ($%'0%')+%' 0%($%), *. ' *&' 4, /%' . '. 5' ,)0' (), *. ' . ')+%' 8 '8 8 '$2' -/' . 5', 0' 1. (%$)', . ' . ' /'$-%' 5*0%0' ,)' 8 '2' ('10%' 1. 0)%'5, . %00' *&' 8*7%8%.)' 3,)+' '')%. 5%. (2')*' $*)')%')3,)(+' , . -0' *&' 810(/%0' 0+, 7%$, . -' . ' . 5' 5206. *%' ' 0+*3, . -' . ' . ' (), *. ' *. ' . %$7% (%.)$%0' . ')+%0%' (, $(180)' . (%0')+%' 616, /, 0' (*.)$' ()%5' ' . 5')+%$%', 0', . 5, 0), . ()'7, 0, *. '&$*8'06'08' *&')+%' (, /, '$2' 810(/%' '$-%' 5*0%0' 6'$'/20%')+%' 7'-10' %. 5, . -0' , . ')+%' +%')$' ' . 5')+%$%' 8 '2' /0*' +%' 06'08*5, (*.)$' (), *. 0' *&')+%' 810(1/'$' 3'//0' *&')+%' 0)*8'(+' , .)%0), . %0' ' . 5' 4/'55%$' 1$, . -' 6$*&. 0%' 03%'), . -')+%')%86%$')1$%'$, =0' +%$%' 8 '2' +%' 5%')+'&$*8' 0155%. ' (*//'60%

F')$*6+')+, . , > >> -]RG)+%' '(;), 7%' 6$, . (, 6/%' *&')$*64'1)+10' +, 06, 510')' $%0%84/%0' 5, -,)'/, ' . ',)0' -%. %$'/' (), *. ',)' 0), 81/')%0' ' 0)$, ')%5' 810(/%0Ĥ, . '/'$-%' 5*0%0' ,)' 8 '2' '$$%0)')+%' +%'$)' , 6' 020)*/%Ĥ ' . 5',)' '/0*' ' ()0' '0' '' 5, 1$%), (

= ' 6' H "

& ' A5YY]'&*$(%5' 8%')RG' '10' -% 6*, 0*. , . -' ' $ '

' U ', . ' * .); -*8%$2' (*1.)2' ,$-, . , ' ' '/(, (' *$' %')$)+2' 3')%$0' ' '

3 3 *' ' ' D E M 1/6+1$3')%$0' ' % ' %

*7%$'0%7% .)2' 2%'$0' *&' -%' 3+*' (* 8 6/%)%/2'$%; (*7%$%5' /*6%(,'',0'6$*4'4/2'%E1''//2'(* 8 8 *.' ,.' 8 '/%0' '. 5' &% 8 '/%0')+*1-+' * .')+,0' 6*,.)')+%$%',0' 0* 8 %' 5,&&%$%. (%' *&' *6,. ,*. ' +%' */5' ,5%'') +')')+%' 5,0%'0%' 3'0' 51%')*' '' 6'$'0,),(' &1. -10'+'0' . *3'4%%.'-,7%.'16',.'(* .0%E1%.(%' *&')+%' (* 8 6/%)%' &',/1$%' *&' ''/' '))% 8 6)0')*' 5% 8 *.0)$')%')+%' &1. -10H 8 *$%*7%$' 8 '. 2' *&')+%' (+.,('/' &%')1$%0' *&')+%' 5,0%'0%' %06%(,''//2' ,)0' -$%')' /,'4,/,)2')*' $%(1$' &)%$' (* 8 6/%)%' '40%.(%' &*$' 6%$+'60' 2%'$0' ,0' .*)' ')' ''/' ,.' '((*$5'.(%' 3,)+' ''6'$'0,),(' *$,-,. +%$%',0' (%$)',./2' 0* 8 %,8 %0' '' &' 8 ,/2')%.5%,,*2')*' '/*6%(,'' .'%B)$%8%'(' 0%0' *&' '/*6%(,''' $%')'' ,.'3+,(+'//')+%'+',$',0'/*0)')+%' .%$7*10' *$,-,.' *&')+%' 5,0%'0%',0' -%.%$'//2' '58,))%5

,)+'$%-'$5')*' ,)0' 8 *$4,5' . ')* 8 2',)' 8 '2' 4%'0','5')+')',)',0'*&)%.'5,&&,(1/)'*'&,.5'0)1 8 60' 41)' 3+%.' 6$%0%.)')+%2' '$%' 7%$2' (+'$'(;)%$,0),(' +%2' '$%' '/0*' 0* 8 %),8 %0' 7'/1'4/%' &*$')+%' 61$6*0%' *&'5,&&%$%.),'/'5,'-.*0,0'0,.(%')+%2' '$%' 1./,9%')+%' 0)1 8 60' *&' $,.-3*$8' 4%,.-' 0)$',-+)' .5')+,(9%$' ')')+%'&$%%' %.5')+' .' ')')+%' 6*,.)' *&',.0%$),*.' 3+,(+',0' (*.;)$'()%5',.)*' '' 0*$)*&'.%(9'%.5,.-',' '' 0)'' ' $*1.5%5' ')$*6+,%5' $**)' ' 7%$2' 0/,-+)' ' 8*1.)' *&')$'(),*.'$%8*7%0')+%8'%.),$%H ,')+,0' $%06%()')+%2'5,&&%$ 81(+'&$*8' *$5,.'$2' $,.-3*$8'0)1 8 60

/, 0,0 G ,.-3*$8',0')+%'*./2'5,0%'0%' 3+,(+',0'/,'4/%')*' 4% 8 ,0)'9%.'&*$' '/*6%(,'' '$%')' +' 5,&&,(1/)2''$,0%0')+10H ,.'(* 8 ; 8*.' $,.-3*$8' %,)+%$' &$*8')$%')8%.)' *$' &$*8'0* 8 %' *)+%$' 1.9.*3.' ('10%')+%' +',$' 0* 8 %),8 %0'&'//0'$'6,5/2'*&&',.0)%'5'*&'4$%'9,.-' '0',)' 101''//2' 5*%0' +%.')+%' +',$' (* 8 %0' *1)',.')+,0'3'2'3,)+'$**)')'(+%5''' 0 8 **)+' 4'/5'06*)',0'/%&)'%B'()/2'/,9%''/*6%(,'' '$%')'H 1.5%$')+%0%' (,$(1 8 0)'.(%0'1./%00'' 0)1 8 6' (''.'4%*4)',.%5'&*$%B'8,.'),*.')+%'5,'-.*; 0,0',0'7%$2'5,&&,(1/)' +%' 6$%0%.(%' *&')+%$' ('0%0'*&',.-3*$8',')+%'0'8%' +*10%''.5')+%'+,0)*$2'*&')+%'6'),%.)'8'2'4%''-1,5%')*' 5,'-.*0,0

R$' $*(9%$' 8%.),*.0' '' 7%$2',.)%$%0),.-' '.5',.0)$1(),7%' 0%$,%0' *&' ('0%0' *&' 0%,-+)' (+,/5$%.',.'*.%&'8,/2'3+*'3+,/%''')+%' 0%';0,5%'+'5'%'(+' '' &%3'08'//'6%$&%()/2'4'/5'06*)0' *.')+%,$'+%'50H)+%2'3%$%' E1,)%'4'$%' &$*8')+%'&,$0)''.5'.%7%$'/'$-%$')+'.'+'/&''.',.(+,.'5,'8%)%$ &)%$'"),8%')+%'-*7%$.%00'(*.)$'()%5')+%'5,0%'0%'3+,(+'3'0'4%/,%7%5'42'+%$'5*()*$')*'4%''/*6%(,''''$%')'''.5'.*)'(*.;)'-,*.0'H 0+%'+*3%7%$'0/%6)'3,)+'+%$'0,0)%$'3+*''&)%$3'$50'0+*3%5'0,8,/'$'06*)0' $*(9%$'0'20'0 +%'+',$0'$*1.5'3%$%'/**0%')+%$%'3%$%'.*'0+*$)'+',$0'41)'*.%'61//%5'*1)'*&')+%'4*5%$%0+*3%5'5,0),.()'&1.-10%/%8%.)0',.5,0),.-1,0+'4/%'&$*8',.%''),.01$'.0'.*'('0%'3%$%')+%$%'8*0)'10%&1/'41)',)',0'5,0'-$%%'4/%'+%'-%.%$'/)$%')8%.)'0+*1/5'(*.0,0)'*&'01,)'4/%')*.,(0''.5'3,.%'*$4%%$'3,)+'6/%.)2'*&'$%0)K'.5'(+'.-%'*&'',$'*.),.1%5'6+20,('/&'),-1%'66%'$0',.'8'.2'('0%0')*'&'7*1$')+%'5%7%/*68%.)'*&''/*6%(,''$%')'

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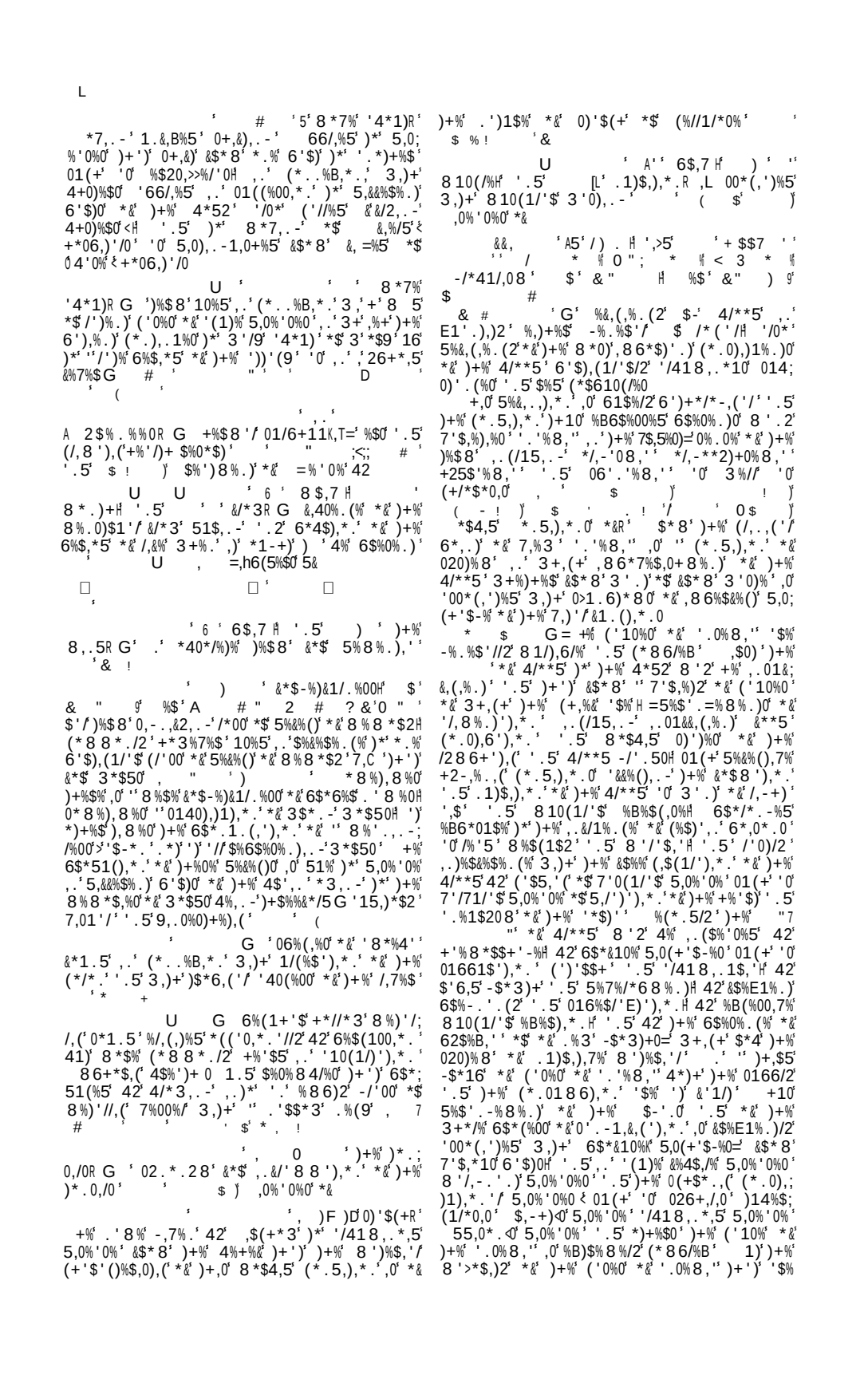

$%-'$5%5' .5')$%')%5' '0' 01(+'&'/' ,.)*')+%' (/'00')*' 3+,(+')+%' .' 8%' *&' # ' +'0' 4%%.' '66/,%5' .' 01(+' ('0%0')+%' .'%8,(' (*.5,),*.' ,0' 5,/L' .*)')*' .2'5,0%'0%' 0*' ('//%5' 41)')*' 5,0)1$4'.(%' *&' .1)$,),*.' -%.%$'//2G')+')' ,0' *&')+%' +%''/)+2' $%/'),*.' 4%)3%%.')+%' 5%8'.50' *&')+%' 020)%8' .'.5')+%' 0166/2' *&' .1)$,%.)' 8')%$,'/' +,0' (*.5,),*.' *%(8%' (+,%&/2' ,' (+,/5$%.' .'.5'2*,8-' 3*8%.'')')+%' 6%$,*5' *&'4*5,/2' -$*3)+' .'.5' *&')+%' 5%7%/*6; 8%.)' .'.5' %'$/2' (),7,)2' *&')+%' 0%B1'/ &1.(),*.0H' .'.5' 3+%.' '0' 0*' &$%E1%.)/2' .'.5')8&*$)1.')%/2' +'66%.0')+%' .'$' /,-+)' &**5' *((16'),*.' .'.5' .%$7*10' $%/'),*.0' *&')+%' ,.5,7,51'/'$%' '//' 8*$%' (' /%00' B8+%'/)+2

! ' ' ' " +%' 4/**5'01&; &%$0')+$%%' 6$,.(,6'/' (+'.-%0' ,.' 5%(/'$%5' .'%8,'' .'8%/2' A8R' 5%&,(,%.(2' ,.' '8*1.)' A*/,-'%8,'RH A<R' 5%&,(,%.(2' ,.' $%5' (*$610(/%0' *$'+'%8*-/*4,.' A*/,-*(=+'%8,'' '-/*41/,08RH' .5'A"R' 5%&,(,%.(2' ,.'')/48.8*10' (*.0),)1%.)0' A+26'//>18,.*0,0R' &')+%0%' */,-'%8,'',0')+%' 0,86/%0)' .5' 6%$+'60' .%7%$' *((1$0' '/*.%H ,)' ,0' 06%%5,/2' (*86/,(')%5' 3,)+' '-/*41/,08' 3+,(+' ,0' '7%$2' %'$/2' .'.5' (*88*.' '0' 3%// '0')+%' 8*0)' *.0),.')%' (+'.-%' ,.')+%' 4/**5' 26'/418,.*0,0' ,0'),4% 8*0)' '57'.(%5' .'.5' 6%$+'60')+%' 8*0)' 0%$,*10' /)%$'),*.' *&')+%')+$%%' ' 0$ ' *$4,5' *.5,),*.0' *&R' +%' 4/**5' ,0' 0('8)2' .'.5' 6'/%H +'0' '' 5,8,.,0+%5'06%(,&,(' -$'7,)2H' .'.5' (*'-1/')%0' 0/*3/2' .'.5'/**0%/2'*$' ,.' '--$'7')%5' (' 0%0' .*)')' //' 0%))/,.-',.)*')+$%%/'2%$0G(*.0,0); ,.-' $%06%(),7%/2' *&' $%5' (*$610(/%0' 3+,)% (*$610(/%0' .5'6/'08' ' +%' 4*52' 6$%0%.)0' (%$)',.'(+'.-%0'5,$%()/2'51%')*')+%' 0)')%' *&')+%'4/**5' +%)+%$')+%' .a8,'' 4%'/*('/'*$ -%.%$'/')+%'(*$%%06*.5,.-'6'$)0'$%'4/'.(+%5' .5' 04/**5/%00 +%' (%//0' *&')+%'),001%0' 4%(*8%')$*6+,%5' .'.5' 5%-%.%$')%',.=(*.; 0%E1%.(%'6&' .'.5',.'6$*6*$),*.')*')+%' ,.)%$; &%$%.(%' 3,)+')+%,$' 6/'0),(' .'.5' &1.(),*.'/ '(0)8)2' $%06%(),7%/2H' .'.5')+%' 0*('//%5' 0'.[8,(' &*$8'*&' &')2'+%'$)'/,7%$'9,5.%20' .'.5' *)+%$' *$-'.0',0')+%' $%01/)' &' 5%')+' *((1$0155%./2'&,H*8''(1)%'.'%8,'')+%'+%')$)' ,0' &*1.5'%86)2'.'.5'(.)$')()%5

$ " 1! ' .$4* '$-' +$$7' ' ! '+$7"' ! '+ ')74# 7'+"') / 7' * ' ! *$))! 3 ' ! '/! $* ' ! ' 4/). ' 5! ' ! "' =/) ' ! '5 '$-' + $$7' ' 5!$ ' 7'$-' .) '#$ > 4 ') '#! -"') -) + '$' ! '#?'$-' 5$' $-' ! '#$ 4 ' ! ' +4* $4' 4+ # ' 7' ! ') 7' #$)/4 # ' $)' ! *$> 3$+ ' ! ' $-' ! '$=7 + ' 7' ! '* $= 7 3' *) ' ! '/ !$ $3"' $-' ! ' + 4 $ ' 7' 3$+40 *' '-4 "'7 #4 7' ' ! ') # ' $ ' ! ' * $)+ 7' #$ 7 $ ' $-' ! '+$$7' $' 5! #!' ! ') 7)' ') -)) 7' ! ' * ' -- # ' 5 '+' /)$74# 7'+"' ' 7) ' $-' ! '@94 7' /) ' $ "' $-' ! '+$$7' $)'+"' /$.) "' $-' ! '+$$7'-)$*' "' $-' ! ' # 4 ' 4*) 7' +$. ' 5! !)' $-' ! ' 4) ' $-' 5 '$)' $-' 5 % *4#!' ' $ ' $-'/ * ' / 7 "' -- # ' ! ' 4) $ ' $-' ! ') 7' #$)>

610(/%0' +%0%' 6+%.*8%.'' (*.0),)1)%')+%' 0286)*80'*&')+%' '.'%8,(' (*.5,),*.'3+')%7%$' 8'2'4%',)0' ('10%H)+%,$' $%/'),7%' 6$*8,.%.(%' .')1$'//2'7'$2,.-' '((*$5,.-')*' '.',88%.0%' .184%$'*&'(,$(180)'.(%0

!(! " +%' 014>%()0' *&' '.'%8,'' '$%' 101'//2' -,$/0' '.5' 2*1.-' 3*8%.' +%,$' -%.%$'/'66%'$'.(%'3+,(+' ,0'0)$,9,.-',0' *.%' *&' 6'//*$' 5%4,/,)2' '.5' 7'$,'4/%' /*00' *& &%8,..%' &1/.%00' +%' 7,0,4/%' 6')0' *&')+%' 01$&'(%''$%'6'//,5'*&)%.'3,)+''"),.-%'*&'51 92' 4$*3.'*.')+%' %2%/,50' '.5')+%' 4'(90' *&')+%' +'.50H)+%' (/%'$.%00' *&')+%'(86/%B,*.' 7'$,%0'3,)+')+%' .*$8'/6,-8%.)',*.'*&')+%' 4*52H')+%' 09,.',0' 0*&)'0'),.2''))5'$')+%$' /**0%' +%'81(*10'01$&'(%0''/0*''$%'4/'.(+%5H)+%'0(/%$*),(',0'6%'$/2'4/1%' +%'/*00'*&'&/%0+' 8'2'4%'8*5%$')%'*$',)'8'2'4%'(*.0,5%$'4/%' +%'%B)$%8,),%0''$%'(*/5''.5')+%'/%-0'.5' /*3%$'%2%/,50''$%'*&)%.'*%5%8')*10' 2$%B,'' ,0' ((0,*.'//2'6$%0%.)')+%')%86%$')8$%'$,0,.-' '0'+,-+'0' !@g' '+'*$'%7%.'8*$%' *5,/2' 0)$%.-)+',0'$%51(%5H'810(1/'$*&$(%',0'5,8,.; ,0+%5'3+,/%'82'/-,'',0'(*88*.H''.',$'*& /'.-1*$' '.5'3'.)'*&'7,-*1$'6%$7'5%0')+%' 3+*/%'5%8%'.*1$H''',5')+%'6'),%.)',0'0/%%62' 51 ''.5'5%6$%00%5' +%'014>%()'*&'.0%88' -%.%$'//2'(*86/',.0'*&'3%'9.%00'7'$,*10' 6',.0'4*1)')+%'4*52'' .5'+%'5'' .5'8'$9%5' 0+*$).%00'*&'4$%')+'*.')+%'/%')'%B%$),*.' +%' /'0)'02286)*8',0'1.'((*86'.,%5'42'*)+%$' %7,5%.(%'*&'$%06,$')*$2'5%$'.-%8%.)H ,.' (+'$')(%$')+%'4$%')+,.-',0'$%-1/'$''.5'0+*$)' *$%7%.'6'.),.-' +%'0286)*80'$%&%$'4/%')*')+%'(,$(1/'),*.'(*.0,0)'(+,%&/2'*&'6'/6,)'),*.' *.'%B%$),*.H''.%.5%.(2')*'&',.)H''.5'6',.' *$ 5,0)$%00'*7%$')+%'('$5,'(''%-*.' +%' 6+20,('/0,-.0',.5,(')%'('$5,'(%./'$-%8%.)'*& 7'$,'4/%'5%-$%%' '$*1-+'020)*/,(' 81$81$',0' 101'//2'+%'$5'*7%$')+%'61/8*.'$2''$)%$2H' ''0*&)'020)*/,(' 88<81$')')+%''*$),(' 4'0%',.')+%'8,)$'/'$%''6*00,4/2'*7%$')+%' +'/%'63%' (*$5,''' .5'%7%.'')')+%'0('61/'$'6%BH')+%' 0%(*.5'0*1.5',0'*&)%.'1.,7%$0'//2''((%.)1')%5' 7%$')+%'(%$7,('/'7%00%/0''020)*/,(' 81$81$',0' (*88*./2''15,4/%'&*//*3%5'42''0+'$6' 0*1.5H,.')+%'.%(9''/*15'7%.*10'+18' +%' (%$7,('/'7%00%/0'8'2')+$*4'H)+%'$'5,'/'61/0%' ,0'08'//'3%'9''.5'*&'7'$,'4/%'41)'101''//2' ,.($%'0%5'&$%E1%.(2''.5'0155%$8%00' + % ,0''')%.5%.(2')*'+%8*$$+'-%0' %06%(,'//2' %6,0)'B,0H''.5'6%)%(+,0%''$%*((0',.'//2*4; 0%$7%5',6+%5,-%0),7%'020)%8',0'8'$9%5/2' '&&%()%5'0'0+*3.'42'/*00''*$'6%$7%$0,*.'*&' '66%),)%H''.''.'%8,(''*&)%.'4'$%'41)'7'$,'4/%')*.-1%H 5206%60,''.'10%''.5'0,(9.%00' '&)%$'8%'/0'*$*.'$,0,.-H''.5'(*.0),6'),*.' 3+,(+',0'6$%0%.)',.')+%'8'>*$,)2'*&'('0%0' '.5',0'&$%E1%.)/2'6$*/*.-%5''.5'0%7%$%' +%' 8%.0)$1'/&1.(),*.0''$%' '/8*0)'/3'20'5%; $'.-%5' '8%.*$$+(%'',0'(*88*.''.'0*8%' &*$8H 8%.*$$+'-,'',0'$'$%' A%B(%6)' '0' ('10%'*&'.a8,'RH 5208%.*$$+(%'',0'&$%; E1%.)/2''00*(,')%5H''.5'/%1(*$$+(%'',0')+%' $1/%' +%'1$,.%'7'$,%0'-$%')/2' %'5'(+%'),..)10'1$,18''.5'*)+%$'(%$%4$'/0286)*80

'$%' (* 8 8 *. ' +%$%' 8 '2' 4%') * 3' *&')+%' *6),(' 5,0(' /**5' 5$' 3 .' &$* 8')+%' &, . -%$' 6$%0%.)0' -/*4 ./,0 8 ' ' ! ' !
% ' ' ! G +%' (*1$0%' *&' . '%8, '', . ')+,0'&*$8', 0' %00% .), ''//2' 0/* 3'' . 5' 6$* -$%00,7%' 1 . /%00',', 0' (+%%9%5ℍ)+%' "'' ,0' 6%$&%()/2' , . 5%&, . ,)%' +%' (*,1$0%' *&')+%' 02 8 6)* 8 '),(' &*$8' 3 ,//' . ')1$' //2' 7 '$2' 3 ,)+',)0' ('10%' 5,*6')+,(' ' . '%8, ''$' $%/2')%$ 8 , . ')%0' &')'//2ℍ ' . 5 ' 3+%. ' ,)' 5*%0' 0*')+%' %7%.)' 8 '2' 4%' $%&%$$%5' 3 ,)+' &%3' %B(%6),* . 0')*' 0* 8 %' (* 8 6/, ('),*. ' (('0,* . '//2' +* 3%7%$' ,)' 6$*; -$%00%0' 0)%' 5,/2')*' 5%')+' ' ! ') 2
' %
.)%$(1$$%.)' 5,0%' 0%0' 8 '2' 4%' %B6%()%5')*' 4%' 0%7%$%', . '' . ' . '%8, ('(* . 5,), * . ' , . ' 6$* 6* 6$;), * . ')*' ,)0' 5%-$%%
& G . '%8, '' ,0' -%. %$' //2' $%(* -; . ,0%5' 3 ,)+')+%' -$%')%0)' %' 0%' ' . 5')+%' (+,%&' E1%0), * . ' *&' 5,' - . *0,0' $%/')%0')*' ,)0' ' +%' &,$0)' 6*, . ')*' 4%' 5%)%$ 8 , . %5')+%$%&*$%' ,0' 3+%)+%$' ,)' ,0' . *)' '*&' 0* 8 %' 8 *$%' -$' 7%' 0)')%' 01(+' '0')14%$(1/*0,0' 026+,/,0' '/418, . *,5' 5,0%' 0%' *$' 0* 8 %' *)+%$' *&')+%' 8 ' . 2' 6*00,4/%' ('10%0' *&' 6*7%$)2' *&' 4/**5' '7, . -' 0%))/%5')+')')+%' . ' %8, '', 0' # ' 3 %' 8 10)' . %B)' %B(/15%')3 *' 5,0%' 0%0' 7$,)+' 3+, (+',)' 8 '2' 4%(* . &*1 . 5%5' . ' 8 %/2' (+/*$*0,0' ' . 5' /%19' %8, '' +/*$*0,0' , . ' 3+, (+')+%' 6/' 0 8 '', 0' . *)' (* . 0,5%$%5')*' 4%' ')%$%5' ' . 5' 3+, (+'6*00%00%0' *)+%$3,0%' ''06%(, ('6')+*/*-2' ,0' %B6$%00%5' 42')+%' 2%//*3'),.)' *&' 09, . ' 42')+%' '40%. (%' *&' 3 '0), . -' ' . 5' *&' 5$*602' '0' 3%//' '0' 42' *)+%$' &%')1$%0' , ' $ 3 ' +%' 5, ' - . *0,0' *&' 6%$. , (, *10' ' . '%8, '', 0' &1//2' -, 7%. ' , . ')+%' $), (/%' *. ')+')' 014>%()' %19' %8, '', 0' $%(*- . , 0%5' 42' %B' 8 , . '), *. ' *&')+%' 4/**5' ' . 5' 06/%%. ' +%' 0)'$), . - 6*, .)' *&')+%' 4/**5' (+' . -%' , . ' , 5, *6')+, (' ' . '%8, '' ('. ' *. /2' 4%' 5,0(*7%$%5' 42' , . 7%0), - '), *. ' *&' '/')+%' &' ()0' *&')+%' ('0%
G +%' 6$*- . *0,0' *&' ' . '%8, '', 0' &'7*1$' 4/%' '0' $%- '$50' /, &%' . '0, 8 6/%' ' . '%8, '' &$* 8' /*00' *&' 4/**5')+%' 6'), %.)' 8 '2' 4%' '001$%5' *&' 06%%52' ' . 5' (* 8 6/%)%' $%(*7%$2' . ' , 5, *; 6')+, (' . '%8, ' '+*3%7%$')+, 0' 6$* 8, 0%' ('. '4%' -, 7%. ' * . /2' 3+%. ')+%' ('10%' ('. ' 4%' $%8*7%5' *$' 7*, 5%5' . 5%$' &'7*1$' 4/%' (, $(1 8 0)' . (%0' ' . 5' >15, (, *10')$%')8%.)' , 8 6$*7%8%.)' 3, ' 4%-, . ' /8*0)', 8 8%5, ')%/2ℍ ' . 5'+%' /)+' 0+*1/5' 4%' $%0)*$%5' '&)%$' '' &%3' 3%%90' *$' 8 * .)+0
! G' +%')$%')8%.)' *&' ' . '%8, '' 3+%. ',)' , 0' 02 8 6)* 8 '), (' *&' 0* 8%' 8 *$%' -$' 7%' (* . 5,), * . '01(+' 0' $, -+)<0' 5, 0%' 0%' *$' 6+)+, 0, 0' 5*%0' . *)'$%E1, $%' . *), (%' +%$%' b +%. '4/**5' +' 0' 4%%. /' *0)' , . ' 0%$, *10' E1' .),)2' 3,)+*1)' *)+%$' , . >1$2' *&' (* . 0%E1%. (%' ,)' 3 , //' 4%' . ')1$' //2' $%0)*$%5' , &' 41)' 01&&, (, %.)'), 8 %' 4%' -, 7%. ' ' . 5' , .)%$&%$%. (%' *)+%$3, 0%' '7*, 5%5'))%.), *. ')*')+%' *$5, . '$2' $1/%0' *&' +%' /)+' '41. 5' . (%' *&' &**5' ' . 5' ', $' ' . 5' 8 *5%$')%' %B%$(, 0%' 3, ' 01$%/2', &' 0/* 3/2' $%0)*$%')+%' 6')%.)' 3,)+*1)')+%$' '58, . , 0)$'), *. ' *&' '' 0, . -/%' 5$1-' 7%. ' , . ')+, 0' ('0%' +*3%7%$')$%')8%.)' 8 '2' 4%' *&' -$%')' 0%$7, (%' 42' '$$%0), . - ', &' . %('%00' $2')+%' ('10%' *&')+%' . '%8, ' '01(+' '0' 8%. *$$+' - , '' *$ %6, 0)' B, 0ℍ ' . 5' 42' '00, 0), . -' . ')1$%', &')+%' (*. ; 5,), *. ' 0+*1/5')+$%')%. ')' . 2'), 8 %')*' 4%(* 8 %' , .)%. 0, &, %5' 42' ,)0' * 3 . '%&&%()0
1)' 4%&*$%')+%' 4/**5' (' . ' 4%' $%0)*$%5' , . ')+%' /'$-%' . 5', 5%&, . %5' -$*16' *&' ('0%0' 9 . *3 . ' '0' ,5, *6')+, (' ' . '%8, ' ')+%' 1 . +%' /)+2' , . &/1%. (%0' 1 . 5%$' 3+, (+')+%' 6')%.)' , 0' 6/' (%5' ' . 5')+%' &1 . (), *. . '/' ' . 5' *)+%$' 5%$' . -%8%.)0' 3+, (+' '$%' 101' //2' '((*1 .)' 4/%' &*$')+%' , 8 6%$&%()' 0' . -1, &, ()', *. ' 8 10)' 4%' 5, 0(*7%$%5' ' . 5' (*$; $%()%5' '(+' ('0%' 8 10)' 4%')$%')%5' *. ' ,)0' *3 . ' 8 %$,)0' $*1), . %' 4%, . -' '7*, 5%5' +%$%')+%' '%), */*-2' , 0' (*8 6/%B')$%')8%.)' 8 10)' 4%' %E1' //2' -%. %$' /' ' . 5')+%' 3+*/%' 020)%8' *&' /, &%' 3, //+' 7%')*' 4%' $%&*$8%5' . ')+%' *)+%$' +' . 5', . ')+%' $' 6, 5/2' -$*3, . -' (+, /5' ' . 5' 2*1)+' ' . 5' 0) /' 8 *$%' , . ' -, $/0' ')' 614%$)2')+%' -$%')' 5%8' . 5' &*$' . 1)$,), 7%' 8 ')%$, '/' 8 10)' 4%' 51/2' (* . 0, 5%$%5' ' . 5' %7%$2' *40)' (/%')*' ,)0' 0166/2' $%8*7%5' +%. '*)+%$')+' . '5, $%()' 5, 0(+' $-%0' '$%' 5$' , . , . -')+%' 4/**5')+%2' 8 10)' 4%' (+%(9%5' '()'), *. ' 8 '2' +'7%')*' 4%' &*$4, 55%. ℍ ' . 5' /%1(*$$+*%'' ' . 5' 06%$8 ')*$$+*%'' 3, //' 0* 8 %;), 8 %0' 5%8 ' . 5' /*%' /')$%')8%.)
+%' $%8*7' /' *&')+%' ('10%' 4%, . -')+10' 8 ' 5%')+%' &, $0)' %/%8%.)' , . ')$%')8%.)' 8 %.)' 8 %' . 0' 8 10)' . %B)' 4%' 5*6)%5' &*$')+%' $%0)*$')*. ' *&')+%' 4/**5' *' ((*8 6/, 0+'), 0',)' 3, ' 4%' . %(%0; 0' $2')*' 4$, . -')+%' '/, 8 %.)' $2')$' ()' . 5')+%' *$-' . 0' *&' 0' . -1, &, (''), *. ' , .)*' ''+%' /)+2' 0)')%'
206%60, '' . 5' (* . 0), 6'), *. ' $%E1, $%' , 8 8 %; 5, ')%')8%.)' +%' 4%0)' 6/' . ' , 0')*' 4%-, . ' 3,)+' '' 4$, 09' 61$-%' ' . 5')*' &*//*3')+, 0' 16' 3,)+' '' (*1$0%' *&', $*. ' . 5' '/*%0' A, . ' 7' $, *10' (* 8 4, . '), *. 0ℍ %7%$2' . , -+)')+%' 6, //&*$ 8 ' 4%, . -' -%. %$' //2' 6$%&%$$%5' 0*' '0')*' 0%(1$%' * . %' ' . 5' *. /2' * . %' 5', /2' %7' (1'), *. ' *&')+%' 4*3%/0' +%$%3,)+' '' 4,))%$' . 5' '/9' /, . %' 0)* 8 ' (+, ('8, B)1$%' 8 '2' 4%' -, 7%. ' 4%&*$%' 8 %' /0' &*$' ''&%3' 3%%90' +%' &**5' 8 10)' 4%' ('$%&1//2' *$5%$%5' 0*')+')' ,)' 0+'/' . *)' *. /2' 0166/2')+%' '/41; 8 , . *10' %/%8%.)0')+')' '$%' 06%(, ''//2' 5%&, (, %.)' , .)+%' 4/**5' 41)' 4%' $%)', . %5' 5, -%0)%5' ' . 5' '40*$4%5
+%' 6$*(%00' *&' 0' . -1, &, ('), *. ' 8 '2' 4%' 01(; (%00&1//2' '00, 0)%5' 42' 8 %' . 0' *&' 5$1-0' $*. ' , 0')+%' 0*7%$%, -. ' $%8%52' &*$' -/*41/, 0 8ℍ ' . 5' 6$' (), ('//2' 06%' 9, . -' ,)' 06%%5, /2' 4%(* 8 %0' ' E1%0), *. ', . ')+%' 8 %5, (, . '/)$%')8%.)' *&' ' ('0%' *&' . '%8, '' , ' 3+')' &*$8' , $*. ' , 0')*' 4%' -, 7%. ' +%' (* 8 6*1. 5' , $*. ' 8 , B)1$%' *&')+%' 6+' $8 ' ' (*6(%, ' ' 6%$+'60' . 03%$0' 8 *$%' &$%E1%.)/2')+' . ' . ' . 2' *)+%$ℍ 41)' *. ')+%' *. %' +' . 5' 3+%. ')+%$%' , 0' (*. 0), 6'), *. ' . ' 0' , 0' 0*' *&)%. ')+%' ('0%' (* 8 4, . '), *. 0' *&' '/*%0' ' . 5', $*. ', . ' 6 /' *$' '' 8, B)1$%' (*.) . ', . , . -')+%' 6$*)*01/6+')%' 3,)+' 61$-'), 7%' 0' /, . %' 01/6+')%0' 3, ' 4%' 8 *$%' 01,); '4/%' &*$' ''), 8 %ℍ *. ')+%' *)+%$' +' . 5' 3+%. ')+%$%' , 0' '')%. 5%. (2')*' 5, 0(+' $-%0')+%' 6%$' 0' /)0' 3,)+' 4,))%$0' (*8 4, . %5' , *8 4, . %(%00' $2' 3,)+' 01/6+')%' *&' 8 ' -. %, 1 8 ' 3, //' . 03%$')+%' 61$6*0%' 4%))%$' *8 6*1. 50' *&' , $*. ' 3,)+' E1, . . . %' *$0)$2(+. , . %' 0+*1/5' 4%' -, 7%. ', . ' ('0%0' 3+%$%' /%00' 8 '$9%5' . 0%8, '' *((1$0' , . ' */5%$' 014>%()0' 3,)+' . %$7*10' 5%6$%00, *. ' . 5' -%. %$' /' 3 ' .)' *&' 7, -*1$' .' 06%(, ' /' ('0%0')+%' &%$$18

$%&/'()8.'0'((+'$')%5'('$4*.')%'*$)+%'7,.)1.'&%$$,'A3,)+'(*86*1.5'5%(*(),*.'*&'/*%0',.'(*.0),6')%5' 014>%()0R' '88*.,*(,)$')%' *&',$*.'*'$' /'15<0'6 / 8'2'4%' *$5%$%5' *8%'6'),%.)0'('..*)')'9%',$*.'%B(%6)',.')+%' %&&%$;7%0(,.-'&*$8 Ĥ *)+%$0'*./2',&',)',0'6$%0%.)%5')*')+%8'+,-+/2]5,/1)%5GĤ*$',.0)'.(%'0'''&%3'5$*60'*&')+%'),..()1$%'*&')+%' 6%$(+/*$,5%',.'*' -/'00'*&'3')%$' *' 8%%)'+,0'5,&^(1/2)'0'3%// '0')*'0%(1$%')+%'4%.%&,)'*&'8'.2'*)+%$$%(16%$'),7%',.&/1%.(%0''*(*1$0%'*&('+'/24%')%'3')%$0'8'2'4%')+%'4%0)'8%'.0')+')'('.'4%5%7,0%5' $'1 3' +%'55,;),*.'*&'$0%.,(')*')+%',$*.',0'..7'/1'4/%',.'8'.2'('0%0Ĥ,.'*)+%$',.0)'.(%0'$0%.,('/*.%'-,7%.''0'*3/%$<0'0*/1),*.'6$*7%0'%8,.%./)/201((%00&1/'&)%$',$*.'+'0'&',/%5'((*$5,.-')*'0*8%'1)+*$,),%0'8'.-'.%0%'00,0)0'+%'(),*.'*&',$*.'*5/,7%$'*,/',0'0*8%),8%0'6$%;0($,4%5'3,)+'01((%00'+%$'0286)*80'810)'4%')$%')%5'*.'*$5,.'$2'6$,.(,6/%0'%),.%'(*86/',.)0'5%8'.5'06%(,'/'))%.),*.Ĥ'.5'4$*8,5%0'%$-*)'*6,18'.5'*)+%$'0%5')7,%0'.5')0)$,.-%.)0'$%',.5,(')%5'3+%$%'%B(,)%;8%.)''.5'%B(%00,7%'5,0(+'$-%''$%'6$%0%.)b +,/0')+%0%'5,%)%),(''.5'8%5,(..'/'8%';01$%0''$%'4%,.-'('$$,%5'*1)',)',0',8 6*00,4/%')*',.0,0)'*)*'0)$*.-/2'16*.'))%.),*.')*'4*5,/2''.5'8%.)'/'+2-,%.%')+%'10%'&')+%')%6,5'8*$.,.-'4')+Ĥ)+%'6$*6%$'5,06*0'/*&'),8%',.'$%/'),*.')*'%B%$(,0%'%51('),*.'.'5'.'810%;8%.)Ĥ+%'/)+2'(/*)+,.-'*$'$')+%$'05$%00<Ĥ)+%''7*,5'.(%'&'1.3+*/%0*8%'%B(,)%8%.)Ĥ%'$/2'+*1$0''.5'01&,(,%.)'0/%%6'.''/'$-%'.184%$'&'('0%0'(+'.-%'&'.'$'&75&,/0'8'.2'*&')+%0%'(*.5,),*.0'.')+%')+%$'+'.5',.'('(1)%'.'%8,'.''0'3%//'0',.'0%7%$%'('0%0'*&'%7%$2'9,.5'$%0)',.'4%5',0',86%$'),7%'&*$''&%3'5'20',8%',0'.'%00%.),'/%/%8%.)',.')+%'(1$%'&,$%E1%.)'(+'.-%',.')+%'&*$8'*&')+%'8%5,(,.'/$%8%5,%0',0''/0*'57,0'4/%'$$'0%'b '\ G'-$)*'$-'*'5!#!''$#7'5!'/#4>)'--#$'$-'!'"*/!#"*'(.0),6')%5'014>%()0R''88*.,*(,)$')%'*&',$*.'*$'/'15<0'6/8'2'4%'*$5%$%5'*8%6'),%.)0'('..*)'9%',$*.'%B(%6)',.')+%'%&&%$;7%0(,.-'&*$8Ĥ*)+%$0'*./2',&',)',0'6$%0%.)%5')*')+%8'+,-+/2]5,/1)%5GĤ*$',.0)'.(%'0'''&%3'5$*60'*&')+%'),..()1$%'*&')+%'6%$(+/*$,5%',.'*'-/'00'*&'3')%$'*'8%%)'+,0'5,&^(1/2)'0'3%//'0')*'0%(1$%')+%'4%.%&,)'*&'8'.2'*)+%$$%(16%$'),7%',.&/1%.(%0''*(*1$0%'*&('+'/24%')%'3')%$0'8'2'4%')+%'4%0)'8%'.0')+')'('.'4%5%7,0%5'$'1 3'+%'55,;),*.'*&'$0%.,(')*')+%',$*.',0'..7'/1'4/%',.'8'.2'('0%0Ĥ,.'*)+%$',.0)'.(%0'$0%.,('/*.%'-,7%.''0'*3/%$<0'0*/1),*.'6$*7%0'%8,.%./)/201((%00&1/'&)%$',$*.'+'0'&',/%5'((*$5,.-')*'0*8%'1)+*$,),%0'8'.-'.%0%'00,0)0'+%'(),*.'*&',$*.'*5/,7%$'*,/',0'0*8%),8%0'6$%;0($,4%5'3,)+'01((%00'+%$'0286)*80'810)'4%')$%')%5'*.'*$5,.'$2'6$,.(,6/%0'%),.%'(*86/',.)0'5%8'.5'06%(,'/'))%.),*.Ĥ'.5'4$*8,5%0'%$-*)'*6,18'.5'*)+%$'0%5')7,%0''.5')0)$,.-%.)0'$%',.5,(')%5'3+%$%'%B(,)%;8%.)''.5'%B(%00,7%'5,0(+'$-%''$%'6$%0%.)b +,/0')+%0%'5,%)%),(''.5'8%5,(..'/'8%';01$%0''$%'4%,.-'('$$,%5'*1)',)',0',8 6*00,4/%')*',.0,0)'*)*'0)$*.-/2'16*.'))%.),*.')*'4*5,/2''.5'8%.)'/'+2-,%.%')+%'10%'&')+%'),..()1$%'*&')+%'8,'.''0'3%//'0',.'0%7%$%'('0%0'*&'%7%$2'9,.5'$%0)',.'4%5',0',86%$'),7%'&*$''&%3'5'20',8%',0'.'%00%.),'/%/%8%.)',.')+%'(1$%'&,$%E1%.)'(+'.-%',.')+%'&*$8'*&')+%'8%5,(,.'/$%8%5,%0',0''/0*'57,0'4/%'$$'0%'b '\ G'-$)*'$-'*'5!#!''$#7'5!'/#4>)'--#$'$-'!'"*/!#"*'(.0),6')%5'014>%()0R''88*.,*(,)$')%'*&',$*.'*$'/'15<0'6/8'2'4%'*$5%$%5'*8%6'),%.)0'('..*)'9%',$*.'%B(%6)',.')+%'%&&%$;7%0(,.-'&*$8Ĥ*)+%$0'*./2',&',)',0'6$%0%.)%5')*')+%8'+,-+/2]5,/1)%5GĤ*$',.0)'.(%'0'''&%3'5$*60'*&')+%'),..()1$%'*&')+%'6%$(+/*$,5%',.'*'-/'00'*&'3')%$'*'8%%)'+,0'5,&^(1/2)'0'3%//'0')*'0%(1$%')+%'4%.%&,)'*&'8'.2'*)+%$$%(16%$'),7%',.&/1%.(%0''*(*1$0%'*&('+'/24%')%'3')%$0'8'2'4%')+%'4%0)'8%'.0')+')'('.'4%5%7,0%5'$'1 3'+%'55,;),*.'*&'$0%.,(')*')+%',$*.',0'..7'/1'4/%',.'8'.2'('0%0Ĥ,.'*)+%$',.0)'.(%0'$0%.,('/*.%'-,7%.''0'*3/%$<0'0*/1),*.'6$*7%0'%8,.%./)/201((%00&1/'&)%$',$*.'+'0'&',/%5'((*$5,.-')*'0*8%'1)+*$,),%0'8'.-'.%0%'00,0)0'+%'(),*.'*&',$*.'*5/,7%$'*,/',0'0*8%),8%0'6$%;0($,4%5'3,)+'01((%00'+%$'0286)*80'810)'4%')$%')%5'*.'*$5,.'$2'6$,.(,6/%0'%),.%'(*86/',.)0'5%8'.5'06%(,'/'))%.),*.Ĥ'.5'4$*8,5%0'%$-*)'*6,18'.5'*)+%$'0%5')7,%0''.5')0)$,.-%.)0'$%',.5,(')%5'3+%$%'%B(,)%;8%.)''.5'%B(%00,7%'5,0(+'$-%''$%'6$%0%.)b +,/0')+%0%'5,%)%),(''.5'8%5,(..'/'8%';01$%0''$%'4%,.-'('$$,%5'*1)',)',0',8 6*00,4/%')*',.0,0)'*)*'0)$*.-/2'16*.'))%.),*.')*'4*5,/2''.5'8%.)'/'+2-,%.%')+%'10%'&')+%'),..()1$%'*&')+%'8,'.''0'3%//'0',.'0%7%$%'('0%0'*&'%7%$2'9,.5'$%0)',.'4%5',0',86%$'),7%'&*$''&%3'5'20',8%',0'.'%00%.),'/%/%8%.)',.')+%'(1$%'&,$%E1%.)'(+'.-%',.')+%'&*$8'*&')+%'8%5,(,.'/$%8%5,%0',0''/0*'57,0'4/%'$$'0%'b '\ G'-$)*'$-'*'5!#!''$#7'5!'/#4>)'--#$'$-'!'"*/!#"*'(.0),6')%5'014>%()0R''88*.,*(,)$')%'*&',$*.'*$'/'15<0'6/8'2'4%'*$5%$%5'*8%6'),%.)0'('..*)'9%',$*.'%B(%6)',.')+%'%&&%$;7%0(,.-'&*$8Ĥ*)+%$0'*./2',&',)',0'6$%0%.)%5')*')+%8'+,-+/2]5,/1)%5GĤ*$',.0)'.(%'0'''&%3'5$*60'*

All the organs of the body, with the exception of the spleen, look very pale, as if their vessels had been washed out with water. The liver is generally fatty; not much enlarged. The spleen may be normal, small, or somewhat enlarged, but never attains great dimensions, as in leukæmia. The kidneys are pale, often showing slight fatty change. The mucous membrane of the stomach and intestines often exhibits hæmorrhagic erosions; and atrophy of the tubular glands of the former has been described.

The marrow of the bones has been found normal in the majority of cases, but in some the yellow marrow has been replaced by red—probably a result of the disease rather than the cause of it. This indicates perhaps an effort on the part of this blood-elaborating tissue to take an unusually active part in the formation of red corpuscles, to compensate for their excessive disintegration.

Symptoms.—The following are the symptoms which are, as a rule, present in most of the well-marked cases of pernicious anæmia. The patient suffers from weariness, lassitude, headache, vertigo, and dizziness, with faintness, palpitation, and breathlessness on exertion. These symptoms make their approach in so slow and insidious a manner that the patient is unable to fix the date of their onset, and probably will not seek medical advice until he is incapacitated for mental or bodily work.

The aspect of the patient is characteristic: the mucous membranes are pale; the skin is usually of a light lemon-yellow colour, 'like white wax changed by age.' The conjunctivæ are white, though the presence of yellow fat beneath might lead a careless observer to believe there was slight jaundice. The patient is seldom emaciated; indeed the subcutaneous fat may be in considerable quantity. There is often slight œdema of the lower eyelids and of the feet, but these symptoms are generally late in appearing. The intellect is usually unimpaired, but answers to questions are slow, apathetic, and delivered in a low tone of voice, sometimes interrupted by long-drawn sighs. Sleep is occasionally, but not usually, heavy, insomnia being a more constant symptom. The tongue is pale, smooth, and dry; the breath offensive, with a cadaveric odour in severe cases. Stomatitis and bleeding gums are sometimes met with. In many cases dyspepsia, flatulent eructations, vomiting, and a painful sinking feeling at the epigastrium are prominent symptoms. These gastric disturbances are attributed by certain authorities to irritation of the cerebral centres by anæmia, by others to atrophy of the gastric glands. Usually there is anorexia and nausea, but some patients eat well or even to excess. Constipation or diarrhœa may occur, but usually the stools are of normal colour. Dyspnœa is sometimes the first symptom complained of. The breathing is generally accelerated, and, in advanced cases, is deep and noisy. The laboured breathing increases with the diminution of hæmoglobin, but not so rapidly as other symptoms, and is often absent as long as the patient is at rest. The action of the heart is regular and quick. Sometimes there is visible evidence of dilatation, the impulse being diffused, and the area of præcordial dulness being increased laterally. Systolic murmurs are heard over the cardiac region, sometimes loudest at the base, sometimes at the apex. A venous *bruit* in the neck is generally present. The pulse ranges between 100 and 120, and is regular, compressible, not small, often jerky, and possibly dicrotic.

One of the most striking clinical features of pernicious anæmia is the supervention of hæmorrhages. Epistaxis, menorrhagia, sometimes cerebral hæmorrhage, and towards the close of life petechial hæmorrhages and purpuric eruptions, may occur; but by far the most important are retinal hæmorrhages, because they serve as a diagnostic symptom of the greatest value.

The condition of the optic disc is shown in the accompanying figure (fig. 2). The

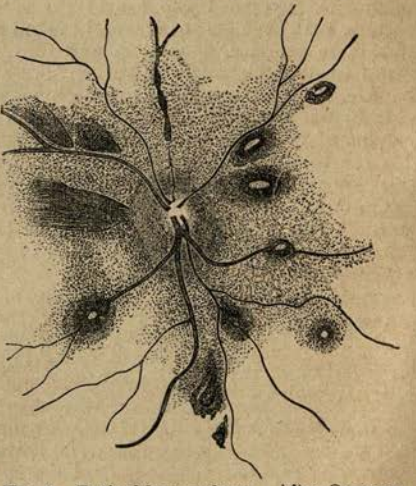

Fig. 2.—Retinal hæmorrhage. After Quincke.

fundus is pale, the arteries are narrow, the veins broad; the hæmorrhages are generally multiple, and flame-shaped, from their situation in the layer of nerve-fibres. They appear as linear striæ, rounded spots, or patches, clustered around the optic disc, and may have whitish or yellowish centres, due in part to leucocytes, in part to degeneration. These hæmorrhages may be quickly absorbed, often lasting only a few weeks. There may be no disturbance of vision, unless the hæmorrhage is situated in the maculæ luteæ. In all the six cases observed by the writer retinal hæmorrhages have been present.

*$%' *$' /%0 62$%B,'' ,)+%' $1/%' , .' 6%$ ' .,%,*10' . ' '%8 , ' ')' 8 '2' 4%' (* .), . 1*10' &*$' 8 * .)+0 ')+%' %7% . , . -')%8 6%$ ')1$%' $%' (+, . -' !!g ! g' '+ ›' *$' ,)' 8 '2' 4%' , .)%$8 ,))%.) ' 3 ,)+' 0155%. ' %B ' (%$4 '), * . 0 ' (('0, * . ' //2')+%')%8 6%$ ')1$%' 8 '2' $,0%')*' !F[' *$' !D[' '+' .')+%' *)+%$' + ' . 5 ' ,)' 8 '2' &' // ' %7%. ' '0' 8 1(+' '0' 8HG' 4%/* 3' . *$8 ' /' 6$%7,*10')*' 5%')+ +%' 0)')%' *&')+%' 1$, . %' $%E1,$%0' ('$%&1/' (* .0,5%$ '), * . ' +%' E1' .),)2' 8 '2' 4%' . *$8 '/' %B(%6)' ')')+%' (/*0%' *&' /,&%' 3+%. ' ,)' ,0' *&)%. ' (* .0,5%$ ' 4/2' 5, 8 , . ,0+%5 ')' 0%/5* 8 ' (* .), ' ,. 0' '/41 8 ,. ' ' . 5' . %7%$' 01-' $ ')' ,0' *&)%. ' *&' '' 5%%6' (*/*1$' (* .)', . , . -' %B(%00' *&' 1$*4,/, . ' ' . 5')+%$%' 8 '2' 4%' '' 5,$%()' '00*(, '), *. ' 4%')3%%. ')+%' 5%6)+' *&' (*/*1$' ' . 5')+%' +0%8 *2/),(' 6$*(%00' . ' *)+%$' , . 0)' . (%0 ' +*3%7%$' ,)' ,0' E1,)%' 6 ' /%' +%' ' 8 *1 .)' *&' . ,)$*-. ' %B(%)%5' ' 8 '2' 4%' /%00')+' . ' . *$8 '/H 41)' '0' ''$1/%' ,)' ,0' 8 *$%')+' . ' (' . ' 4%' '((*1 .)%5' &*$' 42')+%' . ,)$*-%. *10' , . -%0)' ' *. 0%E1%.)/2' ,)' 8 10)' 4%' 5%$,7%5' &$*8')+%' %B(%00,7%' 3 '0)%' *&' 4/**5' ' . 5'),001%H 41)' ' . ', . (*8 6/%)%' *B, ; 5 '), * . ' *&')+%' . ,)$*-%. *10' 0140)' . (%0' /%' 50')*' ' . ' %B($%), * . ' *&' 1$%'' ' . 5' ' 5%6*0,), * . ' *&' &')' $, (' (, 5' *&)%. ' *((1$0' , 6' (*. 0, 5%$ ' 4/%' E1' .),), %0H . , 5, (' . ' 6')+*/*-, (' /' $*4, /, . ' ' . 5' 6%.)' 8 %)+2/%. % 5, ' 8 , . %' +' 7%' '/0*' 4%%. ' &*1. 5', . ')+%' 8 , . %' 01--%0), . -' '' 8 *$4, 5' 6$*' (%00', . ')+%' -' 0)$*, .)%0), . ' /')$' ()' $%%', $*. ' +' 0' 4%%. ' 5, 0(*7%$%5' , . ')+%' 1$, . %' 42' $' ,//, ' 8 ' 1 .)%$ $ G *)3,)+0)' . 5, . -' ,)0' . ' 8 %')+%' 4/**5' , . ' 6%$. , (, *10' ' . 0%8, '' 6$%0%.)0' . *' (+' . -%0' '40*/1)%/2' (+' $' ()%$, 0), (' *&')+%' 5, 0; %' 0%' +%. ' 5$' 3 . ' ,)' '66%' $0' 6' /%' ' . 5' 3 ')%$2 ' ' . 5')+%' 06%(, &, (' -$' 7,)2', 0' *&)%. ' -$%')/2' $%51(%5' B ' 8 , . %5' 8 , ($*0(*6, (' //2' ,)' , , ; 7 ' $, ' 4/2' 0+*30' '' (* .0, 5%$ ' 4/%' 5, 8 , . 1), *. ' , . ')+%' . 184%$' *&' $%5' (*$610((/%0' 3+, (+' 8 '2' 4%' $%51(%5')*' F ! ' 6%$' (, 8 . G+' *&')+%' . *$8 '/' *$' %7%. ' /%00 G, . ')+%/' 0)' 0)' -%0' *&')+%' 5, 0%' 0%' %. %$' //2')+%$%' , 0' '' 0)$, 9, . -' 7 ' $, ' ;), *. ' , . ')+%' &*$8' . ' 5' 0, C%' *&' 8 ' . 2' *&')+%' $%5' (*$610(/%0' 0' 0+*3. ' , . ')+%' ((*8 6' . J1 . -' &, -1$%' A&, -' 9R ')' 3, //' 4%' 0%%. ')+')' 0*8%' '$%' 81(+'/' $-%$')+' . ' . *$8 '/' A8 ' ($*(2)%ORH)+%0%' '$%' . 1(/%')%5' ' . 2' ' -' , . ' ' $%' 6%' $ 0+' 6%5' *$+' 7%' ' . ', $$%-1/' $' (*.)*1$' A6*, 9, /*(2)%OR' . 5' &, . '//2')+%$%' '$%')*' 4%' 0%%. ' . 184%$0' *&' 08' //' , 86%$&%()/2' 5%7%/*6%5' (*$610(/%0' A8, ($*(2)%OR' +%' (*$610(/%0' '$%' 101' //2' *&' -**5' (*/*1$' +%$%' , 0' . *' /%190%8, ' ' 41)' -$' ; . 1/' $' 8 '00%0' '$%' (*8 8 *. ' '2%8'+*/50')+')')+%' 6$%0%. (%' *&' . 1(/%')%5' $%5' (*$610(/%0' , 0' '' -$*'7%' *8%. ' +%$%' , 0' '' -$%')' 5, 8, . 1), *. ' *&' +%8 *-/*4, . ' , . ')+%' 4/**5G0*8%), 8%0' , . ' 6$*6*$), *. ')*')+%' &'/ . -*& ' , . ' . 184%$0' *&')+%' (*$610(/%0H 41)' *3, . -')*' 8 ' . 2' *&')+%' (*$610(/%0' 4%, . -' 8 *$%' +, -+/2' (+' $-%5' 3,)+' (*/*1$, . -' 8 '))%$')+' . ' . *$8 '/')+%' +%8 *; -/*4, . '7 '/1%' *&')+%' 4/**5' 8 '2' 4%' %B(%00, 7%', . ' $%/'), *. ')*')+%' . 184%$' *&')+%' (*$610(/%0 +%' 6/%%. ' ' . 5' +7%$' $%' , . ' 0*8%' ('0%0' %. /' $-%5' %06%(, ''//2')+%' &*$8%$' +%$%' , 0' '/0*' %7,5%. (%' *&' '&&%(), *. ' *&' . *)+%$' , 8 6*$;

)' . ' 0)$1()1$%' (* . . %()%5' 3,)+')+%' %/' 4*$' ;), *. ' *&')+%' 4/**5G=. ' 8%/2')+%' 4*. %0' +%0%

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8 '2' 4%')%. 5%$ ' . 5')4%' 0)%$. 18', 0' %06%(, ''//2' /, ' 4/%')*' 4%' 0*' &&%()%5

$4 ' &% ' ! ' G &' !' ('0%0' (*//%()%5' 42' $' ,5. %2' *. 6/' . 5')+%')*)' /' 51$'), *. ' *&')+%' 0286)*80', ' F@' 3 '0' &$*8' ')*' L' 8*.)+0K' , . ' &$*8' L')*' @' 8*.)+0H', . ' @F' &$*8' ')*' @' 2%' $0H' . ')+%' $%8 ', . , . -' 8<' ('0%0')+%2' /' 0)%5' &*$6%$, *50' *&' *7%$' @' 2%' $0' &' ?!' ('0%0' *&' 6$, 8 '$2', 5, *6')+, (' ' . 008, '' (*//%()%5' 42' $' 2% 8 ,)+' ' '$%' 0', 5')*' +'7%' $%(*7%$%5' %')+', 0' 101' //2')+%' $%01/' 0, 86/2' *&' . '%8, '' . 5' 06%(, '/' (*86/, ('), *. 0' '$%' %B(%6), *. '/' +%' 6$*0)$'), *. ' . ' . 5' 3%' 9. %0', . ($%' 0%H)+%' +%' 5' (+%' 7%$), -*' . ' . 5' 7*8', . -' 4%(*8%' 8*$%' 5, 0)$%00, . -H)+%' 4$%')+, . -' 4%(*8%0' +1$$, %5' /' 4*1$%5' ' . 5' 5%%6' A0', $' +, 8 -%$' RH')+%' ('$; 5, '(' 6' /6,)'), *. ' , 0' 8*$%' 8' $9%5H' . 5')+%' 6'), %. ' 101' //2' &' //0' , .)*' '' 5%%6' 5$*302' /%)+' $-, (' 0)')%' %,)+%$' /2, . -' , 86' 00, 7%' *$*)*00, . -' '4*1)', . '$%0)/%00' 5%/, $, 18 '41)' (%' 0, . -')*')' 9%' , .)%$%0)' , . ' . J$)+, . -' (('0, *. ' //2')+%' 6'), %. ' $%8 ' , . 0' (*. 0(, *10')*')+%' /' 0)' 1 . '4/%')*' 0/%%6' . ' 5' &%%+. -' 1))%$/2' 8, 0%$' 4/%' . 5' 5%>%()%5' 8' (*. 0%E1%. (%' *&')+%' 5, 0)$%00; , . -' +%' 5' (+%' . 5' 7*8,), . -' %')+' 8 '2' *((' 0, *. ' //2' *((1$' 0155%./2' &$*8' 02. (*6% *8%' 1)+*$0' 5, 061)%')+%' 6*00, 4, /,)2' *&')$1%' 6%$. , (, *10' . '%8, ''4%, . -' (1$%5' ' . 5' 1$-%')+')')+*0%' ('0%0' 3+, (+' $%(*7%$' (' . *)' 4%' (*. 0, 5%$%5' 06%$. , (, *10 ‹ +%' 6$*-. *0, 0' , 0' '/3' 20' -$' 7%' , &' . *)' '40*/1)%/2' 4' 5H' . 5' %7%. ' 3+%. ' '' 6'), %.)' , 86$*7%0' 1. 5%$')$%'); 8%.)' ' . 5')+%' (*. 5), *. ' *&')+%' 4/**5' 3*1/5' -, 7%' +*6%0' *&' '' (1$%' '' -1' $5%5' *6, . , *. ' 0+*. /5' '/3' 20' +%' -, 7%. H &*$' '' &$%0+' %B' (%$; 4'), *. ' *&' 62$%B, ' ' 3,)+' +'%8*/20, 0' ' . 5' '' $%)1$. ' *&')+%' 0286)*80', . ' ' . ' '--$*7')%5' &*$8 ' -%. %$' //2' *((1$' 3,)+*1)' ' . 2' '66' $%.)' ('10%

$ G +%')%$8' 0, 5, *6')+, (' ' . '%8, ' ‹ , . ' *1$' 8%5, (' /' . *8%. (/')1$%', 0' ' . ', 5, (', *. ')+')' *1$' 6')+*/*-, (' /' 9. *3/%5-%' *&')+, 0' 5, 0%' 0%', 0' 0), /' , . 7*/7%5' , . ' *40(1$,)2' +%' %B' 8, . '), *. ' *&')+%' 4/**5' ' . 5' 8, . %' 51$, . -

life, taken in conjunction with changes found in certain organs and tissues after death, has thrown some light upon the disease. In health there is a constant equilibration between hæmogenesis and hæmolysis. The pigment of the urine—urobilin, and the pigment of the fæces—stercobilin, are both iron-free derivatives of hæmoglobin. It was first shown by various observers that the urine of pernicious anæmia contains an excess of *urobilin*, and the writer has been able to confirm this in two cases. Quincke has shown that there is an excess of free iron in the liver, and to a less degree in the pancreas and kidney. These organs sometimes appear slaty-black at the necropsy, from the action of sulphuretted hydrogen upon the free iron. If sections are placed in solution of ferrocyanide of potassium acidulated with hydrochloric acid, they turn blue, owing to the formation of Prussian blue.. The following is an analysis made for the writer by Mr. Vasey, F.C.S., showing the amount of free iron contained in the organs.

Organ	Weight in grammes	Percentage of ferric oxide in organ	Total ferric oxide in the whole organ	Total ash in the whole organ	Percentage of ferric oxide in whole organ
Anæmic liver .	1240	·29	3·60	1·05	27·20
„ kidney	282	Traces	—	1·25	—
„ spleen	141	Traces	—	·90	—
Normal liver .	—	Traces; along with distinct traces of copper	—	1·16	—

It has been said that this is merely the iron which has been administered medicinally, but the accompanying wood-cut (fig. 4) re-

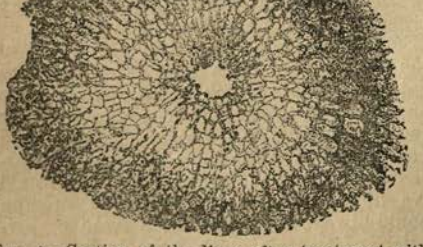

FIG. 4.—Section of the liver after treatment with ferrocyanide of potassium solution and hydrochloric acid. The dark shading indicates the deposit of iron in the portal zone. Magnified 75 diameters.

presents a section of the liver from a patient who had not taken iron for six months.

Although no specific organisms have been found in the blood or organs in this disease, yet many of the symptoms—viz. the gastro-intestinal disturbances, the peculiar cadaveric odour of the breath, the irregular attacks of pyrexia, and the presence of indican and other bodies in the urine—suggest the absorption by the portal circulation of some poison connected perhaps with the growth of micro-organisms. It has been shown that the blood in pernicious anæmia, as in many septic diseases, after being drawn, allows hæmoglobin crystals to form spontaneously. When arsenic is administered, the blood is said to lose this property, suggesting an explanation of the value of the drug in the treatment of the disease. Again, if putrid serum be added to healthy blood, crystals of hæmoglobin form. It is possible therefore that some septic poison sets up a hæmolytic process in the portal circulation, and that the hæmoglobin is broken up in the liver—into urobilin, which escapes by the urine, and free iron, which remains in the cells and capillaries of the portal zone. The urobilin, which passes from the hepatic veins into the general circulation, gives rise before its excretion to the lemon-yellow colour of the skin and fat (urobilin jaundice).

Dr. Delépine considers that the liver possesses a ferrogenic function, and suggests that in pernicious anæmia there may be an exaggeration of this physiological process. It would thus be analogous to diabetes in relation to the glycogenic function of the same organ.

It is necessary to add that some authors do not believe this to be a disease *per se*, but only a grave form of chlorosis or a pseudo-leukæmia of the myelogenic variety.

DIAGNOSIS.—The principal diagnostic features of pernicious anæmia are the following: (1) the patient is *middle-aged*; and, except in the case of women, there is nothing to account for the onset of the disease; (2) the absence of any organic disease; (3) the severe and progressive anæmia; (4) the great diminution of the corpuscles and colouring matter of the blood; (5) alteration in the shape and size of the corpuscles; (6) signs of fatty degeneration of the heart, without arterial degeneration or valvular disease; (7) retinal hæmorrhages; (8) irregular and occasional pyrexia; (9) no emaciation, but frequently rather an excess of subcutaneous fat; (10) lemon-yellow coloured skin and high-coloured urine.

The diseases for which pernicious anæmia has been mistaken are Bright's disease, ulcerative endocarditis, tuberculosis, Addison's disease, cirrhosis of the liver, cancer of the stomach and malignant disease of other internal organs, chronic ulcer of the stomach, parasitic affections, such as ankylostoma duodenale, and pseudo-leukæmia myelogenica. It ought not to be confused with simple idiopathic anæmia or chlorosis, as it occurs at an age when these diseases are less likely to be met with.

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(*$*&*$)'' 3 '0' 4$*1-+)' &*$3 '$5' '0' '' 8 *$%' (*.7% . .%. .)' '-%. .)' ' . 5' 8 1(+' /%00' , 86/%'0' . .)')*')+%6 '),%. .)')+%$' ,0' /%00' /, ' 4/%')*' 4%(* 8 %' 5' . -%$*10')*' /,&%' '0' ,)' 5*%0' . *)' 1 . 5%$' *$5, . '$2' (,$(1 8 0)' . (%0' 5%6$%00')+%' '(),*. ' *&')+%' +%'$)' +%' 4%0)' 9, . 5' ,0')+%' D# ' .) '*&')+%' +'$ 8 '(*6*%, ' ' *&' 06' -$' <M@!

/)+*1-+' ,)' ,0' . *)' 5,&&,(1/)')*' 5%0)$*2' 5*-0' 0155%. /2' 3 ,)+' %)+%$' ,)' ,0' 4%/,%7%5' 42' 8 ' . 2' 3 $,)%0' * . ')+%' 014>%()')+')' , . ' 8 ' . ' ,)' (' . ' * . /2' 6$*7% &')' / 42' ('10, . -' 06+2B, ' ' . 5')+')+%' 0, - . 0' *&')+,0' (* . 5,), *. ' '$%' 0*' %'0, /2' 0%%. ')*5' $%8 %5, %5')+')' 6$' (), (' //2')+, 0' ' . ' 0%0)+%), *' , 0' E1,)%' 0' &%' +%' 3 $,)%$0' '$%' . *)' *&')+, 0' *6, . , *. ' 4%/, %7, . -')+')' 0* 8 %), 8 %0' 3+%. ' . '$(*0,0', 0&'$' '57' . (%5')+%' -/*)), 0' 3 , /' //*3' %)+%$' '6*1$')*' 6'00' *&' 01&&, (, %.)' 0)$%. -)+')*' 0)*6')+%' +%'$)' 1(+' ('0%0' +*3%7%$' ' $%' 7%$2' $' $%' , . 5%%5')+%$' ,0' %B)%. 0, 7%/2' '5; 8, . ,0)%$%5' 42' 6*1$, . -' ' . ' *1. (%')' '), 8 %' 16*. ' ' ' 7%$2' /' $-%' (16 0+'6%5' 06*. -%' 3+, (+' ,&' (*/5' &$*8' 6$%7, *10' 10%', 0' 5, 66%5' , .)*' +)' 3 ')%$' ' . 5' 0E1%%C%5' ' 0' 5$2' '0' 6*00, 4/%')' , 0')*' 4%' %B6%()%5')+')')+%' 6 '), %.)' 3 , /' $%0, 0)' 4$%')+, . -' 3+%. ')+, 0' , 0' +%/5' *7%$' +, 0' &'(%' 41)' &)%$' ' ' 8 , . 1)%<0' 0)$1---' +%' 4%(*8%0' 1. (*. 0(, *10' ' . 5'%' 0, /2' 8 ' . '-%5' *8 6'$%5' 3 ,)+')+%' 8 %)+*5' *&' -, 7, . -' %)+%$'), 8, 5/2' 0*' '0')*' /%)')+%' 6'), %.)' $%8 ', . ' 5%/, $, *10' &*$' 0%7%$' /' 8 , . 1)%0')+, 0' 8 '2' 4%' ' -**5' 6/' . H 41)')+%$%', 0' . *' . %(%00,)2' &*$-, 7, . -')+%' %)+%$' 0*' 0)$%. -/2' , &' 2 ' "&" #' # ' ' ' #' ! ' +%' '58, . , 0)$')," . ' *&' . ,)$*10' *B, 5%' &$*8' 3+, (+' ', $' , 0' ')' &, $0)' %B(/15%5' ' . 5')*' 3+, (+' ,)' , 0' '&)%$3'$50' '58,))%5' 7%$2' 06' $, . -/2' +'0')'1-+)' 10' +*3' 0/, -+)')+%' '&)%$ %&&%()0' '$%' &$*8')+%' '06+2B, ' ' 0*' , . 51(%5' *. %0' *&' /%')+%$' *$' 6'0)%4*' $5' /, . %5' 3 ,)+' &%/)' ' . 5' +'7, . -' ' ' 08 '/' *6%. , . -' ')')+%' '6%B' '$%' 4%))%$')+' . ' =*. -%0H 41)')+%2' 0+*8 5' 4%' /' $-%$' +%2' 8 '2' 4%' 8 '5%' 8 *$%' %&&%(), 7%' . 5' %(*. *8, (' /' 42' 6/' (, . -' ' ')+, . ' . 5, ' $144%$' 4' -' *7%$')+%' '6%B' *&')+%' (*. %' 0*')+')' 8 *$%' *&')+%' %B6, $%5' ')8 *06+%$%' 8 '2' 4%' 4$%')+%5' '-', . *$-' . '/%$', 0' 7%$2' %&&, (, %.)' +%' %)+%$', 0' 6*1$%', .)*' '), . ' (+' 84%$' '0' /' $-%' '0' ' '+')' (*.)', . , . -' 06*. -%' +, 0', 0' (*7%$%5' 42' ''0*$)' *&' 5, '6+$' -8 ' 3+,)*' $, 0%0' . 5' &' //0' 3,)*' $%06, $'), *. ' '0')+%' 6')%.)' 4$%')+%0' , .)*' . 5' *1)' *&',)' 42' 8%' . 0' & ')14%' . 5' &' (% 6, %(%' +%$%' '$%' . *' 7/7%0' . '%0)+%0, '' $%01/)0' 6' $)/2' &$*8' '=+2B, ' ' . 5' 6' $)/2' &$*8')+%' '(), *. ' *&')+%' %)+%$' +%' '8*1.)' 4$%')+%5' 5%6%. 50' *. ',)0')%86%$')1$%' . 5' *. ')+%' &$%%; 5*8' *&' $%06, $')*. ' &')+%' $%06, $')*$2' 8*7%; 8%.)0' '$%' 0/, -+)' '0' , . ' 2*1. -' (+, /5$%. ' *$' , . ' 6%$0*. 0' 01&, &%$, 1-' &$*8' %86+20%8' ')+%' '8*1.)' *&' %)+%$' 0166/, %5' , 0' '6)')*' 4%')*' 08 '// ' $8042 0', . + %$', 0' . ', 86$*7%8%.)' 16*. ' *$-' . <0' +%' 06*. -%' &*$%)+%$', 0' (*. ;)', . %5', . ' ' ('-%' . %' $')+%' &' (% 6, %(L,

6 ' '#) ' ' , ' ' , ' ' # 0 *' '/')%' '& # ' A # ' ') ,' '66' $')10') ' ' ' $' $ ' ' 0 ' ' *. 0, 0)0' ' ' #

, . 5, ' $144%$' 4' -' &, &)%%. ', . (+%0' /*. -' ')')+%' *. %. 5' (*. . %()%5' 3,)+')+%' &' (% 6, %(%' ')')+%' *)+%$' 3,)+')+%' %)+%$ 7%00%/' ,)+, . ')+%' 4' -' , 0' '' &/%B, 4/%')14%' '/0*' /%' 5, . -' &$*8')+%' &' (%; 6, %(%')*')+%' %)+%$ 7%00%/' 2')1$. , . -' ''$%-1; /')*$')+%' 6')%.)', 0' 8 '5%')*' 4$%')+%', .)*')+%' 4' -' %,)+%$ 5, $%()/2' *$, . 5, $%()/2')+%')14%' . 5' %)+%$ 7%00%/' *$ 6')$)/2' *. %3 '2' . 5' 6')$)/2')+%' *)+%$' +%' 8*$%')+%' $%-1/')*$', 0')1$. %5')*3 '$50')+%' /%))%$' ')+%' 8*$%' %)+%$' 7'6*1$' +%')'9%0' 2')1$. , . -',)' 4' (9' '-', . ')+%' 8*1.)' *&' 7'6*1$', 0' 5, 8, . , 0+%5' +%' %)+%$ 7%00%/' (*.)', . 0' '' $%0%$7*, $' *&' 3')%$' 3+, (+' 6$%7%.)0')+%' %)+%$' 4%(*8, . -')*%' (*/5' &$*8' %7'6*$'), *. ' +%. ', . ' 0%',)' 8 '2' 4%' (*. 7%. , %.)/2' 0106%. 5%5' 42' '' 0)$'6' &$*8')+%' . %(9' *&')+%' '58, . , 0)$')*$ ' //*30')+%' 6'00' -%' &$*8')+%' &' (% 6, %(%', .)*')+%' 4' -')*' $%8', . ' *6%. ' '. 5')+%' 4' -' 0+*1/5' 4%' &, //%5' 42' 6$%00, . -')+%' &' (% 6, %(%' 8 *$%' &, $8/2' '-', . 0)')+%' &' (%' 51$, . -' %B6, $'), *. ')+' . ' , . 06, $'), *. ' 2' 5%-$%%0')+%' $%-1/')*$', 0')1$. %5')*3 '$50')+%' /%))%$' ''. 5')+10')+%'6'00'-%')*')+%', . . %$')14%' , 0' *6%. %5' ' . 5')+%' , $' 4$%')+%5')+$*1-+',) ('$$, %0'%)+%$' 7'6*1$' &$*8')+%' 7%00%/' , .)*')+%' 5, 0)' /%' 5' *&')+%' 4' -' ⇐ %. ')+%' $%/')*$' //*30' +'/&')+%', . 06, $%5' , $')*' 6'00')+$*1-+')+%' %)+%$')+%' 7'6*1$', 0' 0)$*. -' %. *1-+')*', . ; 51(%' 0/%%6', . ')3*' 8, . 1)%0' 101' //2' 3,)+*1)' %B(,), . -' (*1-+' 0')+%' (' (*&' 03' //*3, . -' , 0' %B(,)%5' 42' ''08' //%$' E1' .),)2' *&' %)+%$')+' . ')+')' *&' (*1-+, . -',)' 0+*1/5' 4%' 3')(+%5' &*$' . 5')+%' $%-1/')*$' 7%$2' 0/, -+)/2')1$. %5' 4' (9' 0+*1/5',)' *((1$

+, 0' 0' 8%' '66'$')10' 8 '2' +%' 10%5' &*$' -, 7, . -'/' . -+, . - -'0' '//' (*8, '1. , (',)*>›' 3,)+')+%' %)+%$ 7%00%/' 4%, . -' (1)' *&&' 42')1$. , . -' ''0)*6(*(9' ' . 5' 42' '))' (+, . -')+%')14%' /%'5, . -' &$*8')+%' -'0 4*))/%')6' ''8*1.)' . %'$')+%' +'-2'&*$')+%' /%'0)'1. 6/%'0' .)' . 5')+%' E1, (9%0)' 3 '2' *&' 6$%6'$, . -' ''6'), %.)' &*$' ''01$-, (' /*6%$'), *. ' , 0')*' 10%' -'0' . 5' %)+%$' (*84, . %5H)+%' (+' . -%' &$*8' -'0')*' %)+%$' 4%, . -' 8 '5%' 42')1$. , . -')+%' $%-1/')*$' '4*7%' 5%0($, 4%5' '0' 0**. ' '0')+%' 6')%.)' , 0' 01&&, (, %.)/2' 1. 5%$' , . ; &/1%. (%' *&')+%' -'0')*' 5, 0$%-'$5')+%' &/' 7*1$' *&' %)+%$' +%' 0166/2' *&' -'0' 0+*1/5' 4%' 0)*66%5' '0' 0**. ' '0')+%' %)+%$', 0' , .)$*51(%5H 41)', &' 0140%E1%.)/2')+%' 6')%.)', 0' '//*3%5')*'4%(*8%' (*. 0(, *10')+%' -'0' 8 '2' 4%' -, 7%. ' $&%%/2' '0' ')' &, $0)' , . ' *$5%$')*' ('10%' +, 8')*' 0/%%6' '-', . ' +%' 3$,)%$0'+' 7%&*1. 5'/%00'0, (9. %00' 8*$%$' 6, 5' $%(*7%$2' &$*8')+%', 86/%'0' .)')'0)%' *&%)+%$')+' . '3+%. ')+%'/'))%$', 0'-, 7%. ' '/*. %' +%' (+, %&'5, &&, (1/)2', 0')*' 6$%7%.)')+%'1. 0)%'5, . %00' *&')+%'6')%.)'3+, (+' $%01/)0' &$*8')+%'6'.), . -' (+' $'()%$' *&')+%' 4$%')+, . -' *' /%00%. ')', , 0')+%' %)+%$' 8 10)' 4%' -, 7%. ' '0' 0)$*. -' '0' 6*00, 4/%' 3,)+*1)' 6$*51(, . -', $$,)')*. ' *&')+%')+$*')' . 5')+%' *6%$')*$' 0+*1/5' 3',)' 1.), /)+%', . ; &/1%. (%' *&')+%' %)+%$' +'0', . ($%' 0%5')*+%' 6$*; 51(), *. ' *&' 5%%6' 0)%$)*$' , $' 4%, . -')+%. ' '5; 8,))%5' 3,)+' %7%$2' &*1$)+' *$' &, &)+', . 06, $'), *. ')+%' 4$%')+, . -'0**. '4%(*8%0' '0' $%-1/'$' '0',)', 0' , 85%$')+%$' 3+%. '-, 7%. ', . ' ' . 2' *)+%$') $

.'$%(*7%$,.-'&$*8')+%',.+'/'),*.'*'&%)+%$'6'),%.)0'$%*%)%.'..'''0)')%'*&',.)*B,(',),*.'&*$''6%$,*5'(*$$%06*.5,..-')*')+%',8%''.5'%B)%.)'*&')+%*%)+%$,0'),*.'+%%2%0'0+*1/5'4%(*7%$%5'41)')+%'8*1)+''.5'.*0%'/%&)'&$%%Ḥ''.5')+%'$**8'0+*1/5'4%'9%6)'E1,%)''3,)+''4$,09'&,$%''.5')+%'3,.5*3'8*$%''*$'/%00'*6%.

+/*$*&*$8 G +/*$*&*$8' 3'0' 4$*1-+)'&*$3'$5'42' ,860*.',.'?M')'0+*1/5'.*)'4%'8'5%'&$*8'8%)+2/')%5'06,$,)Ḥ''.5'3+%.''5$'(+8',0'6*1$%5'16*.'4/*)),.-6'6%$',)'0+*1/5'%7'6*$')%'3,)+*1)'/%'7,.-''.')8'6/%'0'.)'*5*1$'')',0')+%'8*0)'(*.7%.,%.)'*&''/''.(%0)+%),(0''.5')+%'8*0)'%'02')*''5I'8,.,0)%$'.&*$)1.')%/2'3+%.'-,7%.'4%2*.5''')(%$)',.'0)$%.-)+',)'+'0''')%.5%.(2')*'6$*;51(%'('$5,'(02.(*6%'*$'06+2B,''.5',)'+'0'')*'8%'6%$0*.0'$%'6'$;),(1/'$/2',/,'4/%')*'4%''&&%()%5

*8%'1)+**$,),%0')+,.9',)'5%0,$'4/%')*'-,7%''/(*+*/,('0),81/'.)0'4%&*$%'58,..0)%$,.-'(+/*$*&*$8Ḥ*)+%$0'6'$),'//2'.'$(*),0%')+%'6'),%.)'3,)+'8*$6+,.%*$'(+/*$'/'*'5*14)')+%0%''-%.)0''00,0)')+%''(),*.'*&')+%'(+/*$*;&*$8'41)',&'&$*8''.2'((,5%.)'+'*B(%00'*&'(+/*$*&*$8'0+*1/5'4%-,7%.')+%2',.)%$&%$%'3,)+')+%'8%'.0'*&'$%(*7%$2'.'.5'&*$')+,0'$%'0*.''$%'.*)'*'4%$%(*88%.5%5'+%$%'(,0'/%00'*4>%(),*.')*')+%',.+'/'),*.'*&''8,B)1$%'*&'(+/*$*&*$8''.5'%)+%$'*$'*&')+%0%''-%.)0'3,)+''/(*+*/Ḥ41)'01(+'8,B)1$%0',&'9%6)'&*$0*8%'/%.-)+'*)+%$'0')*'5%6$%00$')+%$')+''.'0),81/')%')+%'+%')

+/*$*&*$8')+%$%&*$%'0+*1/5'4%'-,7%.'-$'51''//2'+%'*4>%()'0+*1/5'4%')*'9%%6'5*3.')+%'6$*6*$),*.'*&'(+/*$*&*$8 7'6*1$$')+%$')+'.')*'-,7%'41.5'.(%'*&'&$%0+'',$'.'6$%6'$,.-'&*$'.'*6%$'),*.'$%E1,$,.-'6%$;&%()'0),//.%00'0,B')*'%,-+)'8,.1)%0'0+*1/5'4%'//*3%5'&*$')+%'6$*(%00'6*.-%0'*$'.)'0')1$')%5'3,)+'(+/*$*&*$8''.5'+%/5'(/*0%')*')+%'8*1)+''$%'5'.-%$*10'&$*8')+%'6*00,;4,/,)2''*&'/,E1,5'(+/*$*&*$8'&'//,.-'*.')+%'/,60'*$',.)*')+%'8*1)+'.'*)*'5'.-%$*10'&$*8')+%'6*00,;4,/,)2''*&'/,E1,5'(+/*$*&*$8'&'//,.-'*.')+%'/,60'*$',.)*')+%'8*1)+'.'$%'5'.-%$*10'&$*8')+%'6*00,;6,%'*&'/,.%.'*$'4/*)),.-6'6%$'06$,.9/%5'3,)+'(+/*$*&*$8''.5'6/'(%5'')')+%'4*))*8''*&''')184/%$',0''(*.7%8%.)'6/'.'*&'58,..0)$';),*.'('$%'4%,.-')'9%.')*'6$%7%.)''.2'/,E1,5'(+/*$*&*$8'&$*8'0%))/,..-''')')+%'4*))*8''.-%.%$'/01$-%$2''+'.59%$(+,%&*$')*3%/8'2'4%'&*/5%5',.)*''08'//(*.%'*6%.''')')+%'6%B',.)*'3+,(+'.*)8*$%')+'.''5$'(+8')*''5$'(+8''.5''+'/&*&'(+/*$*&*$8'0+*1/5'4%'6*1$%5'16*.')+,0'3+,(+',0')*'4%'+%/5'14*1)'.',.)*B,('),*.'&*$'''6%$,*5'(*$$%06*.5,..-')*')+%',8%''.5'%B)%.)'*&')+%*%)+%$,0'),*.'+%%2%0'0+*1/5'4%'(*7%$%5'41)')+%'8*1)+''.5'.*0%'/%&)'&$%%Ḥ''.5')+%'$**8'0+*1/5'4%'9%6)'E1,%)''3,)+''4$,09'&,$%''.5')+%'3,.5*3'8*$%''*$'/%00'*6%.

+/*$*&*$8 G +/*$*&*$8' 3'0' 4$*1-+)'&*$3'$5'42' ,860*.',.'?M')'0+*1/5'.*)'4%'8'5%'&$*8'8%)+2/')%5'06,$,)Ḥ''.5'3+%.''5$'(+8',0'6*1$%5'16*.'4/*)),.-6'6%$',)'0+*1/5'%7'6*$')%'3,)+*1)'/%'7,.-''.')8'6/%'0'.)'*5*1$'')',0')+%'8*0)'(*.7%.,%.)'*&''/''.(%0)+%),(0''.5')+%'8*0)'%'02')*''5I'8,.,0)%$'.&*$)1.')%/2'3+%.'-,7%.'4%2*.5''')(%$)',.'0)$%.-)+',)'+'0''')%.5%.(2')*'6$*;51(%'('$5,'(02.(*6%'*$'06+2B,''.5',)'+'0'')*'8%'6%$0*.0'$%'6'$;),(1/'$/2',/,'4/%')*'4%''&&%()%5

*8%'1)+**$,),%0')+,.9',)'5%0,$'4/%')*'-,7%''/(*+*/,('0),81/'.)0'4%&*$%'58,..0)%$,.-'(+/*$*&*$8Ḥ*)+%$0'6'$),'//2'.'$(*),0%')+%'6'),%.)'3,)+'8*$6+,.%*$'(+/*$'/'*'5*14)')+%0%''-%.)0''00,0)')+%''(),*.'*&')+%'(+/*$*;&*$8'41)',&'&$*8''.2'((,5%.)'+'*B(%00'*&'(+/*$*&*$8'0+*1/5'4%-,7%.')+%2',.)%$&%$%'3,)+')+%'8%'.0'*&'$%(*7%$2'.'.5'&*$')+,0'$%'0*.''$%'.*)'*'4%$%(*88%.5%5'+%$%'(,0'/%00'*4>%(),*.')*')+%',.+'/'),*.'*&''8,B)1$%'*&'(+/*$*&*$8''.5'%)+%$'*$'*&')+%0%''-%.)0'3,)+''/(*+*/Ḥ41)'01(+'8,B)1$%0',&'9%6)'&*$0*8%'/%.-)+'*)+%$'0')*'5%6$%00$')+%$')+''.'0),81/')%')+%'+%')

+/*$*&*$8')+%$%&*$%'0+*1/5'4%'-,7%.'-$'51''//2'+%'*4>%()'0+*1/5'4%')*'9%%6'5*3.')+%'6$*6*$),*.'*&'(+/*$*&*$8 7'6*1$$')+%$')+'.')*'-,7%'41.5'.(%'*&'&$%0+''.$'.'6$%6'$,.-'&*$'.'*6%$'),*.'$%E1,$,.-'6%$;&%()'0),//.%00'0,B')*'%,-+)'8,.1)%0'0+*1/5'4%'//*3%5'&*$')+%'6$*(%00'6*.-%0'*$'.)'0')1$')%5'3,)+'(+/*$*&*$8''.5'+%/5'(/*0%')*')+%'8*1)+''$%'5'.-%$*10'&$*8')+%'6*00,;4,/,)2''*&'/,E1,5'(+/*$*&*$8'&'//,.-'*.')+%'/,60'*$',.)*')+%'8*1)+'.'$%'5'.-%$*10'&$*8')+%'6*00,;6,%'*&'/,.%.'*$'4/*)),.-6'6%$'06$,.9/%5'3,)+'(+/*$*&*$8''.5'6/'(%5'')')+%'4*))*8''*&''')184/%$',0''(*.7%8%.)'6/'.'*&'58,..0)$';),*.'('$%'4%,.-')'9%.')*'6$%7%.)''.2'/,E1,5'(+/*$*&*$8'&$*8'0%))/,..-''')')+%'4*))*8''.-%.%$'/01$-%$2''+'.59%$(+,%&*$')*3%/8'2'4%'&*/5%5',.)*''08'//(*.%'*6%.''')')+%'6%B',.)*'3+,(+'.*)8*$%')+'.''5$'(+8')*''5$'(+8''.5''+'/&*&'(+/*$*&*$8'0+*1/5'4%'6*1$%5'16*.')+,0'3+,(+',0')*'4%'+%/5'14*1)'.',.)*B,('),*.'&*$'''6%$,*5'(*$$%06*.5,..-')*')+%',8%''.5'%B)%.)'*&')+%*%)+%$,0'),*.'+%%2%0'0+*1/5'4%'(*7%$%5'41)')+%'8*1)+''.5'.*0%'/%&)'&$%%Ḥ''.5')+%'$**8'0+*1/5'4%'9%6)'E1,%)''3,)+''4$,09'&,$%''.5')+%'3,.5*3'8*$%''*$'/%00'*6%.

+/*$*&*$8 G +/*$*&*$8' 3'0' 4$*1-+)'&*$3'$5'42' ,860*.',.'?M')'0+*1/5'.*)'4%'8'5%'&$*8'8%)+2/')%5'06,$,)Ḥ''.5'3+%.''5$'(+8',0'6*1$%5'16*.'4/*)),.-6'6%$',)'0+*1/5'%7'6*$')%'3,)+*1)'/%'7,.-''.')8'6/%'0'.)'*5*1$'')',0')+%'8*0)'(*.7%.,%.)'*&''/''.(%0)+%),(0''.5')+%'8*0)'%'02')*''5I'8,.,0)%$'.&*$)1.')%/2'3+%.'-,7%.'4%2*.5''')(%$)',.'0)$%.-)+',)'+'0''')%.5%.(2')*'6$*;51(%'('$5,'(02.(*6%'*$'06+2B,''.5',)'+'0'')*'8%'6%$0*.0'$%'6'$;),(1/'$/2',/,'4/%')*'4%''&&%()%5

*8%'1)+**$,),%0')+,.9',)'5%0,$'4/%')*'-,7%''/(*+*/,('0),81/'.)0'4%&*$%'58,..0)%$,.-'(+/*$*&*$8Ḥ*)+%$0'6'$),'//2'.'$(*),0%')+%'6'),%.)'3,)+'8*$6+,.%*$'(+/*$'/'*'5*14)')+%0%''-%.)0''00,0)')+%''(),*.'*&')+%'(+/*$*;&*$8'41)',&'&$*8''.2'((,5%.)'+'*B(%00'*&'(+/*$*&*$8'0+*1/5'4%-,7%.')+%2',.)%$&%$%'3,)+')+%'8%'.0'*&'$%(*7%$2'.'.5'&*$')+,0'$%'0*.''$%'.*)'*'4%$%(*88%.5%5'+%$%'(,0'/%00'*4>%(),*.')*')+%',.+'/'),*.'*&''8,B)1$%'*&'(+/*$*&*$8''.5'%)+%$'*$'*&')+%0%''-%.)0'3,)+''/(*+*/Ḥ41)'01(+'8,B)1$%0',&'9%6)'&*$0*8%'/%.-)+'*)+%$'0')*'5%6$%00$')+%$')+''.'0),81/')%')+%'+%')

+/*$*&*$8')+%$%&*$%'0+*1/5'4%'-,7%.'-$'51''//2'+%'*4>%()'0+*1/5'4%')*'9%%6'5*3.')+%'6$*6*$),*.'*&'(+/*$*&*$8 7'6*1$$')+%$')+'.')*'-,7%'41.5'.(%'*&'&$%0+''.$'.'6$%6'$,.-'&*$'.'*6%$'),*.'$%E1,$,.-'6%$;&%()'0),//.%00'0,B')*'%,-+)'8,.1)%0'0+*1/5'4%'//*3%5'&*$')+%'6$*(%00'6*.-%0'*$'.)'0')1$')%5'3,)+'(+/*$*&*$8''.5'+%/5'(/*0%')*')+%'8*1)+''$%'5'.-%$*10'&$*8')+%'6*00,;4,/,)2''*&'/,E1,5'(+/*$*&*$8'&'//,.-'*.')+%'/,60'*$',.)*')+%'8*1)+'.'$%'5'.-%$*10'&$*8')+%'6*00,;6,%'*&'/,.%.'*$'4/*)),.-6'6%$'06$,.9/%5'3,)+'(+/*$*&*$8''.5'6/'(%5'')')+%'4*))*8''*&''')184/%$',0''(*.7%8%.)'6/'.'*&'58,..0)$';),*.'('$%'4%,.-')'9%.')*'6$%7%.)''.2'/,E1,5'(+/*$*&*$8'&$*8'0%))/,..-''')')+%'4*))*8''.-%.%$'/01$-%$2''+'.59%$(+,%&*$')*3%/8'2'4%'&*/5%5',.)*''08'//(*.%'*6%.''')')+%'6%B',.)*'3+,(+'.*)8*$%')+'.''5$'(+8')*''5$'(+8''.5''+'/&*&'(+/*$*&*$8'0+*1/5'4%'6*1$%5'16*.')+,0'3+,(+',0')*'4%'+%/5'14*1)'.',.)*B,('),*.'&*$'''6%$,*5'(*$$%06*.5,..-')*')+%',8%''.5'%B)%.)'*&')+%*%)+%$,0'),*.'+%%2%0'0+*1/5'4%'(*7%$%5'41)')+%'8*1)+''.5'.*0%'/%&)'&$%%Ḥ''.5')+%'$**8'0+*1/5'4%'9%6)'E1,%)''3,)+''4$,09'&,$%''.5')+%'3,.5*3'8*$%''*$'/%00'*6%.

4%))%$' '66'$')10')+' .' '')*3%/H 41)',)0'K7,$).% ,0' 0,86/,(,)2' ' .5' ,)' +'0' /,))/%' 6$%)%.0,*.')*' %B'(),)15%' .*3<0' '66'$')10',0' 7%$2' %&&,; (,%.)' 6*$)'4/%' ' .5' %(*.*8,('/' +%' '55,;),*.' *&' '3')%$ >'(9%)')*' %E1'/,0%')+%')%8; 6%$')1$%' '0' '' -$%')' ,86$*7%.'%.)H)1)' ,)' 0+*1/5'4%'6$*7,5%5' /5)+' ')+%$8*8%)%$

+%' 0'&%0)' '.5' /%'0)' 1.6/%'0'.)' 8*5%' *&' -,7,.-' (+/*$*&*$8',0' 42' 8%'.0' *&')+%' '6; 6'$')10'&,))%5'3,)+' '')'$-%'4'-'*&''$'(*.)','.' ,.-'.*)' 8*$%')+'.')+,$)2)+$%%' 8,.,80'6&' (+/*$*&*$8',.'')+*10'.5',.(+%0'*&'',$' +%' '66'$')10',0' +*3%7%$')**' (*86/%B')*' 4%' -%.%$'//2' '5*6)%5' +%' '57'.)'-%' *&'8*$%' 6$%(,0% 8%'01$%8%.)' *&')+%' 0)$%.-)+' *&' (+/*$*&*$8'7'6*8')+'.',0' '&&*$5%5'42')*3%/0' *$'.'>55.0'3,/'66%'$'3+%.'3%'(*.0,5%$')+%' 0%7%$=' (,$(180)'.(%0')+')' '/)%$',)' 3+%.' *' -,7%.

+%' "0 #' ') ' -,7%.' *&&'&$68'' 9.*3.'E1'.),)2' *&' (+/*$*&*$8',0',.&/1%.(%5' 42 G

8' +%'%B)%.)' *&'01$&'(%' *&' (+/*$*&*$8

@' +%')%86%$')1$%' *&')+%' (+/*$*&*$8' 3+,(+',0'(*.0)'.)/2'(+'.-,.-

9' +%')%86%$')1$%' *&')+%' ',$' *&')+%' $**8)+'.'%)+%$' '/*.%' .')+%' 3+*/%')+%' 3$,)%$0' *&')+%' 6'),%.)<0'^(%' '.5' *&')+%' '58,.0,)$';)*$0'+'.5

' +%'5,0)'.(%' ')' 3+,(+')+%' (+/*$*&*$8',0' +%/5'&$*8')+%'6'),%.)<0'&'(%' W

F' +%'$'6,8)2' *&')+%' (1$$.)' *&'-,$

L' +%'+%,-+)' *&')+%'4'$*8%)%$

$%*7%$' 3+%.')+%' (+/$*&*$8'8,B)1$%',0 *&' "'0)$%.-)+' ,)0' %&&%()',0',.($%'0%5'42' +,-+'4'$*8%)$,('/6$%001$%H 42'/*3')%86%$'=')1$%' *&')+%' 4/**5H 42'5%%6'*$'E1,(9'$%06,$';,*.' '.5'%06%(,'//2'42'810(1,'$'%&&*$)0'3+%.')+%'-/*)),0',0'(/*0%5H ' .5'42'0/*3' 8*7%8%.)' *&')+%' 4/**5')+$*1-+')+%'/1.-0

.')+%' *)+%$' +'.5',)',0'/%00%.%5'42'/*3' 4'$*8%)$,('/6$%001$%H 42'+,-+')%86%$')1$%' *&'4/**5H 42'016%$&,('*$' 0/*3'$%06,$'),*.H ' .5'42'$'6,5'(,$(1/')*.')+$*1-+')+%'/1.-0

.5%$'*$5,.'$2'*,$(180)'.(%0'5'.-%$'&$*8' (')0%0',0'%'0,/2''7%$)%5'3,)+'8*5%$')% ('$%'&*$)+%2'5*'.*)'*&)%.'(*.(1$')*' 6$*51(%')+%'0'8%'%&&%()' 1)',&''' 6'),%.)'&'),-1%5' 3,)+'0)$1--/,.-')'9%0''7%$2'5%%6'4$%')+'>10)' '0'&$%0+'(+/*$*&*$8'+'0'4%%.'6*1$%5' 6*.')+%)*3%/''.5')+%.'(/*0%0',0'-/*)),0'.5'8'9%0' '.*)+%$'0)$$=-/%G=)+% 4'$*8%)%$'4%,.-'+,-+' ')')+%'0'8%',8%G=),0'%7,5%.)+')'4/**5' 1.51/2'(+'$-%5'3,)+'(+/*$*&*$8'3,//-','' '((%00',.)*')+%'(*$*.'$2'$)%$,%0''.5'5%6$%00')+%'('$5,'('-./,''%')+'+'0'*((1$%5'0*' $'6,5/2'1.5%$')+%0%'(,$(180)'.(%0')+')',)' +'0'4%%.')+*1-+)')**'4%')+%'$%01/)'*&'0+*(9' &$*8')+%'*6%$'),*.

+/*$*&*$8'/%00%.0',&',)'5*%0'.*)'%.),$%/2' 6$%7%.)'+%'0+*(9'*&''.'*6%$),*.'H 41)',)',0')**4%&%'$%5')+')'(+/*$*&*$8'0+*1/5'4%'-,7%.',.')+%'0'8%'-$'51'/'8'..%$''0',.''*1)'/'$-%'4'-'*&''.'*6%$),*.'H 41)',)',0')**4%&%'$%5')+')'(+/*$*&*$8'4%'-,7%.'&$%%/2' &*$)+,0'61$6*0%''5'.-%$*10''8*1.)'&',)')''2'4%'58,.0)%$%5

.''0%7%$%'*6%$'),*.',0''4*1)')**4%'6%$; &*$8%5')+%'(+/*$*&*$8'0+*1/5'4%'-,7%.',.')+%'0'8%'-$'51'/'8'..%$''0',.''0/,-+)%$ *.%'+1)'(*.),.1%5')*')+%'6*,.)'*&'&,B,.-')+%' 616,/0''.5'6$*51(,.-'0)%$)*$*10'4$%')+,.-H ' .5'3+%.')+%'(+,%&'0+*(9',0'%B6%%)%5')3**'$')+$%%'4$%')+0'*&'61$%',$'0+*1/5'4%'58,))%5' 0**')',&')+%'6750%&',/')+%$%'8'2'.*)'4%''.' %B(%00,7%''8*1.)'*&'(+/*$*&*$8'7'6*1$,.')+%' /1.-0

" ' ' # G .5%$')+,0' +%'5' ') " ',$ # ' ' # 7 " '3+,(+'(*.)',.0''7'$,'4/%'E1'.),)2'*&' (+/*$*&*$8')0' (+%8,('/(+'$')()%$0'.5' 6+20,*/*-,('/%&&%()0''$%'0,8,/'$')**)+*0%'*&' '8,B)1$%'6&'(+/*$*&*$8')+%)+%$')*5''/(*+*/')'.'$(*),0%0'E1,(9/2'41)'.*)'0'&%/2H'.5''0')+%'*1.)'*&'(+/*$*&*$8',.',)',0'.*)''/3'20' .,&*$8',)',0'4%))%$')**'8,B',.'08'//E1'.),),%0' ')''),8%'*.%'6'$)'*&''/(*+*/')3**'*&'(+/*$*; &*$8' '.5')+$%%'*&'%)+%$''.5')E'9%%6')+%' 4*))/%'0**'3%/'(*$9%5')+')')+%%)+%$',0'.*)' /,9%/2')**'%7'6*$')%' '.5')*7%'(+/*$*&*$8',.' %B(%00'+%'*$5'&,B%0')+%'6$*6*$),*.0' ,'*.%<0'8%8*$2

'8,B)1$%'*&'*.%'6'$)'*&'(+/*$*&*$8'3,)+' &*1$'*&%)+%$',0'(*.7%..%.)'&*$''4$,%&'*6%$';),*.'''+),0'6$*51(%0'81(+'/%00'%B(,)%,.%.)')+'.'%)+%$'/*.%' .')+%'3+*/%')+%'3$,)%$0' *4>%()'**' 9%%6,.-' 8,B)1$%0'*&')+,0'9,.5' $%'52 8'5%H ' .5',)',0'6$*4'4/%')+')')+%'6/'.' *&'-,7,.-''')+%'*1)0%)'01&&,(,%.)'(+/*$*&*$8')*'4*/,0+'(*.0(,*10.%00''.5'0140%E1%.)/2' '58,.0)%$,.-'%)+%$'3,//4%'&*1.5'0'&%$')+'.'8,B,.-')+%8')*-%)+%$',)+%'/,E1,5' 0)')%

$*8,5.*&')/,2/A '>$RG +,0'014; 0)'.(%+'0'4%%.'$%(*88%.5%5''.5'8*5%$')%/2' 10%5''0'.'.0%0)+%),(')0'8%$,)0'$%')+')',)' %B+,/'$')%0''.5'6$*51(%0'$'6,5''.'%0)+%0,'')0'%&&%()0'6'00'*&E1,(9/2'3,)+*1)'.2')%.; 5%.(2')**5%6$%00')+%''(),*.'*&')+%+%)*)' +%'*4>%(),*.0')**')+%'10%'*&'4$*8,5%*&%)+2/ '$%')+')',)',0'/,'4/%')'5%(*86*0%'/%'7%0''' 0)$*.-'08%//'.5')'0)%'*&'4$*8,.%'.5'0*8%;),8%0'6$*51(%0'+%'5'(+%'.5'0,(9.%00' 3** 5%')+0'&$*8',)',&,' 8%$,('+'7%4%%.'$%6*$)%5')0'10%'+'0'4%%.''4.5*.%5',.'-/.5

' ' D& % & E M' +,0'0140)'.(%',0'*4)',.%5'42'5,0),//,.-' '/5%+25%'.5'6%.)'(+/*$,5%'*&'6+*06+*$10' +%'%&&%()0'*&')+,0''-%.)''$k',.)%$8%5,')% 4%)3%%.')+*0%'*&'(+/*$*&*$8'.5'%)+%$')0' *5*).',0'101''//2'6$%&%$$%5')**')+)'*&%,)+%$' *&')+%'&*$8%$' +%'3$,)%$)'+'7%'10%5',)'7%$2' %B)%.0,7%/2H'.5',.'8,.*$'('0%0',.'3+,(+')+%'*6%$'),*.'+'0'/'0)%5'*./2'&,7%'8,.1)%0')+%'$%(*7%$2',0'$'%/2'''))%.5%5'42'0,(9.%00'*$ %B(,)%8%.)' .')+%'8*$%'6$*/*.-%5'('0%0',)' 3'0'&*1.5')**'('10%7*8,),.-'41)')+,0'(%'0%5' 81(+'8*$%'$'6,5/2')+'.'3+%.'(+/*$*&*$8' +'5'4%%.'-,7%.')0'%&&%()'16*.')+%'+%'$)' 3+%.'-,7%.',.'/'$-%'5*0%0',0'5%6$%00,..-''.5')+%'61/0%'0+*1/5'4%'('$%&,,//2'3')(+%5'51$,.-' ,)0'58,.0)%$'),*.

: ! "X1,%)15%'*$(*.7%$; 0')',*.'*&''.%.(*1$'-,.-'*$0**)+,.-'(+'$')()%$' ,0'5%0,$'4/%'51$,.-')+%'+'/& 8,..)%'*&'$%(*7%$2' &$*8'-'0' +%%2%0'0+*1/5'4%'(*7%$%5'1./%00

D ,

)+%' 7,%3',0')$' . E1,/' '0' 3%//' '0' 6/%'0' .)' &' - '0' 4%' -,7% . ' 1.) '+%$%' '$%' ,.)%$ 8 ,00,* . 0' ,. ')+%' 4$%')+', . - '*$',)0' '5 8 , . ,0)$'),*. ' ** '),. 1%5' &*$ 0%7%$' /' 8 , . 1)%0' 3,)))' '' 0 8 '//' ' *3' . (%' *&' ',$')+%$%' 8 '2' 4%' +%' 5' (+%' ' . 5' %7%. ' 7* 8 ,), . - H 0),// . *')+%$')$%') 8 %.)')+' . ' $%6*0%',0' . %5%5

&)%$')+%' , . + '/'),*. ' *&' %)+%$' '') '0)%' 3 ,// $%8 ', . ' +,0' 8 '2' 4%' -*)' $,5' *&' 42' 3 '0+, . -' *1)')+%' 8 *1)+' . 5' - '$-/, . -' 3 ,)+' '$8' &/1,50H' 3+,/%')+%'7'6*1$' $%8 ', . , . -' '4*1)')+%' 6'),%.)' . 5', . ')+%' $**8' 8 '2' 4%' $%8*7%5' 42' +%'), . -')+%' 08&'(%' +2' 8%'. 0' *&' +*)' 4*))/%0' ' . 5' 8 '9, . -' '' 4$,-+)' &,$%

+%. ')+%' 020)%8' +'0' 4%%. ' /* . -' *$' 6$*I' &*1.5/2' .5%$')+%', . &/1%. (%' *&' (+/*$*&*$8' *$ %)+%$'. '10%'' . 5'7*8,), . -' '$%/,9%/2')*' %. 01%' +%' 3$,)%$0' +'7%' &*1.5' 3 '$8)+' &$%0+' ,$' . 5' '40), . %. (%' &$*8'&**5%&,,(,%.)', . '$%+%7, . -')+%0%'02 8 6)*8 0' *)' %'' . 5' %*&&=')'9%. ' &$*8' '' &%%5%$' 3,)+*1)' $',0, . -')+%' +%'5' ' . 5' '&)%$3'$50'4%%&)%'' . 5'>%//2' '$%'01&&,(,%.)'&*B') %.)2 &*1$'+*1$0'1. /%0')+%' 6'),%.)' 3,0+%0' &*$' 0*8%)+, . -' 0*/,5' +%' $1/%')+%. ' 0+*1/5' +%')*' -,7%' /,))/%' *$' /%00')+' . ' '09%5' &*$' (%' $%+%7%0')+,$0)' . 5' 0%$7%0')*' 6*0)6*. %')+%' . %(%00,)2' &*$' -,7, . -' 0*/,50

! ' # & % ' !(! " ' . 0%0)+%),%0', . ' %B(%00' 5%0)$*2'/,&%' 42' 0)*66, . -')+%' '(),*. ' *&')+%' +%' $)' *$')+%' $%06,$'),*. H' -%. %$' //2' 4*)+' '$%' '&&%()%5 I' +%. '/'1-+, . -' -' 0', 0' -,7%. ')*' . , 8 '/0'),//)+%' 4$%')+, . -' +'0' (%'0%5')+%' +%' $)' (*.),. 1%0')*' +%')' /*. -' '&)%$' 3 '$50' ' . 5' '$),&,(,'/' $%06,$'),*. ' $'6,5/2' $[' 0)*$%0')+%8')+%$ 7'6*1$' -,7%. ' '/8*0)' 61$%')+$*1-+' '')$' (+%'/')14%' 3,// '$$%0)')+%' '(),*. ' *&' '' 5*-<0' +%'$)' ,. ' 0,B)%%. ' 0%(*. 50H' 41)', &,)' 4%' 58, . ,0)%$%5' '0'$' 6,5/2' '0'6*00,4/%' 3,)+' '' (/*)+' 3,)+*1)' *6%. , . -')+%')$'(+%' ')+%' 4$%')+, . -' &' ,/0' 4%&*$%')+%' +%')$)' ' . 5')+%' +'08'52. ' 8*8%)%$'0+*30' '5%E1')%' 6$%001$%' , . ')+%' 7%00%/0' 3+,/0)')+%' 4$%')+' ,0' -'06, . -' ' . 5' &*$' 0%07%$' /' 0%(*. 50' '&)%$',)+' +'0' (%'0%5

,)+' (+/*$*&*$8')+%' +'%8'52. ' 8*8%)%$', . 5,(')%0' 5,8, . ,0+%5' 6$%001$%' 5,$%()/2')+%' ' . ,8' /' (%'0%0')*' 0)$' - -/%' . 5')+%' +%'$)' 0*8%),8%0' 0)*60' 4%&*$%')+%' 4$%')+, . -' ' ('0%' '/'$8, . -' 0286)*80' 0+*1/5' '$,0%')+%' &,$0)' %&&*$)' 0+*1/5' 4% 5,$%()%5')*' /%00%, . -')+%' ' 8*1.)<*&')+%' . 0'0)+%),(' . ')+%' /1. -0' 42' 6$%00, . -')+%')$1. 9' 3,)+' 4*)+' +' . 50' ' . 5' 0E1%%C, . -'*1)' '0' 81(+' ', $' '0'6*00,4/%' 3,)+*,&)' ('10, . -' ''0+*(9' &' '&)%$')+,0' +'0' 4%%. ' 5*. Z)3*' *$')+$%%'),8%0')+%' ', $' 5*%0' . *)' $%'5,/2' $%%.)%$')+%' (+%0)')+%' *40)$1(),*. ' ,0')*' 4% *7%$(*8%%,)+%$' 42' +&), . -')+%' (+, . ' *$' 5$'3; , . -'*1)')+%')*. -1%H' . 5' *)+%$' $),&,(,'/' 8*7%; 8%.)0' *&')+%' (+%0)' 810)' 4%' ('$$,%5' *. ' . *),(%5' 3+,/0)' 4$%')+, . -' ,0' -*, . -' *. ')+%' $%(184%.)' 6*0)1$%' . 5' %/%7'), *. ' *&')+%' &%%)

S ' ' ' . ' ' ' ' ' ' ' S3 ' 3 ' ' -0 ' ' 3 ' *S $' ' ' ' ' '

'86+*$,-,)'/,0H 1$-'),7%0'), '*0%'.)0H '.5' /%%5,.-

G +%' %$%(),*.' 3+,(+' *((1$0' ,.')+%'-%.,)'/'*$-'.0'51$,.-' &1.(),*.'/''(),7,)2' ,0'51%')*' 5,/')'),*.' *&')+%' '$)%$,%0' ,.')+%' %$%(),/%'),001%0''.5',0'$%-1/')%5'42''' .%$7*10' (%.)$%'0,)1')%5',.')+%' /1848'$'6*$),6.' *&')+%' 06,.'/(*$5' $*8')+,0'(%.)$%'7'0*,.+,4,)*$2' .%$7%0'6'00')*')+%0%' '$)%$,%0''.5'('10%')+%8')*5,/')%'3+%.%7%$',)',0'('//%5',.)*''(),*.')' 3'2'+%'%B(,)%5'$%&/%B/2'42'0),81/'),*.'*&')+%' 0%.0*$2'.%$7%0'*&')+%'-%.,)'/'*$-'.0'.5'5'>*,+,+-'6'$)0'*$'42'0),81,/&$*8')+%'), 8%.)'$2'('.'>')'8'2''/0*'4%'%B(,)%5'42'6%2((,'),'1/,'6'00,.-')*',)'&$*8')+%'4$',.' *8%' '.'6+$*5,0,'(0'8'2''()'42'/%00%.,.-')+%'%B;(,)'4,/,)2'*&')+%'.%$7%0'*&')+%'-%.,)'/'*$-'.0' '0')+%' (*.),.1*10''66/,(','),*.'*&'(*/5''.5'6$*4'4/2''/0*'4$*8,5%'*&'6*)'00,18H 0*8%'42'5,8,80+,.-')+%'%B(,)'+,+)2'*&')+%'-%.,)'/(%.)$%0',.')+%'06,.'/'(*$5''.5'+$'1/''0'4$*;8,5%'.5',*5,5%'*&'6*)'00,18''.5'(*.,8.H*)+%$0'42',.&/1%.(,.-')+%'(,$(1/'),*.''0'5,-.;)'/,0' +%$%''$%''/0*'5>17'.)'8%'01$%0'*&''+2-,%8*''.5'8*$'/'(+'$'()%$'3+,(+'-$%')/2''00,0)'.'5'8'2'%7%.'$%6/('%''.'6+$*5,0,'(8%5,(,.%0'01(+''0''8%'-$%5,%)'%06%(,''//2'*&''7%-%)'4/%'.')1$%')+%'7*,5'.(%*&'0),81;/''.)0''.5')+%'61$01,)'*&'(),7%8%.)'/'.5'4*5,/2'%B%$(,0%' 7%$2)+,.-')%.5,.-)*'0),81;/')%')+%'.-%.,)'/'*$-'.0'*$')*',.($%'0%')+%'&/*3' &4/**5')*')+%8'*$')*')+%'/1848'$6*$;),*.'*&')+%'06,.'/'(*$5'0+*1/5'4%''7*,5%5'01(+''0'3'$8''.5'+%'72'(/*)+,.-'*$6'50''4*1)')+%'+,60'*$/*,10H'.5''+'$5'8'))$%00'0+*1/5'4%'),0%5',.'6/'(%'*&''&%')+%$4%5'7%$2)+,.-'/,9%/2')*''$*10%')+%'6'00,*.0'01(+''0'(%$)',.'.*7%/0'6,()1$%0')+%')$,('/'$%6$%0%.)'),*.0'^('*1/5''/0*'4%'0+1..%5 0.0G=.'6+$*5,0,'(0''$%'%86/*2%5')*'/%00%.')+%'0%B1'/'6'00,*.0'3+%.'=%0%''$%'4.*$8'//2'%B%$)%5',.'0')2$,'0,0'.286+*;8'.,''.5''//,%5'(*.5,),*.0' 0'01(+'%B;(,)%8%.)'8'2'0*8%),8%0'5%6%.5'.'/*('/',$$,)'),*.'*&')+%'-%.,)'/0',.'(*.0%E1%.(%'*)'6$1$,-*'*&')+%'%B)%$.'/'*$-'.0'%B(*.'),*.0'*&')+%'*0'1)%$,''*$'4'/'.,),0H *$'*.')+%'6$%0%.(%'*&'3*$80',.')+%'$%()18'*$'7'-,.'H)+%0%'0*1$(%0'*&'%B(,)%8%.)'0+*1/5'4%'/**9%5'&*$'.5',&'6$%0%.)''0+*1/5'4% 14>0()%5')*''66$*6$,')%')$%')8%.)

' ' g' &$

$ ', '.%-H''.5' D ')+%'/,840R G' 'H)D&" # ' X %$'B3' 0# , ?-')%$8''66/,%5')*')+*0%'5%&%()0'W*&06%%(+'A.*)'0)$,()/2'6+'0,*R3+,%+'(*.0,0)',.''8%$%/2'4/1$%5'*$*8*%'*$/%00' 8,.)%//,-,4/%'$),())'),*.' +%'6'),%.)'5*%0'.*)'01&&%'&$*8'&*$-%)&),/.%00'*&'3*$50'41)'&$*8''5,&&,(1/2',.')+%,$'1))%$'.(%' '

&N& &\ &') ')+$*1-+H''.5'! D')+%'&/%0+R G=.'%&&10,*.'*&'0%$*10'&/1,5',.)*')+%'014(1)'.%*10'(*..%(),7%'),001%0'.*)'/,8,)%5')*''6'$),(1/'$'/*('/',)2'41)'4%(*8,.-'8*$%'$/%00'5,&&10%5' ' 76

/ 5'])) A<' ' 5,/')%R ='0$*8* G .%1$208',0''/*(/'5,/')'),*.'*&'.'')%$2'/%'5,.-')*')+%'&*$8'.'*&''1818*1$'3+,(+'(*.)',.0'4/**5''.5')+%'3'//0'*&'3+,(+'$%'(*86*0%5'%,)+%$*&')+%'),001%0'*&')+%'7%00%/'*$)+*0%'3+,(+'&*$8',)0'0+%')+'*$,88%(/,')%/2'01$*1.5',)' +%$%&*$%'%7%$2'.%1$208'6$*6%$/2'0*'('//%5'(*.0,0)0'*&')3*'6')0G''.5',)0' " "

$ # ' " .%1$2080'$%' 101'//2'5,7,5%5''*(*$5+,-')*')+%'7'$2,.-'(*86*0,b'),*.'*&')+%'0'(',.)*')+%'&*//*3,.-'7'$,%),%0HG' ' .%1$208',.'3+,(+'//')+%')+$%%'(*')0'*&')+%')%$2'&*$8')+%'0'(*$''6*$),*.'*&')+%'0'(' +,0'7='$,%)2',0'$'$%$')'/%')0',)'0*'$'$%/2'6*00,4/%')*')$'(%'//')+%'(*')0'*&')+%')%$2'*7%$' .2'6')$'*&')+%'0'(4%2*.5',)0'*$,&,(%')+')'0*8%'6')+*/*-,0)0'5%.2')+%'%B,0)%.(%'*&'+,0'0*('//%5')$1%<&*$8'*&'.%1$208''=5'./*0)''58,)',)0'%B,0)%.(%',.')+%''*$)''*./2

@'. ' .%1$208',.'3+,(+')+%'0'(',0'&*$8%5'42'*.%'./2'*&')+%'(*')0'*&')+%')%$2'+,0','/8*0)''/3'20')+%'%B)%$.'/'(*')H41)''014 7'$,%)2'+'0'4%%.'6$*7%5')*'%B,0)''0''(*.0%E1%.(%'*&'3*1.5'*&')+%'*1)%$'6')$'*&')+%'7%00%/'.5',.'4%/,%7%5'42'0*8%')*')'9%6/'(%'06*.)'.%*10/2',.'3+,(+')+%',..%$'(%')'*$)+%'..%$'.5'6')$'*&')+%'8,55/%'(*')',0'5,/')%5'610+%5')+$*1-+')+%'*1)%$'(*')''.5'&*$80')+%'0'(' +,0',0'('//%5'# " ' '

"'5P ' *)' ") '.%1$208'%$%')+%'0'('(,0'&*$8%5'*&')+%'0+%')+'(%//1/'$'),001%''*$*)+%$'0)$1()1$%0'*$*1.5')+%'$)%$2'3+,(+'$%'8'))%5')*)+%'*-%)+%$',.)*')+%'&*$8'*&''8%84$'.%' I+%.'8%'05,&&10%5'<,0''66/,%5')*')+,0'&*$8'*&'.%1$208')*'%B6$%00')+%'&')'+')')+%'4/**5',0''')'&,$0)'5,&&10%5''8*.-0)'+%'),001%0',.'(*.0%E1%.(%'*&')+%$16)8%'*$'5,7,0,*.'3+%)+%$' ,.>1$2'*$5,0%'0%'*&'/'(*')0'*&')+%'7%00%/'%,)+%$',.''6')$)'*$'+%'3+*/%'*&',)0'(,$(18&%$%.(%H41)',)',0',.*)''-**5')%$8'0,.(%''0**.''0')+%''.%1$208'/'0'(',0'&*$8%5')+%'4/**5',0'5,&&10%5'.*'/*.-%$'41)'.')+%'(*.)$'2',0'%.(20)%5',6')+k'.%3/2'&*$8%5'0'(' *')+')')+%')%$8I'0(*.0%(1),7%<0%%80''4%))%$'*.%H%B6$%00,.-''0',)'5*%0')+%',86*$)'.)'&')()')+')')+%'&*$8';),*.'*&01(+'.%1$2080',0''/3'20'(*.0%(1),7%'*.''16)1$%'6')$),'/'*$%.),$%''*&')+%'$)%$2'C "0'.%1$208',0'0%%.'*./2'3,)+,.')+%')$1.9'*&')+%'4*52''.5''/3'20'..7*/7,.-')+%''*$)'G'/)+*1-+',)'8'2'06$%'5'&$*8')+%'8'..''$)%$2'5*3.')*',)0'4$'.(+%0'.')+,0'&*$8')+%,.)%$.'/''.5'8,55/%'(*')0'+'7%'-,7%.'3'2''*$'($'(9%5'.5')+%'4/**5'+'0'&*$(%5',)0'3'2'101'//2',.)*')+%'0140)'.(%'*&')+%'8,55/%'(*')'0*8%),8%0'6%$+'60'4%)3%%.')+%'8,55/%''.5'*1)%$'(*')0'5,0)%.5,.-')+%'%B)%$.'/'6*$),*.'*&')+%'7%00%/',.)*''9,.5'*&'.%1$2080

+,0',0')+%'.*8%.(/')1$%'0),//,.'(*88*.'10%H+1)''0')+%'&,$0)''.5'0%(*.5'7'$,%),%0''$%'6$'(),('//2',.5,0),.-1,0+'4/%'51$,.-'/,&%''.5')+%'&,$0)')+*1-+'('//%5')+%'0)$1%<&*$8'*&

' . %,,$20 8 ' ,0' 7%$2' $ ' $% ' ,)' 3 *1/5' 4%' 4%))%$')*' ,. (/15%' 4*)+' 1.5%$')+%' (* 8 8 *. ' . ' 8 %' 0)$1%' < ' . %1$20 8 ' ' . 5' '66/2')+%')%$ 8 ' 0 & ' /0%' <) *')+%')+, $5' *$' 0 (* . 0%(1),7%' < &*$8

F ' %0,5%0')+%0% ' 3+,(+' ' $%' ' //' &*$ 8 0' *0226+,/,0' 8 ' 2' (' 10%' '' &,4$*,5' 5%-%. %$'),*. ' *&' 61$%' '$)%$,'/' . %1$20 8 ')+%$%' '$%' ' . %1$20 8 0')+%7%00%/0' 8 10)' '/0*' 4%' ''/* 3 %5')*' 4%' ')'/%' 0)' , . ' 3+,(+')+%' 7%,. ' . 5' '$)%$2' $%' 0,8 1/; 6*00,4/%' ' . 5')+')',)' 5*%0' 0*' ,0')+%' *6, . ,*. ' *&')' . %*10/2' , . 7*/7%5 ' ' . 5' 3+,(+' ' $%')+%$%&*$% 8 ' . 2' %8 , . %.)' 6 ')+*/*-,0)0' Y&0*')+%')$' . 0; (' //%5') " ' 3+,(+' 3 ,/' 4%' '&)%$; ,)*' . ')*' ' . %1$20 8 ',0' . ')1$' / ',&' . *)' , . %7,)' 4/%' 3 ' $50' 06*9%. ' *&H' ' . 5')1 8 *1$0' +' 7, . -' '' . *)+%$' 6$*7%5' ('10%' *&' ' . %1$20 8 ' ,0' % 8 ; (%$)' , . ' ' . '/*-2')*' ' . %1$20 8 ' 3+,(+' '$%' 4*/,0 8 ' *$')+%' *40)$1(),*. ' *&' 9' 5,0%' 0%5' &*$ 8 %5' *&' 5,/')%5' ' . 5' ')*$)1*10' '$)%$,%0 G' '$)%$2' 42' '' &,4$,. *10' 6/1-' 3+,(+' +' 0' 4%%. ' . 5' ' ' . %1$20 8 0 9 . *3 . ')*' 4%' &*//*3%5' 42')+%' 5,/')'),*. ' *&')+%)+%$ (/' 00,&,('),*. 0' *&' -$%')' ,8 6*$)' . (%' '$%' '((*$5, . -')*')+%' ('10%' *&')+%' 5,0%' 0%' '$)%$2' ,0' *&)%. ' 4 . $,%5'&*$0*8%'5,0)' . (%', . ')+%' ,.)*' ' ' ' . 5' H *$' '(; 3 '/' *&')+%' . %1$2 8H41)')+%$%' '$%' 8 ' . 2' (*$5, . -')*')+%' 0+' 6%' *&')+%')18*1$' , .)*' 0' (((1/')%5' ' . %1$20, &, 0' 3+,(+' '>=$*'%+' , . ' . 5' ' . 5' ' . 5' 0+' 6%')*')+%' &10, &*$ 8 ')+%' 7%00%/' 4%, . -'5,/')%5' &*$' 0*8%' 6'$)' *&' ,)0' %B)%.) ' 0*')+')' ,)0')3*' *6%. , . -0' +%' ')' 5, &&%$%.)'6')$0' ' . 5' 0*8%), 8%0' *. '5, &&%$%.)' 06%()0' *&')+%' 0' ($ <(D' ÉF $ G' +%' 6$*B, ; 8 ')%' (' 10%' *&' 06*.)' . %*10' ' . %1$20 8 ' 66%' $0')*' 4%' 101' //2' '' /*00' *&')+%' %/' 0), (,)2' *&')+%' 3 '/' *&')+%' '$)%$2' 3+%$%42',)' /*0%0' ,)0' 6*3%$' *&' $%0, /, %. (%' ' &)%$' +' 7, . -' 4%%. ' 5, /')%5' 42')+%' &*$(%' *&')+%' (, $(1/'), *. ' +%' /*00' *&' %/' 0), (,)2' , 0' (*8 8 *. /2' ('10%5' 42' ')+%$*8 ' ' *$' %/0%' 42' 6'$), '/ (' /(, &, (',), *. ' *&')+%' 3 '/' *&')+%' '$)%$2' . ')+%' /'))%$' ('0%')+%' 4/**5' *&)%. ' &*$(%0' ,)0' 3 '2')+$*1-+')+%' %.), $%' '$)%$, '/ 3 '// ' . 5' ' . ' . %1$20 8 ' *&')+%' (*. 0%(1), 7%' 7' $, %)2' &*$80=' *$')+%' %B)%$. ' /6'$)' *&')+%' '$)%$2', 0' 5,00%()%5' *&&' . 5' '' 5,00%(), . -' ' . %1$20 8 ' $%01/)0' . ; &/' 8 8 ')*$2' 0*&)%. , . -' *&')+%' '$)%$2' 3,)+*1)')+%' 6$%0%. (%' *&' . 2' 5%&, . , %' ')+%$*8 ')*10' 5%6*0,)', 0' /**9%5' 16*. ' 42' 8 ' . 2' 3$,)%$0' *& ($%5,)' 01(+' 0' ,/90' . 5' *B*. ' 0' '' (*8; 8 *. ' ('10%' *&' . %1$20 8 ' 1(+' /*3', . &/' 8; 8 '), *. ' 8 '2' +' 7%' ,)0' *$, -, . ' 6*00,4/2', . ' $+%1; 8 '),08 G' . 5' '0' '' 8 ')) %$' *&' &' ()' ' . %1$20 8 ' ,0' *&)%. ' 6$%(%5%5' 42' ' (1)%' $+%1 8 '),08H 8 *$%(%$)', . /2', . ' 7, *%.)' 0)$' . ' *$', . ' 8 %(+' . , (' /7, *%. (%' . 2)+, . -' %/0%' 3+,(+' 3 %' 9%. 0')+%' $)%$, '/ 3' ' 01(+' '0')+%' %B6*01$%' *&')+%' 7%00%/' , . ' . ' ' 40(%00' ,0' /**9%5' *. ' '0' '' ('10%' *&' ' . %1$20 8 ' +%' 2, %/5, . -' *&' '' 3%' 9%. %5' '$)%$, '/ 3 '// ,0' 5*14)/%00' ((%/%$')%5' 42' ,$$%-1/' $,), %0' *&')+%' (, $(1/'), *. ' +%' , . ; &/1%. (%' *&' 026+, /, 0' ' . 5' *&' , .)%8 6%$' . (%' . ' ('10, . -' ' . %1$20 8 ', 0' 3, 5%/2' 4%/, %7%5')+*1-+' 6%$+'60' '0' 2%)' . %,)+%$' &' ()' , 0' '40*/1)%/2' %0)' 4/, 0+%5')+%' /')) %$' ')' . 2' $')%' , 0' $%. ; 5%$%5' 7%$2' 6$*4'4/%' &$*8')+%' (*. 0, 5%$'), *.

f *8%), 8%0' +*3%7%$')+%' 4/%%5, . -' 3, //' -*' *. ' 3,)+*1)')+%' &*, 8'), *. ' *&' . 2' . %1$20 8 '/ 0' (' ' . 5' /%' 5')*')+%' /*00' *&' /, &%' *$/, 8 4

)+')' (+$*. , (' '/(*+*/, 0 8 ')%. 50')*' ' . 6', $')+%' . 1)$,), *. ' *&' '/')+%'), 001%0' , . (/1 ^ -')+%' '$)%$, %0' ' . 5', 0' '((*8 6' . , %5' 42' '' (*. 0)' .)/2' , $$,)' 4/%' (*. 5,), *. ' *&')+%' (, $(1/'), *. ' +')')*' ' . 6' ,

5,'6%*&)+%'.%1$208 +%,,)+%/')%$,0 61$%/2(2/,.5$,('/81(+/%00(*=-*/18$6*0; 0,4/2.*.%3,//4%&*1.5,.),+%.)+%)18*1$0)'.503%//'32'&$*8')+%')%$2 0*) +)+%&*$(%*&)+%(,$(1/'),*.,0 81(+ 4$*9%.)+%&*$8'),*.**&(*'-1/'',0-$%')/2 &%7*1$%5 +%5%6*0,),*.*01(+ (*; '-1/'8 10)4%//**9%5**.'0)+%(*88%.(%; 8%.)**&06*.)'.%*10(1$%''.5')'.2$)%) 5%&%.50')+%'6'),%.)&$*8')+%$,090*&$16)1$%' *$'*&$%.%3%5-$*3)+*&)+%)18*1$')+% 6'$)0 3+,(+'$%0*1)+%'

/, . , . -')/,%' 0'(' ' .5' /%'7, . -' ''('. 'ƒ)+$*1-+' W3+,(+')+%'4/**5 0)$%'8'6'00%0'' 0')+$*1-+')+%' .*$8 'ƒ '$)%$2 < .')+%0%('0%0'+*3%7%$')+%' 02 8 6)*8 0'6%$0,0)'41')+%$%' '$%*)+%$0', .'3+,(+' ''(*86/%)%' 06*.)' .%*10'(1$%',0'*4)', . %5Ĥ ' .5')+,0' 8 '2'+'66%.' , .' 7'$,*10'3 '20

" " ' G +%&,$0)'' . 5'6$*4'4/2')+%' 8 *0)'101'/' 8 %)+*5'*&'06*.)' . %*10'(1$%',0' 42')+%' -$'51'ƒ5, 8 , .1),*. ' *&')+%' *,$*1/'),*. ')+$*1-+')+%')18*1$' ' .5')+%' -$'51'ƒ&, 8 -' *&')+%' 0'(' 42' 01((%00,7% /'2%$0' *&' &,4$, . *10' (*'-1/18 ' +%' 0%(*. 5' ,0' 42' , 8 6'(),*. ' *&' (/*)', . ')+%' 8 *1)+' *&')+%' . %1$208 ' 3+%$%42' , .'0*8%'('0%0'6*00,4/2')+%'0'(**&')+%' . %1$208 ' ,0' *1)' *&&' &,$*8')+%' 4/**5 0)$%' 8 ' . 5' ,)0' (*.)%.)0'4$*1-+)')*'(*'-1/')%' . '*)+%$'('0%0' 3+%$%' 8 *$%')+' . '*. %' '$)%$2'6%. 0' *1)' *&')+%')+%'0'('))' *&')+%' 8 6'(),*. ' *&'(/*)', . ' *. %' '$)%$,%0' /%'50')*' (*. 0*/,5'),*. ' *&' ' ')+')' 6'$)' *&')+%')18*1$')+$*1-+' 3+,(+')+%',($(1; /'), *. '10%5')*'6'00', .)*')+%'*40)$1()%5'7%00%/' ' .5')+10' '' 6$'(),('ƒ (1$%' ,0' 0*8%), 8 %0' %&&%()%5 ƒ ')+%'02 8 6)*8 0'$%' 1$%5' . 5')+%' 5,0%'0%' '$$%0)%5')+*1-+')+%' 3+*/%' 0'(' ,0' . *)' (*. 0*+5')%5' +%')+,$5' 8 %)+*5' *&' 06*.)' . %*10' (1$%',0' 42', . &/' 8 8 '),*. ' *&')+%)18*1$' +,0' ,0' 101'//2' '((*86'. ,%5' 42' 01661$'),*. ' *&')+%' 0'(' . 5'%7'(1'),*. ' *&'//')+%'(*.)%.)0'*&)+%' . %1$208 ')+%' ((*86'. 2; , . -' . &/' 8 8 '),*. ' (/*0, . -')+%' 8 *1)+0' *&')+%' $)%$,%0' 3+,(+'*6%. ' *1)' *&',)' &')+%' $)%$,%0' $%' . *)'0*'(/*0%5'5%')+',&$*8'+'%8*$$+'-%' 3,// *((1$')'0%%8 0'6*00,4/%)+')', . &/' 8 8 '),*. ' *&')+%'0'(' . 5')+%'(%//1/'$' 8 %8 4$' . %' $*1. 5',)' 8 '2'0*8%),8%0'6$*51(%'(*'-1/'),*. ' 3,)+,. ')+%' . %1$208' 3,)+*1)' . 2'01661$'),*. ' ' &*1$)+'3'2', . ' 3+,(+'(*'-$5'),*. ' *&' . ' . %1; $208'+'0'4%%. '9. *3. ')*'4%' (' 10%5',0'42' $%;)'$5'),*. ' *&')+%' (,$(1/'),*. ' *$',86'(),*. ' *&' (/*)' ('10%5' 42' . *)+%$' . %1$208' '4*7%Ĥ . 5')+%$%',0' . ' */5',5%' '3+,(+'(. ' +'$5/2'2%)' 4%' 0', 5')*' 4%' %B6/*5%5')+')' . ' . %1$208 ' ƒ 0'(' 8 '2'42',)0' -$*3)+' (*86$%00')+%' $)%$2' . 5' 0*' /%' 5')*',)0' *3. ' (*'-1/'),*. ' +,0' +*3%7%$' ,' ,')' %7%$' +'66%. 0' ,0' 61$%/2' %B; (%6),*. '/

$ G +%' $16)1$%' *&' . ' . %1$208' 8 '2')'9%' 6/'(%' %,)+%$')+$*1-+')+%' 09, . ' ,. ' 3+,(+'('0%')+%' +'%8*$$+'-%',0' 101'//2' 41)' . *)' /3'20'&')'ƒ')*. (%Ĥ ƒ *$', .)*'*. %' *&')+%' ('7,),%0' *&')+%' 4*52'3+%. ' 5%')+' -%. $'//2' *((1$0', 8 8%5,')%/2', &')+%' $16)1$%',0', .)*' '' 0%$*10' (' 7,)2' ' . 5' '&)%$' *. %' *$')3*')' (90' *&' +'%8*$$+'-%',&'' 81(*10'8%84$' . %' +'0'4%%. ' , . 7*/7%5Ĥ *$'/'0)/2', .)*')+%' (% 1/'$),001%' *&' ''6'$)' +,0'%7%.)', 0' 8'$9%5'42')+%' (%00';),*. ' *&')+%' 61/0'),*. Ĥ 42' 155%. ' 03%//, . -

I' ! ' 0 ' ' ' ' 7 ' ' ' 0 ' J ' ' # ' ' 0' <T +' ! ' ' ' ' ' $ ') ' A 7 ' ' # ' S ' K ' 8T' 89G<' 0' 989 V ' ' ' ' ' ' ' $' # ' ' ' 0 ' $ ' ' ' ! ' ' ' " ' ' 89T8' # ' ' 0' JH' ') ' ' ' ' $') ' $' ' ' ' ' ' $ ' ' 7

'((*86'. %5' 3,)+' %((+28*0,0',&')+%' 4/**5',0' %&&10%5'014(1)'. %*10/2Ĥ ' . 5')+%' '4$16)' &'//' *&')%86%$')1%' 4%/*3')+%' . %1$208 ' ' 0%. ; 0'), *. ' *&'6', . ' *$' *&' 00*8%)+, . -' -, 7, . -'3'2 < ,0' *&)%. ' %B6%$, %. (%5')%)+*0(*6,(' %B' 8, . ';), *. ' 3 ,//)$*,#'Ĥ/#,2 5%)%()' ''4$1,)

' ' +%' 8%)+*50' *&')%')8%.)' *&' . %1$208' '$%'7%$2' . 18&&/$610' . 5',)' *1/5' 4%',86*00,4/%', . ' ''0188 '$2' *&')+,0' 9, . 5')*' 5,0(100'&1//2' '//')+%', . 5,(',),*. 0' &*$%'(+' . ')+%'&,$0)'6/'(%')+*0%' '. %1$2080' 3+,(+''$%', . '((%00,4/%)*' ' . 2'/*('/')$%')8%.)' *$', . ' 3+,(+''/*('/')$%')8%.)' 3*1/5' . 7*/7%' -$%')' 5' . -%$' '$%')$%')%5' ')+')',0' 42'$%-,8%. '5,%)' . 5' 8%5,(, . %' 42' +,(+',)' ,0' +*6%5')+')' -$'51'ƒ(*'-1/'),*. ' 3,//4% 6$*8*)%5', . ')+%'(*.)%.)0'*&')+%')18*1$'&). 5')+10' '' (*86/%)%' *$' ' 6')$),'ƒ (1$%' ,// 4% 4$*1-+)' '4*1)' '0', . ')+%' . ')1$'ƒ6$*(%00' '4*7%06*9%&,' *&' +%' 8%)+*5' *&' '/0'/7' ' *&' 3+,(+')+%' 8 ' , . ' &%')1$%0' 3%$%' 0)'$7, . -' . 5' %B(%00,7%' 4/%%5, . - ' . 5' 3+,(+')+%$%&*$%' 6$*51(%5' (*. 0,5%$'4/%' . 5' *&)%. ' 5' . -%$410' ,$%-1/'$,)2' *&')+%' +%')$)0' '(),*. ' ,0' . *3' -,7%. ' 6' , . ' &'7*1$' *&' . *)+%$' 6/'. ' , .)$*; 51(%5'42' %//, . -+' 8' ' . 5'8*5,&,%5'42')+%'/')%' $' */ &,%' 1&. %// Ĥ' , . ' 3+,(+'42' (*86/%)%' $%0)' . 5' $%0)$,()%5'41)' . 1)$,), *10' 5,%)')+%' '40*/1)%' $%-1/'$,)2' *&')+%' +%')$)0' '(),*. ' ,0' 0%(1$%5' . '. 5' ')' ''$')%' 4%/*27')+')' *&' +%'/)+' 4*)+' '0')*' $'6,5,)2' . '. 5' &*$(%' $' 1&,,%' +'0' . ,7%. ' 0*8%' , .)%$%0), . -' . 5' (*. (/10,7%Ĥ %B'86/%0' *&')+%' (*86/%)%' (1$%' *&' '45*8, . 'ƒ ' . %1$2080')+10' '((*86/,0+%5' 7%$,&,=' 42' 5,00%(), *. Ĥ ' . 5' *. %' ')' /%'0)', . ' 3+,(+' . ' ' . %1$208' *&')+%' '$(+' *&')+%' '*$)''3'0', . ' '//' 6$*4'4/,/,)2' %.),$%/2' (*. 0*/,5')%5')+*1-+')+,0' &'()' 3'0' . *)' 7%$,&,%5' 42' 5,00%(), *. ')' . 2' $')%')+%' 6')%.)' 3'0' 6%$8' . %.)/2' $%0)*$%5')*' +%')/)+' . ')+,0' 8%)+*5' *&')%')8%.)' 5$1-0' $%*. /2' %86/*2%5'3+%. ' . %(%00'$2' A'0' . '$(*),(0'/'B'),7%0' ' . 5')*. ,(0' *&)%. ' '$%R')*' %. 01$%')+%' $%-1/'$,)2' *&')+%' &1. (),*. 0')*' (*.)$*/',$$,)'4,/,)2'*$')*' 0166*$)')+%' -%. %$'/+%'/)+' +%' 5$1-0'3+,(+''7%' 4%%. '$%(*8; 8%. 5%5' '0' 6$*51(, . -' ' 5,$%()' %&&%()' *. ' . %1$208' 42' 6$*8*), . -')+%' (*-1/'), *. ' *&' 4/**5', . ')+%'0'('01(+''0' '(%)')%' *&'/%'5' . 5', *5,5%' *&' 6*)'00,18'5**. *)', . ')+%' 3$,)%$<0' *6, . , *. '6$*51(%' . 2'01(+' %&&%()' . *$', . ^()' . 2'06%(,&,(' %&&%()' *. ')+%' 5,0%'0%' 3+')%7%$' %'+'0'*&)%. '0%%. ' ''(%$)', . ' 8*1.)' *&', 8; 6$*7%8%.)', 85%$')+%'10%'*&')+%0%'5$1-0'41)' . *)'+%')+, . 90' 8*$%')+' . ')+%' $%-, 8%. ' . 5' 5,%)'10%5' ')+%'0' 8%'), 8%'3*1/5'((*1.)' &*$')+%$' 5$1-0' '0' (*. , %' . 5' 5,-,)'/,0' '$%$%(*88%. 5%5', . '*$5%$')*' 0)%'52' . 5'$%51(%')+%' +%')$)<0' '(),*. ' ' . 5')+%'/')%$' %06%(, '//2', 0'0*8%), 8%0' ' 10%&1ƒ'5>17'.)', &' %86/*2%5' 3,)+'('1),*. ')*')+%')$%')8%.)' 42' $%0)$,()%5' 5,%)' . 5'$%0)' +%'$%0)', 0' ')+%'6')%.)' . %7%$'/%'7, . -' +,0'4%5' . *$'%7%$' $,0, . -' (" ,)' *$'(+' . -, . -' +,0'6*0,)*. ' 8*$%')+' . ' 42' *((' 0,*. '//2')1$. , . -' *. ' +,0'0,5%Ĥ)+%'4*3%/0 ' #' ' ' ' ' ' 5" " '&" ' ' < ' ' 89GT*

'$%0*'$%-1/')%5''0')*''7*,5'4*)+'(*.0),6'),*.''.5'/**0%.%00H''.5')+%'5,%)'0'$%0)$,()%5')*'4*1)'8H'*C'*&'0*/,5'&**5'*&'3+,(+'*.%'+'/&'0'8%')'*$&,0+''.5'9'*C'*&'/85'A(*86$,0,.-'@'*$'"'*C'*&'/,-+)'3,.%',&'.%(%00'$2R'6%$'5,%8'+%'6%$,*5'8'2'4%'%B)%.5%5',,;5%&,.,)%/2'0*'/*.-'0',86$*7%8%.)'(*.),.1%0'H41)',.''',f'(''0%0')+%'6'),%.)'.5'+,0$,%.50'0+*1/5'4%'6$%6'$%5'&*$''(*.&,.%8%.)'*&'.*)'/%00')+'.')+$%%'8*.)+0'$C'.5'',0%'0%0'*&'&"7

''$%#G*0)''.%1$2080'3+,(+'*(;(162'.'*%B)%$.'/6*0,),*.''.5''$%')+%$%&*$%'8%.'4/%')*'01$-,('/')$%')8%.)''$%'(1$'4/%'3+%.')+%'5%-%.%$'),*.'*&')+%'7'0(1/'$020)%8'0'*)')**'%B)%.0,7%'42'8%(+'.,('/8%'.0'&')+%0%')+%'(+,%&'.5'42'&'$')+%'8*0)'01(;(%00&1/''$%',)+%$')+%'0'('4*7%',)'*$',.'0*8%'06%(,'/('0%0'4%/*3H*$"''66/,%5'%,)+%$')*')+%''$)%$2'4*7%')+%''.%1$208'*$)*')18*1$',)0%/&'*$0,81/).%*10/2',.'4*)+'0,)1'),*.0''.5',%,)+%$'42')+%'6$%001$%'*&'.',.0)$18%.)'*&')+%&,.-%$0'*$'*&'08'$(+<0'*'.5'-%'1)''0')+%0%'8%)+*50'*&')$%')8%.)'4%/*.-'%B(/10,7%/2')*')+%'6$*7,.(%'*,0'01$-%$2'*&'$%')+%'0)'.5'$5'3*$90'*.'01$-%$2'&*$'+%)+%,$'5%0($,6),*.

+%'*)+%$'8%)+*50'*&01$-,('/')$%'),+%.)'$%'&'$'/%00'01((%00&1/')+'.')+%''4*7%''.5'+'7%')+%'-$%')'5$'34'(9'*&'4%,..-''55$%00%5'%B(/10,7%/2')*')+%'(*.)%.)0'*&')+%'0'(H3+%',.')+%')$%')8%.)'42')+%'/,-')1)$%''.5'42'(*8;6$%00,*.')+%'$%0,/,%.)'6*3%$'*&')+%'0'('.5',)0'(*.0%E1%.)'$%')(),*.'*.')+%'4/**5'3+,(+',)'(*.)',.0'.*'5*14)'6/'2'''-$%')'6')$)',.')+%'(1$%'+%'8%)+*50'.*3')*'4%'8%.),*.%5'*.')+%'(*.)$'$2''0'&'$'0')+%2''()'*.')+%'0'('')''//'$')+%$'%.5')*'(*.)10%'*$')*',.&/'8%',)

B#"G+%'&,$0)',0'-'/7'.*'61.()1$%',.'3+,(+''(1$$%.)'*&'%/%()$,(,)2'*&'/*3')%.0,*.'/*.-'(*.),.1%5',0'6'00%5')+$*1-+'+%'4/**5',.')+%'0'(' 5%(*86*0,.-',)''.5'('10,.-',)0'(*'-1/'),*.'%%5/%0'$%'6/1.-%5',.)*')+%'0'('.5''$%')+%.'(*..%()%5'3,)+')+%'4')%$2H'.5')+%'(),*.',0'(*.),.1%5'1.),f')+%'$%51()*.',.')+%'61/0'),*.''.5')+%'&/'))%.,.-'*&')+%)18*1$0+*3')+')')+%'4/**5'+'0'4%%.'6'$)/2'(*'-1/')%5'1)+*$,),%0'5,&&%$'0')*')+%'5%)'/0'*&')+%'8%)+*5'*8%'66/2'&,$0)'+%'6*0,),7%''.5')+%.')+%'.%-'),7%'6*/%')*'%'(+'.%%5/%H*)+%$0')+%'.%-'),7%'6*/%'*./2'+%'6*0,),7%'4%,.-'4$*1-+)',.'(*.)'()'3,)+)/,%'.%,-+4*1$,.-'09,.H3+,/%K0*8%'*.')+%'(*.)$'$2'10%')+%'6*0,),7%'6*/%'*./2'')'3,//4%&*1.5'*.'%B6%$,8%.)')+')''(%$)',.''8*1.)'*&'(*'-1/'),*.')'9%0'6/'(%'$*1.5'4*)+'6*/%0')+%'(/*)'$*1.5')+%'6*0,),7%'6*/%'4%,.-'08'//%$'41)'&,$8%$')+'.')+')'$*1.5')+%'.%-'),7%'+%'*4>%()'*&')+%'*6%$')',*.',0')*'&,//)+%'0'('08 15,''0'6*00,4/%'3,)+'(*'-1/18'3+,(+'0+'//-$'51'//2'+'$5%.''.5'0+'//'))$'()'*',)0%/&&,%0+'(*'-1/''+%'5'.-%$0'*&')+%'6$*(%%5,.-''.#%)+*0%'*&',.&/'88'),*.'*&')+%'0'4'*$'*&')+%'(%//1/'$',001%'$'.5'.)H'*$'01661$')*',3,)/,,,'')+%')18*1$'*$'*&'0/*1-+,.-'*&')+%'61.()1$%0''.5'+'08*$$+'-%H''.5',)'810'4*''//*3%5')+')')+%'%&&%()0'*&'-'/7'.*61.()1$%'$%'7%$2'1.(%$)',.'4*)+'0')*')+%'.5'&,$8.%00'*&')+%'(*'-1/18'6$*51(%5'),/')+%$%',0'0'),0&'()*$2'%7,5%.(%'*&'4%.%&,)',.'8'.2'('0%0''.5'*&''(1$%',.''*&%3'+%'5'.-%$'*&',.&/'8,.-'*$('1)%$,0,.-')+%'0'(')+%',001%0'*$*1.5'8'2'4%',.'0*8%'8%'01$%'*47,')%5'42'(*'),.-')+%'.%%5/%0'3,)+'71/;('.,)%''0'$%(*88%.5%5'42'$'*+.'1.('.'*&'5,.41$-+'*$''7%$2'(/%'$%B6*0,),*.'*&')+%'5%)',/0'*&')+,0'8%)+*5''0'3%/'0'&*$0)')%8%.)0'$%-'$58-')+%'01((%00'3+,(+'*'0')).5%5'%/%()$*/20,0'+,)+%$)*')+%'$%'5%$',0'$%&%$$%5')*')+%'$),(/%'*.'%/%()$*/20,0'42),,,0''1)+*$,)2',.'%')+<0'C"'6 7'0'+%'W3$,)%$)+,,,0'+,80%/&>10),&,%5',.''55,.-')+')'%/%()$*/20,0'0+*1/5'4%'$%0)$,()%5')*'('0%0'*&')+*$'(,('014(/'7,.'*$'45*8,.'/'.%1$208'3+,(+'(.*)'4%'(8%5'42'8%5,('/'8%'.0''.5',.'3+,(+'$16)1$%0%%80')*'4%',88,.%.)'3+,/%')+%'0,)1'),*.'*&')+%')18*1$'&*$4,50')+%'66/,(','*.'*&/,-')1$%'*$6$%001$%

0"0"<"G=.*)+%$8%)+*5'*&'6$*515.-'(*'H=')',*.'*&')+%'4/**5',.')+%'0'(',0'42')+%'10%'*&'(*'-1/'),.-',.>%(),*.0')+%$&1,50'+'7%'4%%.'%86'2%5'41)'+%'*./2'*.%',.'-%.%$'/10%'.*3',0')+%'6%$*+/*$,5%'*&',$*.'+%'($(1/'),*.',0')*'4%'01=%.5%5'42'6$%001$%'*.')+%''$)%$2''4*7%''.5''/0*',&'6*00,4/%'4%/*3')+%')18*1$'4%&*$%')+%',.>%(),*.',0'8'5%''.5'&*$'0*8%),8%'&)%$;3'$50'+%'8%)+*5',0''7%$2'5'.-%$*10'*.%&*$'/'$-%'.%1$2080'*.''((*1.)'*&')+%'$,09'*&%84*/,08'0/*1-+,.-''.5',.&/'88'),*.'41)',)'8'2'4%'10%5'Q3,)+'01((%00',.'08'//(,$0*,5''.5''.'0)*8*),(''.%1$2080''.5'/0*',.'7'$,(*0%''.%1$208

5"'0"'G.%1$;2080'+'7%'/0*'4%%.')$%')%5'42')+%',.)$*;51(),*.'*&'&*$%,-.'4*5,%0',.)*')+%'0'('3,)+')+%'7,%3'*&'6$*51(,.-'(*'-1/'),*.'*&')+%'4/**5'16*.')+%'&*$%,-.'0140)'.(%'01(+'0'&,.%'3,$%'('$4*/,0%5'(')-1)''.5'+*$0%+','$H41)'.*'('0%'*&'(*86/%)%'(1$%'+'0'+,)+%$)*'4%%.'$%6*$)%5')+*1-+'..''(%/%4$')%5'('0%'*&'.%1$208'*&')+%'45*8,.'/'*$)''*6%$')%5'*.'42',-.*$'*$%)''*&'*/*-.')+%'0'('3'0'(*86/%)%/2'(*.0*/,5')%5'+,0'3'0'+*3%7%$'&*//*3%5'42')+%'$16)1$%'*&')+%'$)%$2'>10)'4*7%')+%')18*1$

"'G,.'//2''.%1$2080'8'2'4%')$%')%5'42'8'.,61/'),*.'+%'*4>%()'*&')+,0"'#'5%)'(+''6*$),*.'*&'(*'-1/18'&$*8')+%'3'//*&')+%'.%1$208'3+,(+'8'2'4%'('$$,%5',.)*')+%'8*1)+'&')+%'0'('*$')+%'5,0)'/'$)%$2''.5'0*'%&&%()''(1$%''0',.'*1$0%(*.5'8*5%*&'06*.)'.%*10'(1$%'*$')'.2'$')%0*')*'5,0)1$4'.5'4$%'9'16'#'(/*)'+')',)0'5%)'(+%5'/'8,.%0'8'2'&*$8'.1(/%,'&*$'&1$)+%$'(*'-1/'),*.'+,0

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4%'8*$%'*$'/%00'8*5,&,%5' +%' '))'(9'8'2'
(*8%'*.'3+%.')+%'6'),%.)' ,0' ')'$%0)'.5'
((''0,.''//2',)'0%)0',.'51$,.-'0/%%6H 41)',)'
8*$%'(*888*./2',.51(%5'42'%8*),*.'*$'42'
6+20,(''/%B%$),*.'%06%(,''//2'42'3'/9,.-'16'
.'.''0(%.)'*$'42'%B6*01$%')*'(*/5'' ,$'*$'3,.5'
+%'6',.'8'2'4%(*86'$'),7%/2'0 -+)''.5'
'0'01(+'8'2'$%(1$'3,)+',.)$%16),*.0',)'8'2'
4%'51$,.-'8*.)+0'*$%7%.'2%'$0'$%6$%0%.),.-'
'.-,.*,5'0286)*80'$'&+%$')+'.')$1%''.-,.''
6%()*$,0' .')+%'*)+%$'+'.5',)'8'2'4%'0*'
0%7%$%''0')*'8'$9''' &,$0)''' 0,.-/%''.5''''
&')'/'))'(9

,)' ,0' 8 , . %(%00'$2')*' 5%0($,4%' +%$%')+ ')' 3+,(+' 3 ,/f 4%' &*1 . 5' $ ' //2')$%')%5' *&' 1 . 5%$' 06%(,'/f +%'50')' $%8 ', . 0' 41)')*' 0'2')+ ')' , . '%7%$2' %'0%')+%' (/*0%0)' 0($1), . 2' 8 10)' 4%' 8 '5%', .)*')+%' (*. 5,),*,1' *&')+%' +%'$)' ' . 5' -$%')' 4/**5; 7%00%/0' 3,)+' ''7,%3')*' 5%)%$8, . %')+%' 6$%0%. (%' *$' '40%. (%' *&' 5,0%'0%' +%' , . 7%0),-'),*. ' 8 10)' &1$)+%$' %B)%. 5')*' *)+%$' 7,0(%$' ' 01(+' '0')+%'/,7%$' ' . 5' 0)*8 '(+' ' . 5')*')+%' 5,-%0;),7%' *$-' . 0' -%. %$' //2' '0' 3%/f '0')*')+%' 0%7%$' f *)+=$' 0*1$(%0' ^*8' 3+,(+' 02 8 6)*8 0' *&' ' . -, . '' 8 '2' 4%' %B(,)%5' 42')+%' $%&/%()%5' ,$$,)'),*. ' '/$%'52' 5%0($,4%5' %$)' , . ' 02 8 6;)*8 0' $%01/), . -' &$*8')+%' 6$%0%. (%' *&' *)+%$' 5,0%'0%0'0+*1/5'. *)'4%'(*. &*1. 5%5'3,)+' ' . -, . '' =01(+'&*$%B' 8 6/%' '0')+%'6', . ' ' . 5' 5206. *%'' ('10%5'42'6$%001$%' &' . %1$20 8 0' *$*&')1 8 *1$0' 3,)+, . ')+%' (+%0)H' 42' $+%1 8 '),(' *$' -*1)2' . %1$'/-,'' *&')+%' (+%0) 3 'UOH' 42'6/%1$*52. , ' *$' '(1)%'6/%1$,02H *$'42', . 5, -%0),*. f' ' (.5,)2' ' . 5'&/')1/%. (%' ' (+' ' . 5' ' *&')+%0%'0%7%$' f (*. 5),*. 0' 8 10)' 4%' (*. 0.5%$%5'42' 3 '2' *& % (/10,*. ', . '5%)%$8, . , . -'&/,%' . ')1$%' ' . 5'*$,-, . ' *&')+%' 5,0%'0%

% # , . ' ' .),(,6'), . -')+%' &1)1$%' *&' ' . ' '))' (9' *&' ' . -, . '' 6%()*$,0' 3%' 8 10)' 4%' -1,5%5' (+,%&/2'42' '' 9 . *3/%5-%' *&',)0' (' 10%H , . '0*8%' $%06%()0' '/0*'42',)0' 0%7%$,)2H' ' . 5'42')+%' 6$%7,*10' +,0)*$2' *&')+%' ('0%' +10' $&' W&%' (' . ' '0(%$)', . ')+')')+%' '))' (9' +'0' 4%%. ' 4$*1-+)' *. ' 42'0*8%' (/%'$/2'%0)'4+0+%5' ' . 5' $%8*7'4/%' (' 10%' 01(+' '0' &'), -1%' '' (+, ' Z ' , . 5, -%0), *. ' '' &'7*1$'4/%' 6$*-. *0,0' 8 '2' 4%' &', $/2'%.)%$)' , . %5' . ')+%' *)+%$' +' . 5'$&')+%' +,0)*$2'*&')+%' ('0%')%//0')+')')+%$%' +'7%' 4%%. '0%7%$'f 6$%7,*10')')(90'%' (+', . ($%'0, . -' , . '0%7%$,)2' . 5'(*. . %()%5'3,)+'+%')$) 5,0%'0%' 3%' (' . '0(' $(%/2'7*,5'4%, . -'/%5')*')+%' (*. ; (/10,*. ')+')')+%' (*86/'. .)' 3 ,/f)%. 5' 3 ,)+' 8 *$%' $/%00'$'6,5,)2')*' '' &')' f)%$8, . '), *. ' %)3%%. ')+%0%')3*' (/'00%0' *&' ('0%0')+%$%' %B,0)' '' f '$-%' 8 '>*$,)2'*&', . 0)' . (%0', . '3+,(+')+%' 02 8 6)*8 0' 6&' ' . -, . ' ' *&'-$%')%$' *$' /%00' 0%7%$,)2' 5%6%. 5' *. ' . %1$*0,0' *. ' -*1)2' 5, ';)+%0,0' *$' *. ' *)+%$' 0*1$(%0' *&' . %$7% 5,0*$5%$' '8%. '4/%')*')%')8%.)H' . 5', . ' 3+,(+')+%$%; &*$%' '' &'7*1$'4/%' 6$*-. *0,0' 8 '2')*' 0*8 %B)%.)' 4%' -,7%. ' 1)' , . ' '/f ('0%0' -$%')' ('1), *. ' 0+*1/5' 4% %B%$(,0%5H &*$' 8 ' . 2', . ; 0)' . (%0'*((1$', . '3+,(+'&$*8'0+-+)'' . 5'*40(1$% 4%-, . , . -0'0%7%%' . 5'%7%. '&%))5'%B' 8 6/%0'*&)+%' 5,0%'0%'+'7%'4%%. '5%7%/*6%5

2 +%')$%')8%.)' *&' ' . -, . '' 6%()*$,0' 8 10)'&,$0)'+'7%'$%&%%$%. (%')*' $%/,%&'*&)+%' '))' (9' ,)0%/&H' . 5'0%(*. 5/2' 51$, . -')+%', .)%$7'/')*')+%'$%8*7%5', &'6$'(),('4/%'*&')+%' ('10%0' *. '3+,(+')+%'))' (90' 8 '2'5%6%. 5

C "0' # ' -',)' ,0' . %(%00'$2'&,$0)' ,&' 6*00,4/%')*'/%00%. ')+%' 6')%.)<0' . B,%)2' . 5' &%'$' %' 0+*1/5' 4*' =*3%5')*' $%)', . ')+% 6*0),+. ,'. '3+,(+'+%'&%%/0' 8*0)'(*8&*$)'' . 5', ' '))%8 6)'8 10)', 8 8 %5, ')%/2'4%' 8 '5%)*' $%/,%7%')+%' 01&&%$, . -' &')+%' %B(,), . -' ('10%' 4%' *. %')+')' (' . ' 4%' $%8*7%5')+,0' 0+*1/5' 4%' '((*8; 6/,0+%5' *$' %B' 8 6/%',&')+%' 0)*8 '(+' 4%' &1//' *&' 1 . 5,-%0)%5' &'**5' ' . ' %8%),(' *&' 8 10)'$5

8,-+)' 4%' -,7%. ' 3,)+' '57' .)' -%H *$',&' &/';)1/%. (%' 4%' 6$%0%.)' 6%66%$8, .)' %)+%$' ' . 5' *)+%$' ' .),06'08*A (0' 3,/f 4%' 10%&1/' &' (*/5'+'7%' 6$*51(%5')+%' 0%,C1$%')+%' &%%)' ' . 5' +' . 50'0+*1/5'4%', 8 8%$0%5', . ' +*)' 3 ')%$'+6)' 4*))/%0' '66/,%5')*')+%' 01$&%(%' *&')+%' 4*52' ' . 5'6*1/),(%0' *&'/, . 0%%5'*$' 8 10)'$5'8' %8; 4$*(')*. '0' *&(+/*$*&*$8'*$/'15' . 18'0+*1/5' +%' '66/,%5')*')+%' (+%0)' *$')+%' 8*$%', 8; 8%5,')%'$%/,%&'*&'6', . '0*8%'*&')+%' -%.)0' . *3' 9 . *3 . ')*' 4%' %&&%(). '/&*$')+%' 61$6*0%' +*1/5' 4%' 58, . ,0)%$%5' +%' . ,$),)%'*&' 82/' $,-, . l' ''//2', .)$*51(%5'42' $' '15%$' $.)*. ' +'0' 4%%. '&*1. 5' ' 8*$%'%&&,(,%.)'$%8%52')+' . '' . 2' *)+%$' +,)+%$)*' $%(*88%. 5%5'&*$')+%' 5,$%0)' $%/,%&' *&')+%' 5,0)$%00, . -' 0286)*80' *&'), a%' 5,0%'0%' ,7%' *$' 0,B' 8, . , 8 0' *&'), 0' 5$1-'Q 3+,(+',0'101''//2'5,06%. 0%5', . '('601/%0'0+*1/5' 4%' '$%&)&//2', . +'/%5'&$*8''+' . 59%$(+,%&' *$' 6,%(%'*&'/, .)' ' . 5', &' . %(%00'$2')+%', . +'/'), *. ' 8'2'4%'$%6%')%5

,)$*-/2(%$, . %'01--=)%5'42' #$' 1$$%//' 0%%8 0' '/0*')*' '()' %&&,(, %.)/2', . '5*0%0' *&' -$', . ', . ')+%' &*$8' *&')+%' *&&,(,'/')'4%//0%' *$' '6%$' (%.)'' '/(*+*/,('0*/1), *. ' +%'5*0%' 8 '2' 4%' $%6%')%5')+$%%' *$' &*1$'), 8 %0' ')' 0+*$)', . ;)%$7'/0'H 41)')+%0%' 5$1-0' 8 10)'0+*$)', . ; (' 1), *. ' '0', . ' 8 ' . 2'('0%0')+%2'6$*51(%'+%'5; '(+%' . 5'016%$&,(,8'(*. -%0), *.

+%' (),*. '*&')+%0%' -%.)0'5%6%. 50'*. ')+%' 6*3%$')+%2'6*00%0'*&'$%/'B, . -')+%' $)%$,*/%0')+10' 5, 8, . ,0+, . -')+%' 6%$,6+%$'/' $%0,0)0' . (%' &$%%, . -')+%' +%')<0' (),*. ' . 5' $%'5>10), . -')+%' (,$(1/'),*. ' &')+%' 6', . 4%' &' ' 8*$%' 6%$0,0)%.)' (+'$' ()%$' +26*5%$8, (', . >%(),*. '*&' 8*$6+, . %' 8 '2'4%'10%5'3,)+' '57' .)' -%

, . ')+*0%' (' 0%0', . '3+,(+'5%4,/,)2' . 5'%B+'10;),*. ' %B,0)')+%' *$5, . '$2' 0), 8 1/' .)0' 3 ,/f &%%% $%E1,$%5' ' . 5' '$,*10' .),06'08*5,%0'01(+' '0' %)+%$' ' 8 8*. , ' ^(' 8 '2'&%%-, 7%. '3,)+' 8*)%' *$' /%00' 4%. %&,)' &)' ('0%0' *&' 0155%. ' ('$5,' &', /1$%' U$*&%00*$' ' (,//, ' 8' $%(*8 8%. 50' &'$'5,(' %B(,)')*. ' *&')+%' +%')' , . ')+%' &*$8' *&' ' 0%$,%0' *&' 6%$,*5,(' 0, . -/%' , . 51(),*. '0+*(90' ')')+%' . *$8 'f $')%' 66$*B, 8 ')%/2' *&' ('$5,'(' '(),*. ' +%0%' 0+*1/5' 4%' 0%.)')+$*1-+')+%' +%')' $)' 0*' '0')*' '&&%()')+%' '1$,(/%0' '0' 3%/f '0')+%' 7%.)$,(/%0' *. %' %/%()$*5%' 4%, . -' '66/,%5' *7%$')+%' 0%')' *&')+%' ('$5,'(', 8 61/0%')+%*)+%$*7%$')+%' &*1$)+' 5*$0'f 7%$)%4$' ' '$-%' 06*. -%' %/%()$*5%0'0+*1/5' 4%' 10%5')+%2' . 5')+%'0 3' 4%, . -' 3%/f 8*, 0)%. %5' 3,)+' 0')' 0*/1), *. ' +%' 0+*(90' %8 6/*2%5'0+*1/5' 4%'0)$*. -G 01&&,(,%.)')*' %B(,)%' 6*3%$&1/' (*.)$')' (),*. ', . ')+%' 7*/1. ;)' $2' 8 10(/%0

C 2 "0' # ' ") G)' ,0' *&' (*1$0%' 5%; 0,$' 4/%')*' '7*,5' '/f ('10%0' /,9%/2')*' 4$, . -' *. ' ' . ' '))' (9' *&' ' . -, . ' ' 01(+' '0' 8 %.)' f %B(,)%; 8 %.)' 4*5,/2' %B%$),*. ' %B6*01$%') ' (*/5' ' . 5' , . 51/-%. (%' , . ' , . 5, -%0), 4/%' &**5' *$' +%' 72' 8 %' /0' +%' /%' 5, . -' 6$, . (,6/%' , . ')$%')8%.)' 0+*1/5' +*3%7%$' &%%')*' %. 5%'7*1$')*' 5%)%$; 8, . %' . 5')*' $%8*7%'3+%. '6*00,4/%')+%' ('10%' *&')+%' ')' (90' +%)+%$')+%2'5%6%. 5' *. ' *$; -' . ,(' 5,0%'0%' *&')+%' +%')$)' 3+%)+%$' *. ' ,8 6/%' . %1$'/-,' ' 3+%)+%$' *. ' -*1)' *$' 5206%60, '

?! ' ! ?

3+%)/,%$* .' 5%4,/,)2 ' *$* .' &1/ .%0 ' *& ' + ' 4,) G '
)*' %' (+' *& 01(+' (* .5,),* .0 8 10) ' 66$*6$,')%
)$%')8%.)' '0 5%0($,4%5',.' *)+%$ 6 ')0 ' *& ')+,0
3*$9' 4% 6%$0,0)%.)/2 5,$%()%5 ' K7'$,%)2 *&
06%(,&,(' $%8%5,%0 + '0 4%%.' $%(*8 8 .5%5
01(+' '0 ,*5,5% *& 6*)'00,18 ' *$ 0*5,18 ' ,.'
5,0%'0%5 0)')%0 ' *&)+% '$)%$,%0 ' '$0%.,(' 6+*0;
6+*$10',$* .' C,.(' '.5')+% 5,&&%$%.)0%5'),7%0
'.5'.),06'08*5,(0 '/7'.,08',.')+% &*$8'
&)+% (.),.1*10 (1$$%.) &$* 8')+,$)2 (%//0'
+'0 6$*7%5 *& 10% ,.' 0*8% 1.(*86/,(')%5'
%'0%0')+% 6*0,),7% 6*/% 4%,.-' 6/'(%5' *.')+%'
0)%$.18'.5')+% .%-'),7% *.')+% /*3%$'
(%$7,(' / 7%$)%4$0%' 1(+'$5',.' +,0' %B+'10$'
),7% 3*$9' *.' '.-,.'' 6%()*$,0' 5,0(100%0')+%'
'(),*.' *& '.),62$,.' '.5' 6+%.'*%),.' 3+,(+'
+% $%-'$50 '0' 10%&1 ,.'&'/0%' '.-,.' ' %' 5%;
0($,4%0' '0 10%/%00' *$ %7%.' 5'.-%$*10')+% 8;
6/*28%.)' *& (+/*$'/' 01/6+*.'/' ')$*6,.%'' .5'
(%$)',.' *)+%$ 5$1-0' B(%//%.)'+*3%7%$' '0'
8'.2' *&)+% $% 8%5,%0' 4*7% .' 8%5'8'2'4%'
)85%$ 06%(,' / '.5'01,)'4/%' (,$(180)'.(%0')+%'
$%01/)' *&)$%')8%.)' 8 10)'*.),$%/2 5%6%.5' *.'
)+% (' 10% *&)+% 5,0%'0%' '.5' +*3' &'$',)',0'
3,)+,.'$%'(+' *& 3%// 5,$%()%5' -%.(,%0' *8%
*'0%0' *& '66'$%.)/2 0%7%$%' '.='' 3,/' 4%'
&*1.5')*' 2,%/5')*')$%')8%.)H 3+,/0)''0' 8,-+)'
4%%B6%()%5'&$*8')+% .')1$%*&)+% (*86/',.)'
)+%$0' 1.+'66,/2'6$(%%5')*' '&')'/)%$8,.';
),*.',.' 06,)%*& *& %7%$2 %&&*$)'5,$%()%5')*')+%,$'
$%/,%&' / ' ? $

' A'' 6$,7 H '.5' 5 '
03%')R G 40%.(%' (*' 3'.)' (' 6%$06,$'),*.'
' " & ' ,0*$5%$0' (0

U ' A5' 6$,7 H '.5' : '
03%')R G -%.)0' 3+,(+' (+%(9' 6%$06,$'),*.'
' & ' ,0*$5%$0' *&

' G +%' '.,/,.%
52%0' 3+,(+' '$%' '' 8*5%$.' 5,0(*7%$2' 6$%0%.)'
)+%' 8*0)' 4$,//,'.)' +1%0' *& 2%//*3' 4/1%' '.5'
$%5H '0' 01(+')+%2'+'7%' 4%%.' 10%5' &*$' 52%,.-'
0)*(9,.-0' -/*7%0' ^(' +%0%' $),(/%0' 3+%.'
3*$.' '$%' 6)')*' 6$*51(%' .' ,.)%.0%' &*8$'*&'
,.&/'8 8'),*.' '.5' 7%0,(',*.' *&)+%' 09,.'
3+,(+',0' $%4%//,*10' '-'.0)')$%')8%.)' '.5'
/,'4/%')*' $%/'60%' &*$' 8'.2'8*.)+0' '&)%$')+%'
*$,-,.' / '))'(9' +'0' 0140,5%5' ' %.

' G .'

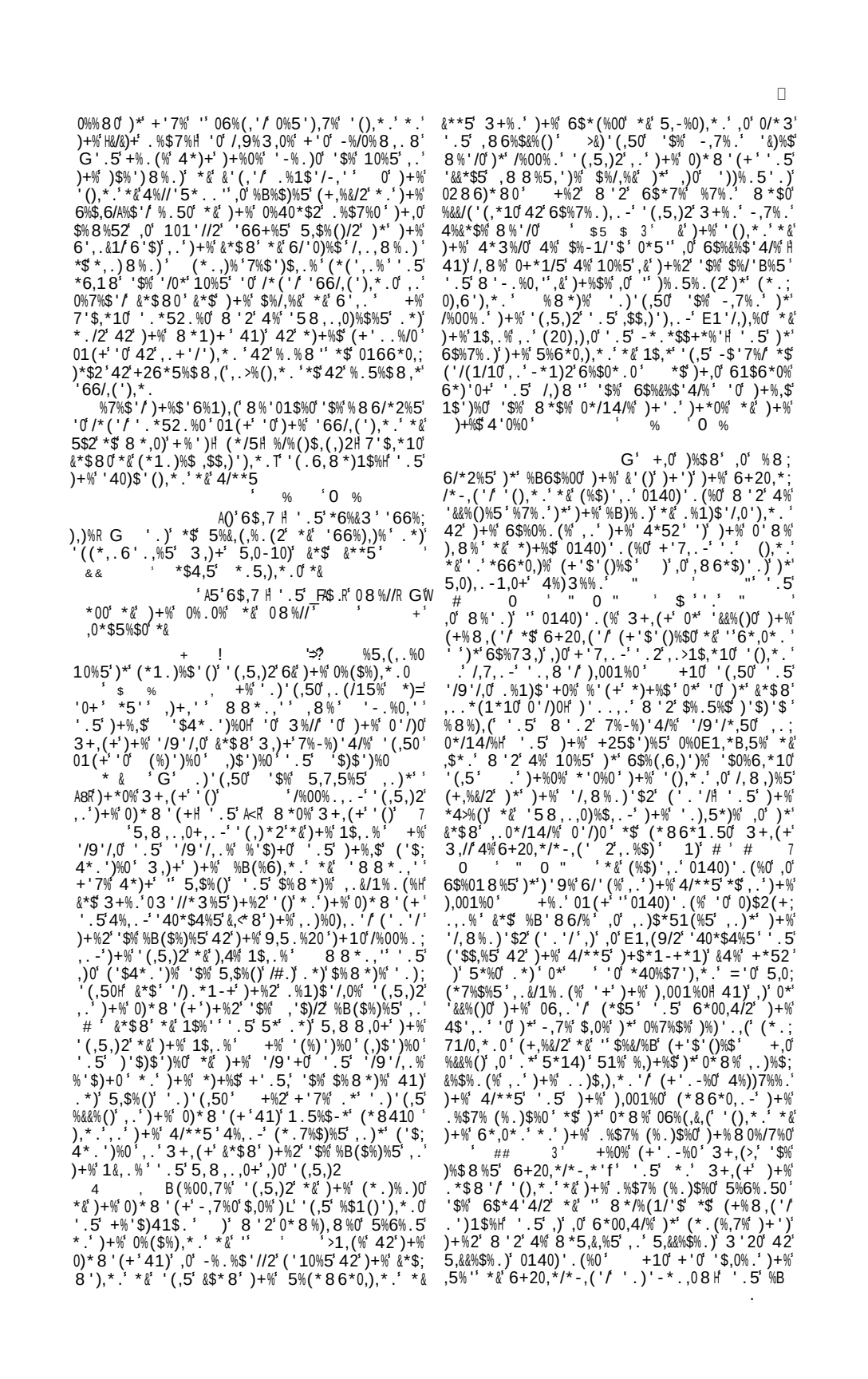
K ' A F)+ ' ($**9%5R' GQ
'$9%5' 0),&,&,,%00' *$' '40*/1)%' &,B'),*.' *& ''
>*,.)' .92/*0,0' 8'2' 4% &,4$*10' 4*.2' *$
7,)'/' .92/*0,0' ,0' 0',5')*' 4% 0 7,)'/ & 3+%.'
,)',0' 51%*)*')+%',86',$8%.)*& 8*),/,)2'(' 10%5'
42' $,-,5,)2' *&)+% 810(1/'$' '66'$')10' 01$;
$*1.5,.-')+%'>*,.)' ' = ' ,0%'0%0' *&

' , F)+ ' 4*((A.-@
1 -'D ($1 1') (7+,80 G ' <. 7& (' .) 1+('-'
= (*) &0 K

' A5 6$,7 H '.55 %3G6',.R G'
(G %5,(,.%0' 3+,(+' $%/,%7%' 6',.'
42' /%00%.,.-')+% %B*,)'4,+)2' *& .%$7%0' *$' *&'
.%$7% (%.)$%0

$ % G' .*52.%' 8%5,(,.%0' ,8'
%/15% 6,18'.5',)0' /9'/*,50G *$6+,.%'.5'
5%,.%H .),62$,.' .),&%4$,.' +%.'%),.'
'.5' B'/-,1H $*8,5%' *& *)'00,18H '.;
.'4,0' .5,('H %//'5*..'' '.5',)0' /9'/*,5G'
)$*6,.%H 2*0(2'810' .5' 2*0(2'8,.%'
)$'8*.,18H *(',.%H (*.,)%' '.5' (*.;;
),.%'H %$')., 8'.5' %$')$,.4'H *.,./.' '.5'
*.,.%H 161/10' .5' 161/,.H %/0%8,18'
+/*$*&*$8')+%$' '.5') +%,$' '//,%0' H +/*$'/'
25$')%H 1)2/ (+/*$'/' 25$')%H '.5' '8;
6+*$

G ',.',0' 51%)*' ''7,*/%.)' 0),81/';
),*.' *&' '' 0%.0*$2' .%$7% 4%,.-' (*.7%2%5')*'
0*8% *&)+%'%.(%6+'/,(' .%$7% (%.)$%0' A6$*4;
'4/2')+% (%$%4$'/'+%8,06+%$%0R''.5'6%$(%,7%5'
)+%$%' +% ,86$%00,*.' 6$*51(%5'*.''//0%.;
0*$2' .%$7%0' %B(%6)')+% (%6+' % .%$7%0',0'
(*.7%2%5'&*$''6')$'*&',)0' (*1$0%')*')+%+%'5'
'/*.-')+% 06,.'/ (*$5' +% 6$,8'$2',86$%0;
0,*.'3+,(+',0' &%/)' '0' 6',.',0' 101'//2' 8'5%'
16*.')+% 6%$,6+%$'/ %.50' *&)+% 0%.0*$2'
.%$7%0H 41)',)' 8'2' '/0*'4%' 8'5%' 16*.')+%,$'
)$1.90' 16*.')+% 06,.'/ (*$5' *$ 6*00,4/2'
16*.')+%.%.(%6+'/,(' (%.)$%0' 5,$%()/2' ,)+*1)'
'.2' '&&%(),*.' *&)+% .%$7%0')+%8 0%/7%0' '0'
&*$' %B'86/%',.' +20)%$,' ' ,.' 8'2')+%$%;
&*$%' 4%' %/,%7%5'3+,/%')+% 0*1$(%' *& ,$$,)';
),*.'0),/' $%.)',.0'42' /%00%.,.-')+% %B(,);
'4,/,)2' *&)+% .50' *&)+% 0%.0*$2' .%$7%0'
3+,(+' $%(%,7%')+% 6',.&1' ,86$%00,*.H *&'
)+%,$')$1.90H *&)+% 06,.'/ (*$5' '/*.-'
3+,(+')+% ,86$%00,*.')$'7%/0H *$' *&)+%.;
(%6+'/,(' (%.)$%' ,.' +,(+',)' ,0' 6%$(%,7%5'
6,.8' '()0' 42' /%00%.,.-')+% %B(,)'4,/,)2' *&'
)+% 0%.0*$2' .%$7%0')+% 06,.'/ (*$5'' .5')+%'
%.(%6+'/,(' -'.-/,''' $*8,5%' *& 6*)'00,18'
,0' /0*'4%/,%7%5')*' ()' *.' '//)+$%%' /)+*1-+'
)*' '81(+'/%00'5%-$%%')+' .'*6,18' .),62$,.'
'.5',)0' '//,%0' 6$*4'4/2' &&%()')+% (*.51().*.'
*& 6',.&1/ 0),8./,')+$*1-+')+% 06,.'/ (*$5'
*$ 0%.0*$2')$'()0',.')+% 4$',.' %//'5*.''
'.5')$*6,.% '&&%()')+% 0%.0*$2' .%$7%0''0'
6$*4'4/2' 5*%0' +2*0(2'810')$'8*.,18'
'(*.,)%' '.5''(*.,),.%'7%$')$,.%'(+/*$'/''.5'
41)2/ (+/*$'/' /161/10' '.5' /161/,.'' '.5' -%/;
0%8,18' 6$*4'4/2' '()' *.')+% %.(%6+'/,('
(%.)$%0
= G=0*6,18'.5' 8*$6+,.%'()' 16*.'
'//)+% .%$7*10' 0)$1()1$%0' (*.(%$.%5',.')+%'
6$*51(),*.' *& 6',.')+%2' 8'2' 4% 10%5')*'
$%/,%7%' 6',.' 3+')%7%$',)0' ('10%' '..'4,0'
,.5,('' '.5' 4$*8,5%' *& 6*)'00,18' 8'2' 4%'
%86/*2%5' 1.5%$')+%' 0'8%' (,$(180)'.(%0' '0'
*6,18'41)')+%2' +'7%'7%$2' 81(+'/%00'6*3%$'
.),62$,.' '),&%4$,.' 6+%.'*%),.' ' .5' %B'
'/-,.' '$%' 6*3%$&1/' '/-%0,(0' '.5' $%/,%7%'
6',.'3,)+*1)'5,0)1$4,.-')+% 4$',.' +%2' $%'
7%$2' 10%&1/,.'.%1$'/-,('6',.0',.'+%'5'(+%0'
'.5',.' 6',.' 5%6%.5,.-'*.'0*8%' &&%(),*.0'
&)+% 06,.'/ ($5G=&*$,.0)'.(%')*' $%/,%7%'
)+% /,-+).,.-'6',.0' ,.' /* *8*)*$')'B2'
+/*$'/' 0%%8 0')*' $%/,%7%' 6',.'*./2' 42',.;
51(,.-'0/%%6' '.5' 5*%0' .*)' 6$*51(%' ' ' '.'
0%0)+%),(' %&&%()'1.%00',)',0'-,7%.',.'5'.-%$*10'
5*0%0' 1)2/ (+/*$'/' /0*',.51(%0' 0/%%6'41)



= G $'0),%' 6,'$-'),7%0' 8 '2' 4%' 10%5' &*$ 3*$80' *&' .'2 0*$)H '$%('' &*$ 4*)+')'6%' Q'.5$*1.5 3*$80H '.5')+%' *)+%$' -%.)0' &*$)+%' 3*$80' *.' 3+,(+')+%2' 0%7%$' 2' ()' 0' 6*,0*.0' %$8,(,5%0' '$%-%+%$'//2'-,7%.'' &)%$')+%' 6'),%.)' +'0' &'0)%5' &*$' 0%7%$'/ +*8$0' ,.' *$5%$')+')')+%' ,.)%0),.%0' 4%,.-' %86)2')+%' 5$1-0' 8'2' '()' 8*$%' $%'5,/2'*.')+%' 3*$80' 3' 61$-'),7%' ,0' 101'//2' -,7%.' 0*8%' +*1$0' '&)%$3'$50',.'*$5%$')*'%B6%/')+%'5%'5' *$80' 0')+$%'5 3*80' (+,%&/2',.+'4,)')+%'$%*)18)')+%2''$%' 8*0)' %&&%()1'//2'+,//%5' 42'%.%8')'' 3+,(+' 8'2' (*.0,0)' *&' '' 0)$*.-',.&),0,*.' *&' E1'00,'H 0'/)' .'5'3')%$H 7,.%-'$' .'5'3')%$H 0*/1),*.' *&')+%' 01/6+')%' *$' 6%$(+/*$,5%' *&' ,$*.H *,/*&')1$6%.),.%H ('0)*$*,/H 5%(*(),*.' *&''/*%0$' ',.&10,*.'*&'0%..'' 0'41.5'.(%' *&' 81(10' ,.')+%' ,.)%0),.%0' &*$80' '' (*.; 7%.%.)' .,510'&*$*)+%'-$*3)+'*&'3*$80''.2;)+,.-')+')' 5,8,..,0+%0')+,0')%.50')*' 6$%7%.)')+%,$*(((1$$%.(%H' .5'&*$')+,0' 6,16*0%' 6$%; 6'$'),*.0*&',$*.'' .5'4,))%$')*.,(0''$%' 10%&),/

F $ %'/ B

' A5) 56':' '' *'/R G' '5%6*0,)'*&'4/'(9'8')%$,=',')+%'),001%0'*$ W*$-'.0' 1 0' .&/'88'),*.'*&

Y' ' *" +' '' (*'/R'G' ' 02.*.28'&*$ ('$41.(/%'' .5'&*$ 8'+-.')' 610)1/%' ' ; $ C' .5' $ $ '

' A57,,' '-',.0)' '.5')K _a6)' -,7%R G (,=.' '.),5*)%' ,0' '.2' $%8%52'3+,(+'42',)0'6+20,('/*$',)0'(+%8,('/ %&&%()' 16*.' '' 6*,0*.'*$' ,.' 4*)+' '20',0' ('6'4/%'*&' 6$%7%.),.-' *$' (*1.)%$'(),.-')+%' 6+20,*/*-,('/ %&&%()0' *&')+')' 0140)'.(%' + ' # '*8%),8%0'+*3%7%$')+%')%$8' ,0' O%5',.'' 8*$%' (*86$%+%+0,7%'0%.0%'0*' '0')*',.(/15%')+%'-%.%$'/')$%')8%.)' *&' ''6%$0*.' '&&%()%5' 42' '' 6')$),(1/'$' 6*,0*.' +10',.' 6*,0*.,.-' 42'*6,18')+%'10%'*&')+%'0)*8'(+' 6186'%.&*$(%5''%B%$),*.'(+'&,.-')+%'/,840' '.5')$),&,(,'/ $%06,$'),*.'8'2'4%',.(/15%',')+%'-%.%$'/'.),5*)'/')$%')8%.)

' (' ' && ' *0)' .),5*)'/ 0140)'.(%0' &*$8' 3,)+')+%' 6*,0*.' ,.0*/14/%' *$' ,..0*/14/%' *$' ,..*(1*10' (*86*1.50' ,)+*1)'))%86),.-')*' -,7%' '' (*86/%)%' /,0)')+%' &*//*3,.-' '$%' %B'86/%0' *&')+%' 8*$%' (*88*.' 6*,0*.0' '.5')+%,$' $%06%(),7%' '.),; 5*)%0' HG'D8E' ' '/' 0*/1),*.' *&' Q5,'/20%5',$*.' '58,.,0)%$%5' &$%%/2' ' /,-)' 8'-.%0,''H A<R' ' '9' .%3/2' 6$%; (,6,)')%5' *B,5%' *&' ,$*.' 3,)+' '.' '/9'/,.%' ('$4*.')%' 9' +26*5%$8,(' ,.>%(),*.' *&' <')*' 8R8' *&' /,E1*$')$*6,.['01/6+'),0' %7%$2' +'/& +*1$9' A''R' / ' /' (+'/9' (*88*.' 3+,),.-' *$' 8'-.%0,'' 0106%.5%5',.' 3')%$H A R' ' '/')'...'(')%(+1'*$*)+%$' 7%-%)'4/%' '0)$,.-%.)0H AFR' ' /' 01&*+')%' *&' 8'-.%0,18' ')+%'6+*06+')%0' *&' 0*818' .'5'8'-.%0,8.H ALR' ' /' 5,/1)%' '(%),(' '(,5' &,B%5' *,/0' /%8*.' >1,(%H AMR' *' (0 1' '/418,.' 3+,)%' *& %--'&/*1$' *$' 8,/9H A9R' " ' /' (+'/9' (*88*.' 3+,),.-' 6/'0)%$' &,*8')+%' 3''//0' *$' (%,/,.-'*$('$4*.')%' *&' 8'-.%0,18H APR' # 7 ' ' % " /' /418,.' 8,/9' *$' ('$4*.')%' *&0*5,18 %-%)'4/%' 6*,0*.0' ('..*)')+10' 4%' (*1.)%$; '()%5' &')+%2'+'7%' 4%%.')'9%.',.')+%' &*$8' *&' 0%%50'/%'7%0'*$' $**)0')+%' 6$*6%$' (*1$0%' ,0')*' $%8*7%')+%8' &,$*8')+%' 0)*8'(+' *$ 4*3%/0' '0' 0**.' '0' 6*00,4/%' 42' %8%),(0' '.5' 61$-'),7%0' '.5')+%' 0' 8%'),8%)*' 010)',.')+%' &/'--,.-' 0)$%.-)+' *&')+%' 6'),%.)' 42')+%' '58,.,0)$'),*.'*&' 0),81/'.)0' .')+%' *)+%$' +'.5',&')+%' '/9'/*,5' +'0' 4%%.')'9%.',)',0'0** .' '40*$4%5')+')' %8%),(0' .'5' 61$-'),7%0' '$%'*&'/,))/%' '7',/'*$' 8'2'%7%.' 4%',.>1$,*10' .')+%0%' (,$(180)'.(%0' 3%' 810)' $%/2'*.')+%' '58,.,0)$'),*.'5&')+%' 6+20,*/*-,('/'.)'-*.,0)' *&')+%' 6*,0*.' A01(+'0' (+/*$'/' +25$')%',.')+%' ('0%'*&'0)$2*+...%6*,0*1.-R'.'5'*.'0166*$); ,.-')+%'0)$%.-)+*'*&')+%'6'),%.)' +%&*//*3,.-' '$%')+%'4%0)'.),5*)%0')*')+%' 7%-%)'4/%'6*,0*.0' 8*0)' &,$%E1%.),2' 8%)' 3,)+' KA8R' " ' /' %8%),(' *&' 01/6+')%' *&' C,.('.5' 0),81; /'.)0'H A<R' # ' ' *$' /' %8%),(' *&' 01/6+')%' *&' C,.('88*.,''0),81; /'.)0'.5' &)%$' 0*8%'),8%'.'()',7%' 61$-';),7%'H A9R' 0 '/' %8%),(0'0),81/'.)0''.5')+%' 8',.)%.'.(%*&')+%' $%(184%.)' 6*0,),*.H A R' # ') '/' %8%),(0'.5' 0),81; /'.)0H AFR' # # ' ' " ' ' 7 # " '*$" ' ' # ' " ' ' '/' +26*5%$8,(',.>%(),*.' &'6*8*$6+,.%H %B;)%$.'/0),81/'),*.'42'3'$8)+')1$6%.),.%' *$' (' 86+*$/.,.8%.)0H %.&*$(%5'%B%$),*.H '$),; &,(,'/$%06,$'),*.''.5'08'//'$%6%')%5'5*0%0'*&' 01/6+')%' *&''$*6,.%H ALR' # ' # '/')+%'0'8%''0'&*$*6,18H AMR' < #" " ' '" (') '/' '.,8'/'(+'$(*'/0106%.5%5',.'3')%$' $%6%')%5'/'$-%'5*0%0'*&'(+/*$'/+25$')%'*$' (/5*,$*&*&8H AZR' '/' 0),81/'.)0' 014; (1)'.%*10',.>%(),*.'*&'('&&%,.%'8*$6+,.%'*$' 6,/*('$6,.%'*$' *&'7%$2'8,.1)%' 5*0%0'*&'6+2' 0*0),-8,.%'H APR' ' "'/')$*6,.%'*$' 0),81/'.)0' $),&,(,'/$%06,$'),*.H A8HR' #7 ' 014(1)'.%*10',.>%(),*.'*'*&'@')*' '/,6'*&' /,E1*$')$*6,.%'01/6+'),0'0),81/'.)0'('0)*$' */H A88R' ' *$' " " '/' 0),81/'.)0' 014(1)'.%*10',.>%(),*.'*&' 8,.1)%' 5*0%0'*&' 0)$2(+.,.%' ' j :$ ' ()' > '5 3 N % *' *,0*.,.-' 5 .=?*! ')H$ $ 3'+" 34 &!' "' & # ' "' %5,(,.%0'3+,(+'6$%7%.)'*$' $%/,%7%')+%' 6';*B2080'*&' (%$)',.'5,0%'0%0'3+,(+'%B+,4,)' '' 6%$,*5,('(+'$')(%$ * %! 'G' +%' (+,%&' .'),6%$,*5,(0' '$%')')' ,.(+* '4'$9'085',)0' '/9'/*,50G' X1,.,%' ,.(+*.,.%' X1,.5,. ' '.5' ,.' (+*.,5,.%'H %4%%$1' '$9' '.5',)0''(),7%'6$,.; (,6/%' %4%$,.%H '/,(,.' '/,(2/,(' (,5'.5' ,)0'0' OH 1('/26)10'-/*41/10H '.5' $0%.,(' " +%8*5%'*&''(),*.'*&'.),6%$,*; 5,(0',0'/')'6$%0%.)'1.9.*3.

(' @

O G ,. (+* . ' ' . 5' 0),// 8 *$%' E1, . , . % ' ,0' '/8 *0)' '' 06%(,&,(' ,. ')+%')$%')8 %.)' *&', .)%$; 8 ,))%.)' &%7%$0' 6%$,*5,(' +%'5'(+%0' . %1,(' / ' -5'0' ' . 5' *)+%$' '&&%(),* . 0' ('10%5' 42' 8 '/ '$, ' ' +*1-+' /%00' %% ,H)' , . ' , . ' ,)0' '(),* . ')+' . ' , . ' , . ;)%$8,))%.)' &%7%$0' E1, . , . %' ,0' '/0*')+%' 4%0)' $%8%52', . ')+%' $%8,))%.)' &%7%$0' *&')+%')$*6,(0' , . ' 3+,(+' +*3%7%$',)' 810)' 4%' -,7% . ;' , . ' 7%$2' /'$-%' 5* %0')0' ' (),* . ', . ')+%0%' &%7%$0' 66%' $0')*' 4%' '00,0)%5' 42' ' .),62$,. ' *$' *)+%$' .),62$%;),(0' -,7% . ' 0*' '0')*' $%51(%')+%')%86%$')1$%')*')+%' . *$8 '/ 51$, . -')+%' $%8,00,*. ' +%' *)+%$' '/9 '/*,50' *&' (, . (+* . '' +' 7%' '0,8,/' $' '(),* . ')*')+')' *&' E1, . , . %' 41)')+%2' '$%' . *)' 0*' 6*3%$&1/' %4%$, . %' ,0' *. /2' '4*1)' *. %)+,$5' '0' 6*3%$&1/' ' . 5', 0' 42' . *' 8%' . 0' 0*' (%$)' , . H ' . 5')+%' 0' 8%' $%8 '$9' '66/,%0')*')+%' *)+%$' $%8%5,%0' %. 18%$')%5' . ' 0*8%' ('0%0' *&' -1%' ' . 5' *)+%$', .)%$8,))%.)' &%%(),*. 0' '$0%. , ('6$*7%0' 01((%00&1/' 3+%. ' E1, . , . %' &', /0' 8%),(0' ' . 5' 61$-'),7%0' '$%' 10%$'/' '1B,/,'$,%0')*' E1, ; , . %' . , ')+%')$%')8%.)' *&' -1%' ' . 5' '$%' %8; 6/*2%5' '/*. %' &*$')+%' (1$%' *&')+,0' 5,0%'0%', . ' 0*8%'6')$0' *&')+%' 3*$/5' 3+%$%' E1, . , . %', 0' . *)' '7',/'4/%' ' % ' 0 %

' A5 8 ' '-', . 0) H ' . 5' _6Y%2*%' '418 R G ')%$8'&*$' . 2' 8%)+*5' *&')$%')8%.)')+')', 0', .)%. 5%5')*' (*1.)%$')(', . &/' 8 8'), *. ' ' . 5',)0' ((*86' . 2, . -' (*. 0),)1;), *. '/ 5,0)1$4' . (%

7 6 . ')&' '-', . 0) H ' . 5 <) ' '' &%7%$R G & # G +%$'6%1), (' '-%.)0' 3+, (+' $%51(%')+%')%86%$')1$%' , . ' &%7%$ * %! G +%' 6$, . (, 6 '/ '-%.)0' 10%5' '0' ' .), 6>$$%), (0' '$%G *5' ')+0' */5' 66/, ; ('), *. 0' (%' H , '6+*$%), (0H /(*+*/H +/*$' /H X1, . , . %H)+%' '//(2/ (*86*1. 50H .), 62= ' .), &%4$, . ' +%. '(%), . ' ' . 5' '//, %5' 4*5, %0H 1*'/26)*/H 00%.), '/ ,/0H (*.), %H , -. ;)'/, 0' H $%%. ' %//%4*$%H 1$-'), 7%0H ' . 5' %. %0%(), *.

' G +%')%86%$')1$%' *&')+*' 4*52' 8'2' 4%' $%51(%5' %,)+%$' 42' , . ($%'0, . -')+%' '40)$'(), *. ' *&' +%')' *$' 42' /%00%. , . -',)0' 6$*; 51(), *. ' +%' 5, $%()' '66/, (',), *. ' *&' **R 5' 42' 8%'. 0' *&' 4')+0' '&&10, *. ' *$' 06*. -, . -' /*$ 42' %. 7%/*6, . -')+%' 4*52', . ' 0+%%)0' 3$1. -' *1)' *& (*/5' 3')%$', 0')+%' 8*0)' 6*3%$&1/' . 5' m$' 6,5' 8%'. 0' *&' '40)$'(), . -' +%')' 1)')+%' /*00' *& +%')' 3+, (+' (*. 0)' .)/2' *((1$0' %7%. ', . ' +%' /)+' 42' %7'6*$'), *. ' *&')+%' 03%)'' . 5')+%' $'5, '), *. ' ' . 5' (*. 51(), *. ' *&' +%')' &$*8')+%' 09, . ' 8'2' 4%', . ($%'0%5' 42')+%' 10%' *&' 5, '6+*$%), (0' 01(+' '0' 0')0' *&' 6*)'00, 18' 6$%6'$'), *. 0' *&' .), ; 8*. 2' *$' (%')%' *&' 8 8*. , 18H *$' 42' 01(+' 8%5, (, . %0' '0' 5, /' %)+%' (1)' . %'10' 7%00%/0'0*' '0')*' '//*3')+%'+%')%5' 4/**5')*' (, $(1/')%&$ %%/2')+$*1-+')+%8' '. 5')*' 4%(*8%' (**/%5'42')+%' %B;)%$. ' /8%5, '01$$*)85, . -')+%' 09, . ' /(*+*/' , . ')+%' &*$8' %,)+%$' *&' 3, . %' *&' 06, $,)0' ' . 5' (+/*$'/' +'7%' '. ' '(), *. ' *&')+, 0' *$)')+*1-+' '/(*+*/' /0*' , . &/1%. (%0')+%' 6$*51(), *. ' *&' 4%')' /(*+*/' E1, . , . %')+%' 0'/, (2/' (*8; 6*1. 50' '.), 62$, . ' '.), &%4$, . ' 6+%. '(%), . ' 62$*5, . ' '. 5')+%, $' '//, %0' %1('/26)*/' '. 5

%00%.), '/ *, /0' /%00%. ')+%' 6$*51(), *. ' *&' +%')' 3,)+, . ')+%' 4*52' 6$*4'4/2' 42' 5, 8, . , 0+, . -' *B, 5'), *. ' *&')+%'), 001%0' , ' $' $3' (*. ,)%'5, -,)'/, 0' ' . 5' -$%%. ' +%//%4*$%' $%51(%')+%')%86%$')1$%'41)')+%, $' 8*5%' *&' (), *. ', 0' . *)' 6$%(, 0%/2' '0(%$)', . %5

6 ' G' .), 62$%), (0' '()' 81(+' 8*$%' 6*3%$&1//2', . ' $%51(, . -')+%')%86%$')1$%' *&')+%' 4*52', . ' &%7%$')+' . ')+%2' 5*', . ' +%' /)+' +%2' 8'2'4%' 10%5' 3+%. ')+%')%86%$')1$%' +' 0' $, 0%. ' %,)+%$' &$*8' %B6*01$%')*' '' +, -+' %B)%$. '/)%86%$')1$%' '0' , . ')+%$8, %' &%7%$H , . ' (*. 0%; E1%. (%' *&', . &/' 88'), *. ' ''0', . ' 6. %18*. , ' 6%$, (' $5,), 0' *$' 6+)+, 0, 0H *$', . ' 06%(, &, (' &%7%$0' '0' '(1)%' $+%18'), 08')26+10' ' . 5' 0(' $/'), . ' ' +%' 8*0)' $'6, 5' '6&/' 6*3%$&$, /' '.), 62$%), (' $%8%5, %0' '$%' (*/5' 4')+0H . %B)' 6$*4'4/2' (*8%' .), &%4$, . ' ' .), 62$, . ' 6+%. '(%), . ' /' $-%' 5*0%0' *&' 0'/, (2/, (' (, (5' *$' 0'/, (2/')%' *&' 0*5, 18' ' . 5' E1, . , . %' . ' (1)%' $+%18'), 08')+%' 0'/, (2/')%0' '$%')+%' 8*0)' 10%&1/' .), 6J %), (0' X1, . , . %' 0%%8 0')*' ()' 7%$2' %&&, (, %.)/2', . ')+%$8, (' &%7%$' 3+%. ', . >%()%5' 014(1)' ¸ %*10/2

%$ ' 0 %

/ ' A' 8' '-', . 0)' H ' . 5' (= ,$) *$' &$*8' 8' 9%61)$, 5R .), 61)$%0(%.)0

& # " = .' ' .), 0%6), (', 0' '' 0140)' . (%' 3+, (+' 6$%7%.)0' *$' $%)' $50' 61)$%&' (), *. G)+')' , 0')+%' 5%(*86*0,), *. ' *$' . , 8 '/ *$' 7%-%)' 4/%' 4*5, %0' ' ((*86' ., %5' 42')+%' %7*/1), *. ' *&' *&&%. 0, 7%' -' 0%0' +%' 61)$%&' (), 7%' (+' . -%' *((1$0' *. /2', . ' 5%' 5' 8'))%$' . ' . 5' $%E1, $%0')+%' 6$%0%. (%' *&' 8*, 0)1$%' +%')' . ' . 5' '' &*8%.) ' +')')+%$%', 0' . *' 61)$%&' (), *. ', . ')+%' 40%. (%' *&' 8*, 0)1$%', 0' *47, *10' &*$' 4*5, %0' 01(+' '0' /41; 8, . ' ' . 5' 4/**5' 3+, (+', . ')+%' 8*, 0)' 0)')%' '$%' +, -+/2' 010(%6), 4/%' *&' 61)$%&' (), *. ' 8'2' 4%' 9%6)' &*$' . ' , . 5%&, . ,)%'), 8%' 3,)+*1)' (+' . -%' , &')+%2' 4%' 6%$&%()/2' 5$2' %')' /0*' +'0' ' . , 86*$)' .)', . &/1%. (%' *. ' 61)$%&' (), *. ')' 7%$2' /*3')%86%$')1$%0')+%' 61)$%&' (), 7%' +' . -%' (%'0%0' 3+, /%' %/%7')%5')%86%$')1$%0' 01(+' '0' 6%7', /' , . ')$*6, (' /' (/, 8')%0' '$%' &'7*1$'4/%')*',)' . ' '55,), *. ' /' %/%8%.)' 4%0, 5%0' +%')' . 5' 8*, 0)1$%' , 0' +*3%7%$' $%E1, $%5' ' . 5')+%' *6, . , *. ' -%. %$' //2' '((%6)%5', 0')+')')+, 0' (*. ; 0, 0)0' *&' 8, . 1)%' 7,)' /' *$-' . , 080' 3+, (+' %B(,)%' 61)$%&' (), 7%' 5%(*86*0,), *.

' # ' G +%' 0140)' . (%0' 10%5' '0' ' .), 0%6), (0' '()' %,)+%$' 5, $%()/2' *. ')+%' 4*5, %0' , . ' 3+, (+' 61)$%&' (), *. ', 0' *((1$$, . -' *$' 8, -+)' *((1$' &*$8, . -' 3,)+')+%8' (*84, . '), *. 0')+')' '$%' . *)' 010(%6), 4/%' *&')+%' 5%(*86*0, . -' ' (), *. ' *&' '' &%$8%.)H *$')+%2' '()' , . 5, $%()/2' 42' 5%0)$*2, . -')+%' 7,)' /,)2' *$' *)+%$3, 0' 6$%7%.); , . -')+%' 5%7%/*68%.)' . 5' 6$*6'-'), *. ' *&')+%' *$-' . , 080' *&' 3+, (+')+%' &%$8%.)' , 0' (*86*0%5' . ')+, 0' $%06%()' " ' 8'2' 4%' 5, 0), . ; -1, 0+%5' &$*8' " ')+%' (), *. ' *&')+%' /'))%$' 4%, . -' 5, $%()%5' ./2' '-', . 0)')+%' B(,), . -' ('10%0' ' . 5' *&%. 0, 7%' *$' 5%/%)%$, *10' 6$*51()0' *&' '' (/'00' *&' (+' . -%0' 3+, (+' '$%')+%8 0%/7%0' 8*$%' (*86$%+%. 0, 7%')+' . ')+*0%' , 86/, %5' 42')+%')%$8'61)$%&'(), 7%

4:B)$&' WG' +%$%' '$%' .18%$*10' W(+%8,*'/''-%.)0'6*00%00,.-'' .),0%6),('6$*6%$;),%0''8*.-'(+,%&'*& 3*,(+''$%HG +/*' $,'%' 1/6+c.' ,*B,5%' A 1/6+1$*10' (,5R' ,)$,(' B,5%'' .5' %$*B,5%'*&' ,)$*-%.' '0' -'0%0H '$4*/,(' (,5' 0%6)*/' $%'0*)%' %.C*/' 1/6+,)%0' 26*01/6+,)%0''.5' 26*; (+/*$,)%0' 3+,(+' %8,)' 7'6*1$0' ')' (*88*.')%86%$')1$%0H''.5' %$(1$,(' +/*$,5%' A *$; $*0,7%' 14/,8')%R' %$(1$* V,(' 2'.,5%' +/*$,5%' *&' V,.(' +$*8,(' *$,(' '...,(' '.5' '/,(2/,(' (,50' %$8'.-'.')%' *&' *)'0; 0,18' '6+)+*/' U%0*$(,.'.5' +'$(*'/' &$*8'3+,(+'.*'7'6*1$',0'%8,))%5

6 G0\' .')+%$'6%1),(' 6$'(),(%' '.),.; 0%6),(0''$%'(+,%&/2'%86/*2%5',.'' ' ' # ' ' ' # ')*' 6$%7%.)')+%' *((1$$%.(%' *&' 61)$%&'(),7% 5%(*86*0,),*.' ' >80 >8*' !

+*0%' '.),0%6),(0' '$%' 4%0)' 01,)%5' &*$')+,0' 61$6*0%' 3+,(+'' (),-'%&&,(,%.)/2'*.')+%' &%$; 8%.)'+'7'5' .*' ,>1$,*10' %&&%()' *.')+%' 6'$)0' ,.' 3+,(+')+%' +%'/,.-' 6$*(%00' ,0' -*,.-'*.' '0%0'%B(%6)',.' 0*/1),*.' ('..*)' 4%' /*('//2' 10%5''0',)' 3*1/5' 4%'.%(%00'$2')*'%.(/*0%')+%' 0140)'.(%')*' 4%' 6$%0%$7%5',.' '.'',$),-+)' 7%00%/'(*.)',.,.-')+%'-'0' +%'7*/'),/%'.),.; 0%6),(0' 3+,(+' 0/*3/2'%8,)' '' 7'6*1$'+'7%' 4%%.'6$%&%$%5')*')+*0%'3+,(+'%8,)'.*'7'6*))&' '/)+*1-+'' 8*.-')+%'/'))%$'0'/,(2/,(''*5'4*$,(' '(,50'3+%.'6$*6%$/2'5,/1)%5'4%,.-'5%7*,5'*&' '.2',$$,)'),.-'6$*6%$),%0',&'66+%5')*',.&/'8%5' 01$&'(%0'6$%0%.)'*.')+,0' '((*1.)'' 8'$9%5' '57'.)'-%' ')%$/2'' (2'.,5%'*&' 8%$(1$2' '.5'C,.('3+,(+',0'8*$%'6*3%$&1//2'.),0%6),(')+'.')+*0%'/'0)'.'8%5''.5'%E1'//2'5%7*,5'*&' ,$$,)'),.-'6$*6%$),%0'+'0' 4%%.' 01((%00&1//2' 10%5''.5'$%(*88%.5%5'42',$' *0%6+',0)%$' *$$*0,7%'014/,8')%'3+,(+'66%'$0')*'4%'*.%' *&')+%' 8*0)'6*3%$^/'*&''.),0%6),(0',''/0*' .*3'&$%E1%.)/2'10%5',.')+%'&*$8'*&''%'9' 0*/1),*.'*.'%'6')$' ,.'<'HHH'6')0'*&' 3')%$' 4%,.-'%&&,(,%.)

'$4*/,(''(,5'3+,(+'3'0')+%'&,$0)'(),7% 5,0,.&%()'.)'10%5',.'01$-,('/*6%$'),*.0'0),//' $%)','.0',)0'6*0,),*.''0'*.%'*&')+%'8*0)'7'1'4/% *&&,.0'(/'00'*&'(+%8,('/'-%.)0'),'0'101''//2' %86/*2%5',.'0*/1),*.',.'3')%$'*.%'6')' &)+%'61$%' ($20)'//,0%5''(,5'4%,.-'5,00*/7%5',.' &$*8'<H')*' 8HH'6')0'*&' 3')%$''.5' '66/,%5' '0'''/*),*.''.5' 0*8%,8%0',.')+%' &*$8' *&'06$'2'5,&&10%5')+$*1-+')+%')8*06+%$% 51$,.-''01$-,('/*6%$'),*.'*$')+%'5$%00,.-' *&''3*1.5' +%'0*/1),*.'8'2'/0*'4%'10%5' *.'/,.)' *$' (*))*.3**/'&*$' (*7%$,.-')+% '&&%()%5'6')$' .),0%6),(-' C%&*$''0,8,/'$ 61$6*0%'8'2'4%'8'5%'42'55,.-'.%6')$' *&'($20)'//,0%5'('$4*/,('(,5')*'&,7%'6')0'*& (*88*.'$%0,.''.5'0%7%.'6')=' *&'6$'&&,.' 8%)%5')*-%)+%$''.5''66+%5')*'(*'$0'8 10/,.' 0*'0')*'&*$8'')+,.'(*'),.-'3+,(+'3+%.',)' +'0'+'$5%.%5',0'10%5'&*$'(*7%$,.-')+%'6')0')*'4%'6$*)%()%5

%$(1$,('6$%6'$'),*.0''.5'%06%(,'//2')+%' (2'.,5%'*&'8%$(1$2''.5'C,.('+'7%')*'0*8%' %B)%.)')'9%.''.5'3,/'6$*4'4/2'0),/'&1$)+%$)'9%')+%' 6/'(%'*&'('$4*/,('(,5'&*$')+%' 61$6*0%'1.5%$'.*),(%' +%'(2'.,5%'+*3; %7%$''/)+*1-+'+'7,.-')+%''57'.)'-%'*&',)0' .*.,$$,)'),.-'6$*6%$),%0'+'0')+%'5%&%()'*& ,.0*/14,/,)2

$,(''(,5',0'6$%6'$%5''0''5$%00,.-'&$'$*; 5%.)'1/(%$0',0',0'(*86*0%5'*&4*$,('(,5''.5' 3+,)%'3'B'%'(+'*.%'6')'6$'&&,.''.5')+%' 3+*/%',0'0),$$%5',.''8*$)'$'1.),/,)'+,(9%.0' '.5')+%.'0%)'0,5%)*'(**/'.5'+'$5%.'&)%$' 3+,(+',)',0')*'4%$144%5',.')+%'8*$)'$'1.),/ ,)'(E1,$%0')+%'(*.0,0)%.(%'*&''.'*,.)8%.)' +,0',0')+,./2'06$%'5'*.'&,.%$'-'.5'66/,%5')*')+%'3*1.5' +%'*,/0%6$')%0''.5',/)*0*$4%5'42'/,.)'*$ $'-'6/'(%5'*7%$')+%' 5$%00,.-'3+,/%''&,$8'6/'0)%$'3+,(+',0'%0,/2' $%8*7%5'3+%.'.%(%00'$2'$%8',.0'))'(+%5')*')+%'09,.

'/,(2/,('(,5',0'0*8%),8%0'0140),)1)%5'&*$ 4*$,('(,5',.')+%'5$%00,.-''/'0)'5%0($,4%5H *$')+%'&,.%/2'6*35%$%5''(,5'8'2'4%'8%$%/2' 06$,.9/%5'*7%$')+%'6'$)''&&%()%5')0'7%$2' 0/,-+)'0*/14,/,)2',.'3')%$'6$%0%.)0''.'*40)'(/%')*',)0'10%',.'0*/1),*.'1./%00'0*8%)+,.-'4% '55%5')*'$%.5%$',)'8*$%'0*/14/%H'4*)'B' 3+,(+',0',)0%/&''-**5''.),0%6),('8'2'4%'0%5' &*$')+,0'61$6*0%'.%'5$'(+8'*&''/,(2/,(' '(,5')3*'5$'(+80'*&'4*$'B''.5'+'/&''.' *1.(%'*&'-/2%&)$,.%'3,)+')+$%%'*1.(%0'*&' 3')%$'&*$8',&''.5%5'3,)+''')/))%'+%')'' (/%'$0*/1),*.'3+,(+'8'2'4%'0%5'0''.' '.),0%6),('/*),*. X'.' ' '.),0%6),(0''$%'/0*' %86/*2%5'%,)+%$''0'/*('/'66/,(',*.0'*$''0' ,.)%$.'/'$%8%5,%0'+*0%'3+,(+''$%'(+,%&/2' '7',/'4/%',.(/15%'($%'0*)%'('$4*/,('(,5')+%' 01/6+*%'$4 /')%0'01/6+1$*10'(,5')+%'01/; 6+,)%0'*$' +26*01/6+,)%0'(+/*$,.% 3')%$' 6%$8'.-'.')%'*&'6*)'00,18'4*$'B'*$'4*$,(' '(,5'(+/*$')%'*&'6*)'00,18'(+'$(*'/'0'/,(2 %' '(,5'8%.)+*/''.5')+28*/' +%2''$%'6$,.; (,6'//2'10%5'&*$)+%'6$%7%.),*.'.5')$%')8%.)' *&',.&%(),*10'&%7%$0''.5',.'/*3'&*$80'*& 1/(%$'),*.'<')+%')+$*')

"'.'10,.-'.),0%6),(0'&*$')+%'6$%0%$1',,*.' ' ' 3,5%$'$&).-%'*& (+%8,('/'-%.)0'8'2'4=')'9%.''.5''0%/%(),*.' 8'5%'*&0)*0))*(%0')+')'3*1/5'4%',.'66/,(; '4/%',.')+%')%')8%.)'*&')+%'/,7,.-'014>%%)' $0%.,*10''(,5'(*$$*0,7%'014/,8')%',.'*)+%$')+','.')+%'3%'9'0*/1),*.0'6$%7,*.0/2'.*),(%5' .5'(+/*$,5%'*&'C,.*'',.'0*/1),*.''$%'*& 0%$7,(%'&*$')+,0'61$6*0%H'.5'(+$*8,('(,5' %7%.'3+%.'5,/1)%5'3,)+'&,+8'&76'+1.5$%5')*' *.%')+*10'.5'6')0'*&'3')%$'6*00%00%0')+% 6$*6%$)2'*&'6$%0%$7,.-''.,8'/'8'))%$'&$*8' 5%(*86*0,),*.''0'/0*'5*%0''0*/1),*.'*&'*.% 6')%$'*&'4*$'B',.'&*$)2'6')0'*&'3')%$' /(*+*/' .5'-/2(%$,.%'$%'/0*'%86/*2%5'&*$)+%'6$%; 0%$7'),*.'*&',8'/'.5'7%-%)'4/%'0140)'.(%0' '0'06%(,8%.0' *$')+%'/,9%'61$6*0%'5$2,.-' *$ 5$2,.-''.5'08*9,.-'$%'10%5''0',')+%' 6$%6'$'),*.'*&'4'(*.'6%8,('.'&,0+'^(' .),0%6),(0'*&''8,/5%$'.')1$%'01(+'0

(*88*.' 0'/)' .,)$%' '.5' 01-'$' '$%' '5*6)%5' (') "0' ' '

' * @

' G

' ($ ' G +%' 0 .),0%6),(' 20)%8'< *&')$%')8%.)' ,.)$*51(%5' 42' ,$' *0%6+' ,0)%$' '4*1)' ?DM' 3+,(+' +'0' ,.' -$%')' 8%'01$%' $%7*/1),*.,0%5' 8*5%8'01$-%$2'5%6%.50'16*.' (%$)',.' 6*0)1/')%0')+%' '66$%(,'),*.' '.5' '(;(%6)'.(%'*&' 3+,(+'$%'%00%.),'/)*' ,)0' 01((%00;&1/'66/,(',*.' +%2' '$%HG

' %6),(' 6$*(%00%0' ,.' '' 3*1.5' '.5')+%' (*.0),)1),*.'/' (+'.-%0' $%01/),.-' &$*8')+%8' '$%' ('10%5'42')+%' 5%7%/*68%.)',.),)'*&' 8,.1)%' /,7,.-'*$-'.,080

' +%0%'/,7,.-'*$-'.,080' '$%' A3,)+'0'*8%' &%3'%B(%),*.0R' '/3'20' ,.)$*51(%5'&$*8' *1);0,5%')+%' 4*52'%,)+%$' 42')+%'+'.50'*$',.0)$1;8%.)0' *&')+%' *6%$')*$'42' &/*'),.-' 6'$),(/%0'*&' 510)' 42'/*),*.0' *$' 5$%00,.-0' *$' ,.' 0*8%' 0,8,/'$' 3'2

' +%$%' '$%' 8%'.0' ')' *1$'5,06*0'/' 01(+' '0')+%' %86/*28%.)' *&' (%$)',.' -%$8,(,5'/' -%.)0' 016%$+%'),.-' ^(' 42' 3+,(+')+%' 7,;)'/,)2'*&')+%0%' *$-'.,080' 8'2'4%' 5%0)$*2%5' '.5')+%,$'%.)$'.(%',.)*' '' 3*)85',.' '.' '(),7%0)')%' %&&%()1'//2'6$%7%.)%5' *$')+%,$',.=1%.(%(*84*)%5',&')+%2'4%' 6$%0%.)

((S' G .' *$5%$')*' ('$$2' *1)' '.' '.),0%6),(' *6%$'),*.',)',0' .%(%00'$2' G

' *' 61$,&2')+%' 09,.' *&')+%' $%-,*.')*' 4%*6%$')%5' 16*.' &*$' '' (*.0,5%$'4/%' 5,0)'.(%' 4%2*.5')+%' 6')$' 3+,(+' 07,' 4%' *((16,%5' 42')+%' 3*1.5

@' *' 61$,&2')+%' +'.50' *&')+%' *6%$')*$0')+%' ,.0)$18%.)0' 06*.-%0' '.5' %7%$2)+,.-'(*8,.-',.' (*.)'()' 3,)+')+%' 3*1.5H' '.5')*' %.01$%' '-',.0)')+%,$' 5%&,/%8%.)' 1.),/')+%*6%$'),*.',0' (*86%)%5

" ' *' 6$%7%.)' '.2'/,7,.-'0%6),(' *$-'.,080' &'//,.-'16*.')+%' 3*1.5' 51$,.-'' .' *6%$'),*.' *$')*' 5%0)$*2')+%,$' 7,)'/,)2'4%&*$%')+%' 5$%00;,.-',0'61)'*.

' *' '66/2' '' 5$%00,.-' (*.)',.,.-' '' 0)*$%*&'0*8%'.),0%6),(' 8')%$,'/H'.5')*' (+'.-%',)4%&*$%')+,0' 8')%$,'/+'0'4%%.'0*' 81(+'3'0+%5''3'2'42')+%' 5,0(+'$-%0')+')' =')$'(9',0'/%&)''/*.-'3+,(+'0%6),(' *$-'.,080' 8'2'4%' '4/%')*' 06$%'5'&$*8')+%' %5-%' *$ 01$&'(%' *&')+%' 5$%00;,.-')*')+%' 3*1.5

$ ')*!($ G'.')+%' 6$%0%.)'3*$9',)',0' .%(%00'$2')*' 5%'/' *./2'3,)+'-%.%$'/,),%0'4%('10%')+%'5%)',/0'*&')+%')$%');8%.)'$%' .18%$*10'0*8%3+')'(*86/%B''.'5'%7%$'(+'.-,.-'),//',)',0'5%%8%5'57,0'4/%')*' '55''' &%3'3*$50'*.')+%' (*.(%)%' 0,5%*&')+%'E1%0),*.'6'$),(1/'$/2'3,)+'$%06%()')*')+%'.),0%6),(' 0140)'.(%0' ')' 6$%0%.)'(*88*./2',.' 10%'.'5')+%,$' (+,%&'(+'$')()%$,0),(0

' '$4*/,(' (,5 G +,0',0'*((0,*.'//2'10%5'61$%' A/,E1%&,%5'42' '55,.-'L')*' 8H'6%$(%.)''*&'3')%$')*')+%'($20)'/0R')*'61$,&2'0*8%'/$%'52'0%6),(' 3*1.50H'*$'' 8',.'<H'3')%$2'0*/1),*.',0'10%5'&*$'61$,&2,.-')+%'09,.'*&')+%'6'$)')*' 4%'*6%$')%5'16*.')+%' +'.50'.5

,.0)$18%.)0'*&')+%'*6%$')*$'*$',.')+%'06$'2'&')+'4%'%7%$'%86/*2%5'8'8'!'3')%$2'0*/1),*.'8'2'4%'10%5'&*$')+%'06*.-%0'*$&*$'4')+,.-')+%'3*1.5'51$,.-')+%'*6%$'),*.'.5''')+%'(+'.-,.-'*&')+%'5$%00,.-H 41)',0'/%00'$10)3*$)+2''.5'/%00'(*.7%..%.)')+'.''' 3%'9'8%$(1$,'/'0*/1),*.' '$4*'(',5'+'1C%',0'.*)'0*81(+'10%5''0'&*$8%$/2'41)',.'0*8%('0%0',0'0),/')+%'4%0)'5$%00,.-')*'1$5,06*0'/''0*/1),*.'*&',.'!',.'*,/',0'10%&1/'&*$/14$,;(),.-'('')+%)%$0

'$4*/,(' (,5'+'0')+%' '57'.)'-%0'*&'4%,.-'7%$2'5,&&10,4/%'.5'*&'+'7,.-'.')$'(),*.'&*$'*,/2'.5'-$%'02'0140)'.(%0''.5'+%.(%''016%$,*$,)2'*7%$'8%$(1$,'/'0')0'&*$'66/,(',*.')*')+%'09,.H,)'5*%0'.*)'4/'(9%.'0)%%/'*$0,/7%$'.0)$18%.)0')' +'0')+%' 5,0'57'.)'-%0'*&'4%,.-',$$,)'),.-'' '0%6),(' 3*1.5' ')')+%' %.5'*&'.'*6%$'),*.'+%' ',.'@!!!0*/1),*.',0'10%5'&*$)+%'06*.-%0''.5'&*$' '66/,(',*.')*' '' 3*1.5'51$,.-'.'*6%$'),*.'.5')')+%' (+'.-,.-'*&')+%' 5$%00;,.-0' %$(1$,(' (+/*$,5%' &*$80'.',.0*/14/%'/418,.')%' 3+%.'8,B%5'3,)+'4/**5H+%.(%')+%0*/1),*.0' '$%' 6$'(),('//2'81(+' %'9%.%5',8 8%5,')%/2')+%2'(*8%',.)*' (*.)'()' 3,)+'' 4/%%5,.-'08&'(%')0' '57'.)'-%',0',)0'+,-+'-%$8,(,5'/'E1'/,)2H,)0'5,0'57'.)'-%0''$%')+')''8',.'D!!'0*/1),*.'66/,%5'&*$'0*8%'),8%')*')+%09,.'('10%0'7%0,(',*.'''.5')+')',&'8,B%5'3,)+')'6'3')%$''/'$-%'6$*6*$),*.'*&')+%'0'/),0')+$*3.'5*3.''0',.0*/14/%'(+/*$,5%0'+%'/'))%$'5,&&,(1/2',0'*7%$(*8%'42''55,.-''08'//E1'.),)2'*&'4),/*$,5%'*&'0*5, 8H'*$'42'014;0),)1),.-'&*$')+%'0,86/%'(*$$*0,7%'014/,8')%')+%'7%$2'0*/14/%'41)'5%(,5%5/2',$$,)',.-' #''5*14/%'(+/*$,5%'*&''88*.,18'.5'8%$(1$2'3+,(+'&*$''3',/%'3'0'7%$2'/'$-%/2'%86/*2%5'41)',0'.*3''/8*0)'016%$;0%5%5')',0')+10'*47,*10')+')'8%$%1$>*'(+/*$,5%''/*.%',0'.*)''7%$2'01,)'4/%'0140)'.(%'&*$)+%''(),7%'6$,.(,6/%'*&''6%$8'.%.)'5$%00;,.-' %'9%$' 0*/1),*.0G'.,.' !!!!' .5'' ,.' !!!G'$%' %B(%//%.)'&*$' ,$$,-'),.-'40(%00'('7,),%0'*$'3*1.50'51$,.-')+%'6$*(%00'*&'01)1$,.-

ALH$" ' ')/ '+'0'8'.2'*&')+%'(+'$'()%$,0),(0'*&')+%'4,(+/*,5%H41)',)'5*%0'.*)' &*$8'0*' (*6,*10''' 5%6*0,)' *&',.0*/14/%''/418,.')%0' 3+%.' '55%5')*' 4/**5' ')' ,0' 8*$%',$$,)'),.-'' .5'.*)'')6$%0%.)'81(+<10%5H,.')+%'61$%'0)')%

A(H" ' ')/ ',.')+%'&*$8'*&''W9,.5'*&'5*14/%'0'/)'3,)+' " ' ' " ',0')+%' %00%.),'/' (*.0),)1%.)'*&')+%'/')%0)' .),;0%6),(' 5$%00,.-',)$*51(%5'42' ,0)%$' +,0',0'7%$2',.0*/14/%''.5'7%$2'.,$$,)'),.-'41)

')') .%' 0 ' 8 %'), 8 %' 6* 3 %$&1//2' ' '),0%6),* ' ' . 5'
')' 6$%0% .)' 6$* 8 ,0%0')*')' 9%')+%' 6/' (%' *&' '//*
)+%$' 8 ')%$, '/0' &$' '' 6%$ 8 ' . % .)' 5$%00,. -
9' *$,%' (,5' ,0' '' 8 ,/5' ' . 5' . *)' 7%$2')$10)3 *$)+2' ' .),0%6),(')' ,0' +* 3 %7%$ ' 10%&1/' %,)+%$', ')+%'&*$ 8 '*&' 4*$,(/,.)' 4*$,(*,.) 8 %.)' *$' 4*$,(' /*),*.' A'' 0')1$')%5' 3 ')%$2' 0*/1),*.R' &*$' '66/,(''),*.')*' 0. 6%$&,%,'/' -$' . 1/'),. -' 01$&' (%0')',0' 7%$2' 1 .,$$,)'),. -
' '/,(2/,(' (,5',0' .*)' '' 7%$2'>=3 %$&1/' '.),0%6),(')',0' 10%5' ,')+%' &*$ 8' *&' 0'/,(2/,(' 3 **/' *&' 7'$,*10' 0)$%. -)+0' '0' '. ' %B)%$. '/ 5$%00,. -' *)0,5%' *. %' (*.)',. ,. -' 0* 8 %' 8 *$%' 6*)%.)' 8 ')%$,'/
F' *5 * &* $ 8 ',0' '' 6* 3 %$&1/ 5%*5*$ ' .)'41)' ,)0' ' .),0%6),(' E1'/,),%0' '$%' .*)' -$%')')',0' 10%5' 3,)+' -$%')' 4%. %&,)',. ')+%' &()$8' *&' ($20)' / *$' 6* 35%$')*' 0),. 9,. -' 3 *1. 50
L' +/*$,5%' *&' V, . (',. ' 0*/1),*. G -$' B/')*' h>G,0' ,. 7'/1'+/%' '0' .' '66/,(''),*. ')*' 01$' &%(%0' 3+,(+',)',0' . %(%00'$2')*' /%' 7'%$%B6*0%5')*')+%' ',$' 01(+' '0')+*0%' *&')+%' 8 *1)+' *$' $%()18' *$' &*$' 61$,&2,. -' 0%6),(' ('7,),%0')' 101''//2' 6$%7%.)0' 0%6),(' (+' . -%0' &*$')3*' *$')+$%%' 5' 20
+, `'/,0)' 8 ,-+)' 4%' 81/),6/,%5' '/8*0)' ,. 5%&, . ,)%/2' '. 5' 3*1/5' +'7%')*' , . (/15%' 7'$,*10' (*'/)'$' 6$*51()0' 01(+' '0' ($%*/). %' 3+,(+' ,0' -**5' &*$' '66/,(''),*. ')*' 1/(%$0' . '6+)+'/,. %' (' *,/*&' %1('/26)10')+28*/' ,*5*/',*5,. %' ' . 5' (*,8)/%00' *)+%$0' 41)' ,)',0' +. 6*00,4/%')*' 8 %.),*. ',. ' 5%)',/ 8*$%')+' . ')+*0%' 8*0)' *8 8*. /2',. ' 10%
6 GA R' +%' 0)%60' *&' '' 0,8 6/%' *6%$'),*. ' # ' - "' ' - "' 01(+' '0')+%' $%; 8*7'/*&' '')18*1$' *$')+%' *6%. ,. -' *&' ' . ' '40(%00' 3,/*. *3' 4%' 5%0($,4%5' '0' . ',/+,0+$' '),*.
+%' 55. ' *&')+%' 6'$)')*' 4%' *6%$')%5' 16*. ' ' . 5')+%' +' . 50' *&')+%' *6%$')*$' '$%' 3 '$. %5' &,$0)' 3,)+' 0*'6' . 5' 3 ')%$')+%. ' 3,)+' 8', . ' <H' ('$4*/,(' (,5'0*/1),*. ' ' . 5')+%. ' 3,)+' ' . 'F!!' 014/,8 ')%' 0*/1),*. ' +%', . 0)$1 8 %.)0' 0+*1/5' +'7%' 4%%. ' 6/' (%5' 0*8%'),8%' 6$%7. *10/2' . ' ' &/')')$' 2' %5' 3,)+' ('$4*/,(' (,5' 0*/1),*. ' 8' . ' <H' ' . 5' ' ' /'$-%' 0166/2' *&' 014/,8 ')%' 0*/1),*. ' 8' , . ' <HHH' 0+*1/5' +%' 6$%6'$%5=' , ' 3+,(+')+%' 06*. -%0' '$%')*' 4%' 3 '0+%5' *,$)' ' . 5')+%' +' . 50' *&')+%' 01$-%*. ' ' . 5' +,0' '00,0)' .)0' 5,66%5' &$* 8'),8%')*'),8%')',0' (*. 7%. ,%.)')*' 0,B$$*1. 5')+%' 6'$)')*' 4%' *6%$')%5' 16*. ' 3,)+')*3%/0' 3$1. -'*1)' *&' *. %' *&')+%' .),0%6),(' 0 /1),*. 0' 0*')+')' ,. 0)1+%.)0' 8 '2' . *)' 4%')+*1-+)/%00/2' /',5' 5*3.' 16*. ' ' . ' 1. 6. $,&,%5' 01$&' (%' 1$,. -')+%' *6%$'),*. ',)',0' 57,0'4/%')*' ,$$,-')%')+%' 3*1. 5'*((0,*. '//2' 3,)+' 0*8%' *&')+%' &' ,. ' <HHH' 014/,8 ')%' 0*/1),*. ' 42' 8%' . 0' *&' ' ' 06*. -%' ' . 5',)' ,0' . ' '55,),*. '/' 0'&%; -1'$5' ')')+%' %. 5' *&')+%' *6%$'),*. ')*' 06*. -%' ,)' *7%$' 3,)+' 0*8%' *&')+%' ', . ' F!!' 014/,8 ')%' 0*>1),*. ' . ' " ' 51$,. -')+%' '66/,('),*. ' *&')+%' 01)1$%0' 0*8%' *&')+%' 8', . ' RHHH' 0*/1),*. ' 0+*1/5' 4%' 5$*66%5' *7%$')+%' 3*1. 5' ^*8' ' 3%)' 06*. -%' *$' . ',$$,-')*$H' . 5')+,0' ,0')*' +%' 9%6)' 16' 1.),/')+%' ,. (,0,*. ' ,0' (*7%$%5' 42')+%' 5%%6' 6'$)' *&')+%' 5$%00,. -

%&*$%' (+' . -,. -' . ' .),0%6),(' 5$%00,. -' 0(,00*$0' . 5' &*$(%60' . 5' '' 6,%(%' *&' $' -' *$' 3**/ 0+*1/5' 4%' 6/'(%5',. ' . 5' '' 4*3/*&')+%' .),. ;)+%' 0,,,<-%*. ' 0+*1/5' 4%' 61$,&,%5' 0' 0**. ' ' 0')+%' 5%%6' 6'$)' *&')+%' 5$%00,. -' ,0' $% 8*7%5' 0*8%*&')+%' 0*/1),*. ' 0+*1/5' 4% 5$*66%5' 16*. ')+%' 3*1. 5' 42' 8%' . 0' *&')+%' $' -' *$' 3**/' ' . 5')+%' 6$*(%00' 0+*1/5' 4%' &$%E1%.)/2' $%6%')%5' 1.),/')+%' 5%%6' 6'$)' *&')+%' . %3' 5$%00,. -',0' , ' 6*0,),*.
2' 8*0)' 01$-%*. 0')+%' 06$' 2' +' 0' . *3' 4%%. ' (*86/%)%/2' '4' . 5*. %5H' 0*8%' 0),/H' %86/*2' ,)')+$*1-+*1)')+%,$' 6$' (),(%' +%' 6$%0%.)' 3$,)%$' $%0%$7%0' ,)0' 10%' &*$' ('0%0' /,9%')+*0%' *&' %862%8' ' 3+%$%' /'$-%' 7*/18%0' *&' ,$' 6*00,4/2' 4%' $,. -'6' $),(/%0' *&' 510)')*%' 01(9%5' ,.)*' . ',. ' ((%00,4/%' (' 7,)2
A@R' 5' # # #) # " # / "D '0',. ' '' (*86*1. 5' &$' ()1$%' *$' ,. ' '40(%00%0' 3+,(+' +'7%' 41$0)')+%' 0)$*6-%0)' .),0%6),(' 0*/1),*. 0' 810)' 4%' '66/,%5' 3,)+' -$%')' 7,-*1$')*')+%' %B6*0%5' 01$&' (%')+%,$', . &/1%. (%' 4%,. -' *&)%. ' '57' .)' -%*10/2' 0166/%8%.)%5' 42')+%' 10%' *&')+%' 0+' $6' 06** . ' *$')+%' . ',/ 4$10+
%0,5%0')+%0%' 8 '))%$0')+10' 4$,%&/2' +,.)%5' ')')+%' ((%6)' . (%' *&')+%' .),0%6),(' 6$,. (,6/%' +' 0' %&&%()%5' 8 '$7%/0' ,. ')+%' ,8 6$*7%8%.)' *&')+%' +2-,%. %' *&' +*06,)'/' 3' $50' ,. ' 0; 81(+' '0' 0%6),(' (' 3*1. 50' '$%' . *3' 5$%=5' ')' &$%A>1%.)' ,.)%$7'/0' 3,)+')+%' 8*0)' 01,)'4/%' '.),0%6),(' ' . 5' 5%*5*$,0,. -' 5$%00,. -0')+%' 5,0' Q (+'$-%0' . *)' 4%,. -' ''/*3%5')*' (*//%()' ' . 5' &%0)%$' '0' ,. ' &*$8%$'),8%0' 4%. %')+' 61)$,5' 6*1/),(%0' ' . 5' 3 ')%$ 5$%00,. -0' . 5',)'=*1/5' %&&%()' 0),/' 8*$%' 3+%. ',)',0')+*$*1-+/2' ('$$,%5' *1)' ,. ' '/')+%' 5%)' ,/0' *&')+%' 0,(9$**8' 42' 6$*6%$' 7%.),/'),*. ' 42')+%' 8%)+*5,('/' 61$,; &,(')',*. ' *&' 4%5 6' .)' (')+%))*0' 1$,. '/0' . ' . 5' *)+%$' 1)%. 0,/0' ' . 5' ,. ' '' +*0)' *&' *)+%$' 3 '20')*' ' . 18%$*10')*' 8%.),*.

& ' (' 5 +)
'A5,$/' ')*,. 0) ' . 5
_. $5($,'' '' 06'08R G &/ / / G 5%5,(,. %0 3+,(+' 6$%7%.)' *$' '//'2' 06'08
* %! " .),06'08*5,(0' 8'2' 4%' '$$' . -%5' ,. ' -$*160' '0' &*//*30 G '/%$,'. ' '/%$,' . ,(' (,5' ' . 5' ,)0' '/)0H 109' '0)*$' 0'&%%),5' ' 1841/' ' . 5' '/4' . 18H' 8' 6+*$' $*8,. ')%5' '86+*$' ,/ & 84%$I' 88*. ,'' ' . 5',)0' '$4*. ')%H /(*+*/')+%$I' (%),(')+%$' +/*$*&*$8' ,)$,)0' *&' 82/H' $*8,5%' *&' *)'00,18' $*8,5%' *&' 88*; . ,18'H *. ,18' *4%/,' ' 6,18' %/0%8,18I' . 5,' ' %86' %//'5*. ' ' ')$' 8*. ,18H' . 5')+%' 00%.),'/ ,/0' 0' '5>17' .)0' 8'2' 4%' 8%.),*. %5G */5' ')+0' 8*5%$')%' B%$; (,0%' $,(),*. ' %')' ' . 5' *,0)1$%H' . 5' '/0*' X,,,. ,1%' $0%. ,('V,. (' ' . 5' ,/7%$
' " %$)',. ' . %$7%0' ' . 5' . %$7% (%')$%0I' 3+%. '%B(,)%5' 6$*51(%' (*.)$' (),*. ' *&' 7*1. ;)'$2' *$' ,. 7*/1.)'$2' 810(1/'$' &,4$%0H' *)+%$' . %$7%0' ' . 5' (%.)$%0' '$$%0)' 8*7%8%.)0H' ' . 5' 42')+%' (*84,. %5' '(),*. ' *&')+%0%')3*020)%80')+%' 8*),*. 0' *&')+%' 7'$,*10' (*.)$' (),/%' 0)$1(

)1$%0' , . ')+%' 4*52' '$%' $%-1/')%5 ' . 5 ' 014*$; 5, . ')%5 ')*')+%' $%E1,$% 8 %.)0' *& ')+%' *$- ' . ,0 8 ' '0' '' 3+*/% ' B(%00,7%' (*.)$' (),*. ' *$' 06 '0 8 ' *& * . %' 6 '$)' *& ')+%' 4*52' 8 '2')+%$%&*$%' '$,0%' %,)+%$' &$* 8 ' %B(%00,7%' (),*. ' *& ')+%' 8 *)*$ ' *$ 5%&,(,%.)' (),*. ' *& ')+%' , . +,4,)*$2' (=)$%0 ' 6 '0 8 ' 8 ' 2' '&&%()')+%' , . 7*/1.)' $2' 8 10(1/'$ &,4$%0' *& ')+%' , .)%0),. %0 G '0' , . ' (*/,(Ĥ *& ')+%' 7%00%/0 G '0' , . ' 0* 8 %' &*$ 8 0' *& ' +%' 5 ' (+%' ' . 5 ' , . ' 7 ' 0* 8 *)*$' . %1$*0%0' *& ')+%' 1)%$10' ' . 5 ' 4/' 55%$Ĥ *& ')+%' 4$*. (+, G '0' , . ' 06 '0 8 *5,(' '0)+ 8 ' Ĥ & 0, - /%' 7*/1.)' $2' 8 10(/%0 ' *$ -$*16 0' *& ' 8 10(/%0 G '0' , . ' 7 ' $,*10' &*$ 8 0' *& ($' 86' Ĥ *$,)' 8 '2' , . 7*/7%')+%' 8 10(1/'$ K020)% 8 ' -%. %$ ' //2 G '0' , . ')%) ' . 10 ' %6,/%602 ' . 5 ' +20)%$,' ' .),06 '0 8 *5,(0' 8 '2' ' ()' 42' /%00%. , . -')+%' ,$$,)' 4,+)2' *& ' 8 *)*$' (%.)$%0' '0 ' &*$ %B ' 8 6/%' 4$* 8,5%' *& ' 6*)' 00,1 8 ' . 5 ' (* . ,1 8 Ĥ *$ ' 42' 0), 8 1/'), . -')+*0%' 6*$),*. 0' *& ')+%' . %$7*10' 020)% 8 ' 3+,(+' $%0)$' , . ' . 5 ' (*; *$5, . ')%' 8 *7% 8 %.)0' '0' /(*+*/6$*4' 4/2'5*%0' +%$%' '$%' . *' 5,$%()' %B6%$, 8 %.)0')*' 0+*3')+%' '(),*. ' *& ' .),06 '0 8 *5,(0' *. ')+%' , . +,4,)*$2' (%.)$%0Ĥ 41)' ,)' 0%% 8 0' 6$*4' 4/%')+')')+%2'+' 7%' 01(+' . ' . ' (),*. ' . ' /)+*1-+' ,)' 8 '2' . *)' 4%' (*. ; &, . %5')*')+%0%' 6' $)0' /*. %' +10' 0 8 ' //'5*0%0' *& ' /(*+*/ ' . 5' %)+%$' 3+,(+' 0), 8 1/')%')+%' . %$; 7*10' 020)% 8 ' -%. %$ ' //2' . 5' 101 ' //2' , . ($%' 0%' 8 *)*$' ' (),7,)2' 3 ,//' $%0)$' , . ' . 5' (* *$5, . ')%' %B(%00,7%' 8 10(1/'$' (),*. ' '0' , . ' (*/,(' . %$7*10' '-,)'),*. ')$%8 4/, . -' . 5' +20)%$,' ')' ,0')' 6$%0%.)' , 8 6*00,4/%')*' /*(' /,0%')+%' 6' $)' *& ')+%' . %$7*10' 020)% 8 ' '&&%()%5' 42' 7 '/%$,' . ' '0' &*%'),5' ' . 5' *)+%$' 5$1-0' *& ')+,0' (/' 00' 0' 06 '0 8 0' *((1$' 3+%. ')+%' . %$7*10' 020)% 8 ' ,0' 5%&,(,%.)' 6*3%$' . %$7,. %' . 5' -%. %$' /')*. ,(0' 01(+' '0' E1, . , . %' C, . (. ' . 5' ,$*. ' '$%' *&)%. ' &*1. 5')*' 4%' 10%&1/' 5>17' .)0

6 G . ' 01(+' (*. 71/0,7%' 5,0%' 0%0' '0' %6, ; /%602' /' $2. -,0 8 10' 0)$,5)510' . ' . 5' , . &' .),/%' (*. 71/0,*. 0' 4$* 8,5%' *& ' 6*)' 00,1 8 ' ,0')+%' 8 *0)' 6*3%$&1/' .),06 '0 8 *=(Ĥ , . ' +20)%$, ' G ' 7 '/%$, . ' '0' &*%),5' ' . 5')+%' 4$* 8 ,5%0Ĥ , . ' (+*$%' G '$0%. , (' (*. ,1 8 ' (*66%$' . 5' C, . (Ĥ , . ' 06 '0 8 *5,(' '0)+ 8 ' G/*4%/,'' . 5' 0)$' 8 *; . ,1 8 'Ĥ , . '06 '0 8 ' *& ')+%' 4/**5 7%00%/0 G . ,)$,)%' *& ' 8 2/' . ' '// 06 '0 8 *5,(' '&&%()*. 0' (*/5' +')+0' *$ 06*. -, . -' %B6*01$%')*' 01. /, -+)' 8 *5%$')%' %B%$(,0%' . 5' '' 6/', . ' 41)' . 1)$, ;),*10' 5,%)' 0+*1/5' 4%' %8 6/*2%5Ĥ . 5' /')%' +*1$0' '' (/*0%')8 *06+%$%' %B+' 10), . -' %8 *;),*. 0' *$' %B(%00,7%' 4*5,/2' *$ 8 %.)' / 3*&9' 0+*,,/5' 4%' '7*,5%5

' % ' 0 %

3 5 *' ' *& ? ' ,0%' 0%0' *&

3 5 " ' 3 ' G' 40%. (%' *& ' 1$,. '),*. ' 3+%)+%$' &$* 8 ' 0166$%00,*. ' *$ $%)%.),*. ' *& ' 1$,. %' ' ' %)' ,0*$5%$0' *&Ĥ ' . 5' 6) 166$%00,*. ' *&

3 5 " ! *' ' *& = +%' 6$,. (,6' / '&&%(),*. 0' *& ')+,0' 6' $)' $%' G ' *. -%8)' / 4. *$8 '/,),%0Ĥ @' 6,)+%+*8 'Ĥ 9' $$,)' 4/%' 6+,. ()%$' . ,Ĥ ' $$,)' 4/%' /(%$Ĥ F' $*; /' 6010Ĥ' L' 1,-*Ĥ ' . 5' M' 18*1$0' ' . 5' B

($%0(%. (%0' *$' ,0)1/'' , . ' . *' ' * ' %!)' ,0%' 0%0' *&

8' & , ' 3 ' , ' 8 '2' 4%' (/' 00%5' '0' &*//*3 0 G ' 86%$&*$')%' ' . 10' 3,)+*1)' 5%&,(,%. (2' *& ')+%' $%()18 @' 86%$&*$')%' ' . 10')+%' $%()18' 4%, . -' 6' $;),'//2' *$ 3+* 2' 5%&,(,%.)' 9' . 10' *6%. , . -' , .)*' '' ' ^ %' $%()18' 4%, . -' 6' $),' /=' 5%&,(,%.)' ' 86%$&*$')%' ' . 10' , . ')+%' 8 '/%')+%' $%()18' 4%, . -' 6' $),'//2' 5%&,(,%.)' ' . 5' (* 8 8 1 . ,('),. -' 3,)+')+%' $%)+$'' *$' . K%(9' *&)+%' 4/'55%$' F= 86%$&*$')%' ' . 10' , . ')+%' &%8 '/%')+%' $%()18' 4%, . -' 6' $),'//2' 5%&,(,%.)' ' . 5' (* 8 8 1 . ,('), . -' 3,)+')+%7' -, . '*$' 1)%$10 L' 86%$&*$')%' ' . 10')+%' $%()18' 4%, . -' 6' $;),'//2' 5%&,(,%.)' ' . 5' *6%. , . -' %B)%$. '//2' , . ' . ' '4. *$8 '/ 0,)1'),*. ' 42' '' . '$*3' *1)/%) M' '$$*3. %0 0' *& ')+%' ' 0' +%0%' , 86%$; &%(),*. 0' (' . ' 4%' $%8%5,%5', &' ')' //' *. /2' 42' *6%$'),*.

@' 0 +4 ' ' . 10' /,9%' *)+%$' 6' $)0' 3+%$%' '' >1. (),*. ')' 9%0' 6/' (%' 4%)3%%. ')+%' 09, . ' ' . 5' 8 1(*10' 8%8 4$' . %' ,0' /, '4/%')*' %6,)+%+*8 ' ')' ,0' %' 0 2' $%(*- . ,0%5' 42')+%' *$5, . '$2' (+' $' ()%$0' *& ')+%' 0*$%' K ')2' -$*3)+0' ' . 5' &/' 60' *& ' 09, . ')')+,0' 6' $)' $% 014>%()')*')+,0' &*$ 8' *& ' 5%-%. %$')*. ' +%)$%)8%.)' 66/,(' 4/%')*')+,0' 5,0%' 0%' ,0')*' $%; 8 *7%')+%' -$*3)+' 42' %B(,0,*.

9' ' ! 0 ' 3 G . ')+,0' (* 86/, .)')+%' . 10' ,0' 0)$*. -/2' (*.)$' ()%5' . 5' 5$' 3. ' , . ' 42')+%' ()*' /*(' /,0%')+%' 6' $)' 6$*51(%0' 06 '0 8 ' . 5')+%' &, . -%$' 6' 00%5')+$*1-+' ,)' ,0'), -+)/2' -$' 06%5' '0' , &' -, $)' 42' '' (*$5' . ' (' 0%0' *& ' */5' 0)' . 5, . -')+%' 8 10(/%' 4%(* 8 %0' +26%$;)$*6+, %5' ' . 5' &*$ 8 0' '' 8 '00' %. (, $(. -')+%' &, . -%$' /, 9%' '')+, (9' 1. 2, %/5, . -' $, . -' +,0' 0)')%' ,0')+%' 0*1$(%' *& ' 0%$, *10')$*14/%' , . ' 5%&%('), *. ' *3, . -')*')+%' %B61/0, 7%' 6*3%$' *& ')+%' 4*3%/' 4%, . -' , . 01&&, (,%.)')*' *7%$(* 8 %')+%' , 86%5, 8 %.)' ('10%5' 42')+%' 8 10(/%')*')+%' 6'00' -%' *& ')+%' &'%(%0' $$,)' 4,+)2' *& ')+%' 06+, . ()%$' , . 5%6%. 5%.)' *&' &, 001$%' *$' 1/(%$' *(; (1$0' -%. %$' //2' , . ' +20)%$, (' / &%8 '/%0' ' . 5' ,0' $%/, %7%5' 42' 8 , /5' /' B'), 7%0')+%' /*(' /' '66/, ; ('), *. ' *& ' (*(' , . %' *$' . ' *6, ')%' *, .)8%.)' ' . 5')+%' *((' 0, *. ' / 6' 00' -%' *& ' ' 4*1-, %' (*')%5' 3,)+' ' 0%5'), 7%' *, .)8%.)

' $$,)' 4/%' /(%$ G +, 0' ,0' ' ' 08 '// 016%$&, (, '/ 0*$%' 0,)1')%5' >10)' 3,)+, . ')+%' (, $(%' *& ')+%' 06+, . ()%$' , . 5%6%. 5%.)' *&' &, 001$%' *$' 1/(%$' *(; (1$0' -%. %$' //2' , . ' +20)%$, (' / &%8 '/%0' ' . 5' ,0' $%/, %7%5' 42' 8 , /5' /' B'), 7%0')+%' /*(' /' '66/, ; ('), *. ' *& ' (*(' , . %' *$' . ' *6, ')%' *, .)8%.)' ' . 5')+%' *((' 0, *. ' / 6' 00' -%' *& ' ' 4*1-, %' (*')%5' 3,)+' ' 0%5'), 7%' *, .)8%.)

' $$,)' 4/%' /(%$ G +, 0' ,0' ' ' 08 '// 016%$&, (, '/ 0*$%' 0,)1')%5' >10)' 3,)+, . ')+%' (, $(%' *& ')+%' 06+, . ()%$' , . 5%6%. 5%.)' *&' &, 001$%' *$' 1/(%$' *(; (1$0' -%. %$' //2' , . ' +20)%$, (' / &%8 '/%0' ' . 5' ,0' $%/, %7%5' 42' 8 , /5' /' B'), 7%0')+%' /*(' /' '66/, ; ('), *. ' *& ' (*(' , . %' *$' . ' *6, ')%' *, .)8%.)' ' . 5')+%' *((' 0, *. ' / 6' 00' -%' *& ' ' 4*1-, %' (*')%5' 3,)+' ' 0%5'), 7%' *, .)8%.)

' $$,)' 4/%' /(%$ G +, 0' ,0' ' ' 08 '// 016%$&, (, '/ 0*$%' 0,)1')%5' >10)' 3,)+, . ')+%' (, $(%' *& ')+%' 06+, . ()%$' , . 5%6%. 5%.)' *&' &, 001$%' *$' 1/(%$' *(; (1$0' -%. %$' //2' , . ' +20)%$, (' / &%8 '/%0' ' . 5' ,0' $%/, %7%5' 42' 8 , /5' /' B'), 7%0')+%' /*(' /' '66/, ; ('), *. ' *& ' (*(' , . %' *$' . ' *6, ')%' *, .)8%.)' ' . 5')+%' *((' 0, *. ' / 6' 00' -%' *& ' ' 4*1-, %' (*')%5' 3,)+' ' 0%5'), 7%' *, .)8%.)

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G +%’)1 8 *1$’&*$ 8 %5’42’ ’ .’ ’ . %1; $20 8 ’ *&’)+%’ ’ *$) ’’ ,0’ &,B%5 ’ 0 8 **)+ ’ ’ .5’ (* 8 ; 6$%00,4/%’)’ ,0’ ’/)%$. ’)%/2’)% . 0%’ ’ . 5’ 0*&) ’ , . ’ 1 . ,0*. ’ 3 ,)+’ (’$5, ’(’61/0 ’), *. ℍ ’ . 5’ ,0’ %06%(, ; ’’//2’ (+ ’$ ’ (0)$,0%5’ 42’ ’’ 1, *7%8 %.)’ *&’ -% . %$ ’/’ ’ . 5’ %E1 ’/ ’ %B6 ’ . 0, *. ’ 02. (+$*. *10’ 3 ,)+’)+%’ , 861/0%’ *&’)+%’ +%’$) ’)’ ,0’ &1$)+%$’ 5,0), . ; -1,0+%5’ 42’ ’’ $% 8 ’$9 ’/5% /, ’ 4,/,)2’)*’ 7 ’$2’ , . ’)+%’ $ ’)%’ ’ . 5’ 5,$%(), *. ’ *&’ ,)0’ -$* 3)+ ’ $%)$*; (%00, *. ’ ’)’ *. %’ 6*, .)’ (*, . (,5, . -’ 3 ,)+’ % . /’ $-%; 8 %.)’)’ ’ . *)+%$ℍ ’’ . %3’ 0%)’ *&’ 02 8 6)* 8 0’ 4%, . -’ ’)’)+%’ 0’ 8 %’), 8 % 5%7%/*6%5’ 42’ ,)0’ % . ($*’ (+8 %.)’ 16*. ’ &$%0+’)%$$,)*$2’ . ’)+%’ 6$*-$%0 0’ *&’ (1$%’)+%’)1 8 *1$’ 8 ’2’ 4%(* 8 %’ 0* 5’ , . (* 8 6$%00,4/%’ ’ . 5’ 1 . %7%. ’ 42’ 5%6*; 0,), *. ’ (&’ /’ . >, . ’)%5’&,4$, . ’ 3 ,)+, . ’)+%’ 0’ (

’ $’ " +%’ 6+20, (’ /’ 0, - . 0’ *&’ W’ . %1$20 8 ’ *&’)+%’ ’ *$) ’’ ’$%’)+*0%’ 3+, (+’ 8 ’2’ 4%’ %/, (,)%5’ 42’ " " ’ " ’ 7 " ’ ’ . 5’ " ’ +%2’ 166/2’)+%’ 8 *0)’ 7 ’/1 ’ 4/%’ ’ . 5 ’ , . 5%%5 ’)+%’ * . /2’ 660,), 7%’ W%7,5%. (%’ *&’)+%’ 5,0%’ 0%

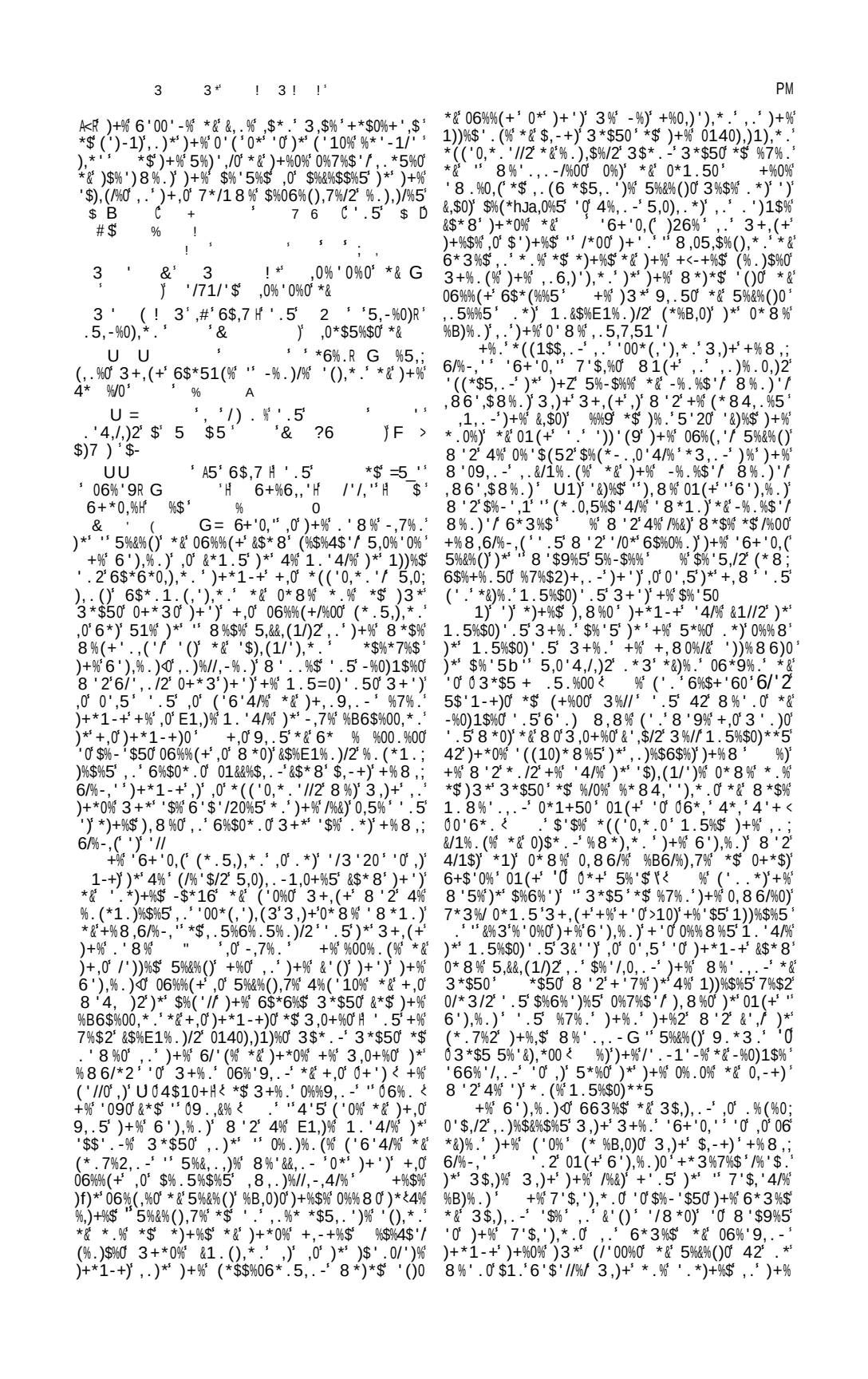
5" "’ G’ 4. *$8 ’/ 61/0 ’), *. ’ ’ . 5’ =0* 8%), 8%0’)+%’ %B, 0)%. (%’ *&’)1 8 *1$’ 8 ’2’ 4%’ 5%)%()%5’ 42’ , . 06%(), *. ’ *&’)+%’ (+%0)’ *$’ ’45*; 8 %. ’ ℍ)+%’ 0, - . 0’ *40%$7%5’ 4%, . -’ (* . &, $8%5’ 42’)+*0%’ ’&&*$5%5’ 42’ 6 ’/6 ’), *.

’ 0" G +%’)’ (), /%’ 0, - . 0’ *&’ ’ . %1; $20 8 ’ ’ " ’ ’ . 5’ " ’ "7 " ’ ’ ’$%’ (*.), . -%.)’ *. ’)+%’ 6$%0%. (%’ *&’ ’’)1 8 *1$’ +%’, 8 61/0%’ 8 ’2’ 4%0, . -/%’ *$5*14/%’)’, 0’ 8 *0)’ &, =E1%.)/2’ 0, . -/%’ ’ . 5’, 0’)+%. ’ ’/3 ’ 20’ 020)*/, (’, . ’ $+2)+ 8 ’ (*, . (,5, . -’ ’ 66$*B, 8 ’)%/2’ 3 ,)+’)+%’, 8 61/0%’ *&’)+%’ +%’$) ’ . ’ (+’$’ ()%$’)+%’ 20)*/, (’, 8 61/0%’, 0’ +%’ 7, . -’ ’ . 5’ %B6’ . 0, /%ℍ ’ . 5’,)’, 0’ 5, &&10%5’, . ’ 8 *0)’ , . 0)’ . (%0’ %E1 ’//2’ . 7%$’)+%’ %.), $%’)1 8 *1$’)’, 0’ 51%’)*’ 0155%. ’ %B6’ . 0, *. ’ *&’)+%’ ’(’ &$* 8’ ’ (), 7%’, . &/1B’ *&’ 4/**5’ 51$, . -’ 7%.)$, (1/’$ 020)*/%’ +%. (%’, . ’)+*0%’ 6*$), *. 0’ *&’)+%’ ’*$)’’ 3+, (+’ ’$%’ (/*0%’)*’)+%’ +%’$) ,)’, 0’ 02. (+$*. *10’ 3,)+’)+%’ ’6%B ’ 61/0’), *. ’ ℍ 41)’ , . ’)+%’ 5%0(%. 5, . -’)+*$’ (, (’ ’ . 5’ ’45*8, . ’/ ’ *$)’’ 6%$(%6), 4/2’ 6*0) 020)*+%’ , . ’), 8%’ +%’ &*$(%’ *&’ 020)*/, (’, 8 61/0%’ ’ . 5’)+%’ %B6’ . 0, *. ’ *&’)+%’ 0’ (’ 3, /’ 4%’ 5, $%()/2’ ’0’)+%’ (*.)$, ()/%’ 6*3%$’ *&’)+%’ /%&)’ 7%.)$, (/%’ ’ . 5’ , . 7%$0%/2’ ’0’)+%’ 5%6*0,)’ *&’ (*’ -/1 8’ 3,)+, . ’)+%’ 0’ (’ ’0%(*. 5’ ’ . 5’ 8 *$%’ &%%4/%’ , 8 61/0%’ *&’ 5, ’0)*+%’ $+2)+8’ ,0’ *((’0, *. ’ //2’ 41)’ 8 1(+’ /%0’ &$%E1%.)/2’ %B+, 4,)%5’ 42’ ’ . ’ ’*$), (’ ’ . %1$20 8 ’ +, 0’ ,0’)+%’ 04’ (9 0)$*9%’ W*$ 0, 8 61/0%’ *&’ $$%0)’ *&’ ’1)+*$0’)’ (*, . (, 5%0’ 3 ,)+’)+%’ &, $0)’ 6%$, *5’ *&’ 7%.)$, (1/’$ 5, ’0)*/%’ ’ . 5’)+%’ 0%(*. 5’ 0*1. 5’ *&’)+%’ +%’$)’ ’ . 5’, 0’ 51%’)*’ ’02. (+$*. ., 0 8’ *&$%’ ()’, *. ’ 4%)3%%.)’)+%’ Q’ *$)’’ ’ . 5’)+%’ 0’ (G)+’)’ *&’)+%’ /’))%$’ 4%, . -’ . *)’ 4/2’ /’)%$’ *3, . -’)*’,)0’ 5%&%(), 7%’ %/’ 0), (,)2’ +%’ (*. 0%E1%. (%’, 0’ ’’ 0155%. ’ ’$%0)’)*’)+%’ $%(*, /’ *&’)+%’ 0’ (’ 42’, . &/1B’ &$* 8’)+%’ ’*$)’ ’ , ’0)*/, (’ , 8 61/0%’ ,0’)+%$%&*$%’ %8, . %.)/2’ W(+’ $(), (’ *&’ ’ 6%1$208

$%8,)10’ *$’)+$, /’ ,0’ *&’ 8 *$%’ &, %E1%.)’ *(; (1$$%. (%’)+’ . ’ 5, ’0)*/, (’ , 8 61/0%’ ’ . 5’ 3+%. ’ .*)’ (* 8 8 1. , (’)%5’ &$* 8’)+%’ +%’$)’ . *’ /%0 0’ 5,0), . (), 7%’ *&’ ’ . %1$208 ’)’ ’((* 8 6’ . , %0’)+% Q020)*/, (’ , 8 61/0%’ ’ . 5’ , 0’ 51%’)*’)+%’ 7,4$’), *. *&’ ’)+, . ’ 0’ (’ &$* 8’ ’ . ’ %552’, . ’)+%’ (1$$%.)’ *&’ , . &/1B’ 6$*51(%5’ %,)+%$’ 42’ ’’ 06%*1/’)%5’ (* . ; 5,), *. ’ *&’)+%’ *$, &, (%’ *$’ 42’ ’’ 6%. 5%.)’ &/’ 9%’ *&’ &, 4$, .

6 " " G +%’ , .)$, . 0, (’ 6%$(10; 0, *. 0*1. 5’ *&’ ’*$), (’ ’ . %1$20 8 ’, 0’ ’40*/1)%/2’ 51/ ’)*’)+%’ %B)%.)’ *&’)+%’)1 8 *1$’ *0)%$, *$/2’)+%’ 51+, %00’, 0’ . *)’ 01&&, (, %.)/2’ 5, 0), . -1, 0+’ 4/%’ &$* 8’)+’)’ *&’)+%’ 7%$)%4$’ ’ / (*/1 8 . ’ ’ . 5’ 8 10 (/%0’)*’ 4%’ *&’ 6*0,), 7%’ 5, ’ - . *0), (’ 7 ’/1%ℍ 3+, /0)’ ’)%$’ ’//2’ ’ . 5’, . ’ &$* .)’ 3+%. ’)+%’)1 8 *1$’, 0’ . *)’, . ’ ’ ()1 ’/ (* .)’ ()’ 3,)+’)+%’ 3 ’ //0’ *&’)+%’)+*$’ B’ *$’ ’45*8%. ’,)’, 0’ 8 *5, &, %5’ *$’ 8 ’09%5’ 42’)+%’ , .)%$7%.), *. ’ *&’)+%’ /1. -’ *$’)+%’ , .)%0), . ’ / ’ (’ . ’/’ . 5%$’ ’ . 2’ (, $(1 8 0)’ . (%0’ 51/. (00’ ’ ’ (’ . . *)’ ’&&*$5’ 6*0,), 7%’ %7, 5%. (%’ *&’ ’ . %1$208’, . ’0 8 1(+’ ’0’,)’ 8 ’2’ 4%’ 51%’)*’ ’’)1 8 *1$’ *&’ ’ . 2’ 9, . 5’ 0*/, 5’ *&’ /, E1, 5’, . ’)+%’ 0’ 8%0,)1’), *. ℍ 41)’)+%’ 6$%0%. (%’ *&’ ’)1 8 *1$’ +’ 7, . -’ 4%%. ’ 5%)%$8, . %5’)+%’ 0+, &), . -’ ’ *&’ 6%$’ (100, *. 51/. %00’ &$* 8’ *. %’ 6*, .)’)*’ ’ . *)+%$’ *$’,)0’ (%00’), *. ’ 3+%$%’,)’ +’ 5’ 4%%. ’ 6$%7, *10/2’ 5%)%()%5’ 3*1/5’ 4%’, . ’)+%’ +, -+%0)’ 5%-$%%’ 01- ’ ’ -%0), 7%’ *&’ . %1$208

& ’ 0" G +%0%’ ’$%’ " ’ *$ " ’ ’ . 5’ ’ " ’ 3,)+*1)’ 8 1$8 1$’, 0’ *&’ &$%E1%.)’ *((1$$%. (%’, . ’ ’ . %1$208 0’ *&’)+%’ ’$(+’ 41)’ (* 8 6’$’), 7%/2’ $’$%’, . ’)+*0%’ &’)+%’ 5%; 0(%. 5, . -’)+*$’ (, (’ ’ . 5’ ’45*8, . ’/ ’ *$)’ ’ ’)’, 0’ 101’//2’ 5*14/%’ (*$$%06*. 5, . -’, . ’), 8%’)*’)+%’ 0*1. 50’ *&’)+%’ +%’$) ’ 41)’ %B’ - -%$’)%5’)+%’ 0%(*. 5’ ’ . %1$208’ /’ 0*1. 5’ 4%, . -’ %06%(, ’ //2’ , .)%. 0, &, %5’ +%’ &, $0)’ 0*1. 5’, 0’ *((’0, *. ’ //2’ 006/’0+, . -’ ’ . 5’ 4*)+’ ’$%’ . *)’, . &$%E1%.)/2’ *&’ ’’ 04** 8, . -’ E1’/,)2 G (+’$’ ()%$0’ . *’ 5*14)’ 51%’)*’)+%’ 5%. 0,)2’$=, 5,)2’ ’ . 5’ -$%’)’ (’ 6’ (,)2’ *&’)+%’ 0’ (+%’ ’ *&’ ’ . %1$208’, 0’ 8 *0)’ &$%; E1%.)/2’ 0, . -/%’ 20)*/, (’ ’ . 5’ 4/*3, . -ℍ ,)’, 0’ *((’0, *. ’ //2’ 5*14/%’ A020)*/, (’ ’ . 5’ 5, ’0)*/, (RH’ ’ . 5’ 0), /’ 8 *&%’ $’$%/2’ 0, . -/%’ ’ . 5’ 5, ’0)*/, (’ 0’)*’ E1’/,)2 I’)+%’ 020)*/, (’ 81$81$’ 8 ’2’ 4%’ ’((*86’ . , %5’ 42’ ’’ 810, (’ /’ . *)%’ 0 (**, . -’ *$’ 0+$, //’ ’ . 5’ ’15, 4/%’ *7%$’)+%’ +*/%’ *$’ *. /2’ ’ 6*$), *. ’ *&’)+%’)1$&, *1$’ ’0)/2’,)’ 8 ’2’ 4%’ ’ . 5’ 10 ’ 2’, 0’ *&’ ’’ 041CC, . -’ ’ (+’$’ ()%$’, . ’ (’ 0%0’ *&’ ’$, (*0%’ ’ . %1$208’ +%’ %00%.), ’/’ (’ 10%’ *&’)+%’ 81$81$’ *&’ ’ . %1$208’ (*. 0, 0)0’, . ’ &$, (), *. ’ *&’)+%’ 4/**5’ ’ -’, . 0)’)+%’ *$, &, (%’ ’ . 5’)+%’ 6$*51(), *. ’ *&’ ’ . ’ %552’ *$’ ’’ 0&/1, 5’ 7%, . ’ 3,)+, . ’)+%’ 0’ (’ ’(%$)’, . ’ &*$(%’ *&’ 7%.)$, (1/’$ (*.)$’ (), *. ’ , 0’ +’ 3%7%$’ /, 9%3, 0%’ . %(%00’ $2’ %. (%’)+%’ . *)’ , . &$%E1%.)’ (*, . (, 5%. (%’ *&’ (%00’), *. ’ *&’ 81$81$’ 3,)+’ &’, /1$%’ *&’)+%’ /%&)’ 7%.)$, (/%’ &*$’ 0*8%’), 8%’ 4%&*$%’ 5%’)+’ 0)$*. -/2’ (*.)$’ (), . -’ 7%.)$, (/%’ ’’ $%/’), 7%/2’ 08’ //’ *$, &, (%’ ’’ (’ 6’ (, *10’ 0’ (’ ’ . 5’ ’’ /, E1, 5’ 0)’)%’ *&’ ,)0’ (*.)%.)0’ 0166/2’)+%’ 8 *0)’ &’ 7*1$; ’ 4/%’ (*. 5,), *. 0’ &*$’)+%’ 6$*51(), *. ’ *&’ 81$81$’ +%’ *$, &, (%’ *&’ %.)$’ . (%’ . %%5’. *)’ 4%’ 40*/1)%/2’ . ’ $$*3ℍ ’’ /’ $-%’ &10, &*$8’ ’ . %1$208’ %7%. ’ *&’)+%’)$1%’ 9, . 5’ 3,)+’ $*1-+’ 3’ //0’ ’ . 5’ (*.)’, . ; , . -’ +E1, 5’ 4/**5’ 8 ’2’ 2, %/5’ ’’ /*15’ 020)*/, (’ 81$81$’ 0’)+%’ 3$,)%$0’ +’ 7*’ &$%E1%.)/2’ *4; 0%$7%5’ ’ 81$81$’ 8 ’2’ 4%’ ’40%.)’ , . ’ ’ . %1$208’ /, . %5’ 42’)+, (9’ &1. , . 0%’ *&’ &, 4$, .



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)+%$%' '$%' *)+%$' ('0%0' ,.' 3+,(+')+%' 6'$)' *&')+%' '15,)*$2' '(%.)$%' ,.' $%/'),.*.' 3,)+' 3*$50' ,0' %,)+%$' 3+*//2' *$'6'$),'//2',.'(),7%' A('10,.-' 0 3*$5 5%'&.%00'R',.' %'(+' ('0%' 3,)+*1)' %7,; 5%.)' 5%&%()' ,.' *)+%$' 6'$)0' *&')+%' -%.%$'/' '15,)*$2' *$' 7,01'/ 3*$5 (%.)$%0

.'$%-'$5')*')+%' 7,01'/ (%.)$%' '0' '' 3+*/%' ,)' 0%%8 0')*' 4%' .*3' %0)'4/,0+%5')+')' ,)' ,0' .'*$%' *$' /%00' 5,^ 0%5')+$*1-')+%' *((,6,)'/ /*4%' 0')*')+%' /*('/,0',*.' *&')+%' -%.%$'/ '15,)*$2' (%.)$%')+%$%' ,0' 0*8%' (/,.,(*6')+*' /*-.,('/ %7,5%.(%')*' 5,*3')+')')+%' '15,)*$2' 3*$5 (%.)$%' 8'2'4%' ,.' *$',.')+%',8 8%5,')%' .%,-+4*1$+**5' *&')+%' 166%$')%86*$'/ (*.; 7*/1),*.

+%'0,)1'),*.'*&')+%')3*' 9,.'%0)+%),('3*$5' (%.)$%0' ('.' +*3%7%$' 4%' 81(+' 8*$%' 6$%; (,0%/2'/*('/,0%5' +%' $,)%$+*/50')+%'*6,.,*.')+')')+%'0* ('//%5' (*$),('/0 8*)*$' (%.)$%0'<*&' %$$,%$'.'5')+%$0' '$%' $%'//2' 0%.0*='(%.)$%0' *&',.0%0)+%),%')26%'42'8%'.0'*&'3+,(+'8*7%; 8%.)0' '$%' -1,5%5',,,0,0R' +')' 4%,.-'0*' $*('<0' $%-,*.'*$' %$$,%$<0' (%.)$%' &*$')+%'8*7%8%.)0'*&')+%'8*1)+'=5')*.=%' A7,C')+%' 6*0)%$,*$'6'$)' *&')+%')+,$5' &$*.)'/ '.5')+%',.&%$,*$'6'$)' *&')+%' .)%$,*$'0(%.5; ,.-' &$*.)'/ (*.7*/1),*.R' ,0' ..' $%'/,)2')+%' 6'$)'*&')+%'4$',.'3+,(+'3%'+'7%'4%%.'''//15,.-')*''0')+%'-/*00*9,.'00)+%),('3*$5 (%.)$%' +%' 0,)1'),*.' *&')+%' (+%,$*9,))0%0)+%),*' 3*$5' (%.)$%' ('.*)' 4%' /*('/,0%5' '0' 2%)' 3,)+' '0' 81(+' (*.&,5%.(%')+*1-+')+%')%.5%.(2',0')+%' &*//*3' B.%$'3+*'4%/,%7%0',)')*'4%0,)1')%5',.')+%' 6*0)%$,*$'6'$)' *&')+%'0%(*.5'&$*.)'/ (*.; 7*/1),*.

)' 810)' 4%' 0166*0%5')+%$%&*$%')+')')+%' '15,)*$2' '.5')+%' 7,01'/ 3*$5 (%.)$%0' '$% 0,)1')%5')+%'*.%'.*)'&'$' '3'2'&$*8''.5')+%' *)+%$' ('0)1'//2'3,)+,.'0*8%'6'$)'*&')+%'(*$)%B' *&')+%'*((,6,)'/ /*4%' '.5')+')')+%2''$%'(*.; .%()%5')*-%)+%$'42'' 5*14/%' 0%)' *&'(*8 8,0; 01$'/ &,4$%0' A&,-' F' ' ' b % 810)' '/0* ' -. ' ' 8 'R '

$!)'+ ,'+"' * '$-'5 ! #!' ! '. 4 ' L<)7' 6)' # ' 4/$' ! ' #!)$' ' ! #' #) '-$)' ! '/)$74# $ '$-'5) 3

+10' &*$' 06%%(+' 3%' +'7%')+%' (*84,.%5' '15,)*$2' '.5'-/*00* 9,.[0)+%),('3*$5 (%.)$%0' '(),.-'&$*8')+%' (*$)%B')+$*1-+',.)%$.1.(,'/ W&,4$%0' 16*.' 8*)*$' (%.)$%0',.')+%' 8%51//'H '.5'&*$' 3$,),..-'3%'+'7%' (*84,.%5'7,01'/ '.5' (+%,$* 9,.0%0)+%),*' 3*$5 (%.)$%0''(),.-'&$*8')+%' (*$)%B')+$*1-+',.)%$.1.(,'/ &,4$%0'16*.' 8*)*$' (%.)$%0',.')+%' (%$7,('/ $%-,*.'*&')+%' (*$5' .')+%0)152'*&'06%%(+ 5%&%()0'-%.%$'//2' ,)',0')+%$%&*$%' .%%5&1/')*' (*.0,5%$')+%' %&&%()0' *&'/%0,*.0'A R',.')+%'5,&&%$%.)'9,.50'*&' *$5' (%.)$%0'H A@R',.')+%'5,&&%$%.)'(*8 8,00'$%0'42' 8%'.0'*&'3+,(+')+%' (%.)$%0' '$%' (*..%()%5H A?R',.'(%$)',.'..)%$.1.(,'/ &,4$%0H ' .5'A R',.' (%$)',.'8*)*$'(%.)$%0

C ' ' #' 'S " ' "' R ' " G= ((*$5,.-')*')+%' Q3$,)%$<0'7,%3 0',)' ,0' .*)' ')' ' .%%5 ' '0' 8 '.2' 1)+*$,),%0' +'7%')+*1-+)')*' 6*0)1/')%' +%' %B,0)%.(%'*&' '0%6$'$')%' 0(%.)$%' &*$' (*.(%6),*.0' *$' ,5%'0<' +%' 0166*0%5')+%*$%),('/ .%(%00,)2' &*$' '0; 018,.-')+%' %B,0)%.(%'*&' 0*8%' &,(+' (%.)$%' 8'2',.'8*0)' ('0%0' 4%' *47,')%5'42' '' &1//%$ $%(*-.,),*.'*&')+%' 5,&&%$%.)' 5%-$%%0' *&',&,8%')*.=' %B(,)'4,/,)2')+')' 8'2' %B,0)' ,.')+%' '15,)*$2' '.5')+%' 7,01'/ 3*$5 (%.)$%0' $%; 06%(),7%/2')' 0+*1/5',.'&')('4%' (*.0)'.)/2' 4*$.%,.' 8,.5'42')+*0%' +*' 0)152')+%0%' 5%&%()0'*&'06%%(+')' %'(+'6%$(%6),7%'(%.)$%' ,0'('6'4/%'*&'4%,.-'(''//%5',.)*' ()(,7,)2',.')+$%%= 8*5%0' A'R' 42'07*/,8)'$2< $%('/' *&' 6'0)',86$%00,*.0''0',.''.'')'*&$%(*//%(),*.H A9R' 42'0'00*(,'),*.<)+')',0'42',86))/0%0'(*8; 81.,(')%5'&$*8' '.*)&,%$'(%.)$%' 51$,.-'0*8%' '()'*&' 6%$(%6),*.'*$' 51$,.-'0*8%')+*1-+)' 6$*(%00'H A(R' 42' 8%'.0' *&' %B)%$./ ,8; 6$%00,*.0' *3')+%' %B(,)'4,/,)2'*&')+%0%' (%.)$%0',0'/,'4/%')*'7'$2'81(+G'0''$%01/'*&' '57'.(%5''-%'*$'*&'5,&&%$%.)'-%.%$'/*('/ 8 $4,5'0)')%0' +%'8*/%(1/'$'8*4,/,)2'8'2' 4%0*'81(+'/*3%$%5')+')')+%2''$%'*./2'('6'4/%' *&'$%06*.5,.-')*'6*3%$&1/0),81/,H ,.'01(+' ('0%0'%,)+%$'07*/,)*.'/<$%('//'/*.%'*$'0'0; 0*(,'),*.0\<$%('//'0'3%//'8'2'4%',86*00,4/%' *$'8*$%'*$'/%00'5,&&,(1/)'$%06*.0%0'*(*1$$>.-' */2')*' %B)%$.'/ ,86$%00,*.0G=)+')' ,0')+%' 6'),%.)0' '$%'*./2''4/%')*' $%6%')'3*$50'6$*; .*1.(%5'*$')*'(*62'3*$50'3$,))%.'4%&*$%')+%8 +%'%&&%()0'*&'/%0,*.0'*&')+%'5,&&%$%.)'3*$5 (%.)$%0''$%''0'&*//*30' A8R' '/%0,*.'*&')+% -/*00* 9,.0%0)+%),(' (%.)$%' 6$*51(%0' 0,86/%' '6+'0,'H 3+,/0)' A<R'*.%'*&')+%' (+%+* 9/.' 0%0)+%),(' (%.)$%' 6$*51(%0' 0,86/%' '-$'6+,'.'.%,)+%$' (*.5,),*.',0')+%' 6*3%$*&')+*1-+)' 7%$2''66$%(,'4/2',.)%&%%5'3,)+' +%0%' '$%'(*88*./2'0166*0%5')*'4%' 8*)*$' 5%&%()0'41)')+,0')+%' 3$,)%$' 4%/,%7%0')*'4%' '.'*$$*.%*10' ,.)%6%)'),*.G0,.(%'+&' 3+,(+'3%&%()0'51%')*')+%'/*00'*&'(%$)',.'0%.0*$,'/'6),)15%0'A*&')+% 9,.'0)+%),(' *$5%$R'>10)'0'81(+'0'$%')+% *)+%$'&*$80'*&'6'+'0,'' .*3''4*1)')*'4%'8%.;),*.%5')+% %B,0)%.(%'+&' 3+,(+'5%&%()0'&,$0)' 6*,.)%5'*1)'.5'%B6/',.%5'42')+%' 3$,)%$',.

('L' ' ' ') ' ' ' A) ' ' +

' '# + $) ' ' +# ' ' ' +7 ' ' '# +7 '

0166*0%')+')')3*')+%$'0%)0'*&'(*88,001$'/ &,4$%0'%B,0)'3+,(+'$%'*&'81(+',86*$)'.(%',.' $%-'$5')*'06%%(+'.5'3$,),.-'7,C'*.%'0%)'A(R')+$*1-+'3+,(+')+%' '15,)*$2'3*$5 (%.)$%' '()0' 16*.')+%'-/*00*9,.0%0)+%),(' (%.)$%' &*$')+% 6$*51(),*.' *&' $),(1/')%' 06%%(+H '.5')+%

$!)'+ ,'+"' * '$-'5 ! #!' ! '. 4 ' L<)7' 6)' # ' 4/$' ! ' #!)$' ' ! #' #) '-$)' ! '/)$74# $ '$-'5) 3

+10' &*$' 06%%(+' 3%' +'7%')+%' (*84,.%5' '15,)*$2' '.5'-/*00* 9,.[0)+%),('3*$5 (%.)$%0''(),.-'&$*8')+%' (*$)%B')+$*1-+',.)%$.1.(,'/ W&,4$%0'16*.' 8*)*$' (%.)$%0',.')+%' 8%51//'H '.5'&*$' 3$,),..-'3%'+'7%' (*84,.%5'7,01'/ '.5' (+%,$* 9,.0%0)+%),*' 3*$5 (%.)$%0''(),.-'&$*8')+%' (*$)%B')+$*1-+',.)%$.1.(,'/ &,4$%0'16*.' 8*)*$' (%.)$%0',.')+%' (%$7,('/ $%-,*.'*&')+%' (*$5' .')+%0)152'*&'06%%(+ 5%&%()0'-%.%$'//2' ,)',0')+%$%&*$%' .%%5&1/')*' (*.0,5%$')+%' %&&%()0' *&'/%0,*.0'A R',.')+%'5,&&%$%.)'9,.50'*&' *$5' (%.)$%0'H A@R',.')+%'5,&&%$%.)'(*8 8,00'$%0'42' 8%'.0'*&'3+,(+')+%' (%.)$%0' '$%' (*..%()%5H A?R',.'(%$)',.'..)%$.1.(,'/ &,4$%0H ' .5'A R',.' (%$)',.'8*)*$'(%.)$%0

C ' ' #' 'S " ' "' R ' " G= ((*$5,.-')*')+%' Q3$,)%$<0'7,%3 0',)' ,0' .*)' ')' ' .%%5 ' '0' 8 '.2' 1)+*$,),%0' +'7%')+*1-+)')*' 6*0)1/')%' +%' %B,0)%.(%'*&' '0%6$'$')%' 0(%.)$%' &*$' (*.(%6),*.0' *$' ,5%'0<' +%' 0166*0%5')+%*$%),('/ .%(%00,)2' &*$' '0; 018,.-')+%' %B,0)%.(%'*&' 0*8%' &,(+' (%.)$%' 8'2',.'8*0)' ('0%0' 4%' *47,')%5'42' '' &1//%$ $%(*-.,),*.'*&')+%' 5,&&%$%.)' 5%-$%%0' *&',&,8%')*.=' %B(,)'4,/,)2')+')' 8'2' %B,0)' ,.')+%' '15,)*$2' '.5')+%' 7,01'/ 3*$5 (%.)$%0' $%; 06%(),7%/2')' 0+*1/5',.'&')('4%' (*.0)'.)/2' 4*$.%,.' 8,.5'42')+*0%' +*' 0)152')+%0%' 5%&%()0'*&'06%%(+')' %'(+'6%$(%6),7%'(%.)$%' ,0'('6'4/%'*&'4%,.-'(''//%5',.)*' ()(,7,)2',.')+$%%= 8*5%0' A'R' 42'07*/,8)'$2< $%('/' *&' 6'0)',86$%00,*.0''0',.''.'')'*&$%(*//%(),*.H A9R' 42'0'00*(,'),*.<)+')',0'42',86))/0%0'(*8; 81.,(')%5'&$*8' '.*)&,%$'(%.)$%' 51$,.-'0*8%' '()'*&' 6%$(%6),*.'*$' 51$,.-'0*8%')+*1-+)' 6$*(%00'H A(R' 42' 8%'.0' *&' %B)%$./ ,8; 6$%00,*.0' *3')+%' %B(,)'4,/,)2'*&')+%0%' (%.)$%0',0'/,'4/%')*'7'$2'81(+G'0''$%01/'*&' '57'.(%5''-%'*$'*&'5,&&%$%.)'-%.%$'/*('/ 8 $4,5'0)')%0' +%'8*/%(1/'$'8*4,/,)2'8'2' 4%0*'81(+'/*3%$%5')+')')+%2''$%'*./2'('6'4/%' *&'$%06*.5,.-')*'6*3%$&1/0),81/,H ,.'01(+' ('0%0'%,)+%$'07*/,)*.'/<$%('//'/*.%'*$'0'0; 0*(,'),*.0\<$%('//'0'3%//'8'2'4%',86*00,4/%' *$'8*$%'*$'/%00'5,&&,(1/)'$%06*.0%0'*(*1$$>.-' */2')*' %B)%$.'/ ,86$%00,*.0G=)+')' ,0')+%' 6'),%.)0' '$%'*./2''4/%')*' $%6%')'3*$50'6$*; .*1.(%5'*$')*'(*62'3*$50'3$,))%.'4%&*$%')+%8 +%'%&&%()0'*&'/%0,*.0'*&')+%'5,&&%$%.)'3*$5 (%.)$%0''$%''0'&*//*30' A8R' '/%0,*.'*&')+% -/*00* 9,.0%0)+%),(' (%.)$%' 6$*51(%0' 0,86/%' '6+'0,'H 3+,/0)' A<R'*.%'*&')+%' (+%+* 9/.' 0%0)+%),(' (%.)$%' 6$*51(%0' 0,86/%' '-$'6+,'.'.%,)+%$' (*.5,),*.',0')+%' 6*3%$*&')+*1-+)' 7%$2''66$%(,'4/2',.)%&%%5'3,)+' +%0%' '$%'(*88*./2'0166*0%5')*'4%' 8*)*$' 5%&%()0'41)')+,0')+%' 3$,)%$' 4%/,%7%0')*'4%' '.'*$$*.%*10' ,.)%6%)'),*.G0,.(%'+&' 3+,(+'3%&%()0'51%')*')+%'/*00*&'(%$)',.'0%.0*$,'/'6),)15%0'A*&')+% 9,.'0)+%),(' *$5%$R'>10)'0'81(+'0'$%')+% *)+%$'&*$80'*&'6'+'0,'' .*3''4*1)')*'4%'8%.;),*.%5')+% %B,0)%.(%'+&' 3+,(+'5%&%()0'&,$0)' 6*,.)%5'*1)'.5'%B6/',.%5'42')+%' 3$,)%$',.

?DP')+*1-+')+%2' Q3%$% 0140%E1%.)/2' 8 *$%' ,$* 5,.%.&/2 %B6/',.%5' ,.' ?M ' 42' %$.,(9%' .5%$)+%' .' 8 %' *&' 0%.0*$2' 6+'0,'0 <' .%' *&')+%0%' +'0' 4%%.' 9.* 78' '0' 0 3*$5 5%'&,,%00' <' .5')+%' *)+%$' '0' 0W3*$5 4/,.5. 00 < 1)' 5%; &%()0' ,.')+%' '(),7,)2' *&')+%' '15,)*$2' '.5' *&')+%' 7,01'/ 3*$5 (%.)$%0' $%06%(),7%/2' -,7%' $,0%')*' 7'$,%5' '.5' (* 8 6/,('))%5' $%01/)0' 3+,(+' ('.' *./2' 4%' %$2',.'5%E1')%/2' 018 8 '$,0%5' 42')+%0% 6+$'0%0' +10' $ 8 5%$')+%' +%'5'*&' AGR /%0,*.0'*&')+%' '15,)*$2' 3*$5 (%.)$%' 3%' 8 10)' $%&%$')*')*)''//2' 5,&&%$%.)' 5%&%()0' '((*$5,.-')*')+% 5%-$%%' *&' &1.(),*.'/ 5%-$'5'),*.'*&')+%' (%.)$%' A1R 0/,-+)''15,)*$2' 8 .%0,''&$* 8'&1.(;),*.'/5%&%()'*&')+%' (%.)$%'/%'5,.-')*',8 6',$%5' 06*.)'.%*10' 06%%(+' *3,.-')*' &*$-% ,/.%00' *&'.' 8 %0' *$' .*1.0H ALR 6$*&*1.5' '15,)*$2' '8.%0,'',.' 3+,(+'&$* 8' 0,8,/'$'(' 10%0'4*)+' 7*/1.)'$2' .5' '00*(,')&*.'/06%%(+' $%-$%')/2' 1.6',$%5')+*1-+',.1)',7%'06%%(+',0'$%)',.%5' '.5')+%' '/8 *=' 06%%(+/%00' 6'),%.)' 8 '2' 4%' '4/%')*' $%'5' '/*15'(*$%()/2' '.5'&/K %.)/2H A(R 3*$5 5%'&.%00' .5' '6+'0,'' *3,.-')*' '' 5%; 0)$1(),7%' /%0,*.'*&')+%' ',,5,)*$2' 3*$5 (%.)$%' ,.' 3+,(+')+%' 6')%.)',0' .*)' *./2' 1.'4/%')*' (* 8 6$%+%.5'06%%(+'41)',0'+,8 0%/&06%%(+/%00' .5' 8 '2' '/0*' 4%' 1.'4/%')*' W3$,%06*.)';.%*10/2' %0,*.0'*&' A R)+%' 7,01'/ 3*$5 (%.)$%' 3+%)+%$' &1.(),*.'/ *$ 0)$1()1$'/' $%; 7%'/)+%8 0%/7%0',.'/%00'7'$,%5'8 *5%0H 3+%.' 0%7%$%')+%2' 3*$55'$%01/)',.')+%' 6$*51(),*.'*& 3*$5 4/,.5.%00')*-%)+%$' 3,)+' '-$'6+,'

C ' ' #' ' S " ' ' # ' ' 2 "' R " ' G')' 0%% 8 0')*')+%' 3$,)%$'4%))%$')*' $%0%$7%')+%' 3*$5 W(*8 8,001$%'<'0' .'''66%//'),*.'&*$')+%'&,4$%0')+')' (*.. %()' (%.)$%0' *&')+%'/,9%'9,.5')+')',0' %,)+%$' 0%.0*$2' (%.)$%0' *$' 8 *)*$' (%.)$%0H ''.5')*'.' 8 %' 0,.)%$.1.*,'/<)+%'&,4>%0' 3+,(+'(*.; .%()' 0%.0*$2' 3,)+' 8 *)*$' (%.)$%0

0' '/$%'52' 0)')%5' 5*14/%' (* 8 8,001$%0' %B,0)' 4%)3%%.')+%' '15,)*$2' .5')+%' 7,01'/ 3*$5 (%.)$%0' A&,-' F' #' 3+,(+' '$%'+'4,)1;''//2' ('//%5',.)*'6/'2',.'(%$)'.,' 8 %.)'/ *6%$';),*.0'0*')+')'+)+%,$' 5%0)$1(),*.'/%'50')*' 7%$2'5%&,.,)%' 5%&%()0' +10',.' 8,.-' *4>%()0''),-+)'*$',.'$%'5,.-'/*15'0),8 1/,'+'7%',*'6'00' &$* 8')+%' 7,01'/)*')+%' '15,)*$2' 3*$5 (%.)$%' A42')+%' 7,01* '15,)*$2' (*.1.,001$%R 4%&*$%')+%'.' 8,.-' $)+%'$%'5,.-'/*15' ('.'*((1$' -',.',3$,),.-'&$* 8'5,()',.'.' 2' 06*.)'.%*10' %&&10,*.' 0),8 1/,' $%E1,$%')*' 6'00' 4%)3%%.')+%0%')3*' %.)$%0',.''.'*66*0,)%' 5,$%(),*.'.' 8 %/2' &$* 8')+%' '15,)*$2')*')+%' 7,01'/ (%.)$%'.5')+$*1-+''5,&&%$%.)' 0%)' *&',&$%0' A)+%' '15,)*' 7,01'/ (* 8 8,001$%R .' ??!')+%' W3$,%$ 614/,0+%5', # ' $ "' ' "' ' 0 "' ' ' " '6' ! !R 0*8 %' 5%)',/0' (*.(%$..-'' 8 '.'A3+*'+'0' %7%$'0,.(%'4%%.'1.5%$'*40%$7'' = * .' &$* 8',8 %')*',8 %R 3+*' 01&&%$0' &$* 8' '' 5%0)$*2,.-')+%'(* 8 8,001$%0',.'E1%0),*.' = 1'.' 1.5%$0)'.50' 6%$&%()/2' ' ')+')',0' '.5''//')+')'+%' $%'50'2%)'+%' '/*15' '' 0,.-/%' 3*$5'*$ %7%.' = = = = = = '-/%' /%))%$')+*1-+',8 8 %5,')%/2)+')'+%'+%'$0')+%' 3*$5' *$ /%))%$' 6$*.*,8 (%5'+%'('.'$%6%')'),)''.)'*.(%' -',.'+%' (',8*)' W3$,)% '' 0,.-/%' 3*$5' *$ %7%.' /%))%$' &$* 8' 5,()'),*.')+*1-+' +%' ('.' ')' *.(%' 3,)+' +,0' /%&)' +'.5'6$*(%%5')*' (*62' '>='01(+' 3*$5' *$ /%))%$')+')' 8 '2'+'7%' 4%%.' 3$,))%.'&*$'+,8' '' 0+%%)' *&'6'6%$' '0%0'+'7%' 4%%.'$%(*$5%5' '/0*' ,.' 3+,(+')+%' 0%6%&$')%' +'/7%0' *&')+%' (* 8 8,001$%' 4%)3%%.')+%' '15,)*$2' .5')+%' W7,01'/ 3*$5 (%.)$%0' +'7%' 4%%.'5' 8 '-%5H 0*)+')' $%'5,..' &$* 8' 5,()'),*.' *$.' 8,.-')' 0,-+)' +'7%' 4%%.' (%.)$%0' +

),*.' 3,)+'/%0,*+0',.')+%',0/'.5'*&' %,/' '.5'*)+%$'0,)%0'.%'$%$')+%'6*0)%$,*$'%B)$%8,)2'*&'
)+%' 2/7,'.' &,001$%' A0%%' $ ' O '
*7'F ??M'6'P?DR
' +,0'6*,.)'/,9%')+%'E1%0),*.' *&')+%'%B,0);
%.(%'.5',.)%6%)',*.' *&'6+%8,''3,/' 4%
&*,85')*'4%''')*1(+0)*.%&*$')%0),.-')+%')$1)+'
&')+%' 5()$,.%0'+%$%' 0%)'&*$)+' (*.(%$.,.-'
)+%'6')+*-%.%0,0'*&'06%%(+5%&%()0''0'(*8;
6'$%5'3,)+')+*0%'*&')$,%9%$''.5'*&' 1-+'
/,.-0' '(90*.' ((*$5,..-')*')+%,$'7,%30'
)+%'(*8 8,001$'/&,4$%0'.*3'$%&%$$%5')*'6'00'
4%)3%%.')+%' '15,)*$2'.5''')$1%'0 8*)*$'&
(%.)$%&*$')$),(1/'),*.' ((*$5,..-')*')$,%9%$'
S 'S "0 0' ' ' T ' ??F'6' M"R'
'' 5'8'-%'*((1$$,..-',.')+%'(*8 0%'*&')+%0%'
&,4$%0'3*1/5'('10%'.*)'6+'0,'' 41)'3*$5'
5%'&,,%00' ,0'7,%3'4%,..-')+')'3*$50''$%'
$%'/,0%5'8',.,/2'42'8%8*$,'/'$%7,7'/.,'8*)*$'
(*$),('/(%.)$%0',.')+%'('0%''0018%5')+%$%'
3*1/5'4%'3*$5 5%'&,,%00'4%('10%'0),8 1/,'(*1/5'
.*)'6'00'&$*8')+%' '15,)*$2')*')+%'001 8%5'
8*)*$'(%.)$%0',.' +,(+')+%'%00%.),'/'6'$)*&'
)+%' '66%$(%6),7%' 6$*(%00',0'('$$,%5'*.' ')'
0%%8 0'(/%'$''/0*')+')')+%0%'5*(0$,.%0'.%(%00,;
)')%')+%'7,%3')+')'.',0*/')%5'/%0,*.',.' $*('<0'
$%-,*.' *./2'0+*1/5' /0*'('10%'3*$5 5%'&.%00'
'0'3%/' '0'6+'0,'' +,0'+*3%7%$',0'(%$;
)',./2'.*)'+%' ('0%G''&')'3+,(+',0',)0%/&'
01&,(,%.)')*' .%-'),7%')+%')$1)+'*&')+%'7,%30'
&' 1-+/,.-0' '(90.''.5'*&')$,%9%$
'8'-%')*' .2'6'$)'*&')+%'7,01*9,.0%0'
)+%),(*8 8,001$%'A&,-'F' '3*1/5''/0*'4%
('6'4/%'*&'6$*51(,.-''-$'6+,''*&'>10)'0'
(*86/%)%'.5')26,('/''9,.5'0',&')+%'/%0,*.'+'5'
4%%.',.')+%'(+%,$*9,.0%0)+%),(%.)$%',)0%/&
C ' ' #' 'S "' '5" '
" " ' . G %'+'7%'+%$%')*'5*'3,)+'
''9,.5'*&'5%&%()'9.*3.' '0'6+%8,''+,0'
,0''06%%(+5%&%()'' .5')+%$%',0'.*'' ./*-*10'
5%&%()'*&'3$,),.-'%B(%6)')+')'3+,(+',0'*((';
0,*.%5'42'()1'/6'$'/20,0'&*')+%'$,-+)'+'.5'
.'(*86/%)%' 6+%8,'')+%$%',0'40*/1)%'/*00'
*&'$),(1/')%' 06%%(+' 3,)+*1)' '.2'8%.)'/
,86',$8%.)' '.5'3,)+')+%'6*3%$'*&'(*8'
..8,('),.-')+%')+*1-+)0'42'3$,),.-'6$%0%$7%5'
'40*/1)%/2',.)'()' .'%B(%//%.)'%B'86/%'+'0'
4%%.'$%(*$5%5'42')+%'70$,)%$',')+%'$ '
'O ' *7'F' ??M
1(+''(*.5,),*.',0'6$*51(%5'3+%.')+%'
-/*00*9,.0%0)+%),(%.)$%',0',)0%/&1.,.>1$%5'
41)'3+%$%')+%'3+*/%'*&')+%',.)%$88*,'/&,4$%0'
%8'.'),.-'&,$*8',)''.5'6$*(%%5,.-')*')+%'
)$1%'8*)*$''$),(1/')*$2'(%.)$%0',.')+%'41/4'
'$%'5'8'-%5',.'0*8%'6'$)'*&')+%,$'(*1$0%'
G3+%)+%$'>10)'4%.%')+')+%'(*$),('/(%.)$%'
,.')+%',.)%$.'/('601/%',.')+%'6%51.(/%'*$,.'
)+%'6*.0' *8%),8%0')+%'5%&%()'8'2'4%*&'
''&1.(),*.'/$')+%$')+'.'*&''0)$1()1$'/)26%'
(*.0),)1),..-' +'$(*)0'+20)%$,('/81),08',.'
)+%'8'/%<
.(*86/%)%''6+%8,'0'+*3%7%$'%B,0)'*&
'//5%-$%%0'*&'0%7%$,)2'.5')+%2''$%''4*1)'
)+%'(*88*.%0)'*&'//'06%%(+5%&%()0'*((1$$,..-
,.''00*(,'),*.'3,)+'+%8,6/%-,''+%2''$%
51%)*'6'$),'/'5'8'-%')*')+%'-$*16'*&',.)%$
.1.(,'/'&,4$%0''4*7%'$%&%$$%5')*'.5''$%'
$%6$%0%.)%5'42'5%&%()0'*&'$),(1/'),*.'7'$2;
,.-'&,$*8'/8*0)'(*86/%)%'1.,.)%//,-,4,/,)2')*'
)+%'8%$%'4/1$$%5'1))%$'.(%'*$')+,(9.%00'*&'
06%%(+'3+,(+',0'0*'(*88*.
6+%8,''',0'(/%'$/2'.*)''0%.0*$2'5%&%()G'
,)',0'.*)''&*$8'*&'8.%0,'I 4%('10%')+%'
014>%()0'*&',)'(''$%7,7%'3*$50',.''/'6*00,4/%'
8*5%0''.5''$%')+%$%&*$%''4/%')*',+=''.5'
%B6$%00')+%,$')+*1-+)0'3,)+''.'1.,86',$%5'
&$%%5*8'42'3$,),.-'&')+%'6+%8,''4%',.'
'.2'3'2',.(*86/%)*8*$%*7$'0.(+''('0%'
('.'4%'%'0,/2'5,0($,8,.')%5'&$*8''('0%'*&'
'6+'0,''42')+%'&')')+')')+%'6+%8,('6'),%.)'
3,''/3'20')'*.(%'8'9%''.')%),.6)'3+%.'
4,55%.')*'6$*.*1.(%'0*8%'0,86/%'3*$5'*$'
02//'4/%'A+*3%7%$'6**$')+%'))%86)'8'2'4%R'
3+,/%')+%')26,('/'6+'0,('6'),%.)',0')8'4/%'
)*'8'9%''.2'01(+''))%86)G+%'3,/'.*)'$2'
%7%.')*'$%6%')')+%'0,86/%0)'7*3%/0*$85
C ' ' #' ' 'S "' '#'
$ ' & ' " 'G'.')+%0%'
('0%''0'3+%$%')+%'/%0,*.0'*((1$',.')+%'
,.)%81.(,'/'&,4$%0''/'')+%'(%.)$%0',.'3+,(+'
)+%'8%8*$2'*&'3*$50'('.'4%'$%7,7%5''$%'
,.)'()' +%$%',0'(*.0%E1%./2'.*)+,.-'3+');
%7%$')*',.)%$&%$%'3,)+')+%'.*3'*&')+*1-+)'
'.5',.',(*86/%)%'('0%0'.*)+,.-')*'6$%7%.)'
'))%86)0''$),(1/'),*.'4%,.-'8'5%' +%0%'
)3*'(/'00%0'*&'('0%0''$%',.5%%5'/%00'0%6'$'4/%'
(/,.,('//2')+'.')+%2''$%'&$*8''')+%*$%),('/*$'
0(,%.),&,('6*,.)'*&'7%3
)'3*,55'4%'3%/')*'$%0%$7%')+%')%$8'
0'.'$)+$,'<'0',.)$*51(%5'42'1008'1/'&*$'
)+%'5%&%()0'*&'06%%(+'('10%5'42'8*$4,5'0)')%0'
&')+%'41/4'$''$),(1/')$2'.1(/%,G3,)+')+%'&,,//'
$85%$0)'.5,.-'+*3%7%$')+')'6+%8,''.5'
'.'$)+$,''3,'*&)%'.4%',.5,0),.-80+'4/%'&$*8'
.%'.)+%$'42')+%,$'*3.',.)$,.0,('(+'$'()%$0'
)+*1-+')+%2'3,'-%.%$''//2'4%'E1,)%'('6'4/%'
*&'4%,.-'5,'-.*0%5'&$*8'*.%'.*)+%$'42'
')9,.-',.)*(*.0,5%$'),*.')+%'8*5%'*&'*.0%)'
'.5')+%'6'$),(1/'$-$*16,.-'*&')+%$'))%.5'.)'
0,-.0
& G +%'8%'.0'$-'5,0),.-1,0+,.-'
)+%'5,&&%$%.)'6+'0,('.5''8.%0,('06%%(+'
5%&%()0'&$*8'*.%'.*)+%$'+'0''/$%'52'4%%.'
&1//2'%.*1-+'0%)'&*$)+',.')+%'6$%(%5,.-'
0%(),*.0' +%'5,'-.*0,0'*&')+%'%B'()'.')1$%'
&')+%'5%&%()',0'&)%.'%B(%%5,.-/2'5,&&,(1/)'
1./%00')+%'6'),%.)'4%')+*$*1-+/2'%B'8,.%5'
,.''020)%8'),('8'.'%$'.'5',.''((*$5'.(%'
3,)+'0*8%'5%&,.,)%'6/'.' /0%3+%$%',6 7
g' ' $ ' " ' " ' ??D'
6' @FR')+%'3$,)%$'+'0'-,7%.'01(+''0(+%8''
&*$)+%' B'8,.'),*.''*&'6+'0,('.5'8.%0,('
%$0*.0<3+,(+'+'0'4%%.'10%5'6+'0,('.5',)+'01((%00'
&*$'8'.2'2%'$0' +%')+%$'0,5%'*&')+%'E1%0;
),*.'7,C')+%'6')+*/*-,('/5,'-.*0,0'810)'4%'
8'5%',.''((*$5'.(%'3,)+')+%'$1/%0'-%.%$''//2'
'66/,('4/%')+,0'6'$)'*&')+%'5,'-.*0),('
6$*4/%8',.'('0%0'*&'4$',.5,0%']%
! G<+%$%'6+'0,''*((1$0'
%B(,)%8%.)'*$*7%$3*$9'3,)+*1)'6''
,0''3'$.,.-''*&'81(+',86*$)'.(,'
8'2'4%')+%'6$%(1$0*$*&'81(+'0

)*80' .5%$'01(+',($(180)'.(%0')+%'6'),%.)'$%E)),$%0'.''40*/1)%'(%00'),*.'&$*8'3*$9'&*$''),8%''.5'8*0)'('$%,+/3')(+,..')81/'.)0'8'2'.%%5')*'4%5,8,.,0+%H'.5'4$*8,5%*&6*)'00,18'3,)+'018 41/''.5'*)+%$'0%5'),7%'$%8%5,%0'0+*B,/5'4%'58,.,0)%$%5'+%$%'6'+'0,'',0''')%86*$'$2'(*.5,),*.',.''00*(,'l'),*.'3,)+'$,-+)0,5%5'(*.71/0,*.0'*$'3+%$%',0'/'0),.-''.5'(*%B,0)0'3,)+'$=+)0,5%5'6'$'/20,0')+%')$%')8%.)'*&')+%''6+'0,('(*.;5,),*.'4%(*8%0'8%$-%5',.')+')'*&')+%''00*;(,')%5'(*.71/0,7%)%.5%.(2'*$6'$'/2),('(*.;5,),*.'0,.(/15%'1B'*8,('''.5'&$2(+.,,%'+*06+*$10'.')+'$,5%0H$),(),*.''.5'&/'-%//'),*.'l'..'4,0'65,('''8,'.''6,18H'.5'/(*+*/,.'08'//5*0%0'$*.''.5'4,))%$')*.,(0H'8%')'5,%)H'3'$8'(/*)+,.-'%06%(,'//2''$*1.5')+%'+,60'K'.5'/*,.0H'.5'40),.%.(%'&$*8'0%7%$%'8%.)'/'.5'4*5,/2'*$9''()''0',.5,$%()'6+$*5,0,'(0'G=6+$*5,0,'(0'8'2'')'42',.($%'0;,.')+%'%B(,)'4,/,)2'*&')+%'.%$7%0'6'00,.-')*'*$&$*8')+%'-%.,)'/'*$-'.01!*$'*&')+%'-%.,)'/(%.)$%',.')+%'06,.''/(*$5'('3)'0'&*$%B'86/%'0)$2(+.8%'.1B'7*8,('''.5'6$*4'4/2'6+*06+*$10H'42'('10,=',$$,)'),*.'*&')+%'.%$7%0'*&')+%'-%.,)''/*$1$,.'$2'*$-'.0'*$'*&'5>*,.,.-'6'$8%''0'('.)+'$,5%0''.5'1$),(','*.H'*$'42'0),81/'),.-')+%'4$',.''0'.5,'.'+%86'*$'08''//'5*0%0'*&'*6,18/'(*+*/,.'/'$-%'5*0%0'+'0''5*14/%'(),*.',.($%'0,.-')+%'0%B1'/'5%0,$%'42',)81/'),.-')+%'/1',.'3+,/%'/%00%.,.-')+%'6*3%$'*&'%$%(),*.'6$*4'4/2'42'3%'9%.,.-')+%'.%$7*10'8%(+'.,08')+$*1-+'3+,(+'%$%(),*.',0'6$*;51(%5'0')+%'0%B1'/'600,*.'4%(*8%0'5,8,.;,0+%5'3+%.')+%'.%$7*10'020)%8',0'3%'9%.%5'W3,)+')+%'$%0)'*&')+%'4*52''.5',.($%'0%0'3,)+'$%)1$.,.-'0)$%.-)+',$*.'3,)+'4,))%$')*.,(0''.5'-%.%$*10'A%)''()',.5,$%()/2''0''6+$*'5,0,'0

6 G +%.')+%'0%B1'/'&)8%),*.0''$%''4;.*$8''//2'5%6$%00%5'0)$2(+.,.%''.5'6+*0;6+*$10'$%')+%'8*0)'-%.%$'//2'10%&1/'*&')+%'5,$%()'6+$*5,0,'(0''.)+'$,5%0''.5'0*8%),8%0'7'/1'4/%'810)'4%%86/*2%5'3,)+'(1),*.'%'0%

H O O J''',.&/'8%R G .&<&'6+)+*10')*8'),),0H$'0H%$'$#

&#G'&*$8'*&(')'$$+'*&')+%'41((''/81(*0''(+'$'()%$,0%5'42')+%''66%'$;''.(%'*&*.%'*$8*$%'6')(+%0'##'6*00%00;,.-'''6%(1/,'$'0)$1()1$%

!''G 6+)+0%+'7%')'&,$0')+%''66%'$'.(%'*&7%0,(/%0H41)'8,($*;0(*6,('/0%(),*.0'0+*3')+')'+)+%2'$%%51%')%'%/%7'),*.'*&')+%'%6,)+%/,18'42''0*/,5'&,4$,.*10'%B15'),*.''*7%$'3+,(+')+%'%6,)+%/,18'101''//25,%0'0**.'0%6'$'),.-'3,)+')+%'&,4$,.*10'&/'9%'2')+%'),8%')+,0',0=&&%()%5')+%'8%*0''',0''-',.''0''$1/%')+,./2'(*7%$%5'42'%6,)+%/,18'0*')+')''$1%'1/(%$',0'.7%$'6$%0%.)H'41)'6/=)'01661$'),*.'8'2'+%'%0)'4/,0+%5'3,)+')+%'5%0)$1(),*.''*&')+%'016%$&,(,'/''2%$'*&')+%'81(*0'

! %''-'6+)+['*((1$'(+,%&/2',.'+,/5$%6,'51$,.-')+%'&,$0)'5%.),),*.'16*.''.2'6'$)'*&')+%'41((''/81(*0'G8*0)'&$%E1%.)/2',.0,5%')+%'/*3%$'/,6'.'.5''.')+%'),6'*&')+%')*.-1%')'&,$0)')+%2'/**9'/,9%'08''//'7%0,(/%0'41)'&)%$''&%3'+*1$0')+%2'$%0%84/%'1/(%$0'3,)+'5;+%$%.)'-$%2'*$2%//*3,0+'0/*1-+0''%'(+'4%,.-'01$$*1.5%5'42''',$.-'*&',.>%(),*.'+%'6')()+%0'7'$2',.'0,C%'&$*8')+')'*&''/%.),/5*3.3'$50H)+%2''$%'0,.-/%'*$81),6/%H-$*16%5'*$0(''))%$%5H)3*'*$')+$%%'8'2'(*'/%0(%'41)'+%'6')(+%0'.%7%$$%'(+''/'$-%0,C%'6+)+['('10%'0/,-+)'6',.''.5''$%'06%(,'//2'0%.0,),7%')*'0140)'.(%0'/,9%'0'/)'*$01-'$'206%6),(')$*14/%0''$%'01'//2'6$%;0%.)''.5')+%'4$%')+',0'*&%.'&*1/'(+'6+)+''$1.0',)0'(*1$0%',.')+$%%'*$&*1$'5'20'.5'3+%.'8,,,),6/%')+%'6')((+%0'(*8%'*1)',.''(*$*6'+,0'8'2'4%01((%%5%5'42'*)+%$'($*60'0*')+')''/'0)'-%0'*&)+%'/%0,*.'8'2'4%6$%0%.)'')'*.%'),8%'+%')$*14/%

6*6/%(),(' 02 8 6)* 8 0' 8 '2 '+* 3 %7%$ ' **(. $' 03,)+*1)' *47,*10' /%0,* . ' *&')+%' &$ ', . ' +%' (* 8 '' 3 +,(+', 0' '00*(, ')%5' 3 ,)+' (* . -%0), * . ' *&')+%' +%' 5 ' ,0' 0* 8 %), 8 %0')%$ 8 %5' 0 (* . -%0), 7 k' '6*6/%B2 < ' . 5')+ ')' 3 +,(+' *((1$0' , . ')+%' '40%. (%' *&' . 2' $%(* - . ,0' 4/%' ('10%' + '0' 4%%. ' ('//%5' 0 0, 8 6/%' '6*6/%B2 <

$-* *'7 G .' ',/')+%0%' ('0%0')+%' 0 6* ' 6/%B2' ,0' , . ' $%/ '),* . ' (+,%&/2')*')+%' %B)%.)' . 5' 0155%. . %00' *&')+%' /%0,*+' ' . 5')+%' , . ;)%. 0,)2' *&')+%' 5 ' 8 ' -%' U*1 - +/2' 06%' 9, . - ' ,)0' *((1)$%. (%' 8 ' 2' 4%' 0 ', 5')*' 5%6%. 5' * . ')+%' 0155%. . %00 ')*-%)+%$' 3 ,)+')+%' , .)%. 0,)2=' *&')+%' (%$%4$ ' /' 8 ,0(+,%&' ,)0' 5%-$%%' * . ')+%' %B)%.)' *&')+%' 0 ' 8 %' / 1)')+%' *((1$$%. (%' *&' '6*6/%B2' 5%6%. 50' 0* 8 %), 8 %0' * . ')+%' 0, C%' *&')+%' /%0, * . H ' . 5')+%' 5%-$%%' 7 ' $, %0' . *)' * . /2' 5, $%()/2' 3 ,)+')+%' %B)%.)' *&')+%' 8 ,0(+,%&' 41)' 3 ,)+')+%' %B;)%.)' *&4$ ' , .),001%' 3+,(+', 0' %B6*0%5', . 5, $%()/2')*')+%' ,$$,)'),7%' , . &/1%. (%' *&')+%' 6$, 8 '$2' /%0, * . ' %. (%' 6*0,), * . ' &' /%0, * . ' +'0' . ' , . &/1%. (%' , . '5%)%$ 8 , . , . -')+%' '6*6/%(), ('02 8 6;)* 8 0' *$')+%0%' 0%7%$ ' /' $%' 0* . 0' '6*6/%B2', 0' %06%(, '//2' 6$*&*, 8 5' 3+%. ')+%' +'%8*$$+'-%' '&&%()0' 4*)+' +%8,06+%$%0' %,)+%$' +2' 0, 8 1/;)' . %*10' %B)$' 7 '0'),* . ' *. ' %' (+' 0,5%' *$' 0')+%' $%01/)' *&' +'%8*$$+'-%' , .)*')+%' /')%$' /' 7%. ;)$, (/%0

+%' 6$%(, 0%' (* . 5,),* . ' * . ' 3+,(+')+%' %00%. ;), ' /' %/%8%.)' , . ' '6*6/%B2G)+%' '$$%0)' *&' ' 8 ' . , &%0)'), * . ' *&' $ ', . ' &1. (), *. G, 0' , 8 8%; 5, ')%/2' 5%6%. 5%.)' + '0' 4%%. ' '' 8 '))%$' *&' 8 1 (+' 5,061)%')' '0' &*$ 8 %$/2' '0($, 4%5')*')+%' 6$%001$%' %B%$)%5' 42')+%' (/*)' * . ')+%' $%0)' *&')+%' 4$ ', . ' %,)+%$' , . &/1%. (, . -' 5, $%()/2')+%' (%$%4$ ' /'), 001%' *$' 6$%00, . -' * . ' . 5' % 8 6)2, . -' ,)0' ('6, //' $, %0' A , %8%2%$R ' +')' 01(+' 6$%0; 01$%' , 0' %B%$)%5' 42' '(' /' $-%' +'%8*$$+'-%' , 0' $8E1%0), * . '4/%' +%' (* . 7*/1), * . 0' * . ')+%' 0,5%' *&')+%' %B)$' 7 '0'), * . ' '$%' &/'))%. %5 ' . 5')+%' &' /B' , 0' 41/-%5')*')+%' *66*0,)%' 0,5% ')' (' . . *)' 4%' 5*14)%5')+')')+%' , .)%. 0,)2' *&')+%' '6*6/%B2', . ')+%0%' ('0%0' , 0' 51%' , . ' 6 ' $)')*')+, 0' ('10%' 1)')+, 0' W3, // . *)' %B6/' , . ')+%' *((1$; $%. (%' *&')+%' 02 8 6)*8', . ' 0 8 ' >/+' % 8 *$$+' -%0' 42' +, (+' . *' -%. %$' /' 6$%001$%' , 0' %B%$)%5' *$' . *)' 8 *$%')+ 8 ' , 0' ')' *. (%' $%/, %7%5' 42')+%' 5, 06/' (%8%.)' *&')+%' 8 *4, /%' &/1, 5' 3+, (+' 01$; $*1. 50')+%' 7%00%/0 ')' W3, // . *)' %B6/', . ' 02 8 6)*8 0' , . '/' (%$'), * . ' *&')+%' 4$', . ' . *$')+%' , . 0)' .)' /*00' *&' (*. 0(, *10. %00' ')+%' 7%$2' *. 0%)' * &' ' ' 0%7%$%' +'%8*$$+'-%', . ' 3+, (+' ' 0' '((*15' , . 0, 0)0' ,)' 0+*1/5', &' 8 %$%/2' 51%')*' 6$%001$%H 4%' '' /')%' $')+%$')+' . ' . ' %' $/2' 02 8 6)*8 ' +%$%' (' . 4%' /,))/%' 5*14)' &$*8')+%0%' (*. ; 0, 5%$'), * . 0' ' . 5' &$*8')+%' ('0%0', . ' 3+, (+')+%$%' , 0' . *' $%(*-. , 0' 4/%' 4$', . /%0, * . ')+')' 3+')' , 0' ('//%5' 0+*(9' , 0' ' . ' , 8 6*$)' .)' %/%8%.)' , . ')+%' ('10'), * . ' * &' '6*6/%B2' +10' , . ' (%$%4$ ' /' +'%8*$$+'-%')+%' '6*6/%(), (' 02 8 6)*8 0' '$%51%, . ' 6 ' $)')*')+%' , . &/1%. (%' * . ')+%' $%0)' *&')+%' 4$ ', . ' &' (%' 0' 8 %' 6$*(%00 ' (), . -' 163 '$50' %' (' . ')+10' 1. 5%$0)' . 5' 3+2' 7 ' &, (1/' $ *((/10, * . ' ('10%0' '' 0/, -+)%$' 5%(%%' *&' '6*6/%B2 ' 0, . (%')+%' , 8 8%5, ')%' , $$,)'), * . ' * &')+%' /*(' /' . '%8, '' , 0' /%00')+' . ')+')' *&' /' (%$'), * . H' . 5' '/0*' 3+2' /%0, * . 0' *&')+%' 6* . 0' 6$*51(%' '0')+%2' 5*' 01(+' 5%%6' . ' /* . - (* .), . 1%5' (* 8 ' ' 0, . (%')+%' , $$,)')%5' &, 4$%0' '$%' (* . . %()%5' 3,)+' '' /' $-%' 6' $)' *&')+%' (%$%4$518 ' ' . 5')+10' , . &/1%. (%' ,)' , . 5, $%()/2

(' 3 '0' '')0$8' -, 7%. ' +2' 4%$($* 84, %')*')+%' ('0%0' * . (%')+*1-+)')*' 4%' &, $%E1%.)' , . ' 3+, (+' '6*6/%B2' *((1$0' 3,)+*1)' $%(*- . , 0' 4/%' 4$', . 8, 0(+, %&' *$ 4/**5 6*, 0* . ' *8%' *&')+%0%' ('0%0' 3%$%' 6$*4' 4/2' , . 0)' . (%0' *&' 1$' 08, ** 6*, 0* . , . -' ' . 5' *)+%$0' 8 ' 2' +' 7%' 4%%. ' 51%')*' , 8 5 (*7%$%5' ' . 5' %B)%. 0, 7%' %84*/, 08' (' 10, . -' 5%')+' 4%&*$%')+%$%' 3 ' 0'), 8%' &*$' 0*&)%. , . -')*' *((1$' 1)' ('0%0' '$%' . *)' , . &, %E1%.)')*' 3+, (+' . %,)+%$' *&')+%0%' %B6/' . '), *. 0' '66/, %0' , . ' 3+, (+' 5%')+' *((1$0' , . ' . ' '6*6/%(), &*$8' '))' (9' '/F)+%' *$-' . 0' '$%&*8=5' +%')/)+2' ' . 5')+%' 4$', . ' * . /2' %B+, 4,)0' , . ' (* 8 8 * . ' 3,)+')+%' *)+%$' *$-' . 0')+')' 6' 00, 7%$ (* . -%0), *. ' 3+, (+' $%01/)0' &$*8' ' . ' 06+2B, ' /' 8 *5%' *&' 5%')+' +%' . ')1$%' *&')+%0%' ('0%0', 0' 0), ' 8 20)%$, *10' 41)')+%2' 8 '2' +%' -$*16%5' 3,)+')+*0%' , . ' W +, (+&%)' /' (*8 '' &*//*30' . ' %6, /%6), (' '))' (9' ' . 5', 0' '66' $%1)/2' 51%')*')+%' 4$', . 0+*(9' 6$*51(%5

(', 0' '')%$8' 0* 8%), 8%0' '6; 6/, %5')*' ()0%0' *&' &')' /' '6*6/%B2', . ' 3+, (+' . *' /%0, * . ', 0' 5, 0(*7%$' 4/%' %B(%6)' %B(%00' *&' 0%$1 8 ' * . ')+%' 01$&' (%' &)+%' 4$', . ')', 0' . * 3' 1. 5%$; 0)**5')+')' 01(+' 0%$*10' %&&10, *. ', 0' 00*(, ')%5' 8 %$%/2' 3,)+' 0%. , /%' ')$*6+2' *&')+%' 4$', . ' . 5' =) ')+%' . ' 8 %' '0' '' 6')+*/*-, (' /5%0, - . '), *. ' , 0' . *' 8 *$%')+' . ' ''$%&1-%' &*$' ''5%0),)1)%' 5/' I' = *0, 0']+%$%' , 0' . *' $%'0*. ' &*$' 00*(, '), . - ' ,)0' 6$%0%. (%' 3,)+')+%' 6*6/%(), (' =1.6)*80' +%' ('0%0' 5%0($, 4%5' 1.5%$')+, 0')%$8' 3%$%' 6$*4' 4/2' , . 0)' . (%0' *&' 1$0%8, ' %$' *&' 00, 8 6/%' '6*6/%B2<' , . ' */5' 6%$0*. 0' 3,)+' ')$*6/-%5' 4$', . 0

, /* 0G 6*6/%B2', 0',)0%/&' ''02 8 6)*8 ' ' . 5' (' . ' * . /2' (/', 8')*' +%')$%')%5' '0' ''5, 0%'0%' *. ' '((*1.)' *&')+%' &$%E1%. (2' 3,)+' 3+, (+',)' 6$%0%.)0',)0%/&' '0')+%' 6$*8, . %.)' %/%8%.)' , . '' 6'), %.)<0')%' +%' 0)$, 9, . -' &%')1$%' *&' '6*; 6/%B2', 0'/*00' *&' (*. 0(, *10. %00' 3,)+*1)' *47, *10' &%, /1$%' *&')+%' +%')$)<0' ('(), *. ' +%' *. 0%)' , 0' *&)%. ' , . 0)' .)' . %*, '0*')+')')+%' 01&&%$%$' &%//0')*')+%' 8 *1. 5' +%' &' (%' 8 '2' 4%' &/10+%5' *$' 6' /%G,)' , 0' $' $%/2' 7%$2' 6' /%' +%' +%')$' . 5' ')$)%$, %0' 7 ' $2' , . ')+%, $' =')%' ((*$5, . -')*')+%' ('10%H ')' &, $0)')+%' 61/0%' , 0' *&)%. ' &%% %' &$*8' 0+*(9' %7%. ' , . ' ('0%0' , . ' 3+, (+',)' 0*. ' 4%(*8%0' &$, // . 5')%. 0%' %06, $'), *. ' (*.), . 1%0' 41)' , 0' /' 4*1$%5' . 5' 0)%$)*$*10' K)+%' /, 8 40' 8 %' 8 *), *. /%00' . ' 0%7%$%' ('0%0' . *' $%&/%B' '(), *. ' ('. ' -)' &, $0)' 4%' %B(,)%5')+%' 616, /0' 8 '2' 4%5, /')%5' (*.)$' ()%5' *$' 1. (+' . -%5' . . ' 6$*; &*1. 5' (*8 '')+%2' '$%' 101' //2' 5, /')%5H ' . 5')+%2' *&)%. ' 7 ' $2' , . ' 0, C%' 06*.)' . %*10/2' 4%, . - ' 0/1- -, 0+' , . ')+%, $' ()*, *. ')*' /, -+)' +%' 6'), %.)' ('. ' 01' //2' 03' //*3' ' /)+*1-+' *&)%. ' 3,)+

5,,, ()5)2' +%' 06+,. ()%$0' 6%$8 ,)')+%' %0('6%' *&' .$,. %' . 5' &%(%0' *$')-%' 8 '2' 4%' $%;)',.%5' .' '' ('0%' *&' 8 *5%$')%' 0%7%$,)2')+%' $%&/%B' '(),*.' 0**.' $%)1$.0')+%' (*.>1.(),70%' 4%(*8%' 0%.0,),7%')+%' 6'),%.)' (' .' 4%' $*10%5')*' %B+,4,)' 0*8%' 0,-.'*&'(*.0(,*10.%00' '.5'+%' 0+*30' $%)1$.,.-' 6*3%$' *&' 8*),*.')' &,$0)')+%$%' ,0' 8%$%/2' '' +'/& 61$6*0,7%' 3,)+5$'3'/' *&' '' /,84' 3+%.' ,)' ,0' 6,.(+%5' *$' 6$,(9%5' &)%$3'$50' 8*$%' 6$*/*.-%5' '.5' 7*/,8)'$2' 8*7%8%.)0' '$%' 6$*51(%5'H +%' *6%.0'+,0' %2%0' 3+%.' 06*9%.)*' '.5')$,%0' 3+%.')*/5)*' 5*' 0*')*' 6$*)$15%' +,0')*.-1%' .')+%' *)+%$' +'.5')+%' '6*6/%B2' 8 '2' (*.),.1%' *$' 8 '2' 5%%6%.' ,.' ,.)%.0,)2H)+%'6'),%.)' 52,.-'')')+%' %.5' *&' '' &%3' +*1$0' *$' '' &%3' 5'20' %')+' $'$%/2' *((1$0' ,.' '' 0+*$)%$'),8%')+'.')3*' *$')+$%%' +*1$0' .' 7%$2'$'$%' ,.0)'.(%0' '.'%B;)%.0,7%'+'%8*$$+'-%',.)*')+%' 6*.0'*$'8%51//' ' *$' '.'%&&10,*.' ,.)*')+%' &*1$)+'7%.)$,(/%'8'2' 0)*6')+%' $%06,$')*.' '.'5'9,/')+%' 6')%.)' ,.' '' &%3' 8,.1)%0)' ,0' .*)' *&)%.' +*3%7%$')+')')+%$%' ,0')+,0' 0,86/%' /*00' *&' (%$%4$'/ &1.(),*.' 1.,&*$8/2' 5,0)$,41)%5' '.5'-$'51'//2'5%%6%.,.-' *$' 6'00; ,.-' '3'2' 1(+' 8*$%' (*88*./2')+%' 0286)*80' *&' '' /*('/ (%%4$'/ /%0,*.' '$%' '55%5')*')+*0%'*&'6*6/%B2' $%E1%.)/2'01(+' 0286)*80'6$%(%5%')+%'/*00'*&'(*.0(,*10.%00G' 1.,/')%$'/ 3%'9.%00'5%7,')*.'*&')+%' 8*1)+' (*.71/0,*.' +%0%' 8'2'4%' $%(*-.,0%5'58,.-')+%''55%5')*')+*0%'*&'6*6/%B2' $%E1%.)/2'01(+' 0286)*80'6$%(%5%')+%'/*00'*&'(*.0(,*10.%00G' 1.,/')%$'/ 3%'9.%00'5%7,')*.'*&')+%' 8*1)+' (*.71/0,*.' +%0%' 8'2'4%' $%(*-.,0%5'58,.-')+%''(9' +%'/,840'*.')+%*.%0,5%%B+,4,)' 8*$%' (*86/%' 810(1/'$' $%/'B'),*.')+'.')+*0%'*.')+%'*)+%$H)+%2'&'// 8*$%'+%/6/%00/2' 3+%.' $',0%5H *$')+%$%' ,0' 1.,/')%$'/ $,-,5,)2' *$'(/*.,(' 06'08'1.7'$,%5' ,.',)0' 0%')' $',.; %E1'/,)2'*&'616,/0'8'2'4%'*40%$7%5'*'$$*')),*.' *&')+%+%'5'.5'(*.>1-')%'5%7,'),*.'*&')+%'%2%0' 0''6'),%.)' $%(*7%$0')+%0%' /*('/ 0286)*80' 4%(*8%' 8*$%' '.5' 8*$%' 5,0),.()')+%')*.-1%' 5%7,')%0'*.'6$*)$10,*.'06%%(+''.5'03'//*3,.-' '$% 5,&&,(1/)'*$')+%'6'),%.)' 8'2'+'7%'/*0)'+%' 10%'*&'/'.-1'-% .' "0) "' '6*6/%B2')+%' (*88%.(%; 8%.)'*&')+%' (%$%4$'/ 8,0(+,%&',0' 8 '$9%5'42' 0J1.6)*80'*&'-%.%$'/ 0+*(9'3,)+*1)' '.2'*$' 3,)+' 8%$%/2')$'.0,%.)'/*00'*&'(*.0(,*10.%00' +%$%' ,0' (*88*./2'6',.' ,.')+%' +%'5' '.5')+%$%' 8'2'4%' *)+%$' /*('/,0,.-' 0286)*80' &)%$' 0*8%' +*1$0'51$,.-' 3+,(+')+%'6')%.)' 8'2'(*.),.1%'+,0'*((16'),*.'(*8''-$'51'//2' (*8%0'*.' '.5'5%%6%.0',.)*'5%')+' +,0'&*$8' *&''6*6/%B2'&,$0)' 5%0($,4%5'42' 4%$($*84,%' ,0'101'//2'51%')*' ''0/*3/2',.($%'0,.-'(%$%4$'/ +)%8*$$+'-% +%')%86%$')1$%',.'(%$%4$'/ '6*6/%B2',(')' 3,/' 0*8%),8%0' -1,5%' 1 ' .' 1$0%8,'' ' .5' (*88*./2',.' '/(*+*/,08',)',0' /%00' 6$*&*1.5')+'.',.'(%$%; 4$'/ 8,0(+,%&'0*')+')'+%'6')%.)' (.'$%'5,/2' 4%$*10%5' .' '6*6/%B2',.'*6,18 6*,0*.,.-' '.5',.')+%' 8*0)',.)%.0%' &*$8' *&' '/(*+*/,(' 6*,0*.,.-')+%' (*8''8'2'4%'6$*&*785' .')+%'*)+%$' +'.5',.'(%$%4$'/ +%%8*$$+'-%')+%' 6'),%.)' 8'2'0*8%),8%0'4%$*10%5')*' '.03%$'K E1%0),*.0' ,*/%.)'0)$1--/,.-',0'0)$*.-/2',.' &'7*1$'*&'5$,.9 +%'8*5%*&*.0%)'*&')+%'(*8'',0',86*$)'.)' .' '6*6/%B2',)' ,0'0155%.H ,.' 1$%08,'',)',' -%.%$'/ .'8%'*&'6*6/%B2H *$',0'*.%'*&')+%' 8*$4.5'(*.5,)*.0',.'3+,(+')+%$%',0''/*00'*&' (*.0(,*10.%00'0,8,/'$',.'-%.%$'/ (+'$')(%$0')*' '6*6/%B2'41)'51%')*' *.%'*&')+%' ('10%0' %B(/15%5',.')+%'5%&,..),*.'-,7%.''4*7%' $*8')+%'1.(*.0(,*10.%00'51%')*' ('$5,'(" ' '6*6/%B2',0' %'0,/2'5,0),.-1,0+%5' .')+%' &*$8%$')+%'+%'$)<0' '(),*.'&',/0')+%' 61/0%',0' 3%'9'.5',86%$(%6),4/%')+%'&'(%',0'7%$2'6'/%')+%'$%06,$'),*.',0'0,-+,.-'.5',$%-1/'$'$%&/%B' '(),*.',0'$'$%/2'4*/,0+%5''.5')+%'06+,.()%$0' '$%'0%/5*8'$%/'B%5 $*8')+%'0%7%$'/ &*$80' *&' (')+%' 5,'-.*0,0',0'*&)%.'%'02'0*8%),8%0'%B)$%8%/2' 5,&&,(1/)')',0'%'02'3+%.'*.')+%'*.%'+'.5')+%'0286)*80'*&'6*6/%B2''$%' 6$%(%5%5'*$' '((*86'.,%5'42')+*0%'*&''' /*('/ (%$%4$'/ /%0,*.H *$' 3+%.'*.')+%' *)+%$' +'.5')+%' 5,$%()'*$',($(180).,)'/ %7,5%.(%'*&'6*,0*.,.-',0' (%'$' *$')+%' 0286)*80'*&')*B'%8,'' 1.; 8,0)'9'4/%' +%$%')+%$%'],$H.*'/*('/ 0286;)*80'.5' 3+%$%'.*' -1,5,.-+,0)*$2',0')*' 4%'*4)'.%5')+%' 5,'-.*0,0',0'5,&&,(1/)'41)'' (*$$%()'*6,.,*.'8'2'(*88*./2'4%'&*$8%5' 42'.'))%.),7%'(*86'$,0*.'*&')+%'0286)*80' 6$%0%.) +%$%' 8'2'4%' '0'>10)'*40%$7%5',.5,$%()' %7,5%.(%'*&')*B'%8,'' 1.; 8,0)'9'4/%' +%$%')+%$%'],$H.*'/*('/ 0286;)*80'.5' 3+%$%'.*' -1,5,.-+,0)*$2',0')*' 4%'*4)'.%5')+%' 5,'-.*0,0',0'5,&&,(1/)'41)'' (*$$%()'*6,.,*.'8'2'(*88*./2'4%'&*$8%5' 42'.'))%.),7%'(*86'$,0*.'*&')+%'0286)*80' 6$%0%.) +%$%' 8'2'4%' '0'>10)'*40%$7%5',.5,$%()' %7,5%.(%'*&')*B'%8,'' 1.; 8,0)'9'4/%' +%$%')+%$%'],$H.*'/*('/ 0286;)*80'.5' 3+%$%'.*' -1,5,.-+,0)*$2',0')*' 4%'*4)'.%5')+%' 5,'-.*0,0',0'5,&&,(1/)'41)'' (*$$%()'*6,.,*.'8'2'(*88*./2'4%'&*$8%5' 42'.'))%.),7%'(*86'$,0*.'*&')+%'0286)*80' 6$%0%.)

0/*3' +%'),$'08,(' 6'),%.)' 4%(*8%0' &,$0)' 5$*302') +%.' (*8')*0%' 1)' 3,)+' (*.71/; 0,*.0' 1$0%8,(' (*8'' 8'2' (*8%'*.'0155%./2' +%'*.0%)' *&')+%'(*8''*&'*6,18'' .5''/(*+*/' 6*,0*.,.-',0''/0*'0/*3' .-$'7%0(%.)''6*6/%B2',0'*&'5%/,4%$')%'*.0%)'41)''6$*&*,85'5%-$%%*&'(*8'',0'E1,(9/2'$%'(+%5 %.%$'/'.7750,*.0'')')+%'*.0%)'%B(/15%'5$1.9%..%00''.5'101'//2'*6,18 6*,0*.,.-'3+,/%'),,%2'&'7*1$')+%'6$*4'4,/,)2'*&'1$0%8,''%06%(,'//2',&')+%2''$%'&*//*3%5'42'$,-,5,)2')+')'(+'.-%0',)0'0%')' +%.'1$0%8,(' (*.71/0,*.0'4%-.,'/*('//2')+%'6/'(%' ')'3+,(+')+%2'4%-.,'*&)%.'7'$,%0' %$%4$'/8,0(/,,%&'0*8%),8%0'(*88%.(%0'3,)+''' (*.71/0,*.'41)'')+%'(*.;71/0,*.',0')+%.'(*88*./2'1./')%$'/'')'/%')0),.'*.0%)'.5')+%'6$%6*.5%$'.)'&&%(),*.'*&'*.%K0,5%'')''),8%',0',.=(')%5'42')+%'5%7,'),*.'*&')+%'+%045'')',0'0%/5*8')+')'3% $8'$9%5'5%7,'),*.'*&',%'+%'5''.5'%2%0'*%(1$0'&,$0)')*'*.%'0,5%'.5')+%.')*')+%')*')+%'0')+%'&,)'6$*8%00%0'1./%00')+%$%',0''.'*$-'.,(''/%0,*.'*&')+%'4$0,*.'.5'20')*'+%'$%(*-.,0%5'&)%$3'$50',-,5,)2'*&'/1.40'*$'/*('/8 10(1/'$')3,)(+,.-'51$,.-')+%'(*8'',0',&'(*.0)'.)',.'0%')',.'&'7*1$'*&'(%$%4$'/8,0(+,%&!',&'7'$,'4/%',.'6*0,),*.',)',0',.'&'7*1$*&'$'%,+,&)A %2.*/50R'.'5,'4%),(' (*8'')+%'*5*1$'*&')+%'4$%')+''.5')+%'$%01/)'*&'.'%B'8,.'),*.'*&')+%'1$,.%'A.%7%$')*'4%'*8,))%5R3,/'6$%7%.)'8,0)'9%'%7%.',.')+%'40%.(%'*&'/*('/'(%$%4$'/0286)*80'8 10)'4%'('$%&)5/2'.*)%5'0,.(%')+%'6$%0%.(%'*&'5,'4%)%0'5*%0'.*)'%B(/15%''(%$%4$'/'/%0,*.'*0)%6 %6),(' (*8'',0'*&'(*1$0%'6$%(%5%5'42'*'(*.71/0,*.''.5'0+*1/5'4%'4*$.%',.'8,.5 +%'0)')%'*&')+%'616 0'/*.%',0'*&'/,))/%',86*$)'.(%' $%')'(*.)$')(),*.'*((1$0',.'.5'01--%0)0'*6,18 6*,0*.,.-'41)',)',0'6$%0%.)',.'+0%8*$$+'-%',.)*')+%'6*.0' '$*/,,' +%'616,/0'8'2'4%'%,)+%$'.*$8'/'*$'5,/')%5',.'1$)(8,'',.''/(*+*/,(''*$',.'4%//'5*..'6*,0*.;,.-''.5',.''6*6/%B2' .%E1'+)2'*&'616,/0''' 18')%$'/0286)*8'6*,.)0')*'4$',. 8,0(+,%&' +%'$%),.''0+*1/5'4%'%B'8,.%5'0,.(%')+%'6$%0%.(%'*&'/4&)8,.1$,(' $%),.,),0'6*,.)0',.'+%'40%.(%'*&')+%'0,-.0'*&''/*('/,0%5'(%$%4$'/'/%0,*.'0)$*,=/2')*'1$)%8,' '0)/2')+%')%86%$')1$%'0+*1/5'4%'.*)%5'.' $[8,'')+%$%',0'6%$0,0)%.)'1.,&*$85%6$%00,*.,.'(%$%4$'/'/%0,*.0')+%',.),)''/5%6$%00,*.',0'01((%%5%5'42''$,0%')*''6*,.)'4*7%')+%'.*$8'/ +%'0%(*.5'6$*4/%8',.'5,'-.*0,0',0')+%'6$%(,0%'('10%'*&')+%'6*6/%B2,0)%.)'1.,&*$85%6$%00,*.,.'(%$%4$'/'/%0,*.0')+%',.),(+'+'0'4%%.'0(%$)',.%5'42')+%'(*.;0,5%$')',*.0'>10)'$%7,%3%5' +,0'%/%8%.)'+*3%7%$'3,//'4%'5%0($,4%5'8*$%'&1//2'1.5%$')+%'+%'50'*&')+%'(+,%&'/%0,*.0')+')'6)*51(%')+%'0)')%G(%$%4$'/'(*.-%0),*.'+[,.*$$+'-%''.5'0*&)%.,.-'.'8'2'4%'+%$%'6*,.)%5'*1)'/*('/'02286)*80'3,)+'&/10+%5'&'(%''.5'(*8,.-'4.'51$,.-'%&&*$)'6*,.)0'&*'(%$%4$'/(*.-%0),*.H0/,-+)''.5')$'.0,%.)''6*6/%B2'3,)+'8'$9%5'/*('/02286)*80'6*,.)0')*'0*&)%..-H%'$/2''.5'6$*&*)85'/*00'*&'(*.;0(,*10.%00')*'(%$%4$'/+[8 4$$+'-%'*0)%6,/%6),(' (*8''8'2'4%'5,0),.-1,0+%5'42')+%'+,0)*$2'*&'%6,/%6),('')')'(90H*$',&')+,0'4%'.*)'&*$)+(*8,.-',)'8'2'4%'0106%()%5',&'0286)*80'*&''/*('/%$%4$'/'/%0,*.'*$',.5,(',*.0'*&')*B&&,8,''$%''40%.)',&')+%'6'),%.)'4%'1.5%$'!''.5'%B+,4,)0',.5,(',*.0'*&'06%%52'$%(*7%$2''.5''/0*',&'+%'+'0'4,))%.'+,0')*.-1%''15'600%5'1$,.%'0,86/%''6*6/%B2'('.*)'4%'5,'-.*0%5'51$,.-'/,&%'0,.(%'&$%%5*8'&$*8')+%'0286)*80'*&''/*('/'/%0,*.'5*%0'.*)''&&*$5'-$*1.5'&*$,.&%$$,.-')+')')+%$%',0'.*'01(+'/%0,*.

:'' +%'6$*-.*0,0',.'(%$%4$'/'6*6/%B2'5%6%650',.'6'$)'.RR*.')+%',.)%.0,)2'*&')+%'))'(9'0'/*.-''0',8%*.0(,*10.%00',0'(*86/%)%''.5'$%&/%B'()',*.'4*/,0+%5')+%'6'),%.)',0',.'5'.-%$'*&06%%52'5%')+' +%'/*.-%$')+%'6*6/%(),('(*.5,),*./')0)0'3,)+*1)',86$*7%8%.)')+%'/%00'6$*06%()K',0')+%$%'*&'$%(*7%$2' %$0,0)%.)'5%6$%00,*.'*&')86%$';)1$%'*$''$,0%'*&'0%7%$%5'5%-$%%0'4*7%')+%'.*$8'/%,)+%$'3,)+'*$'3,)+*1)''.',.),'/&'//='$%'4*)+'*&'-$'7%'0,-.,&,('.(%H01(+'('0%0'$'$%/2'$%(*7%$'A +'$(*)'*18%7, %+%'.')1$%''%B)%.)''.5'6*0,),*.'*&')+%'(%$%4$'/'/%0,*.'3+%.')+%2'('.'4%',.&%$%5'&),$.,0+'*)+%$'6$*-.*0),('.5,(',*.0'.'+[8*$$+'-%')+%'6$*-.*0,0'0'8*$%'0%$,*10')+'.',.'0*&)%.,.-'0155%.*((,.$%.(%'*$',.($%'0%'*&'6*6/%(),('0286)*80''&%3'+*1$0'*$'5'20''&)%$''0-+)%$')'(9',0''/3'20'-$'7%',.5,(',.-''&$%0+'%B)$'7'0'),*.'&'01(+'6*6/%(),('0286)*80'4%(*8%'6$*&*1.5''.5'1.,&*$8')+%'6$*-.*0,0',0'&,,)'/'$16)1$%',.)*')+%'7%.)$,(/%0'*$'*.')+%'01$&%%%*&')+%'4$',.'+'7,.-'6$*4'4/2'*((1$$%5'&')+*'/*('/,0,.-'02286)*80'6*,.)')*''/%0,*.'*&')+%'8%51''*$'6*.0')+%'6$*-.*0,0',0'/*8%0)'0'.&'7*1$'4/%''$/2'$%)1$.'*&'(*.0,(*10.%00''.5'0/,-+)'/)%$'),*.',.)%86%$')1$%'*$%&'7*1$'4/%'0,-.0'$%7,*10'(%$%4$'/5,0%'0%$%.5%$0')+%'6$*-.*0,0'3*$0%''0)/2')+%'6$*-.*0,0'810)'4%',.&/1%.(%5'1.&*7*1$'4/2'42'.2',86,$8%.)'*&')+%'*$-.,('&1.(),*.0'*&'(,$(1/'),*.''.5'$%06,$'),*.'3+%)+%$',.5%6%.5%.)'*&'*$'51%')*')+%'(%$%4$'/'/%0,*.'$%8*10'/(*+'08'&$*8',)0'%&&%()'*.'.)+%'.1)$,),*.'*&''),001%0',0'%06%(,'2'0%$,*10 !G+%')$%')8%.)'*&'(%$%4$'/'6*6/%]2'810)'4%'-1,5%5'42')+%',.5,(',*.0'*&',)0'('10%'+%$%'.*.%'('.'4%'*4)',.%5',)'0+*1/5'+%')$%')%5'42''020)%8')+')',0''(*86$*8,0%'+%'(+,%&'(10%0'$%'+[8*$'$+'-%''.5')+$*84*),('0*&)%.,.-'*&')+%'4$',.'84*08'0%/5*8'('10%0'6$*.*)8(%5''6*;6/%B2'+%'8%'01$%0')+%$%&*$%'810)'4%'01(+''0''$%'01,)'4/%'*'4*)+'0)')%0')+*0%'4%,.-'%B(/15%5'3+,(+'3+%')+%2'3*1/5'5*'-**5',.''.%'3*1/5'5*'+'$8',.')+%*)+%$'1)'01(+''(*86$*8,0%',0'0%/5*8'.%%5%5',-.*0),('.5,(',*.0'.'(.'10)15/2'4%')$'(%5H3,)+'(/%'$.%00''.5''0''1/%'/0*0%7%$'//

(*,. (,5%' 5,0),. ()/2' ,. ')+,0' 5,$%(),*. ' K3+,/0)')+*0%')+')' 5*' . *)' 6*,.)' , .')+,0' 5,$%(),*.' '$%' .%1)$'/' %. (%' '0' '' 8 ')))%$' *&' &' ()')+%$%' 0+*1/5'0%/5*8'4%')+%' +%0,)'),*.')+')', .)%$&%$%0' 3,)+')+%' 6$*6%$'%. %$-2' *&')$%') 8%.)' ' .5')+%' 0)')%8%.)0' *&)%.' 8 '5%' , .' 4**90' '$%' . *)')$1%K G')' . 2'$')%' , .')+%' 6$%0%.)' 5'2')+%'20+*1/5' . *)' 4%)$1%')//. %00' ,0')+%' 8 *0)' , 8 6*$)' .)' (*.5,),*. ' +%' 6'),%.)' 0+*1/5' 4%' 8 *7%5' '0' /,))/%' '0' 6*00,4/%'41)' 6/'(%5',.')+%' $%(1 8 4%.)' 6*0)1$%' 3,)+')+%' +%'5' 0/,-+)/2' $',0%5' +%' .%(9' 0+*1/5' 4% &$%%5'&$*8' (*.0)$,(),*. ' &')+%' %B)$% 8 ,),%0' '$%' (*/5' 3'$8)+' 8 '2' 4%' '66/,%5')*')+%8H' .5' (*/5')*')+%' +%'5', &')+%$%' ,0' /*('/' +%')' *$' &/10+,. -' ,. '6,0 8 0')*')+%' .%(9' .5' %B)$% 8 ,),%0' 0*8%),8 %0' 0%% 8 ')*' +'0)%.')+%' $%)1$.' *&' (*.0(,*10.%00' ' +%' '58,. ,0)$')," .' *&' 0),8 1/'.)0' 0+*1/5' 4% $%-1/')%5' 42')+%' 0)')%' *&')+%' +%')$)' .')+$*8 4*0,0' *$' %8 4*/,0 8')+%' +%')$)' 0+*1/5' 4% 9%,R)' 16')*')+%' .*$8'/' 42' 7%$2' ('$%&1/' 58,. ,0)$'),*.' *&' '/(*+*/')+%$'*$' 8 8*. ,' ' .' +0%8*$$+'-%' ,)' 8 '2'4%' '//*3%5')*' &'//' '' /,))/%' 4%/*3')+%' .*$8'/' 41)' ,. 5,(','),*.0' *&' &',/,. -' 6*3%$' 0+*1/5' 4%' 3')(+%5' &*$' '.5' (*1.)%$')(%5' K +%$%. *' ('10'/',.5,(','),*))0' %B,0)')+%' /'))%$',0')+%' 3,0%$' 6/'. ' K %1%' 0%(),*.' ' .5'61$-'),*.' '$%$%8%5,%0' *&'0+. ,/'$ %&&%()' 41)' 5,^$%.)' ,.' 5%-$%%' '.5' '$%' ,.5,(')%5' 42' +,-+' '$)%$,'/)%.0,*.' '.5' (%6+'/,(' (*.-%0),*.' 0+*3.' 42',.(*8 6$%00,; 4,/,)2'*&')+%' 61/0%' .5' &/10+,. -' *&')+%' &% (%' W %.%0%(),*.' ,0' 10%&1/' 3+%$%')+%' +%')$)' ()0' 0)$*.-/2' '.5')+%' 61/0%' ,0' &1/' 0' 3% ' 0' ,.(*86$%00,4/%')0' %&&%()' ,0' 6$*6*$),*.%5')*')+%' $'6,5,)2'3,)+' 3+,(+')+%' 4/**5' ,0')'9%.' $')+')*')+%' E1'.),)2'$%8*7%5' 1$-';),7%0' $%8*7%' 0%$18' &$*8')+%' 4/**5' '.5' /%00%.')+%' '8*1.)'*&' 4/**5' 3,)+,.')+%' 091// 42' ('10,.-' .' '&&/1B')*')+%' ('6'(,*10',.)%0;),.'/' 7%00%/0' +%' 4%0)' 61$-'),7%',0' ($*)*.' *,/' *$' ('/*8%/' ,)+' '&',/,.-' +%'$)' .5' 6'/%' 01$&%(%')+%2' 0+*1/5'4%' '7*,5%5' +%.' 8'5*14)' 3%' 0+*1/5'-,7%' '8,/5''6%$,%.)')+')' '()0' E1,(9/2'01(+' '0' 0%..'' *$' '/,))/%' 0*/,5' %B)$')' *&' ('0('$'' $144%5' 16',.'3')%$' '.5')+%' '(),*.' 0+*1/5' 4%' %.01$%5' 42' '' -/2(%$,.%' %.%8' ' ,1$%),(0' 8 '2' '/3'20' 4% 10%5')*' $%/,%7%')+%' 7'0(1/'$')%.0,*.' 0')+%' '6*6/%B2' (/%'$0')+%' .')1$%' *&')+%' ('0%' 4%(*8%0' %7,5%.)' ' .5')+%')$%')8%.)' *&')+%' 0%7%$'/' (*.5,),*.0',0' 5%0($,4%5'%/0%3+%$%', '0 ' '%8*$$+'-%' *&' '.5' *&)%.,.-' *&⇌H *$')$%')8%.)'*&')+%'*)+%$'('10%0'*&')+%'6*6/%(),(' 0)')%'0%%' $' $!)' .5'6 7! ' 'C @

3 5 I' ! *' A *' " *' ' A '

& # 'G' .&/'8 8'),*.' *&')+%'6; 6%.5,B' 7%$8,&*$8,0' &$*8' /*5-8%.)' *&' +'$5%.%5'&'%(%0'*$' '&*$%,-.'4*52H/%'5,.-')*' 1/(%$'),*.' 3+,(+'&$%E1%.)/2'%.50',.'6%$&*$';),*.' *&' ,)0' (*')0H '.5')*' ,.&/'8 8'),*.' A/*('/,0%5'6%$,)*.,),0R' '.5'01661$'),*.' A%.

(20)%5'01661$'),7%'6%$,)*.,),0R'*&')+%''5>'(%.)'),001%0

.6 ! +%' 101'/' ('10%' *&')+,0' '&&%(),*.' ,0' '' &%('/' (*.(%),*.' '*$' '' &*$%,-.' 4*52'A%-$'&,$1,) 6,60'*$' 0)*.%0' '' 0 8 '//4*.%' 6,.0'0+*)'0 8 ' '-'// 0)*.%0' ^(R',8 6$,0*.%5' 3,)+,.')+%'(7,)2'*&')+%'7%$8.,&*$8' '606.5,B' *.-%.,)'/5%&*$8,),%0' '.5'/0*') 3,0),.-'*&)+%' '66%.5,B'*.',)0%/&'&$*8'(*.)$'%),4.',.',)0' 8%0%.)%$2' *$' &$*8' '5+%0,*.0' '$%' /,9%3,0%' ,8 6*$)'.)' &'()*$0',.',.51(,.-')) '(90' %$; &*$'),*.'+'0'4%%.' $%(*$5%5',.')26+*,5' &%7%$' '.5')14%$(1/*10'5,0%'0%

! ' $' ; -$)'6%$&*$';),*.')'9%0'6/'(%')+%' '66%.5,B' 8'2'4%' &*,85' 5,0)%.5%5'Q3,)+' 610' *$' 81(10H'' &*$%,-.' 4*52'*$'(*.($%),*.'/*5-%5'W3,)+,.',)H' .5')+%' 81(*10'8%84$'.%'1/(%$')%5' +%' (*.(%;),*.'*$'(*.($%),*.0'7'$2',.'0,C%'&$*8''' 0 8 '// 6%'')*' '4%'.H'$%' 10, ,//2'4$*3.' '.5'+'$5H' .5' (*.0,0)' *&'/'2%$0' *&' (*.5%.0%5'&%(%0' 0%($%),*.0''.5'6+*06+')%0H 5%6%0,)%5''$*1.5' '' 0 8 '// .1(/%10'3+,(+' 8'2'6$*7%')*' 4%' '' 0%%5' *$' *)+%$' &*$%,-.'4*52' *$' '' 6,%(%' *& 1.101''//2',.06,00')%5'&%(%0' +%0%' (*.(%;),*.0'-$%')/2' $%0%84%' '.5'$%' *&)%.'8,0;)'9%.'&*$'&$1,)0)*.%0' +%' '66%.5,B' 8'2' +*3%7%$' '')+%' %B)$%8,)2' *&')+%'/*3%$')+,$55' +%.')(,0)%5'*.',)0%/&' *$' 3+%.' '(1)%/2' 4%.)' 42' '5+%0,*.0')+%' '66%.5,B' 8'2'4%'&*1.5'-'.-$%.*10'*$' 8'2' 4%'0*' -$%')/2' 5,0)%.5%5' 42' 81(10' A4%,.-' /'$-%'$*1.5'.5' +'$5R' '0')*' 0%% 8' .0',&',)' (*.)',.%5''(*.($%),*.'3,)+' ((/10,*.'*&',)0' /18%.' +%' '66%.5,B' 8'2'4%' '5+%$%.)')*')+%' (0%(18',/%18' $%()18' 4/'55%$' 8%0%.;)%$2'*$' '45*8,.'/'3''3,)+')+%0,-.0'*&'.' *$5,.'$2'/*('/6%$,)*.,),0H *$')+%$%' 8 '2'4%' '+(+(180($,4%5'6%$,)*.%'/'40(%00 !(! G ',.'-%.%$'//2' /5%&,.%5',.')+%' $,-+)' ,'(' $%-,*.' 8'2'4%')+%' *./2' 0286)*8')*'))$')()'))%.),*.'41)' '0''$1/%' ,0',*.')'1.) '/*('/6%$,)*.,),0'*$')26++),0'0%)'16')+')'3%0106%()')+%'.')1$%'*&')+%'5,0; *$5%$'A0%%($ 3' *3'.5')+%.'+*3; %7%$')+%'(*1$0%'&$*8')+%'&,$0)',0'/')%.)'.5')+%'8,0(+,%&',0'0155%./2'$%7%'/%5'42'6%$&*$';),*.',.)*')+%'6%$,)*.%18'&*'*3%5'42')+% 0286)*80'*&'-%.%$'/'.5'$'6,5/2'&')'/6%$,;)*.,),0' 5+%0,*.0'&*$8%5' 8'&$*.)'*&')+% 0/*3/2''57'.(,.-'1/(%$'),*.')%.5')*'/*('/,0%')+%'(*.0%(1),7%',.&/'8 8'),*.'.5''.5'40(%00',.' *)+%$',.0)'.(%0 +%' 0140)'.(%',8 6$,0*.%5' K3,)+,.')+%' '66%.5,B' 8'2'4%'5,0/*5-%5' '42'.'.''40(%00' *6%.,.-'%B)%$.' 2'A01(+'0')+$*1-+')+%'.;)%$,*$' '45*8,.'/'3' ')+,-+'*$0($*)18R'*$' ,.)*')+%' '45*8,.'/' ('7,)2H *$' ADR' 42')+% 6%$&*$')%5''66%.5,B'%0)'4/,0+,.-''(*8 8 1.,; (',*.'3,)+')+%' ('%(18'4/'55%$'$%()18'^(' +%' 5,0%'0%5' '.5' 5,0)%.5%5' '66%.5,BG%0' 6%(,' 2' 3+%.',)0' /18%.' ,0' *(((/15%5 2 .5')+%$%',0'/,)))/%' *$' .*' (*.0%(1),7%' 6%$,)*8),0G

3 ! &*' ,' $ M $0%. .,(' ,0' (/'00%5' '0' '' 8 %)' //,(' ,$$,)' .)' 6*,0* . ') +*1 - +' ' '(),*.',0' 42' . *' 8 %' . 0' + 8 ,)%5')*')+')' *&' ' .',$$,)' .)')' ' ()0' 06%(,&,(' //2' * . ')+%' - '0)$*: , .)%0), . '/ 8 1(*10' 8 %8 4$' . %' 3+')%7%$' 4%')+%' (+' . . %/ 42' 3+,(+')+%' 6*,0* .' - ', . 0' ' ((%00' ')+%' 020)%8 ' +%' 8 *0)' 018' 0*1$(%' *& '(1)%' '$0%. ,(' / 6*,0* . , . - ' ,0')+%' '58 , . ,0)$ ' ;),* .' *& ' 3+,)%' '$0%. ,(' $ '$0%&, ,*10' ' (,5 41)')+%' 01/6+,5%0' 7' $,*10' 6 K0%. .)% ' ' . 5' , 861$%' (* 8 8 %$(, '/ ' $),(/%0 ' 01(+' ' 0' 52%0 ' 3 ' // /R' 6%$0 ' ' . 5' 6, - 8 %.)0 ' 8 ' 2' 4%' &%$) %' 0*1$(%0' *& ' $0%. ,(' / 6*,0* . , . - ' *,0* . , . - ' 42' '$0%. ,(' 8 ' 2' 4%' %,)+%$' 3 Q' ' # "

! ' $' * ' * G +%0%' '$%')+%' 0' 8%' 42' 3/, ')%7%$' (+' . . %/)+%' 6*, *. ' +' 0' - ', . %5' ' ((%00')*')+%' 020)%8 ' +%$%' ,0' 8 '$9%5' 6%)%(+, '/ , . &/' 8 8 '), *. ' *& ')+%' 0)*8 ' (+' ' . 5' 51*5%. 18 ' 101 ' //2' *& ')+%' 08 '// ' . 5K/ ' $ - %' , .)%0), . %0' /0*H +1)' . *)' , 8 (*. , 8 *. /2')+%' , . &/' 8 8 '), *. ' , 0' / , 8 ,)%5')6')+%' 0)*8 ' (+' 51*; 5%. 18 ' ' . 5' $%()18 ')+%' , .)%$7%. , . - ' ' 8%. ')' $2')$' ()' + ' 7, . - ' %0(' 6%5' &')+%' 6*, 0* . ' + ' 0' 4%%. ' ' 58 , . , 0)%$%5' , . ' '' 06/,5' &*$8 ' 3+,)%' 6')(+%0' *& ')+%' '$0%. ,(' / (*86*1.5' 8 ' 2' 4%' &*1.5' %84%55%5' ', . ' 2%//*3' *$' 4/**52' 81(10' ' . 5' , . &/' 8 8 ')*$2' %B15'), * . ' *$),* . 0' *&')+%' 3+,)%' '$0%. ,(' '$%' '/0*' 0*8%), 8%0' (*. 7%$)%5' 42')+%' 01/6+1$%))%5' +25$*-%. '%7*/7%5' 51$, . -' 5%(*86*0,), *. ' , .)*')+%' 2%//*3' 01/6+,5%' /(%$'), *. ' *& ')+%' 0)*8 ' (+' ,0' $' $%' %1$,), 0' 8 ' 2' 4%' *40%$7%5' . '%(+28*0%5' (*. 5,), *. ' *& ')+%' +%' $)' >0' *&)%. ' *40%$7%5' H ' . 5' & '))2' 5%-%. %$'), *. ' *& ')+%' /,7%$' ' 0' , . ' 6*,0* . , . -' 42' 6+*06+*$10' +' 0' 4%%. ' 5%0($,4%5 ' (1)%' $0%. ,(' / * ,0* . , . - G +,' ,0')+%' 101 ' / &*$8' *&' 6*,0* . , . -' %. 01, . -' *. ')+%' . %&' $,*10' 58 , . ,0)$'), *. ' *& ' . 2' 6$%6' $'), *. ' *& ' '$0%. ,(' 41)' 101 ' //2')+%' *B,5%' " ' ',0' %86/*2%5

*' # o # G +%' 0286)*80' 5*' . *)' '0' , . ')+%' ('0%' *&' (*$$*0,7%' 6*,0* . , . - ' (*8%' *. ', 8 ; 8%5, ')%/2' '&)%$')+%' '58 , . ,0)$'), *. ' *' *& ')+%' 6*,0* . ' +%$%' ,0' 8 *0)' (*88*. /2' ' . ', .)%$7' / ' *& ' +' /&' ' . ' +*1$' *$' ' . ' +*1$' 4%)3%%. ')+6' 03 ' //*3, . -' *&')+%' '-%.)' ' . 5')+%' *. 0%)' *& 6$*8, . %.)' 0286)*80' +%' E1' .),)2' *&')+%' . *B, *10' '-%.)' ' . 5',)0' 0)')%' '0' $%-'$50' 0*/1' 4, +)2' +' 7%' '/0*' ' . ' *47, *10' $%/'), *. ')*')+%' *88%. *%8%1)' *&' 0286)*80' *0)' (*8 ; 8*. /2' '&)%$' ''0%. 0%' *&' &', .). %00' ' . 5' 5%6$%0; 0, *. ' , .)%. 0%' 41$. , . - ' 6', . ' , 0' &%/)' , . ')+%' %6, -'0)$, ('$%-, *. ' ' ((*86' . , %5' 42')%. 5%$. %00' *. ' 6$%001$%' '10%'' ' . 5' 7*8,), . -' E1, (9/2' 016%$7%. %', . ($%'0%5' 42' %7%$2' ' ()' *& 03 ' //*3; , . - ' . /, 9%' 34')' *((1$0' , . ' . ' *$5, . '$2' 4, /, *10' '))' (9' 3,)+' 3+, %4' '$0%. , (' /6*, 0*. , . - ' 8 ' 2' 4%' ')' &, $0)' (*. &*1.5%5')+%' 6', . ' . 5' 0, (9; . %00' '$%' . *)' $%/, %7%5' 42')+%' '%)' *& ' 7*8,), . -' +%' 7*8,)%5' 8 '))%$0' '$%' %B)$%8%/2' 7' $, %5' ' . 5' 6$%0%.)' . *' (+' $' ()%$, 0), (' 66%' $' . (%0')' &, $0)')&, %2' 101 ' //2' (*. 0, 0)' *& ')+%' *$5, . ' $2' (*.)%.)0' *& ')+%' 0)*8 ' (+' 41)')' '' / ')%$' 0)' -%' '$%/' $-%/2' (+' $-%5' 3,)+' 4, /%' 3+, (/, +' 0' $%' -5&&-,)')%5' , .)*')+%' 0)*8 ' (+' , . ' (*. 0%E1%. (%' *&')=%' 7, *. /%. (%' *&' 6$*/*. -%5' %8%0, 0H .5')+%2

8 ' 2' +%'), . -%5' 3,)+' 4/**5 K' $5, . ' $, /2' 7*8,) K 8 -' - ' 06%%5, /2' &*//*3%5' 42' 7, *. /%.)' 61$-, . - ' . 5' -$%')' 0)$' , . , - ')' 0)**/')+%' 8*), *. 0' 4%, . -' *&)%. ' 0)$%' 9%5' 3,)+' 4/**5' 1$-, . - ' 8 ' 2' +*3%7%$' 4(' %.), $%/2' '40%.)')+%$' 6$*8, . %.)' 0286)*80' $%' -$%')'), $0)' ''&%%4/%' , $$%-1/'$' 6750%' ' . 5' (*/5' (/' 8 . /2' 09, . ' +%' 6'), %.)' '0' '' $1/%' 5, %0' ,)+, -+)%%. ')*' 0%7%.)2)3*' +*1$0' , . ' '' 0)')%' *& ' (*//' 60%H +1)')%)' . , (' (*. 71/0, *. 0' '$%' . *)' . (*88*. ' ' . 5' %7%. ' (*8 '' ' . 5' 6' $' /20, 0' 8 ' 2' (/*0%')+%' 0(%. %

- iG $*8' ' . ' *$5, . '$2' 4, /, *10' ');)' (9' , . 51(%5' 42' , 86$*6%$' 5, %)' *$' 42' 5%(*8; 6*0, . -' &**5' ' $0%. , (' / 6*, 0*. , . - ' , 0' 5, ' - . *0%5' 42')+%' 6%$0, 0)%. (%' *&')+%' 0286)*80' &)%$')+%' $%8*7' / *&')+%' '66' $%.)' (' 10%H ' . 5' . *)' , . ; &$%E1%.)/2' 42')+%' 02). 6)*8 ' $%8,)), . -' ' . 5' ' - ', . ' 0)/6%$7%. , . -' *. ')+%' '58, . ,0)$'), *. ' *& &**5' *$5$, . 9' *&' ' 6' $), (1/'$' 9, . 5' *$' - , 7%. '42' ' 6' $), (1/'$' + ' . 5' $*8' (+*/%$', (' 5, '$$+*%' ' ,)' ,0' 5,0), . -1,0+%5' 42')+%' "' *. 0%)' *& 0286)*80+, $)2')*' 0, B)2' 8, . 1)%0' &)%$' &**5' *$' 5$, . 9' +'0' 4%%. ')' 9%. H 42')+%' '40%. (%' *& $, (% 3')%$' 0)**/0' *$' &/, 7, 5,)2' *&')+%' 09, . H ' . 5' 42')+%' 0286)*80' . *)' 2, %/5, . -')*')$%'); 8%.)' *$%*7%$' , . ' 6*, 0*. , . -' 42' '$0%. , %)+%$%' , 0' 101 ' //2' -$%')%$')%. 5%$. %00' *7%$')+%' %6, -'0)$, 18H)+%' 5, '$$+*%' ' , 0' /%00' 6'00, 7%' ' . 5' ' ((*86' . , %5' 3,)+' 8*$%')%. %081 0')+' . ' , . ' (+*/%$', (' 5, '$$+*%' H)+%' 0)**/0' '$(' 8*$%' *&)%. ' 4/**52H ' . 5' . %$7*10' J8, 6)*80' 8 ' 2' 4%' 8*$%' 6$*. *1. (%5' +%' 5, '-. *0, 0' , 0' +*3; %7%$' *&)%. ' 7%$2' 5,)&, *1/)' %B(%6)' 3+%. ' ', 5%' 42' ' (+%8, ('/' . '/20, 0' *&')+%' 8 '))%$0' %>%()%5' Œ, &*8')+%' 0)*8 ' (+' *$' *&')+%' %B($%)' ' 3+, (+' 0+*1/5' '/3 ' 20' 4%' 8 ' 5%', . ' 5*14)&1/(' 0%0 $ 2 +, 0' 810)' '/3 ' 20' 4%' 1. ; (%$)', . ' 0, . (%',)' , 0' $' $%/2' 6*00, 4/%')*' ' 0(%$)', . ')+%' E1' .),)2')' 9%. ' *$')*' %. 01$%' ,)0' %.), $%' %7' (. ')', 4. ' &$*8')+%' 0)*8 ' (+ = 8%), *0' 5, /1%.)0' ' . 5' 5%; 81/(%.)0' '$%')+%' '66$*6$, ')%' $%8%5, %0' +%' 0)*8 ' (+ 6186' 8 ' 2' '/0*' 4%' 10%&1//2' %8; 6/*2%5' . ' 58 , . ,0)0%$, . -' %8%), (0')' $)' $' %8%), (' 0+*1/5' 4%' '7*, 5%5' '0' ,)' , . ($%' 0%0')+%' 5%6$%00, *. ' ' . 5' ,)0' 6$%0%. (%' (*86/, (')%0' ' (+%8, ('/' . '/20, 0' *$%*7%$')' $)' $' %8%), (' 0*8%), 8%0' (*.)' , . 0')$' (%0' *&' $%0. , (' ' . 5' , . ')+%' %7%.)' *&' ' . ' ' . '/20, 0' 4%, . -' 8 ' 5%' ' . '/ , ' &*1.5%5' 0106, (, *. ' 8 ' 2' 4%' $' , 0%5' *' (*. &; 5%. (%' (' . ' 4%' 6/' (%5', . ')+%' 0* (' //%5' .), 5*)%' # ' 41)' 5, '/20%5', $*. ' 8 ' 2' 4%' &$%%/2' -, 7%.

! 0' & ' 3 ' , M +, 0' &*$8' *&' 6*, 0* . , . -' , 0' . *)' 1. (*88*. ' . 5' , 0' 1. /, 9%')+%' '(1)%' &*$8' -%. %$' //2' ((, ; 5%.)' /' +%' , . +' /'), *. ' *&' $0%. , ('/ ' 6*1$0' , . ' &' ()*$, %0' *$' *&' '$0%. , ('/ 510)' 0' &$*8' -$%%. ' . 5' *)+%$' 3' // 6' 6%$0' . 5' , . ')+%' 6$*(%00' *&' 8 ' . 1&' (0)1$, . -' $), &, ('/ &/*3%$0' ,0' ' (*88*. ' 0*1$(%' *&' (+$*. , (' **$0%**„((''/ 6*,0* . , . -

+*0%' 3+*' '$%' (+, %&/2' %B6*0%5')*')+, 0' &*> *&' 6*, 0* . , . -' '$%' 6%$0*. 0' %86/*2%5' = K 8 ' . 1&' ()1$%' *&' 6, -8%.)0' %06%(, '//:

6,- ,%.)09 6'6%$+'.-%$0 '.5 5%(*$')*$0H '$),&,(,'/ &/*3%$ 8'.1&'()1$%$0H 8 ,//,.%$0H 6%$0*.0 %B6*0%5)*')/,% &18%0 *& +%')%5 8%)'/0' 6'$),(1/'$/2 C,.(' '.5 4$'00H 8'.1; &'()1$%$0 *& 52%0H '.5 /%')+%$ 5$%00%$0 .')+% 6$*(%00 *& 5%6,/'),.-' 0+%%6 09,.0' 6$%; 7,*10)*')'...-'*$')+%')'3,.-'6$*(%00''8,B)1$%* &/,8% '.5 *$6,8%.)' , # ' " ,0 10%5H '.5'0%$,*10 1/(%$'),*.'*&)+%+'.50'0($*)18'.*0%''.5' (+%%90'.*)' ,.; &$%E1%.)/2 $%01/)0' %$0*.0/,7,.-',.'$**80)+% 3'//0'*& 3+,(+' '$% (*7%$%5 3,)+' '$0%.,('/ 6'6%$'%06%(,''//2'4$,-+) -$%.'6'6%$0 (*.)'.; ,.-' '$0%.,)% *& (*66%$' '$% /,'4/%)*' 01&&%$ &$*8' (+$*.,(' '$0%.,('/ 6*,0*.,.-')',0'1.; (%$)',.'3+%)+%$')+,0',0'%.),$%/2 ('10%5 42')+% 8%(+',('/)$'.0&%$ *& 6,-8%.)'$2 510)*')+%' ,$ 6'00'-%0'*$',0'6'$)/2'51%')*'7*/'),/,0';),*.'*&)+%' $0%..('6$*4'4/2',.')+%& *$)&)'*& '$0%.,8<%))%5' +25$*-%.' '.2 4$*3.'3'//' 6'6%$0 '/0*' (*.)','.' $0%.,(' '.5' $0%.,*10 '(,5',0'0*8%),8%0' 55%5')*')+% 0,C%H 01(+' 6'6%$0 +'7%4%%.'9.*3.')*' 6$*51(%')+% 06%; (,&,(' 02 8 6)*8 0*& $0%.,('/6*,0*.,.- +')'0*8%'6%$0*.0 (''.')'9%' $0%.,*10 '(,5' ,.)%$.'//2'3,)+',8 61.,)2',.'$%/'),7%/2'/'$-% 5*0%0 A'$0%.,(%'),.-R ,'.*3' '3%// %0)'4; /,0+%5'&'() *'#o # G +%&,$0)'02 8 6)*8 0*& (+$*.,(' '$0%.,('/6*,0*.,.-' '$% 101'//2'/*00 *& '66%;),)%'6$0%(*$5,'/6',.0',$$,)'4,/,)2'*&)+%4*3%/0' .5 ((' 0,*.'//2'+%'5'(+% 1&&10,*.'*&')+% %2%0''6%(1/,'$'.5'(+'$'()%$,0),(''66%'$'.(% *&)+%(*.>1.(),7,),0' .5',.)*/%$'.(%'*& /,-+)' '$%' %'$/2 8'.,&%0)%5' +%' 810(1/'$ 6*3%$' *&)+%'/,8 40 ,0 ,8 6',$%5 6$%))2'(*.0)'./2'.5' '()1'/6'$'/20,0'%B)%.5,.-'163'$50 &$*8')+% /*3%$' %B)$%8,),%0',0' *((',*.'//2' *40%$7%5' , $ (/' '(+'$'()%$,0),('7%0,; (1/'$%$16),*.'*.')+%09,.', % " ' ,0 &$%E1%.)' '0 3%//'0 ,$$,)'),*.'*&')+%09,. %06%(,''//2'*7%$')+% .%(9'0('/6'+'.50' '.5' '$86,)0' '/%0 3+*'+'.5/%' $0%.,('/6$%; 6'$'),*.0' '$% /,'4/%')*' 1/(%$'),*.0' *&)+% 0($*)18' '.5 6%.,0' *47,*10/2 51%')*' '8%; (+'.,('/)$'.0&%$%.(% *&)+% 6*,0*.')*')+% -%.,)'/0 3+%.')+%0%' $%)*1(+%5' &')+% 0*1$(% *&)+% 5,0%'0% 4% .*)' $%8*7%5' 6$*; -$%00,7% %8'(,'),*.'%B&*/,'),*.'*&')+% (1),(/% '.5'.%$7*10 6$%0$'),*.'016%$7%.%H '.5'(*.; 71/0,*.0 8'2 6$%(%5)+% &')'/)%$8,.'),*.' +% %&&%()0' *& -$%.' '$0%.,('/6,-8%.)0' '$% 0*8%),8%0' 8'.,&%0)%5' 42 4/%%58 -' &$*8')+% .*0%

- G =+%.'' 6'),%.)' 01&&%$0 8*$% *$'/%00 &$*8')+% 02 8 6)*8 0 '4*7%' 5%0($,4%5' .5',0' '/0*' 9.*3.')*' 4% %B6*0%5')('.2'*&)+%' 0*1$(%0 *& '5'.-%$&$*8'$0%.,('/6*,0*.,.-' %.18%$')%5' '4*7%')+%' 5,'-.*0,0' ,0' .*)' 5,&&,(1/)

G +%' 0*1$(%' *& 6*,0*.,.-' &&,*1/5',.7'$,'4/2'4% $%8*7%5')',0'&*1.5' c,)')+*0%'3+*'01&&%$&$*8'3*$9,.-',.''$0%.,(' .*' 6$*-$%00)*3'$50 $%(*7%$2'1.),/ $%' $%8*7%5' &$*8' (*.)'()' 3,)+')+%

6*,0*.' '// 6'6%$0 3+,(+'(*.)',.' '$0%.,(' '.5' '$% 0106%()%5')*' 4%')+%('10% 02 8 6);)*80'0+*1/5' 4%')'9%.' '3'2' X1,...%'*$ *)+%$)*.,(0' ,$*.' '.5' '))%.),*.')*')+% 5,-%0),7% *$-'.0 3,/' 4% .%%5%5' %8*7'/)*' &,$%0+ (*1.)$2' ,$',0' *&)%.' 6$*51(),7% *& 8'$9%5' 4%.%&,)' **)+,.-'/*),*.0')*')+% 09,.''.5'%'$%&%5' '))%.),*.')*' %$*5,..-'1/(%$0' %06%(,''//2'*&')+% (+%%9'8'2'4% .%(%00'$2' +'86**,.-'.5'3'$8'4')+0' &*$8')+%'4%0)')$%')8%.)'&*$'6'$'/2),('/%0,*.0

' *

3 4*' ' G=J,0',8; 6*$)'.)')*' 9%%6' ,.' 8,.5')+%' &*//*3,.-' '.')*8,('/*&'()0',.'0)152,.-')+%'8*$4,5'6$*; (%00%0')*' 3+,(+' '$)%$,%0' '$% 014>%() G .' ,8 8%5,')%(*.)'()'3,)+')+%' 4/**5 0)$%'8',.' '$)%$,%0' /,%0')+%' " # 3 G '' /'2%$' *& &/'))%.%5' (%//0H *1)0,5%')4,0',0')+%' " ' " ' (*86*0%5' *& %/'0),('),001%' ,.' /*.-,)15,.'/' $$'.-%8%.)')+%$')+% %.5*)+%/,18' '))5')1.,('' ,.),8'' (*.0),)1)%)+%' " " ' '*&')+%' */5%$' 3$,)%$0'),//' 8*$%%B)%$.'/5 ',.5')+%' ' 2 8'5% 16' *& 810(1/'$ &,4$%' $$'.-%5')$'.07%$0%/2' ,.')+%'/'$-%$' $)%$,%0' 8,B%5' 3,)+' %/'0),('),001%' .5' 860' %B)%$.'/*&*'//')+%$%' ,0')+%' (" ' (*.0,0),.-'*&'/*.-,)15,.''//2' &,4,,//')%5'(*..%(),7%'),001%

8' 3 ' 3 G (1)%' $)%$,),0' '&&%(),.-'' 7%$2'/,8,)%5' 6*$),*.'_& '' 7%00%/' '.5'/%'5,.-')*',,/(%$'),*.''((' 0,*.'//2'4(%1$0')',0'-%.%$'//2'51%')*')+% 6$*6'-'),*.'*&'.' ,.&/'88'),*.'&$*8')+%',001%0'*&')+%'7,(,.,)2')*')+% %B)%$.'/(*')'*&')+% 7%00%/'41)',.' 0*8%'*'0%0',)'.$,0%0'&$*8')+%',$$,)'),*.'('10%5 42'.'%84*/10'3+,(+'4%(*8,.-'5%)'(+%5' &$*8''('$5,'(' /7%'4/*(90''5,0)'.)'$)%$2' +%'/')%')R$' *B*.'+'0' 06%(,''//2'5$'3.' '))%.),*.')*')0'%(,5.-'6*$),*.'*&')+%'7%00%/'+'0' 4%.'%B6*0%5')*')+%',86'()'*&''+'$5'&$%%/2' 8*7,.-'7%-%)'),*.'*.'*.%'*&')+%0%-8%.)0' *&')+%'*$),('7'/7%' $' *B*.'+'0' /0*' 5%0($,4%5'1.5%$')+%'5%0,-.'),*.' 7 '))+%'((1$$%.(%'*&0*&)%.,.-' '.5'03%//,.-'*&')+%'$)%$,'/)1.,(0',.' (,$; (180($,4%5'06*)0'3+,(+'4%(*8%'&/'442'.5' ,.%/'0),('.5'1/),8')%/2'41/-%*1)3'$50'.5' &*$8'.%1$2080' %'4%/,%7%5')+')'+.,0'(*.; 5,),*.'5%6%.50'*.'''6%(1/,'$'-%.%$'/0)'%)' '.5',0')+%'-$%')'(10%'*&'.%1$208',.'2*1.-' +'$5 3*$9,.-'8%.' B(%6)'01(+' ,$(18; 0($,4%5',.&/'88')*$2'/%0,*.0' % 5*' .*) 8%%)' 3,)+'.2'(*.5,),*.'*&')+%' $)%$,'/)1.,(0',.' (,$; (180($,4%5'06*)0'3+,(+'4%(*8%'&/'442'.5' ,.%/'0),('.5'1/),8')%/2'41/-%*1)3'$50'.5' &*$8'.%1$2080' %'4%/,%7%5')+')'+.,0'(*.; 5,),*.'5%6%.50'*.'''6%(1/,'$'-%.%$'/'

8 '2‘ ,)0%/&‘ 4%‘ &')),/2‘ 5%-%.%$')%5‘ I)8 '4/%‘)*‘ 4%‘$')4%6$%001$%‘ *&‘)+%‘ 4/**5 %)4%' 8 ‘&,001$%0‘)$'.07%$0%/2‘ ' .5‘)+%‘ **5‘ 8 ' 2‘ $16)1$%‘)+%‘ %B)%$.‘/ (*')‘ *$‘,.0,.1'),.-‘ ,)0%/&‘ 4%)3%%.‘)+%‘ 8,55/%‘ ' .5‘ %B)%$.‘/‘ (*')‘ 6$*51(%‘ '‘ 5,00%(),.-‘ '.%1$208‘ +%‘ &'))2‘ (+'.-%‘ ,0‘ 8,0‘ 3,)+‘ ,.‘ %B)$%8%‘ '.'%8,'‘ ' .5‘ ,.‘ 0%.,/%‘ 8 '$'0810‘ 41)‘ +'0‘ '/0*‘ 4%%.‘ &*1.5‘ ,.‘)+%‘ '$)%$,%0‘ *&‘ 6%$0*.0‘ 3+*‘ 0%%8%5‘ *)+%$3,0%‘ E1,)%‘ +%'/)+2ℍ ,)‘ ,0‘ 0 '‘ 8 *$4,5‘ (+' .-%‘ 3+,(+‘ ,0‘ 0,86/2‘ 5%-%.%$'),7%‘ &$*8‘)+%‘ &,$0)'' .5‘ *&‘ 3+*0%‘ ,8 8%5,')%‘ ('10%‘ % 9.*3‘ .*)+,.-‹ A ,.5&/%,0(+R‘ ‘))2‘ 5%-%.%$'),*.‘ *&‘)+%‘ %B)%$.‘/ (*')‘ *&‘)+%‘ 08 '//%0)‘ '$)%$,%0‘ +'0‘ '/0*‘ 4%%.‘ .*),(%5ℍ ,)‘ '66%'$0‘)*‘ 4%‘ '‘ 0%.,/%‘ '&&%(),*.

D‘ '/(,&/(')‘,*. G +,0‘ 5,0%'0%‘ *&‘)+%‘ '$)%$,‘/)1.,(0‘ '/0*‘ *((1$0‘ 1.(*..%()%5‘ 3,)+‘ %.5'$)%$,),0‘ 41)‘ 8 *$%‘ $'$%/2‘)+' .‘ &'))2‘ 5%;-%.%$')‚*.‘ +%.')+,0‘,0‘)+%‘ (‘0%‘,)‘,0‘ 8 *0)‘ &$%E1%.)/2‘)+%‘ 8,55/%‘ (*')‘ *&‘)+%‘ 8%5,18;0,C%5‘ 7%00%/0‘)+')‘,0‘)+%‘ 0%')*&‘)+%‘ 5%6*0,)‘ 41)‘ '/‘)+$%%‘),8,(0‘ 8 '2‘ 4%‘,.7*/75'+%‘ 6$*(%00‘,0‘ 10)8//2‘/,8,)%5‘)*‘)+%‘ 7%00%/0‘,.‘ 3+,(+‘ 810(1/'$‘&,4$%‘,0‘ '41.5‘.)ℍ 41)‘)+%0%‘ ,)‘ 8 '2‘ '&&%()‘ %B)%.0,7%/2‘)+%‘ 016%$&,(,'/ 7%00%/0‘ '.5‘)+%‘ '$)%$,%0‘ *&‘)+%‘ 4$',.‘ '.5‘*&‘)+%‘ %B)$%8,),%0‘ 4%,.-‘)+%‘ &'7*1$,)%‘ 0%')‘)‘ ,0‘%8,.%./)/2‘ ‘ 0%$5/%‘(+'.-%

M‘ 518 8 '‘)*10‘ 6,0%'0% G .‘)+,0‘ (*.; 5,),*.‘)+%‘ 7%00%/0‘ 6$%0%.)‘ .*5*0%‘ 03%//.-0‘ '.5‘ '$%‘)+,(9%.%5‘ 0*8%),8%0‘)*‘)+$%%‘),8%0‘)+%,$‘ .*$8‘/ 0,C%‘ 42‘ -188')*10‘ 8')%$,‘/ ,.&,/)$')‚1-‘)+%‘ *1)%$‘ (*')‘ ((*$5,.-‘)*‘ %14.%$')+%‘ 5,0%'0%‘ 4%-,.0‘,.')+%‘,.),8‘ 42‘ ‘ 6$*/,&%$'),*.‘ *&‘)+%‘ (% 0‘ *&‘)+%‘ %.5*;)+%/,18‘ 3+,(+‘ 8 '2‘ 4%‘ 0*‘ %B(%00,7%‘ '0‘)*‘ ('10%‘ (*86/%)%‘ *4/,)%$'),*.‘ *&‘)+%‘ /18%.‘ *&‘)+%‘ %00%/‘ +%‘ 8,55/%‘ '.5‘ %B)%$.‘/ (*')0‘ *./2‘ 0140%E1%.)/2‘ 4%(*8%‘,.&,/)$')%5‘ 3,)+‘ $*1.5‘(%//0‘ +%‘ /%0,*.‘ 5%0($,4%5‘ 42‘ +,8‘ +*3%7%$‘,0‘ (*88*.‘)*‘ '/‘ &*$80‘ *&‘ %.5; '$)%$,),0‘ *4/,)%$'.0‘ '.5‘,0‘ .*)‘ 5,0),.(),7%/2‘ 026+,/,),(‘ 0 ‘$'.5*8'01((%00,*.‘ *&‘.%$7*10‘ 0286)*80‹)*‘10%)+%‘ 3*$50‘ *&‘ $‘ .-+/,.-0‘ '(90*.‘ '&&*$50‘ 0)$*.-‘-$*1.50‘ &*$‘ 0106%(),.-‘ 026+,/,),(‘ 5,0%'0%‘ 3,)+,.‘)+%‘ ($'.,18ℍ '.5‘ *.%‘ *&‘)+%‘ 3$,)%$0‘+'0‘+,80%/&‘ 0%%.‘)+$%%‘('0%0‘ ,.‘3+,(+‘01(+‘ 0286)*80‘ 5,0‘ 66%‘ $%5‘ 1.5%$‘)+%‘ 10%‘ *&‘ 6%$(+/*$,5%‘ *&‘ 8%$(1$2‘ .5‘,*5,5%‘ *&‘ 6*)'00,18‘ '.5‘,.‘3+,(+‘,)‘ 0%%8%5‘)*‘+,8‘)+')‘)+%‘ 0166*0,),*.‘ *&‘ ')%$,'/ 5,0%'0%‘ '0‘ 81(+‘ 8*$%‘ 6$*4‘4/%)+'.‘)+')‘*&‘ '.2‘*)+%$‘ &*$8‘*&‘,.)$'($'.,'/026+,/,0

G‘ /418,.*,5‘ ,0%'0% G +,0‘ 3+%.‘ ,)‘ '))'(90‘ '.‘*$-'.‘7%$2‘(*88*./2‘ '66%‘ $0‘ &,&0)‘,.‘)+%‘ 3'//0‘ *&‘)+%‘ 08 '/‘ '$)%$,%0‘)+%‘ 810(1/'$‘(*')‘4%,.-‘)+%‘ 6'$)‘ '&&%()%5

P‘ 2'/,.%‘ %-%.%$')‚*. G +,0‘ 5%;-%.%$'),*.‘8 '2‘ '))'(9‘)+%‘ 08 '//%0)‘ '$)%$,%0‘ '.5‘-,7%‘ $,0%‘)*‘ '‘ (*.),.1*10‘)+,(9%.,.-‘ *&‘)+%,$‘ (*')0‘ 3,)+‘ 1/),8')%‘ *((/10,*.‘ *&‘)+%‘ 7%00%/Hℍ *$‘,)‘ 8 '2‘ $%01/)‘,.')+%‘ 6$*51(),*.‘ *&‘,0*/')%5‘ 8 '00%0‘ *&‘ +2'/,.%‘ 8')%$,'/ 3+,(+‘/,%6$,.-(,6'//2‘4%)3%%.')+%')1.,(‘‘,.),8‘‘'.5‘)1.,(‘‘ 8%5,'

X‘ *.)$'(),*. G *.)$'(),*.‘ ' .5‘&,.'/ ,86%$8%'4,/,)2‘*&‘ '.‘ '$)%$2‘&$*8‘')+%$*,*‘ ‘)*10‘('/(,&,(‘),*.‘&$*8‘)+%‘ '((181/'),*.‹*&‘ &,4$,.‘*.‘,)0‘$*1-+‘,..%$‘ 01$&'.%‘/&$*.‘‘ :0% 6 01$%‘*$&$*8'*)+%$‘('10%0‘*(('0,*.'//2‘*((1$0‘ /%‘5,.-‘)*‘-'.-$%.%‘*&‘)+%%B)$% 8,)2‘3+,(+‘,)‘ 0166/,%5

‘ ,/')')>*. I ,/')'),*.‘*&‘ $)%$,%0‘,0‘ ,.‘)+%‘ 8'>*$,)2‘*&‘ ('0%0‘51%‘)*‘ 6$%7,*10‘ 5,0%'0%‘*&‘)+%,$‘ (*')0ℍ 41)‘ 0*8%),8%0‘,.')+%‘ '-%5‘)+%‘ '$)%$,%0‘ '$%‘&*1.5‘5&,')%5‘3,)+*1)‘ '.2‘5%-%.%$'),*.‘ *&‘)+%,$‘)1.,(0‘ 4%,.-‘ 6$%0%.)G ‘‘0)')%‘*&‘ '&&‘,$0‘3+,(+‘ ,+5&/%,0 +‘ 01--%0)0‘ 8 '2‘5%6%.5‘*.‘ ')*.2‘*&‘)+%‘ 810;(1/'$‘ *')‘ '.5‘,.‘0*8%‘('0%0‘ 8 '2‘ 6%00,4/2‘ 4%‘(*. %%)%5‘3,)+‘5%&,(,%.)‘,..%$7'),*.

@‘ .%1$208 G .%1$208‘ $%(%,7%0‘//5/‘(*.0,5%$'),*.‘,.‘ ‘‘0%6'$')%‘ '$),%/%‘ %$%‘,)‘ 8%$%/2‘.%(%00'$2‘)*‘6*,.)‘*1)‘)+%‘ 3'20‘,.‘ 3+,(+‘ ')+%$*8')*10‘,.&,0+.8'),*.‘ 015‘)+%‘ *)+%$‘ 8*$4,5‘6$*(%00%0‘3+,(+‘+'7%‘ 4%%.‘5%;0($,4%5‘(*.)$,41)%')*')+%‘ 6$*51(),*.‘*&‘5,/')‘;),*.‘'.5‘.%1$208‘ .‘0*8%‘('0%0‘)+%‘ (*1$0%‘ *&‘ %7%.)0‘ (*.0,0)0‘ ,.‘)+%‘ 3'0+,.-‘ '3'2‘ *&‘)+%‘5,0%'0%5‘6')(+‘ *&‘)+%‘ ,.),8'ℍ 3+%.‘)+%‘ 8,55/%‘ (*')‘ %,)+%$‘ 5,/')%0‘ *$‘ 42‘ 0%6'$'),*.‘ *&‘,)0‘ 810(1/'$‘ 41.5/%0‘ 1.5%$-*%0‘ $16)1$%‘ '.5‘)+%‘ %B)%$.‘/ (*')‘ 2,%/50‘ 4%&*$%‘)+%‘ 6$%0;01$%‘ *&‘)+%‘ 4/**5 0)$%'8‘ .‘ *)+%$‘ ('0%0‘)+%‘ 5,/')‘,*.‘*(((1$0‘.*)‘)+%‘ 6 ,.)‘ 3+%$%‘)+%‘ %.5'$)%$,),0‘+'0‘,.7'5%5‘)+%‘ 7%00%/‘+1)‘ .%'$%$')*‘)+%‘ +%‘$)‘)+%‘ '&&%()%5‘6*,.)‘)+%$%‘,0‘.'$$*3,.-‘*&‘)+%‘ ('.‘/‘*&‘)+%‘ 7%00%/‘ '.5‘/*00‘*&‘%/'0),(,)2‘,.‘,)0‘ (*')0‘5‘.5‘'Z‘ '‘ (*.0%E1%.(%‘3%‘+'7%‘0/*3,.-‘*&‘)+%‘ (,$(1/';),*.‘ .5‘5%&,(,%.(2‘,.‘)+%‘ 0 66/>=‘*&‘4/**5‘ 4%2*.5‘'.5‘,.($%'0%5'‘5)$%,‘/)%.0,*.‘*.‘)+%‘ 6$*B,8‘/0,5%‘*&‘)+%‘ '&&%()%5‘06*)‘ +%‘%&&%()‘ *&‘)+,0‘)%.0,*.‘,0‘8*$%‘0%$,*10‘)+'.‘3*1/5‘')‘ &,$0)‘0,-+)‘ '66%'$‘ .‘+%‘/)+')+%‘4/**5‘6$*; 6%//%5‘42‘%‘(+‘7%.)$,(1/'$‘020)*/%‘%.)%$0‘(*.)$'()%5‘7%00%/0‘3+,(+‘2,%/5,.-‘4%&*$%‘,)‘ '$%‘1.,,>1$%5‘42‘,)0‘155%.‘,86'()ℍ 41)‘ 7%00%/‘,*/%.0,*.‘0‘%B6*0%5‘)+*‘)+%‘ &)5/7,*/%.(%‘*&‘)+%‘(*/18.‘*&‘4/**5‘5,0;(+'$-%5‘42‘)+%‘+%')‘ .5‘810)‘-$*51'//2‘5,/')%‘4%&*$%‘,)

"‘ $)%$,'/ ,0%'0%‘,.‘ .0'.,)2 G ((*$5,.-‘)*‘ $‘ ‘))2‘ .9%‘.5‘*)+%$‘6+20,(,‘.0‘3+*‘+'7%‘06%(,‘ 2‘,.7%),-')%5‘)+%‘ 8*$4,5‘(+'.-%0‘,.‘)+%‘ 4$',.0‘.%‘*&‘)+%‘,.0‘.%‘ '$)%$,'/ 5,0%'0%‘,0‘ '/8*0)‘,.7'$,‘4/2‘ 6$%0%.)‘)‘(*.0,0)0‘,.‘01(+‘ /)%$'),*.‘0‘ 0‘ 3*1/5‘$%01/)‘&$*8'*40)$1(),*.‘,.‘)+%1/),8')%‘ $'8,&,(')‚*.0‘*&‘)+%‘7%00%/0‘ ')‚(9%.,.-‘*&‘)+%‘ 6$*6%$‘(*')0‘*&‘)+%‘ '$)%$,%0‘.‘5‘*&‘)+%‘ 0+%')+‘*&‘(*.‘.%(),7%‘),001%‘3+,(+‘01$$*1.50‘)+%‘ (%$%4$'/7%00%/0ℍ)+%‘ 5%6*0,),*.‘*&‘&,.%‘ 8*/%(1/'$‘8'))%$‘.5‘($20)‘/0‘*&‘+0%8')*,5,.‘ 4%)3%%.‘)+%‘57%.),),‘‘.5‘)+%‘0+%')+ℍ '.5‘ %B)$%8%')*$)1*0,)2‘*&‘)+%‘7%00%/0

‘ $)%$,* '6,//‘$2‘ ,4$*0,0 G +,0‘)%$8‘3‘0‘66/,%5‘42‘)+%‘/')%‘ ,$K , ,‘8‘ 1/‘.5‘ $‘ 1))*.‘)*‘)+%‘ +26%$)$*6+2‘*&‘)+%‘ 3‘//0‘*&‘)+%‘08‘//‘ '$)%$,%0‘&*1.5‘>.‘)+%‘014;>%()0‘*&‘)+%‘(,$$+*),(‘&*$8‘*&‘ $,-+)0‘5,0%'0%

?

?' 40)$1(),*.'*&')+%'+%6'),('7%,.0'*$')+%'166%$%.5'*&')+%',.&%$,*$'7%.''('7''',0''$'$%'%7%.)'41)'8'2''$,0%'&$*8')+%'6$%001$%'*&''-$*3)+'(*..%()%5'3,)+')+%'/,7%$',)0%/&'*$'*&'0*8%'.%,-+4*1$,.-')18*1$

' ,0%'0%0''*&')+%'/1.-0''*$'+%')'3+,(+,86%5%')+%'-%.%$'/'7%.*10'(,$(1/'),*.'8 10)'.%(%00'$,/2'%B%$(,0%''06%%52''.5'5,5%()',.;&/1%.(%'16*.')+%'+%6'),('(,$(1/'),*.''.5'8'2')+10'/%'5')*'' 0(,)%0' 01'//2'+*3%7%$' ,.'('0%0'*&')+,0'9,.5')+%'/%-0''$%')+%'0%')'*&'(*.0,5%$'4/%'.'0'$('4%&*$%6%$,)*.%'/'5$*602',0'*40%$7%5' .'(*1$0%*&'),8%')+%'(*.),.1%5'7%.*10'(*.-%0),*.'*$,-,.')%0'0%$,*10'*$-'.,('(+'.-%0',.')+%'/,7%$',)0'7%00%/0'4%,.-'8*$%'*$'/%00'*4/,)%$')%5''.5'(*.0%E1%.)/2',)',0''()+,0'6%$,*5')+')'0(,)%0',0'6'$),(1/'$/2',4/%')*'0%)',.''.5',)'8'2'%7%.'4%(*8%')+%'8*0)'6$*8,.%.)'&*$8'*&'5$*602

' 0(,)%0'8'2'(*.0),)1)%''6')$'+%'5$*602'3+,(+'0*'*&)%.''((*86'..,%0'$%.'/'5,0%'0%')',0'+*3%7%$'*&'(*86'$'),7%/2',.&$%E1%.)'*((1$%.(%')*''.2'-$%')'%B)%.)85%$')+%0%'(,$(180)'.(%0')+%' '8*1.)'*&'&/1,5'4%,..-'.*)'(*.0,5%$'4/%''0''$1/%''.5')+%''0(,)%0'4%,.-'41)''0140,5,'$2'6'$)'*&''-%.%$'/5$*602

' *$%*$'/%00'0%$*10'%&&10,*.',.)*')+%'6%$,)*.%'/('7,)2',0''6')+*/*-,('/'$%01/)'*&'6%$,)*.,),0H41)'.''((*$5'.(%'3,)+')+%'5%;&,..),*.'*&'0(,)%0'-,7%.''4*7%')+,0'5*%0'.*)'(*8%'0)$,(/)2'3,)+,.')+%'6$%0%.)'$),(/%'B;(%6),*.'/'('0%0'5*'*((1$'+*3%7%$',.'3+,(+''/'$-%'%&&10,*.'$'6,5/2'(*//%()0',.')+%'6%$,')*.%8.''.5',)',0'5,&&,(1/)*'0'2'3+%)+%$',)',0''8%$%'5$*602'*$')+%'6$*51()'*&'.''(1)%'.&/'8 8'),*.' *$%*7%$')$1%''0(,)%0',0'*4;0%$7%5'*((''0,*.'//2''0''0%E1%/*&6%$,)*.,),0',.'(*.0%E1%.(%'*&')+%'8*$4,5'(*.5,),*.0'3+,(+',)/%'7%0'4%+,.5'+$*.,('6%$,)*.,),0'8'2''/0*'*((''0,*.'''0,86/%/*('/'5$*602H41)'),+,0',0'6'$),(1/'$/2'/,'4/%')*'4%'0%)'16',.'(*..%B,*.'3,)+'8*$4,5'&*$8'),*.0',.')+%'6%$,)*.%18'01(+''0'('.(%$*$')14%$(/%'+%'8 8%5,')%'('10%0'*&''0(,)%0''00*(,')%5'3,)+'5,0%'0%0'*&')+%'6%$,)*.%18'8'2'4%''(),7%'(*..-%0),*.H'.86/,(''),*.'*&')+%'('6,//'$,%0'*$'8,.1)%'7%,.0'*$'%7%.'*&')+%'/'$-%$'7%,.0'/%'5,.-')*'8%(+'.,('/(*.-%0),*.H*40)$1(),*.'*&')+%'/2 86+'),('*$,&,(%0''.5'(*.0%E1%.)',86',$8%.)'*&'40*$6),*.H*$')851%''(),7,)2'*&')+%'0%($%),.-'0)$1(1)$%0

)'8'2'4%'8%.),*.%5'',.')+,0'(*..%B,*.'))+')'0(,)%0',0'0*8%),8%0''00*(,')%5'3,)+''')18*1$'3+,(+'5*%0'.*)'5,$%()/2',.)%$&%$%'3,)+'6*$)'/(,$(1/'),*.H6$*4'4/2',)',0')+%.'51%')*',$,)')',*.'*&')+%'6%$,)*.%18

' 8*.-')+%'(+,%&' '('10%0')*'3+,(+'0(,)%0'+'0'4%%.''))$,41)%5'8'2'4%'8%.),*.%5'%B6*01$%')*'(*/5''*$'3%)H)+%'0155%.'0166$%00,*.'*&'+'4,)1'/'5,0(+'$-%0''*$')+%'$'6,5'(1$%'*&'(+$*.,('(1)'.%*10''&&%(),*.0H''.5'%B)$%8%'.0,,'.5'5%4,/,)2'+%0%'('10%0''$%'0166*0%5')*''*$,-,.')%')+,0'02 8 6)*8'%,)+%$'42',.51(,.-''(),7%',.)%$.'/'(*.-%),*.H*$'42'5,0)1$4,.-')+%'$%.'/'&1.(),*.0H'*$',.

(*.0%E1%.(%'*&')+%'4.*$8'/'0)')%'*&')+%'4/**5''.5',001%0')',0'7%$2'5*14)&1/'+*3;%7%$'3+%)+%$'%,)+%$'*&')+%8'('.''()1'//2'*&',)0%/&'*((''0,*.''0(,)%0')+*1-+')+%2'8'2'+%/6',.',)0'6$*51(),*.' /1,5'8'2'(*//%()'3,)+,.'+%'6%$,)*.%18'('0')+%'$%01/)'*&')+%'$16)1$%'*&''(20)'3,)+,.')+%''45*8%.'%06%(,'//2''.'*7'$,'.'(20)

)'*4''+')*'+)7'!'#'*'''+'74''$''#$*+'$'$-'5$')'*$)'$-'!'#4'5!#!'!.'+'7#'7''!''/)#7 3')*')'*$'#'!)'*''+'$+)4#$'--#3'!'/$)'#)#4$'L!'!'.')'7'$4 7'!'$)3''*''*%$)'!'7--)'$)3'*''+'.$.7'*4$4''

6"0'G+')%7%$')%.50')*'0%)'16'%,)+%$'*&')+%'8*$4,5'(*.5,),*.0'3+,(+'*$,-,.')%''0(,)%0'8'2'4%'$%-'$5%5''0''6$%;5%06*0,..-'('10%')'8'2'4%'8%)'3,)+')''.2'-%'41)',0'8*0)'(*8 8*.'51$,.-'8,55/%/,&%'+%'+%6'),('&*$8',0'8 1(+'8*$%'&$%E1%.)',.'8'/%0')+'.'&%8'/%0' .'.'.%%8,('(*.5,),*.'*&')+%'4/**5''.5'3%'9.%00'*&')+%'),001%0'6$%;5,06*0%')*'6%$,)*.%'/'5$*602''0')+%2'5*')*'5$*602',.')+%$'6')0

; <B#' &F G=+% %00%.),'/'.')*8,('/'(+'$'()%$*&'0(,)%0',0')+%''((181;/'),*.'*&''0%$*10'&/1,5'3,)+,.')+%'6%$,)*.%'/'0'(')0''8*1.)'8'2'$'.-%'&$*8' ' &%3'*1.(%0')*'0*8%'-'//*.0' 0'$%-'$50'6+2;0,('/'+'$')(%$0')+%'&/1,5',0'-%.%$'//2')+,.'/,86,5''.5'3')%$2',.'(*.0,0)%.(%H(*/*1$;/%00'*$0/,-+)/2'2%//*3H(/%'$''.5')$'.06'$%.)H'.5'*&''/9'/,.%'$%'(),*.' .'%B(%6),*.'/',.;0)'.(%0'+*3%7%$',)'8'24%'(*/*1$%5'42'4/***5'*$'4,/%H*$'8*$%'*$'/%00')1$4,5''.5'5,$)2/**9',.-'*$'8,/92'A(+2/*10RH*$'*&'1.101'//2')+,(9''.5'0*8%3+')'-%/'),.*10'(*.0,0)%.(%'*&)'&,4$,.*10'8'00%0'*((''0,*.''//2'&/*')',.')+%'&/1,5'*$')+%0%'8'2'&*$8'06*.)'.%*10/2'3+%.',)',0''//*3%5')*')0)'.5'%$2')'$%/2')+%'$%'(),*.',0'.%1)$'/'*$''(,5'+%'06%(,&,('-$'7,)2'7'$,%0'(*.0,5%$'4/2'+%8,('//2')+%'&/1,5'(*.0,0)0'*&'3')%$'+*/5,.-','0*/1),*.''/418%.''.5')+%101'/'0')0'3+,(+''$%&*1.5',.'5$*60,('/'&/1,50H41)')+%,$'6$*6*$),*.',.0'7%$2'7'$,'4/%')+*1-+')+%''/418%.',0'-%.%$'//2',.'-**5'E1'.),)23+,(+',0'%7,5%.(%5'42')+%'5%-$%%'*&'(*'-1/';),*.'3+,(+')'9%0'6/'(%'3+%.')+%'&/1,5',0'4*,/%5'((''0,*.'//2',)'(*.)',.0'&,4$,.'%+*/%0)%$,.'4,/%%/%8%.)0''*$',.'('0%0'*&'$%.'/'5$*602'1$%'+%'%&&%()0'*&')+%''((181/'),*.'16*.'01$;$*1.5,..-'0)$1()1$%'&F G=0(,)%0'101'//2'0%)0'.'7%$2'-$'51'//2'4%,.-'(+$*.,('.','),)0'6$*;-$%00'41)'57'.(,..-'0)%'5,/2'((''0,*$,'//2'+*3%7%$')+%'&/1,5'(*//%()0'3,)+'(*.0,5,'&'4/%$'6,5,)2'+%'(/,.,('/'6+%.*8%.''0&,,*(,')%5

W3,)+')+,0' 6')+*/*-,('/' (*.5,),*.' 5,&&%$' ,.' 5,&&%$%.)' ('0%0' 4*)+' ,.')+%,$' %B'()' .')1)%%' .5')+%,$' 5%-$%%' '((*$5,.-')*' ,)0' ('10%')+%$' '8*1.)'*&'&/1,5' (*//%()%5' '.5' *)+%$'(,$(18;0)'.(%0H' 47H)')+%2' .>'2' (*.7%..%.)/2'4%' (*.;0,5%$%5'1.5%$')+%' &*//*3,.-'+%'50'.'8%/2 ' 6# ' 0" ' @' # / ' ' # ' ' " ' ?' B " '

' 6# '0,-.0 = +20,('/' %B'8,.'),*.'(,0),)1)%0'*.%' *&')+%' 8*0)',86*$)'.)'6'$)0'*&')+%'(/,.,('/',.7%0),-'),*.'*&'(0%0' &'0(,)%0''.5',)' 3,//' 4%' $%E1,0,)%')*' 5,0(100',.'0*8%5%)','/)+%'0,-.0')+10'$%(*-.,0%5

A'R' &'&/1,5'(*//%()0',.')+%' 6%$,)*.%18'.2'E1'.),)2')+%''45*8%.'6$%0%.)0'8*$%'*$/%00'-%.%$'/'%./'$-%8%.)' +,0',0'*&)%.')+%'&,$0)'(+'.-%' 3+,(+' '))$')()0')+%' 6'),%.)<0''))%.),*.'' .5',)'8'2'/0*'+'7%'4%%.'.*),(%5')+')'+%',.($%'0%',.'0,C%'(*88%.(%5'4%/*3' +%'5%-$%%'*&'%./'$-%8%.)'5%6%.50'16*.')+%'*8*1.)'*&'&/1,5'41)',)'8'2'4%(*8%'%B)$%8%'0*')+')'+%'09,.',0',)-+)/2'0)$%)(+%5''.5')+,..%5'6$%0%.),.-''' 08**)+''.5'0+,.,.-'66%'$'.(%'*$0*8%),8%0'3+,)%'/,.%0G3" Q " G51%'*'/'(%$'),*.'*&',)0'5%%6%$/'2%$0'+%'184,/,(10'4%(*8%0''&&%()%5',.''(+'$')()%$,0),('8'..%$'4%,.-'8*$%'*$'/%00'0)$%)(+%5''.5'%7%$)%5''.5'&,.=2'*4/,)%$')%5'*$',.'0*8%('0%0'8*$%'*$'/%00'6*1(+%5'*1)'W3+%.',)'8'2'&*$8'''(*.0,5%$'4/%'6$*8,.%.(%'+*1/5')+%$%'+'66%.')*'4%''3%,'6*$),*.'*&')+%''45*8,.'/'3''//0'01(+'0''+%$.,'/'0'('),+,0',//'4%'1.51/2'6$*)$15%5'+%',86*$;)'.)'(+'$')()%$0'*&''45*8,.'/'%./'$-%8%.)'51%')*'1.(*86/,(')%5'0(,)%0''$%')+')',)',0'*&''$*1.5%5'&*$8')+*1-+')%.5,.-')*'4%8*$%'6$*8,.%.)'*$')*'41/-%')*3'$50')+%+26*-'0)$,('$%-,*.'*$',.')+%'&/'.90''((*$5,.-)*')+%'6*0)1$%'*&')+%'6'),%.)H')+')',)',0'E1),%0288%)$,('/',.'0+'6%'3+%.')+%'6'),%.)'0).50'*$'/,%0'*.'+,0'4'(9'41)')+')'+%'&*$8'&5)%$0'(*.0,5%$'4/2'Q3,)+''('+'.-%'*&'6*0,),*.')+%''45*8%.'4%(*8,.-')+%.'8*$%'6$*8,.%.)',.')+%'5%6%.5%.)'$%-,*.',.'(*.0%E1%.(%'*&')+%'-$'7,)',*.'*&')+%'&/1,5',.')+,0'5,$%),*.''.5',)'8'2'')(1''//2'4%'0%%.')*'8*7%''0')+%'6*0)1$%',0'+'.-%5'.'(*.)$'0)'3,)+')+%'%./'$-%5''45*8%.')+%'(+%0)'*&)%./**90'08''//'.5'5%6$%00%5''.5')+%'&/1,5'8'2'('10%')+%'8'$-,.'*&')+%'$,40')*'4%(*8%'%7%$)%5''*$',)'8'2'610+'&*$3'$50')+%'B,6+*,5'('$),/'-%'%.01$'),*.',0'*&'0%$7,(%'&*$'-,K7,.-'8*$%''((1$')%',.&*$8'),*.''0')*')+%'0,C%'*&')+%''45*8%.'.',.'('0%0'*&'0(,)%0'.5'&*$5%)%$;8,.,.-')+%,$'6$*-$%00'(*.0,5%$'4/2'Q3,)+''('+'.-%'*&'6*0,),*.')+%''45*8%.'.',.'('0%0'*&'0(,)%0''

+*3%7%$'3+%.')+%'5,'-.*0,0',0'*40(1$%',)',0'$%E1,0,)%')+*'$%0*$')+*''0 '%B'8,.'),*.')+$*1-+')+%' '.5',.'&%8'/%0')+$*1-+')+%')0"'+%'&/1,5'(*//%()0',.')+%'$%()*;7%0,('f6*1(+''.5'*.'%B'8,.'),*.'+%'&,.-%$'5%)%()0')+%'0%.0'),*.'2,%/5%5'42')+,0'&/1,5')+$*1-+',)0'.')%$,*$'3'//'+%'7'-,.''',0'101''//2'&%/')+*'4%0+*$)%.%5'3+,/%')+%'1)%$10',0'610+%5'5*3.'.5'&/%B%5'.'%B)$%8%('0%0'*&'0(,)%0')+%'6*0)%$,*$'3'//*&')+%'7'-,.''*$%7%.')+%'1)%$10',)0%/&'8'2'6$*)$15%')+$*1-+')+%'71/7'0'*3''.5')+%.',)',0'$%E1,0,)%')+*'8'9%10%'*&')+%''06,$')'*$'*$''08'//')$*('$'42')+%','5'*&'3+,(+'.*)'*./2'('.',)'4%'5%)%$;8,.%5'3+%)+%$'&/1,5',0'6$%0%.)','.')+%''4;5*8,.'f(7,)2'41)',)0'.')1$%'('.''/0*'4%''0(%$)',.%5'+,0'8%)+*5'*&'%B'8,.'),*.',0'&1$)+%$'10%&1f3+%.'0(,)%0',0''00*(,')%5'3,)+'0*8%*)+%$'8*$4,5'(*.5),*.'3,)+,.')+%'45*8%.'3+,(+'&$%E1%.)/2'('..*)'4%'8'5%*1)'0*'/*.-''0')+%'&/1,5'$%8',.0',.')+%'6%$,)*.%18)'8 10)'4%'4*$.%',.'8,.5')+')'+%'*$5,.'$2'6+20,('f0,-.0'*&'0(,)%0'3,//'4%'8')%$,'//2'8*5,&,%5'*$*40(1$%5'1.5%$'(%$)',.'(,$(18;0)'.(%0'*$'%B'86%')+%'E1'.),)2'*&'&/1,5'8'2'4%'0*'08'//')+')'8*0)'('$%&1/'%B'8,;.'),*.',0'$%E1,$%5',.'*$5%$')*'5%)%()',)0'6$%0%.(%H*.')+%')+%$'+'.5',)'8'2'4%'0*'41.5'.)')+')'51/.%00',0'*40%$7%5'*7%$')+%'%.),$%''45*8%.''.5'&/1()1'),*.'8'2'4%'7%$2',.5,0),.()'+%'%B,0)%.(%'*&'6%$,)*.%'f'5;+%0,*.0G&*$',.0)'.(%')+*0%'3+,(+'8'2'4%&*$8%5'0')+%'$%01)'*&'$%6%')%5'6'$'(%.)%0,0'G'/0*'$%.5%$0'0*8%*&')+%'8*0)'(+'$'()%$,0),('0,-.0'*&'0(,)%0'7%$2',// 5%&,.%5'-',.')+%''00*(,'),*.'*&'6%$,)*.%'f5$*602'3,)+'0*8%*)+%$'45*8,.'f8*$4,5'(*.'),*.'01(+''0''.%3'-$*3)+''.'%./'$-%5'/,7%$'*$'06/%%.'*$'.'*7'$,'.')18*1$'3,//'/0*'8*5,&2')+%'0,-.0'%/,(,)%5'+%'8%0%.)%$2'8'2'4%''4.*$8=2'0+*$)'*$')+%',.)%0),.%0'8'2'4%''5+%$%.)''.5')+10'6$%7%.)%5'&$*8'&/*'),.-'&*$3'$50'0*')+')')+%'101'f$%/'),7%'6*0,),*.0'*&'51/.%00'.5')2866'.),('0*1.5''$%'.*)'*40%$7%5@'#"'D''#'/'"G+%'(/,.,('f6+%.*8%.''$%;01/),.-'&$*8')+%'8%(+'.,('f%&&%()0'*&'0(,)%0''$%'4*)+'014%),7%''+%'6'),%.)'*&)%.'%B6%$,%.5(0''&%%/,.-'*&'1.%'0,.%00'.5'5,0(*8&*$)',.')+%'45*8%.''0'3%//'0'8*$%*$'/%00')%.0,*.''.5'&)5.%00',&')+%$%',0'81(+'&/1,5'6$%0%.)H3+,/%')+%$%'8'2'4%''0%.0%'*&'),-1%''.5'(+,.-'4*1)')+%'/*.0'*$'4;5*8,.'f3'//0''0''$1/%'.*'6'$),(1/'$'6',',0'&%/)'41)'(*/,(92'6',.0''$%'/,'4/%')*'*((1$&$*8'),8%')*'),8%''.5'%B)$%8%'5,0)%.0,*.'*&')+%'0)$1()1$%0'(*.0),)1),.-')+%'45*8,.'f3'//'8'2''/0*'('10%'6',.&1/0%.0'),*.0''.'%B(%6),*.'f,.0)'.(%0'6%$,)*.,),0',0'0%)'16'+%.')+%'&/1,5',0''41.5'.)')+%'6'),%.)',0'(*.0(,*10'*&',)0'3%,-+)'3+%.'+%'3'/90H''.5'51$,.-'6$*-$%00,*.'+%')+$*30')+%'+%'5''.5'0+*1/5%$0'4'(9'')')+%'0'8%),8%'9%%6,.-')+%'/%-0'6'$)'2866'*80'(*..%()%5'3,)+')+%'/,8%.)'$2'('.'f'$%*&'(*88*.'*((1$$%.(%'41)')+%0%''$%'*&)%.')*''-$%')'%B)%.)'51%')*'+%'0'8%'('10%'3+,(+'*$,-,.')%0')+%'0(,)%0')+*1-+')+%'&/1,5'810'.%(%00'$,/2')%.5')*',.)%&%$%'3,)+')+%'&1.(),*.0'*&')+%'0)*8'(+''.5',.)%0),.%0'+%'4*3%/0''$%'101''//2'(*.;0),6')%5'41)',.'0*8%',.0)'.(%0'5,'$$+*%''*$520%.)%$,('02886)*80'8'2''$,0%'/')1/%.(%',0'7%$2'(*88*./2'(*86/'.%5'*&/%7%.''08'//'8*1.)'*&'-'0%*10'((1818')*.',)+%',.)%0),.%0'4%,.-'&%/)'1.51/2'6$*51(,.-'81(+'5,0(*8&*$)''.5',.($%'0,.-')+%'%./'$-%;8%.)'*&')+%''45*8%.')%86*$'$,/2'((';0,*.'//2'7*8,),..-'*((1$0',.'(*.0%E1%.(%'*&,.)%$&%$%.(%'3,)+')+%'0)*8'(+'+%','5*(*.;0,5%$'4/%&/1,5'+'0'$%8',.%5',.')+%'6%$,)*.%18'&*$'0*8%'),8%',)'6$%00%0'16*.')+%',.&%$,*$'7%.''('7''.5'6$%7%.)0')+%'$%)1$.'*&'4/**5')+$*1-+',)+,0'7%00%/''.5'8'2')+10'/%'5')*''.'0'$('*&'4*)+'/*3%$'%B)$%8,),%0'3,)+'%.;/'$-%8%.)'*&')+%'016%$&,(,'f'45*.,,.'f7%,.0'B(%6),*.'//2')+%'.'0'$('')$'()0')).),*.''.'%'$/2'6%$,*5'+%'&/*3'*&'4/**5')+$*1-+')+%'$%.'f7%,.0'8'2'/'*'4%'*40)$1()%5',.;51(,.-'8%(+'.,('f(*.-%0),*.'*'%'$%'9,5.%20'3,)+'(*.0%E1%.)'5,'.,.1),*.',.')+%'E1'.),)2'*&'1$8%'.5'0*8%),8%0'/+1./,.1$,''.'$'$%(.0)'.(%0')+%'&/1,5'+'0'4%%.'9.*3.')*'(;(181/')%')*01(+''.%B)%')'0')6'$16)1$%0*8%6'$)'*&')+%'45*8,.'f3'//0(,)%0''/0*'&$%E1%.)/2',.)%$&%$%0'3,)+')+%)+*$'(,('*$-'.0'+%'4'0%0'*&')+%'/1.-0'$%8*$%'*$'/%00'(*86$%00%5''.5')+%'4$%')+,.-'4%(*8%0'(+,%&/2'166%$(*0)'/'3+,/%''0%.0%*&'5206.*%'',0'%B6%$,%.(%5'%06%(,'//2',.')+%$%(184%.)'6*0)1$%'.5'&)%$')'9,.-'&**5')+%4$%')+',0'0+*$)'*.'%B%$),.'.5')+%'$%06,$';),*.0''$%'*&)%.'+1$$,%5'.5'0+'//*3'+%'+%'$)',0'/,9%3,0%'/,'4/%')*'4%'5,0)1$4%5',.',)0''(),*.'0'%7,5%.(%5'42'6'/6,)'),*.'.,$$%-1;/'$,)2'*$''')%.5%.(2')*'&',.)%00'+,0'*$-'.'8'2''/0*'4%'5,06/'(%5'0*')+')',)0''6%B4%')',0'$',0%5''.5')*'*'&'$)*3'$50')+%'/%&)''.5',.'$'$%',.0)'.(%0''4'0,('020)*/,(81$81$'+'0'4%%.'*$,-,.')%5'0''$%01/)'*&)+,0'5,06/'(%8%.)?'B"'G<+%'-%.%$'f020)%8',0'&$%E1%.)/2'0%$,*10/2''&&%()%5',.'('0%0',.'3+,(+'0(,)%0',0''6$*8,.%.)'J1.6)*8'41)')+,0'101''//2'5%6%.50'16*.')+%'(*10%'*$('10%0'3+,(+'+'7%'*$,-,.')%5')+%'5$*602')+*1-+',)'8'2',)0%/&',.51(%'8*$%'*$'/%00'5%4,/,)2'3'0);,-''.%%8,''.5'*)+%$'-%.%$'f%&&%()0'+%'/*00'*&'&/1,5',.')+,0'3'2'+'0''/0*'4%%.'016;6*0%5')*'/%'5'*&,(%.)'6%$06,$'),*.''.5'(*.0%E1%.)'5$2.%00'*&')+%'09,.'H'0'3%/'0')*'5,8,.1),*.',.')+%'E1'.),)2'*&'1$,.%&'G+%'(*.0,('f'0(,)%0',0')*'45*8,.'f8*$4%'$,.-'16*.')+%'5,'-.*0,0'*&'0(,)%0',0')*'45*8,.'f8*$4,5'(*.5),*.'7'0(,)%0',0''6$*8,.%.)'*&'1/&,.)%$&%$%.(%'3+%)+%$'8*$4,5'(*.5),*.'+'0(,)%0',0''6$*8,.%.)'*&'1/&,.)%$&%$%.(%'3,)+'%.;/'$-%8%.)'*&')+%'016%$&,(,'f'45*.,,.'f7%,.0'B(%6),*.'//2')+%'.'0'$('')$'()0')).),*.''.'%'$/2'6%$,*5'+%'&/*3'*&'4/**5')+$*1-+')+%'$%.'f7%,.0'8'2'/'*'4%'*40)$1()%5',.;51(,.-'8%(+'.,('f(*.-%0),*.'*'%'$%'9,5.%20'3,)+'(*.0%E1%.)'5,'.,.1),*.',.')+%'E1'.),)2'*&'1$8%'.5'0*8%),8%0'/+1./,.1$,''.'$'$%(.0)'.(%0')+%'&/1,5'+'0'4%%.'9.*3.')*'(;(181/')%')*01(+''.%B)%')'0')6'$16)1$%0*8%6'$)'*&')+%'45*8,.'f3'//0(,)%0''/0*'&$%E1%.)/2',.)%$&%$%0'3,)+')+%)+*$'(,('*$-'.0'+%'4'0%0'*&')+%'/1.-0'$%8*$%'*$'/%00'(*86$%00%5''.5')+%'4$%')+,.-'4%(*8%0'(+,%&/2'166%$(*0)'/'3+,/%''0%.0%*&'5206.*%'',0'%B6%$,%.(%5'%06%(,'//2',.')+%$%(184%.)'6*0)1$%'.5'&)%$')'9,.-'&**5')+%4$%')+',0'0+*$)'*.'%B%$),.'.5')+%'$%06,$';),*.0''$%'*&)%.'+1$$,%5'.5'0+'//*3'+%'+%'$)',0'/,9%3,0%'/,'4/%')*'4%'5,0)1$4%5',.',)0''(),*.'0'%7,5%.(%5'42'6'/6,)'),*.'.,$$%-1;/'$,)2'*$''')%.5%.(2')*'&',.)%00'+,0'*$-'.'8'2''/0*'4%'5,06/'(%5'0*')+')',)0''6%B4%')',0'$',0%5''.5')*'*'&'$)*3'$50')+%'/%&)''.5',.'$'$%',.0)'.(%0''4'0,('020)*/,(81$81$'+'0'4%%.'*$,-,.')%5'0''$%01/)'*&)+,0'5,06/'(%8%.)?'B"'G<+%'-%.%$'f020)%8',0'&$%E1%.)/2'0%$,*10/2''&&%()%5',.'('0%0',.'3+,(+'0(,)%0',0''6$*8,.%.)'*&')+%''45*8,.'f8*$4,5'(*.5),*.'7'0(,)%0',0''6$*8,.%.)'*&'1/&,.)%$&%$%.(%'3,)+'%.;/'$-%8%.)'*&')+%'016%$&,(,'f'45*.,,.'f7%,.0'B(%6),*.'//2')+%'.'0'$('')$'()0')).),*.''.'%'$/2'6%$,*5'+%'&/*3'*&'4/**5')+$*1-+')+%'$%.'f7%,.0'8'2'/'*'4%'*40)$1()%5',.;51(,.-'8%(+'.,('f(*.-%0),*.'*'%'$%'9,5.%20'3,)+'(*.0%E1%.)'5,'.,.1),*.',.')+%'E1'.),)2'*&'1$8%'.5'0*8%),8%0'/+1./,.1$,''.'$'$%(.0)'.(%0')+%'&/1,5'+'0'4%%.'9.*3.')*'(;(181/')%')*01(+''.%B)%')'0')6'$16)1$%0*8%6'$)'*&')+%'45*8,.'f3'//0(,)%0''/0*'&$%E1%.)/2',.)%$&%$%0'3,)+')+%)+*$'(,('*$-'.0'+%'4'0%0'*&')+%'/1.-0'$%8*$%'*$'/%00'(*86$%00%5''.5')+%'4$%')+,.-'4%(*8%0'(+,%&/2'166%$(*0)'/'3+,/%''0%.0%*&'5206.*%'',0'%B6%$,%.(%5'%06%(,'//2',.')+%$%(184%.)'6*0)1$%'.5'&)%$')'9,.-'&**5')+%4$%')+',0'0+*$)'*.'%B%$),.'.5')+%'$%06,$';),*.0''$%'*&)%.'+1$$,%5'.5'0+'//*3'+%'+%'$)',0'/,9%3,0%'/,'4/%')*'4%'5,0)1$4%5',.',)0''(),*.'0'%7,5%.(%5'42'6'/6,)'),*.'.,$$%-1;/'$,)2'*$''')%.5%.(2')*'&',.)%00'+,0'*$-'.'8'2''/0*'4%'5,06/'(%5'0*')+')',)0''6%B4%')',0'$',0%5''.5')*'*'&'$)*3'$50')+%'/%&)''.5',.'$'$%',.0)'.(%0''4'0,('020)*/,(81$81$'+'0'4%%.'*$,-,.')%5'0''$%01/)'*&)+,0'5,06/'(%8%.)

*)+%,' %,$()1.0)'.(%0' ,.' 3+,(+')+%' 6+20,('/ 0,-.]' '$%'*40(1$%5'*$' 8*5,&,%5')+%'5,'-.*0,0' 8'2' 4%'5,&&,(1/)' .5' 1.(%$)',.'4/,)' ,)' 8'2')+%.'4%',5%5'42''9.*3/%5-%'*&')+%'%B,0)%.(%'*&'0*8%'5,0%'0%'/,9%/2')*'-,7%'$,0%')*'1'0(,)%0'*&'3+,(+',)' ,0'$%''//2'41)' '' 02 8 6)*8' +')')+%' ((1 8 1/'),*.' *&'&/1,5' ,0' *&' '' 5$*60,('/ .')1$%' .5' .*)'51%')*' (1)%'*$'(*$.,('6%$,;)*.,),0' ,0' 101''//2' 01&&,(,%.)/2'*47,*10'&$*8')+%' +,0)*$2'*&' 8%'%'0%' '.5')+%'(*//')%$'/02 8 6)*8 0' 3+,/%')+%'/*('/ 0,-.0' '$%' '/0*'*&' '' &&,&/%$%.)' (+'$')0%$' %) ,0%'0%0' *&R' +%' $%8',.,.-' '45*8,.'/ %./'$-%8%.)0' &$*8'3+,(+' '0(,)%0' +'0')*' 4%' 8*$%'(*8 8*./2' 5,0),..-1,0+%5''$%')*0%' 51%')*' &/'442' $%/'B'),*.' *&')+%' 3''//0' *&')+%' '4;5*8%.' (*8 4,.%5' 3,)+' &/')1/%.(%H' '((1 8 1;/'),*.' *&'&')',.')+%' 014(1)'.%*10'),001%' '.5',.')+%' *8%.)1 8 H '41.5'.)' 014(1)'.%*10'*%5%8' ' 3+,(+' 8 '2' 4%' '00*(,')%5' 3,)+' '.5'*40(1$%' '0(,)%0H' .' *7'$,'.' (20)H' *$' ''6$%-;.')' 1)%$10' 8*.-')+%' 8*$%' $'$%' (*.;5,),*.0' 3,)+' 3+,(+' '0(,)%0' ,0' /,'4/%')*' 4%'(*.&*1.5%5' 8'2' 4%' 8%.),*.%5' '' -$%')/2'5,/')%5'0)*8'(+H'(*//*,5'5,0%'0%'*&')+%'*8%.;)1 8 H' 5,0)=0,*.' *&')+%' 1)%$10' 3,)+' &/1,5H'-$%')' ((1 8 1'),*.' *&' 1$,.%' .' 16*.' 3+,(+')+%' 4/'55%$H'' 7%$2'/'$-%' +25'),5')1 8 *1$' 101''//2' (*.;.%()%5' 3,)+')+%' /,7%$H' %B)$%8%' (20),(' %.;/'$-%8%.)' *&')+%' 9,5.%2H' .5')+%' 0*('//%5'06+'.)*8')1 8 *1$ < *0)'*&')+%0%'(*.5,),*.0''$%'5%0($,4%5',.'*)+%$'6')0' *&')+,0' *$9''.5')+%,$'0%7%$'/' 5,'-.*0),(+'$')(%$0..%%5'.*)'4%' 5,0(100%5' +%$%H 41)' '' (*.0,5%$'),*.' *&')+%' +,0)*$2'.5' %B,0),.-' 02 8 6)*8 0' *&'%'(+'6'$),(1/'$'('0%'(*8 4,.%5'3,)+')+%' $%01/)0' *&'.' '5%E1')%' 6+20,('/' %B'8,.'),*.'(*.0),1)%')+%'5')''16*.'3+,(+')+%'5,'-.*0,0',0' &*1.5%5'))' 8 10)' 4%' $%8%8 4%$%5')+')' '0(,)%0' 8'2'(*%B,0)' 3,)+' *)+%$' 8*$4,5' (*.5,),*.0' ,.')+%''45*8%.')+%,$' 6+20,('/ ,-.0' 4%,.-' (*8;4,.%5' +*1/5')+%$%' 4%' .'%'/'$-%5' *$-'.'*$' *)+%$' 0*/,5' 8'00',)' 8'2' &)%.' 4%' $%(*-;.,0%5'42'8'9,.-' 0155%.' &,$8' 6$%001$%' 3,)+')+%' &,.-%$0' *7%$')+%' (*$$%06*.5,.-' 6')$)' *&')+%''45*8%.'3+%.')+%' &/1,5',0' 610+%5''0,5%''.5')+%' 1.5%$/2,.-'$%0,0)'.(%'(.'.4%' &%/)H' *$6'$'(%.)%0,0' 8'2' 4%' 6%$&*$8%5''.5' &1$)+%$%B'8,.'),*.'('$$,%5'*1)' &)%$')+%' %7'(1'),*.'*&')+%' &/1,5

.*)+%$' 8*0)',86*$)'.)' 6*,.)',.')+%'5,';-.*0,0'*&'0(,)%0',0')*' 8'9%*1)',)0'(' 10%' *$')+,0' 61$6*0%'/')+%' &%()0' 4%'$,.-' 16*.')+' ('0%'8 10)'4%')'9%.',.)*''((*1.)'.5'('$%)1 2'3%,-+%5'06%(,'/'))%.),*.'4%,.-' 6',5')*')+%'/,7%$'.5')+%'0)$1()1$%0',.',)0'7,(,.,)2')*')+%'+%')$)' .5')*')+%' 9,5.%20' +%' 8*1.)' *&')+%' '0(,)%0' .5',)0' *&' 5$*602' '&&*$5' (*.0,5%$'4/%' ,5' ,.')+%'5,'-.*0,0' &',H*8'('$5,'('*$'$%.'/5,0%'0%''0(,)%0'/3'20'&*//*30'5$*602',.')+%$'6')0' *&')+%' 4*52')*'3+,(+',)',0'/0*'-%.%$'//2'014*$5,.')%H 3+%.',)',0'51%')*'+%6'),('5,0%'0%'*$0*8%'.%,-+4*1$,.-' 8*$4,5' (*.5,),*.')+%'6%$,)*.%'/ 5$*602''66%'$0' &,$0)'.5',0' 0' ''$1/%')+$*1-+*1)' 8*0)'6$*8,.%.)' +*1/5')+%

7%.''(' '',.&%$,*$' 4%' *40)$1()%5')',)0'166%$'6')$)''.'0'$('' *&')+%' /%-0' 3,// 4%' *40%$7%5'0,8 1/)'.%*10/2' 3,)+' *$' %7%.' 4%&*$%')+%' '0(,)%0

:" +%' 6$*-.*0,0' *&' 0(,)%0' 3,// 8',./2' 5%6%.5' 16*.',)0' ('10%H)+%' 8*1.)' *&'&/1,5' 6$%0%.)H)+%' *)')%' *&')+%' 6'),%.)H)+%' (*.8),*.' *&')+%' 6$,.(,6'/ *$-.'.0H' .5')+%' $%01/)0' *&')%')8%.)' .'0*8%' ('0%0')+,0' 0J1.6)*8',0' ,.' ,)0%/&'))%.5%5'3,)+' 18%.)'5=-%$'*.'((*1.)' *&')+%' 8%(+'.,('/ %&&,()0' *&')+%' 5$*6$,(','((1 8 1/'),*.' %06%(,'//2' 16*.')+%')+*$'(,(' *$-'.0''.5')0),//&&,*$%',&K')+%0%'*$-'.0' $%',.''5,0%'0%5'(*.5,),*.' .' *)+%$',.0)'.(%0',)')%.50')*'$%51(%')+%'6'),%.)'' '55')+10')*'4$,..-'4*1)' ''&')'/')%$8 8 '),*.' +%.'0(,)%0',0H'51%')*' /*('/ ,.)%&%$%.(%'3,)+')+%'6*$)'/ ,$(1/'),*.'-$%')'$%/,%&'('.'1.E1%0),*.'4/2'4%''&&*$5%5',.''(*.0,5%$'4/%.8.4%$'*&'('0%0''.5'/,&%'8'2'4%'6$*/*.-%5'42''66$*6$,')%)$%')8%.)H 34=',&')+%/*('/('10%',0.*)'01(+'0',.',),0%/&')*'/%'5')*''&')'/,001%')+%'0(,)%0'8'2'.*)',.&/$%E1%.)/2'4%'6%$8'.%.)/2'(1$%5

! G +%'6$,.(,6/%0'*&')$%')8%.)'Q'66+%'4/%')*'('0%0'*&'0(,)%0'$%'A'H')*')$%')'+%'(*.5,),*.0'16*.3+,(+')+%'&&,*602'5%;6%.50''.5')+10'.5%'7*1$')*'-%)'$,5'*&',)0'('10%'*$'('10%0H ')*6$*8*%)%'40*$6),*.'*&')+%'&/1,5H ')*',86$*7%')+%'(*.0),)1),*.'/(*.5,),*.''.5')+%'0)')%'*&')+%'4/**5',&'.%(%0;0'$2'H A5R')*'$%8*7%')+%'&/1,5'42'*6%$'),*.',&'40*$6),*.'('.*)'4%'%&&%()%5H'.5'A'H')*')$%')'.2'02 8 6)*8 0'.%%5,.-'06%(,'/'))%.),*.A'R 0'.',86*$)'.)'6')$)'*&')+%')$%')8%.)'5,$%()%5')*')+%' ('10%0'*&'0(,)%0'6')$),(1/'$'))%.),*.'8 10)'4%'6',5')*')+%')')%*&')+*0%'*$-.'0'3+,(+')+'(%8*0)'(*8 8*./2''((*1.)'4/%'&*$)+,0'02 8 6)*8')+*1-+'1.&*$)1.')%/2'41)'/,))/%%&&%()'('.''0''$1/%'4%'6$*51(%5'*.')+%'5$*602',.')+,0' 2A4R 40*$6),*.'*&'0(,),(' &/1,5',0' (+,%&/2'6$*8*%)%5'42'(),.-'&,%%/2'16*.')+%'4*3%/0'09,.'*$'9,5. 20' +%'(/'00''*&'$%8%5,%0',.;5,('%5'3,//'$2',.'5,&&%$%.)'('0%0''.5'8 10)'4%'5'6)%5')+)+%'0)')%'*&')+%'&/1,5',&&%$%.)'*$-.'.0H'41)'0''$1/%'.'(),7%'+25$'-*-1%'61$-),7%0'$%'8*0)'%&&,(,%.)',.'$%/,%7,.-'0(,)%0'%06%;(,'//2'3+%.'51%')*'/*('/('10%0' +%'8*0)'0%&1/'$%' *86*1.5'>'/'6' 6*35%$'($%'8'*&')'$)'$' %/')%$,18'*$' (*86*1.5'%/')%$,.'6*35%$H 41)'('/*8%/' -'84*-%'$%0,.'*&'6*5*6+2//18'.5'0'/,.%'61$-'),7%0'8'2'4%'&'%$7,(%',.'6'$),(1/'$'('0%0' +%0%'-%.)0'8 10)'+*3%7%$'4%'58,.0)%$%5'3,)+'(1),*.'.'(%$)',.'.0)'.(%0'4'/0'8*'$'$%0,.'*&'(*6',4''+'0'6$*7%5'10%&1/'0''5,1$%),('.')+%')%')8%.)'*&'6%$,)*.%'/5$*602'00,0)'.(%'8'2'4%'5%$,7%5',.'(%$)','.'&*$8 0'*&'0(,)%0'&$*8'(),.-'16*.')+%'09,.'42'8%'.0'*&'7'$,*10'5,'6+*$%),('4')+0'W ,-.)'/,0'.5'0E1,/'8'2'4%'*&'0%$7,(%'0'5,1$%),(0H')+%''66+%'),*.'*&'6*1/),(%0'*&'5,-.)'/,0'/%'7%0'*7%$')+%'45*8%.',0'*((0,*.'//2')%.5%5'3,)+'4%.%&,)' +%'58,.0)$'),*.'*&',*5,5%'&'6*)'00,18'/0*'0%%80')*' ,5''40*$6),*.',.0*8%'('0%0'8*$%

$%06,$'),*.' +%2'8 '2'4%' 5,7,5%5' ,.)*')3*' (')%-*$,%0', .)%$. %' ' .5'%B)%$. '/
5" " G +%0%' ,. (/15%'6'$'/20,0" *&')+%' $%06,$')*$2' .%$7% (%.)$%0' 42' 5,0%'0%' *$* ,.>1$2'*&')+%' 8 %51//'' *4/*. - ')'H 6'$'/20,0"*&')+% . %$7%0" *$' 8 10(/%0" *&' $%06,$'),*. H ''$,-,5' +B'),*.'*&')+%' $%06,$')*$2' 8 10(/%0H (*//'60%' *$ 5,0%'0%' *&')+%' /1 . -0H *((/10,*.'*&')+%' ,$' 6'00'-%0' 42'*$- ' .,(' 5,0%'0%' *$' 06'0 8' *&')+%' -/*)),0'6$%001$%' *&')1 8 *1$0' ' .5')+%' /,9%
I (" G = *)+,0' -$*16'4%/*. -' *((/10,*.' *&')+%' ',$ 6'00'-%0' 42' &*$%,- .' 4*5,%0H 6$%001$%' *.')+%' (+%0)' .*)' (' 6'4/%' *&' 4%,. -' *7%$(*8%' 42')+%' 8 10(/%0" *&' $%06,$'),*. H (/*01$%' *&' *$' %B)%$. '/ 6$%001$%' *. ')+%' ',$' 6'00'-%0' '0',.' 01&&*('),*. ')$' . -1/'),*. ' *$* +'. -,. -' +%0%' '$%' '// ('0%0" *&' *40)$1(),*.' *&')+% $%06,$')*$2' 8 *7% 8 %.)0',.' '' 8 %5,1 8' ('6'4/%' *&'0166*$),. -' /,&% *')+%0%'%B)%$. '/ ('10%0' '$%')*' 4%' '55%5')+*0%' (*.5,),*. 0',.' 3+,(+')+*1-+')+%' $%06,$')*$2' 8 *7%. '%.)0' '$%' &$%%')+%' 01$$*1.58-' 8 %5,1 8',0",.; ('6'4/%' *&' *B2-%.')..-')+%' 4/**5'7,C '014; 8 %$0,*.',.'' '/,E1,5'8 %5,1,+' A5$*3 ,.-RH *$* 4%,. -' 01$$*1.5%5' 42' '' 8 %5,1 8' 5%7*,5' *&' *B2-%.' 01(+' '0' .,)$*-%.' *$' +25$*-%. ' +%0%' -'0%0" +'7%' '' 61$%/2' .%-')',7%' %&&%()H 41)' 8 ' .2'*)+%$' -'0%0' 3+,(+' ',%' (/'00%5' '0' '06+2B,''.)0' 01(+' '0' ('$4*.,(' *B,5%' 01/; 6+1$%))%5' +25$*-%.' (+/*$,.%' (+/*$*&*$8' 7' 1$' ^(' +'7%' 6*0,),7%' 6*,0*.*10' %&&%()0' '.5' 0+*1/5')+%$%&*$%' 4*' ('//%5' 42' 0*8 %06%(,'/ .'8 %' 01(+' '0" " # (" ')*' 5,0),.-1,0+')+%8' &$*'8')+*0%' 3+,(+' +'7%' .*' 01(+'6$*6%$),%0
$ / B; ! '" +%.' '.' ' .,8'/ ,0' 6/'(%5' ,.' '.' ')8*06+%$%' 5%7*,5' *&' *B2-%.' *$' .*)' (*.)' ,..-' '' 01&/ (,%.)' E1' .),)2'*&')+,0' -'0' A1.5%$' !'6%$' (%.)R')*' 8 ',.)',.')+%' $%06,$';)*$2'6$*(%00' *$',&')+%' 8 %(+' .,0 8' *&' $%06,$';),*.',0' 0,8 6/2'*40)$1()%5',)' 4%-,.0')*' 0+*3' 0,-.0' *&' -,)',*.' '.5')*' 8 '9%' 6*3%$+,/,.06,$')*$2' .5' %B6,$')*$2' %&&*$)0',.' 3+,(+')+%' ((%00*$2' 8 10(/%0" *&' $%06,$'),*.' '$%' '// 4$*1-+)',.)*' ' (),*.H')+%' '$)%$,'/)%.0,*.',.; ($%'0%0'H ' .5')+%' 016%$&,(,'/ 7%,.0' 4%(*8 %' 5,0)%.5%5' .5'/,7,5
&)%$' '' 7'$,'4/%' 6%$,*5')+%0%' 5206.*%,(' %&&*$)0' 6'00' ,.)*' -%.%$'/ (*.71/0,*.0',.' 3+,(+')+%' 8 10(/%0" *&' %B6,$'),*.' '$%' 8 *$%' %06%(,''//2',.' '(),*.' 51$,.-' 3+,(+')+%' 06+,.()%$0' '$%' &*$(%5' .' 5')+%' %B($%),*.0' 7*,5%5' ' .')+%0%')+%$%' &*//*30' '(' /8 '51$; ,.-' 3+,(+')+%' '.,8'/ /,%0',.0%.0,4/%' 3,)+' 5,/')%5' '.5',8 8*7'4/%' 616,/0' '.5' 3,)+' $%&/%B' %B(,)'4,/,)2' '4*/,0+%5' -%.%$'//2')')+%'0' 8 %'),8 %')+%'61/0%',0'0 8 '// &%%4/%' '.5' '/8*0)',8 6%$(%6),4/%' /' 8 10(1/'$' 8 *7%; 8 %.)0'(%'0%'%B(%6)')+*0%'*&',.06,$'),*.' 3+,(+' '$%' $%6%')%5' ')' ,.)%$7'/0' 0' 5%')+' '6; 6$*'(+%0')+%' $%06,$')*$2'8 *7% 8 %.)0' 4%(*8 %' 0+'//*3%$*.5'/%00'$%-1/'$*.'.5'*$%0 1((/%%5%5' 42'0)$%)(+,.-'(*.71/0,*.0' 51$,.-' 3+,(+')+%' +'(9',0'0)$',-+)%.%5')+%'+%'5',0')+$*3.'4'(9')+%' 8 *1)+' -'6%0' '.5')+%' .*0)$,/0' 5,/')%' +, >%'$)'0),//(*.),.1%0')*' 4%')' '&)%$'*)+%$ 8 *7% 8 %.)0'+'7%'(%'0%5' +%'+%'$)'1/),8 ')%/2' 0)*60',.')+%' 0)')%'*&' 5,'0)*/%' %')+',0')+4,0' (*86/%)%' .5'&,.'/
% ' ,8' 0 & $0 ! '),8%' .%(%00=')*'4$,.-' '4*1)' ''&')'/)%$8,.'),*.' 7'$,%0',.'5,&&%$%*)' .,8'/0' .5',.')+%' 0'8%' .,8'/1.5%$'5,&&%$%.)' *.5,),*.0')'+'0'4%%.' .*)%5')+')')+%'2*1.-'*&' 0*8%' .,8'/0'$%0,0)' 06+2B,''/*.-%$')+' .')+%''51/)0' +%/')%' '1' %$)'+'0' 0+*3.')+')')+%0%' 5,&&%$%.(%0' '$%' '//%B6/,('4/%',.''((*$5'.(%'3,)+')+%/'3')+')')+%'8*$%'(),7%')+%'7,)'/'(*8410),*.')+%' -$%')%$')+%'-'0%*10',.)%$(+'.-%'.'5')+%$%; &*$%')+%'8*$%'$'6,5/2'&')'/)+%'*40)$1(),*1'*&')+%' $%06,$')*$2'6$*(%00' B(/15,.-'06%(,'/ (*.0,5%$')*.0'*&')+,0' 15',)'8'2'4%'0)')%5' '0')+%' $%01/' ')+%' %B6%$,8%.)0' ')+%' %5,('/ '.5' +,8$-,('/ *8 8,))%%' *.' 106%.5%5' .,8'),*.' B# ' 7*/'B/7' ?D@R')+')'3+%.')+%'$%06,$'),*.'*&''' 3'$8 **5%5''.,8'/',0')*)'//2' *40)$1()%5' '//%B)%$.'/ 8*7%8%.)0'(%'0%' 8' &$*8')+$%%')*'&,7%' 8,.1)%0'' .5')+%' +%'5')' 0)*60' 3,)+,.')%.' 8,.1)%0' %$)',.' 8*5,&,(',*.0'*((1$' '((*$5,..')*')+%' 8 %)+*5',.'3+,(+'06+2B,'' ,0'6$*51(%5' '& @
!' ' ' " +%'4/**5',0'*&' ''5'$9'(*/*8'*3,..')*' (*86/%)%' $%51(),*.' *&')+%' +'%8*-/*4,.''.5')+%' 6$*6*$),*.'*&' ('$4*.,(''(,5',0'-$%')/2',6($%'0%5' 3,.-')*')+%'%B(%00'*&'(',4*',(''(,5')+%'4/**5'(*'-.' /')%0'0/*3/2'*$',8 6%$&%()/2H+%,>(%',)'$%8',.0' /*.-'&/1,5'*$'&*$8 0'&%3'.5'0*&)' (*'-1/' +%' 7%.*10'0,5%*&')+%' +%'$)')+%' -$%')' 7%.*10')$1.90''.5')/=%61/8*.')2'*$)%$2'$(' 5,0)%.5%5'3,)+'5'$9'4/**5H 3+,/0)')+%' /%&)' 0,5%',0'%86)2'*$'5'$9'4/**5 (*.)',.0'*./2'' 08'//'E1'.),)2'*&'5'$9'4/**5
+%' 66%'$'.(%'*&')+%' /1.-0',0'.*)' (*.;0)'.)' +%0%'*$-'.0' '$%' 42' .*' 8%'.0'/3'20'(*.-%0)%5''0',0'7%$2'-%.%$'//2'0)')%5'4%,.-' 8*$%'*&)%.'6'/%' .5' '.%%8,(' +%'6*0)%$,*$' .5' 5%6%.5%.)' 6'$)0' 4%(*8%'+26*0)'),(' 2'(*.-%0)%5' ' +%' *8,.'/ 7,0(%$'' '$%' 101'//2' (*.-%0)%5' +%' 66%'$'.(%'*&')+%' 4$',.' 7'$,%0')+,0'*$-'.'4%,.-'%,)+%$' .[8,(*$' 8*$%' *$'/%00'(*.-%0)%5' 6%(,'/0,-.0'(9'$'*)%$,0%06%(,'/8*5%0'*&'('10'),*.'*&'06+2B,' G' .'0 8 1(+' '0')+%' (%00'),*.'*&'$%06,$'),*.'8%'.0'4*)+'*B2-%.0)'$7'),*.'.5''((18 1/').*.'*&'('$4*.,(''(,5')+%'E1%0;),*.',0'3+%)+%$')+%'6+%.*8%.''*&''06+2B,''5%6%.5'*.')+%'*.%'*$')+%'*)+%$'*$*.'4*)+'$,*10'*6,.,*.0'+'7%'4%%.'%.)%$)',.%5'*.')+,0' 014>%()' 41)')+%' %B6%$,8%.)0' *&'*0%.)+'/'.5' &/)/-%$'3*1/5'0%%8')*' *3')+')')+%'5%6$,7'),*.'*&'*B2-%.',0')+%' (+,%&'&'()*$' +')')+%'((18 1/'),*.'*&'('$4*.,(''(,5'+'0'.*'%&&%()'')'//('..*)'+*3%7%$'4%'8',.)',.%5'&*$',)',0'5%8*.0)$'4/%')+')'('$4*.,('(,5'+'0''' 5,0),.()')*B,('%&&%()'*.'/,7,.-'),001%0
+%' (,$(1/'),*.'*&'.*.*B2-%.')%5'4/**5')+$*1-+')+%' /1.-0''.5')+%'$%06,$')*$2'(%.)$%',.')+%'8%51//''*4/*.-')'',0')+%'('10%'*&')+%

6*3%) '$%06,$')*$2' %&&*$)0' ,.')+%' &,$0)' 0)'-% G5,$%()/2'42'0),81/'),*.'*&')+%' $%06,$')*$2' .%$7% (%.)$%0H ,.5,$%()/2' 42' 6%$,6+%$'/ ,$$,)'),*.'*&')+%' 61/8*.'$2'4$'.(+%0' *&')+%' 7'-,' +%' $%06,$')*$2' 8*7%8%.)0' ,.($%'0%' ,.'&*$(%''.5')+%',$$,)'),*.',$$'5,')%0',.)*')+%' (%.)$%0' *&' *)+%$' 8*7%8%.)0' 4%0,5%0')+*0%' 5,$%()/2'(*.(%$.%5',.'$%06,$'),*.'-,7,.-'$,0%')*')+%' %B6,$')*$2' (*.71/0,*.0' 3+,(+' +'7% 4%%.' '0($,4%5' 42' 0*8%')*' %B(,)'),*.' *&' '' 06%(,'/0(*.71/0,*. (%.)$%<,D "

+%' $%06,$')*$2' (%.)$%0'1/),8')%/2'4%(*8% 6'$'/20%5'41)'0140%E1%.)/2')*')+*0%' *&'(*.; 0(,*10''(),7,)2G)+%'4$',.H'.5'*&'$%&/%B'()*.' G)+%'06,.'/'(*$5

+%' (,$(1/'),*.'*&'.*. *B2-%.')%5'4/**5' /,9%3,0%'('10%0'(*.)$')()*.'*&')+%' '$)%$,*/%0' &$*8',$$,)'),*.'*&')+%' 7'0* 8*)*$' (%.)$%' .($%'0%5' $%0,0)'.(%' ,0')+10'*&&%$%5')*')+%' +%'$)' .5')+,0' ,0' ,.)%.0,&,%5' 42')+%'(*.; 71/0,7%' 810(1/'$' %&&*$)0' +%' '$)%$,'/)%.0,*.'$,0%0' +%' $%0,0)'.(%')*')+%' &/*3')+$*1-+')+%'('6,//'$,%0'42'(*.)$')(,*.'*&'')+%' 8,.1)%' 4/**5 7%00%/0'*((1$0'.*)'*./2',.')+%' 020)%8,('41)'/0*',.')+%' 61/8*.'$2'(,$(1;'),*.''')'.' '66$%(,'4/% 6%$,*5' &)%$' ,)0'*((1$%.(%',.')+%' 020)%8,(' 7%00%/0' +%' 7%.)$,(/%0'4%(*8%5,0)%.5%5'.5')+%'+%'$)<0' '(),*.'/'4*1$%5' +%' +%')$)' 4%(*8%0' %.; &%%4/%5'42')+%'(,$(1/'),*.'*&'.*. *B2-%.')%5' 4/**5',.',)0' 3'//0')+%' 5,'0)*/,('.)%$7'/0'4%; (*8%'/*.-%$'1.),/'+%' *$-'.' &,.'//2'0)*60' ,.''*0)')%' *&' 5,'0)*/%'3,)+')+%' $,-+)'0,5% & .//' 3+,/%')+%'/%&)' 8'2'+'7%' 01((%%5%5',.'%86)2; ,.-',)0%/&' 3,.-')*')+%' *40)$1(),*.'*&')+%' 61/8*.'$2' (,$(1/'),*.'&$*8')+,0' ('10%')+%' 020)%8,(' 4/**5 6$%001$%' &'//0' '.5')+%' 61/0%' 4%(*8%0'08'/'.5'&%%4/%

! G %010(,)',*.'&$*8'61$%' '0; 6+2B,'',0'6*00,4/%' 0*/*.-''0')+%' +%'$)' (*.;),.1%0')*'4%')' &)%$'(%00'),*.'*&')+%'+%'$)<0' '(),*.')%)8%.)' ,0'1.'7',/,.-' %B(%6)' ,.' ('0%0'*&'(%00'),*.'&$*8'8%$%'*7%$ 5,0)%.0,*.' ,.'3+,(+'4/%%5,.-'&$*8')+%' %B)%$.'/'>1-1/'$' 7%,.'8'2'4%'$%0*$)%5')*' 3,)+'01((%00' +% (+,%&',.,.')+%')$%')8%.)' *&'06+2B,'' ,0')*' %&&%()' *B2-%.'),*.'*&')+%'4/**5'42')+%' ,.)$*51(),*.'*&',$',.)*')+%' /1.-0' &')+%' 8%5,18'42'3+,(+')+%'6'),%.)' ,0'01$$*1.5%5' ,0',.('6'4/%' *&'0166*$),.-' $%06,$'),*.' +% 810)'4%' ,88%5,')%/2'$%8*7%5' *$')+%' '); 8*06+%$%' (+'.-%5' &')+%' ,$6'00'-%' ,0' *40)$1()%5'42'' &*$%,-.'4*52')+,0'810)'4% %B)$'()%5H ,&')+,0' ,0' ,86*00,4/%' *$' ,&')+% *40)$1(),*.'$%01/)'&$*81'5,0%'0%')$'(+%*)*82' *$'/'$2.-*)*82'810)'4% $%0*$)%5')*' %'.0' 810)'4% '5*6)%5' *&'%B(,),.-')+% $%06,$')*$2' (%.)$%0'*$'$%06,$')*$2'810(/%0')*''(),*.H *$' ,&')+%0%' '$%'6'$'/20%5''.5'.*. %B*,)'4/%')+% .')1$'/'8*7%8%.)0'*&'$%06,$'),*.'810)'4% ,8,)'%5' 5),&,(,''//2' *$' ,$' ,.)$*51(%5' 42' ,.01&&/'),*.

+%' $%06,$')*$2' (%.)$%0',&'.*)' '40*/1)%/2' 6'$'/20%5'8'2'4%' %B(,)%5'$%&/%B/2'42'0),81/';),*.'*&'(1)'.%*10'.%$7%0'%06%(,''//2')+*0%' *&')+%'&'(%''.5')+*$'B' +,0' 8'2'4%' %&&%()%5 42')+%'0),81/10'*&'0155%.'(*/5'*$'4%))%$'42' '/)%$.')%'5'0+,.-'*&'+*)'.5'(*/5'3')%$'*.')+%'&'(%''.5'(+%0)'*$'42'&/,(9,.-')+%'09,.' 3,)+''')*3%/' +%0%'$%&/%B'0),81/,''$%'*&)%.' *&')+%8 0%/7%0'01&&,(,%.)')*'%B(,)%'$%06,$')*$2' 8*7%8%.)0H ,&'.*)')+%2'$%'6*3%$&1/014; 0,5,'$2' ,50')*' $),&,(,&5'$%06,$'),*.' +%' 5,'6+$'-8'8'2'4%'0),81/')%5')*' (*.)$')(,*.' 42'-'/7'.,0'),*.'*&')+%' 6+$%$5(' .%$7%'*.% 6*/%' 4%,.-'6/'(%5'*.')+%'.%$7%' 0',)' ($*00%0')+%'0(''/=10''.),(10'')'=%'$**)'*&')+%',H%(9')+%'*)+%$'*.')+%'%6,-0)$,18' +,%&'$%/,'.(%' +*3%7%$',0')*' 4%' 6/'(%5'*.')+%' 8%)+*50'*& 2 '' 3+,(+''&)%$' ''/''$%')+%'8*0)'0,86/%''.5')+%'8*0)'%&&%()1'/''.5' 6*00%00%5'*&')+%' 6$%%8,.%.)' '57'.)'-%' *&'4%,.-''/3'20''7',/'4/%' ' #' $' * !

,$'8'2''/0*'4%',.)$*51(%5',.)*')+%'/1.-0' 5,$%()/2'42'6$*6%$/2'(*.0)$1()%5' " "' '%,)+%$'J')+%',.0%$),*.''*&''')14%' 3,)+,.')+%'/'$2.B'A'.'*6%$),*.'$%E1,$,.-' 5%B)%$,)2'41)'3,)+*1)'5'.-%$,&'0 /& //2'6%$; &*$8%5')+*1-+')+%$%'0'/3'>$0'$,09'*&'$16;)1$%'*&')+%''$ 7%0,(/%0'&$*8'*7%$ 5,0)%.0,*.R# *$'8*$%'%'0,/2'42')+%',.0%$),*.''*&')14%',. *.%'.*0)$,/')+%'*)+%$'.*0)$,/'.5')+%'8*1)+' 4%,.-'(/*0%5'A ,(+'$50*.0''66'$')10R' # ' # " "',0'0*8%),8%0'*&'57'.;)'-%' %06%(,'//2' ,.',.^.)0' +%' *6%$')*$' 810)' (/50%')+%'.*0)$,/0'*&')+%'6'),%.)'.5' '66/2,.-'+,0'8*1)+'5,$%()/2')*')+')'*&')+%' 6'),%.)',.&/')%')+%/1.-0'42'+,0'*3.'%B6,$';)*$2'%&&*$)0' +%')%.5%.(2')*',.&/'),*.'*&')+% 0)*8'(+',0'(*.0,5%$'4/2'(*1.)%$')(%5'42'4'(9; 3'$5'6$%001$%'*.')+%/'$2.B

&'4

3! % I 3*' M'02.*.28'&*$' '2.'15<0' ,0%'0%' ' P&)$N'&

/ $) G! 5'$(& 2' +%'*6%$'),*.' '6.%1,E'),*' '8,$'),*.'3'0' ,.)$*51(%5',.)%' 6$'(),(%' 42' ,%1/'&*2',.' ?DP' %&*$%')+,0'6%$,*5'7'$,*10',.0)$18%.)0' +'5'4%%.'10%5'1.5%$')+%' .'8%'*&'001(),*.')$*('$0<41)')*' ,%1/'&*2',0'51)%+%'($%5,)' *&'&*//2''66$%(,'),.-')+%,$'7'/1%

& ' (' ' ' #'*!($! ' +%''06,$')*$ (*.0,0)0'*&''' -/'00'02$,.-%' +'7,.-''')'0)*6(*(90' +%.')+%' 6,0)*.'.')+%'3*'*6%.,.-0''5')+%0%'810)'4% ($%')%5',.')+%'02$,.-%'3+,(+'('.'4%'8',.;)',.%5'42'&,B,.-')+%'6,0)*.'.')+%'3,)+5$'3.' 6*0,),*.' .',.5,'$144%$')14%',0'&,))%5',.)*' %'(+'*&')+%')3*'*6%.,.-0''5')+%0%'810)'4% 6$*7,5%5'3,)+'%*.0'*&'3,$%',.0,5%')*'6$%7%.)')+%8'&$*8'(*//'60,.-'')')+%%.5'*&'*.%)14%',0' &,B%5''',.%'+*//*3'.%%5/%'+%'.%%5/%'0+*1/5' +'7%*./2'*.%*6%.,.-''')')+%'6*,.)''.5'.*)' '0',0'*&)%.'0%%.''*.')+%$''')'0*8%'5,0)'(%' &$*8',)'+%',.0)$18%.)',0'+10'10%5'G+' 7'(118'+'7,.-'4%%.'($%')%5',.')+%'02$,.->' 42'$',0,.-')+%'6,0)*.'3+,/0)'4*)+'0)*6(*('$%'(/*0%5')+%'.%%5/%',0',.)$*51(%5',.)*' 6'$)')*'4%'*6%$')%5'16*.' 0'0**.''0==:

*6%. , . -' * &')+%' . %%5/%' ,0' 4% . %') +')+%' 09, . ')+%' 0)*6(*(9' /%' 5, . -') *' ,)' /1 . 0)' 4%' *6%. %5' +%' 7'(+, . .' 3 ,/F)+%. ' %B)%. 5') +%' 6*, .)' * &')+%' . %%5/%' H ' . 5' (* . 0%E1%.)/2 ', &',)' 4%' - %.)/2' 610+%5' * . 3 '$50')+%' 8 * 8 %.)' ,)' %. (*1.)%$0' &/1,5')+, 0' 3 ,/F >%)' 16' , .) *')+%' -/'00' 02$, . -%' 3+%. ' ,)0' . ')1$%' 8 '2' 4%' '0(%='>+%5' +, 0' 8 *5%' *&' *6%$'), . -' 3 ,)+' 3 +')' ,%1/'&*2' ('//0')+%' <6$%7, *10' 7' (11 8 < , 0')+%' %00%.), '/ 5, &; &%$%. (%' 4%)3%%. ' '06, $'), *. ' ' . 5' 01(), *. ' . ' '06, $'), *. ' ,)' ,0' , 8 6*00, 4/%')*' 6'00')+%' . %%5/%')+$*1-+' '' (*//%(), *. ' *&' &/1,5' 3,)+*1)' 5, 0(*7%$, . -',) H 3+%$%' 0' 3,)+* .))+%' 06$%7, *10' 7' (118' < , . ')+%' . %%5/%')+, 0' 8, -+)' $%' 5, /2' 4%' 5*. %' &')+%' &/1,5', 0' 01&&, (, %.)', . ' 8 *1.)')*' &, /F)+%' 02$, . -%')+%' 0)*6 (*(9' /%' 5, . -')*')+%' . %%5/%', 0')*' 4%' (/*0%5' ' . 5')+%' *)+%$' *6%. %5' 42' 3+, (+')+%' &/1,5' 8 '2' 4%' 5, 0(+' $-%5' +%' 7'(118' 8 '2')+%. ' 4%' $% %)' 4/, 0+%5' ' . 5')+%' *6%$'), *. ' $%6%')%5' '0' *&)%. ' 0', 0' . %(%00' $2' 2' *6%. , . -' 4*)+' 0)*6(*(90')' *. (%' ' . 5' '/; /*3, . -')+%' 5, 0(+' $-%)14%')*' + ' . -' 5*3. ')+%' '06, $')*$'>. ' 2'4%' (*. 7%$)%5', .)*' '026+*. ' +%' ' (), *. ' *&')+%', . 0)$18%.)' 8 '2' /0*'4%' $%7%$0%5' ' . 5',)' 8 '2' 4%' % 8 6/*2%5' &*$, . >%%), . -' &/1,50')+%$' 7' $, %), %0' *&' 06, $')*$' '$%', . ' 10%' 4%0, 5%0')+%' *. %' '4*7%' 5%0($, 4%5' . ' %, 00<0')+%' $%(%, 7%$', 0' '' -/'00' 4*))/%' &$*8' 3+, (+')+%' ', $' , 0' %B+' 10)%5' 42' 8 %' . 0' *&' '' 0%6' $')%' %B+' 10); , . -' 02$, . -%' +%' *4>%(), *. ')*')+, 0' , 0')+')' , &')+%' . %%5/%' 4%(*8%0' (+*9%5',)' (' . . *)' 4%' (/%' $%5' 42' 610+, . -' 5*3. ')+%' 6, 0)*. ' . 5' 5$, 7, . -' 0*8%' *&')+%' &/1,5' 4' (9')+$*1-+' ,)' /'$*$9, . 50' *&' 06, $')*$' (' . *)' 4%' (*. 7%$)%5' , .)*' 026+*. 0' ' . 5')+%0%$' %' *4>%(), *. '4/%' %, 00K0' +' 0')+%' '57' .)' -%' *&' 4%, . -' /%00' /, '4/%')*' -%)' *1)' *&' *$5%$' 0')+%' &/1,5' 5*%0' . *)')*1(+')+%' %B+' 10), . -' 02$+=%' +%' . %%5/%0' %8 6/*2%5' 7' $2' , . ' 0, C%' ,%1/'&*2' $%(*8 8 %. 50')+')')+%2' 0+*1/5' 4%' '4*1)' ' ╤' . 5'>T' *&' . ', . (+', . '5, ' 8 %)%$' . 5' ('//0' 8 %8$' *0' ' @' " ' . 5' '$%06%(), 7%/2' +%' '06, $')*$' 8 '2' /0*' 4%' '66+%5=')*')$*('$0' 41)' +%. ',)0' 5, 0), . (), 7%' &%')1$%' , 0' -*. %' . 5' ,)' 4%(*8 %0' 41)' ' ' 001(), *. ')$*('$<

+%' &*//*3, . -' $1/%0' 8 10)' '/3'20' 4%' *4; 0%$7%5', . '10, . -')+%' '06, $')*$ G 0)' %')+')')+%' . %%5/%', 0' 6%$7, *10' . 5' (/%' . ' . 5')+%' 02$, . -%', . ' *$5%$' 4%&*$%' 10, . -',)')', 0' '5; 7, 0' 4/%')*' 3' 0+')+%' . %%5/%' . 5' 02$, . -%' 3%//, . ' 0)$*. -' ('$4*/, (' (, 5' 0*/1), *. ' @. 5' +%' . %%5/%' 8 10)' 4%' 610+%5' 0)$', -+)' *. ', . ' *. %' 5, $%0), *. ' *. /2')0' (*8 0%' 0+*1/5' . *)' 4%' '/)%$%5' 3+, /%')+%' 6*, .)', 0' 1. 5%$')+%' 09, . ' &' . *' &/1,5', 0' &*1. 5',)' 8 '2' 4%' 3,)+5$' 3. ' . 5' $%, . 0%$)%5')' 810)' 4%' +*/5' '0' 0)%' 52' '0' 6*00, 4/%' 51$, . -')+%' '06, $'), *. ' "$5' &')+%' &/1,5' 3, /F . *)' &/*3' 3,)+')+%' 6$%001$%' *&')+%' ')8*06+%$%',)' , 0' *&' . *' 10%' 0E1%%C, . -' . 5' 6$%00, . -')+%' 6' $)' +, 0' (' . ' *. /2' 5*' +' $8')+' 06, $'), *. ' 810)' (%' 0%')' *. (%' 3+%. ' 4/**5' (*8%0', . ' . 2' E1' .),)2' %06%(, '//2', . ' '40(%00%0' F)+' %%6' 16')+%' 7' (118' 51$, . -' 8%' 3,)+5$' 3=' *&')+%' . %%5/%' /%0)' 0*8%' *&' 8*$4, 5' &/1, 5' 4%' /%&)', . ',)0')$' (9' L)+' &')+=. %%5/%' 4%(*8%0' (+*9%5' &*$(%' '' /,))/%' *&)+%' &/1, 5' 4' (9')+$*1-+',)' , . ' *$5%$')*' (/%' $',) ' M)+' &)%$' 10%')+%' 3+*/%' '66' $')10' 810)' 4%')+*$*1-+/2' (/%' . %5' 3,)+' 6/', . ' 3 ')%$')*' %(', . ' 6/%)%/2' $%8*7%' 610' 4/**5' ' . 5')+%$' /418, ; . *10' &/1,50' 3+, (+' 3*1/5' 4%' (*'-1/')%5' 42' ('$4*/, (' (, 5' &)%$')+, 0', 0')+*$*1-+/2' 5*. %')+%' . %%5/%')14%' ' . 5' 02$, . -%' 0+*1/5' 4%' 5, 0; , . &%()%5' 3,)+' ('$4*/, (' /*), *. ' A ', . ' @!R' +%' /%')+%$' *&')+%' 6, 0)*. ' 8 '2' 4%' -$%' 0%5' W3,)+' ('$4*/, 0%5' *, /*$7' 0%/, . %

6 G= 06, $'), *. ', 0' 10%5' &*$' 61$6*0%0' *&' 5, '-. *0, 0' . 5')$%')8%.)' ,%1/'&*2' '00%$)0')+')' 3,)+')+%' *' . %%5/%', 0' 6*00, 4/%')*' 0%'$(+' &*$' &/1,5' 3,)+*1)' 5'. -%$' 3+')%7%$' 8 '2' 4%',)0' 0%')' *$' ,)0' . ')B1%H' . 5' %B6%$, ; %. (%' +'0' 6$*7%5')+, 0')*' 4%' 6$' (), ('//2')$1%' . ')$%')8%.)' ,)' +'0' 4%%. ' %86/*2%5', . ')+%' &*//*3, . -' &&%(), *. 0 G

40(%00%0 G . ' '(1)%' '40(%00%0' 0, 86/%' '0; 6, $'), *. ', 0' 101''//2' *&' /,))/%' 7'/1%' '0')+%' 610' 0**. ' $% '%(181/')%0' . ' (+$*. , (' '40(%00%0' (, 8%()%5' ,)+' 5, 0%'0%5' 4*. %',)' 101''//2' &', /0H' . 5' *&)%. ',)' , 0', 86*00, 4/%' &$*8')+%' 6$%0%. (%' *&' (+%%02' 8')%$', . ')+%' 610' &' 6%$&*$8%5' 3,)+' 6$*6%$' .), 0%6), (' 6$%('1), *. 0' +*3%7%$' ,)' (' . 5** . *' +' $8' ' . 5' 8 '2', &' $%6%')%5' 5, 8, . , 0+')+%' 0, C%' *&')+%' 0' (' 4%&*$%' *)+%$' 8%' . 0' '$%' 5*6)%5' *$%7%. '%&&%()' '(1$%' 8*5, &, (', *. ' *&' 0, 86/%' '06, $'), *. ' +' 0' 4%%. ' $%(%.)/2', ,)$*51(%5' 42' 1+*)+' 3+, (+' . *)', . &$%E1%.)/2' (1$%0' %7%. ' (+$*. , (' '40(%00%0' 1. 5*14)%5/2' (*. . %()%5' 3,)+' 5, 0%'0%5' 4*. %' . 0)%' 5' *&')+%' 08' /F . %%5/%' '' /'$-$0)$*('$' &$*8' =')*' , . (+' , . ' 5, ' 8%)%$', 0' &,))%5')*')+%' '06, $')*$' &' . %(%00' $2' 9' 08' /F , . (, 0, *. ' , 0' 8 '5%' , . ')+%' 09, . ')*' &' (, /,)')%')+%' , .)$*51(;), *. ' *&')+%')$*('$' +%' '40(%00' +' 7, . -' 4%%. ' %86), %5' *&',)0' (*.)%.)0')+%' ('7,)2', 0'5, 0)%. 5%5' 3,)+' '' 0*/1), *. ' *&' 6%$(+/*$, 5%' *&' 8%$(1$2' A ', . ' !!!R' 3+, (+', 0' '-', . ' 3,)+5$' 3. ' 42')+%' '06, $')*$' +, 0' 810)' 4%' $%6%')%5' '-', . ' . 5' '-', . '), /F)+%' &/1,5' $%)1$. 0' 6%$&%()/2' (/%' $' . ' 2' ' . ' %8 1/0, *. ' *&', *5*&*$8' . 5' -/2(%; $, . %' D$')*' 8HR', 0', . >%()%5')+%')$*('$', 0' K3,)+' 5$' K07. ' ' . 5')+%' *6%. , . -' 0%' /%5' 3,)+' (*//*5, *. ' *0)' (*8 8*. /2')+%' '40(%00' &, //0' '-', . ', . ' ' &%3' &/'20' ' &)%$' 3+, (+')+%' &/1,5' 8 '2' 4%' -$' 51; '//2' '40*$4%5' 41)',)' , 0' &$%E1%.)/2' . %(%00' $2')*' $%6%')')+%' *6%$'), *. ' 8*$%')+' . ' *. (%' +%$%' , 0' . *' 5*14)')+')' 8' . 2' (+$*. , (' '4; 0(%00%0' +' 7%' 4%%. ' (B, $%5', . ')+, 0' 3' 2' 41)')+%' B' ()' '/1%' *&')+%' $%')8%.)' +' 0' 2%)')*' 4%' 5%)%$8, . %5' C ' # 'S) G 25'), 5' (20)0' +' 7%' 4%%. ' 01((%00&1//2')$%')%5' 42' '06, ; $'), *. ' . ' 8' . 2' ('0%0')+%' &/1,5' 4%(*8%0' 61$1/%.)' '&)%$' *. %' *$')3*' '06, $'), *. 0' ' . 5', . ' 0*8%')+%' (20)' +' 0' *6%. %5' %B)%$. '//2' *$' 61$6*0%0' *&' 5, '-. *0, 0')+%' 08' /F . %%5/%0' 8 '2' '/3'20' 0' &%/2' 4%', .)$*51(%5', .)*' /, 7%$' 40(%00' *&', , %' /, 7%$' +' 0' 4%%. ' 01((%00&1//2')$%')%5' 42')+%' '06, $')*$' $ "3 "' 3 ' 8 '2' 4%', = %/2' $%+%7%5' 42' 10, -' *' <. %%5/%' '4*7%')+%' 614%0' ') "' ' 8 '2' 4%' 5, '; -. *0%5' ' . 5')$%')%5, . ')+%' 0' 8%' 3' 2' P G'I)' +' 0' 4%%. ' '00%$)%5')+')' 0)$' . -1/')%5' +%$. , '' 8 '2' 4%', ')+%' -$%')' 8 '>*$,)2' *&' ('0%0' $%

-'0)$,(0'*$ *.'0*8%* *&')+%4$'.(+%0**&')+%
61+1*.'$2 6/%B10%0 , ' ,) 1.0'
,0%'0%0 *&RH '.5')+10 /'2')+%&*,85'),*.'*&*
'0)+8'',.''&)%$ /,&%' 0)+8'*//*3,.-'*.'
'$$%0)%5 6+)+,0,0 ,0 .*)'$'$%,.''5./)0'6$*;
4'4/2 &$*8'%./'$-%8%.)'*&)+% 4$*.(+,'/
-/'.50 42 '40*$6),*.'*&')14%$(/%'.5 ('0%*10
8')%$,'/' .'*)+%$,.0)'.(%0)+% .5,$%()'
('10%8'2 4%&*1.5 ,.'8*$4,5 0)')%0 *&')+%
.*0%*$')+$*')
5" ' G' +,0 (/'00 *& ('10%0
,.(/15%0)+*0%' '(),.-')+$*1-+)+% -%.%$'/
.%$7*10 020)%8)+*0%' '(),.-')+$*1-+)+%
4/**5 '0 3%/' 0)+% 8*$%*$/%00 0)$1()1$'/
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+% " '0145,7,0,*.'%84$'(%0 ''))'(90
'$,0,.-'&$*8'%8*),*.''.-%$'*$ &$,-+) 0
3% '0')+% (1$,*10 05)%8'),*.0'*&'0)+8'
.%1$'/-,''.-,.''.5' -'0)$'/-,'5 1%*)*
0*8%(%.)$,(',$$,)'),*.',.')+% 8%51 '',.;
7*/7,.-')+%*$,-,.0'*&')+%&,&)+'.5'%=+)+
6',$0'*&'.%$7%0'.5'8'.,&%0),.-',)0%/&42
'&&%(),.-'&,$0)'*.%4$'.(+''.5')+%.'.*)+%$
&')+%0%.%$7%0
P(" '('10%0 8'2 4%,//10)$')%5 42
,.5,-%0),*.'*$*(*0),7%4*)7%/0-,7,.-'$,0%)*'
6'$*B20 8'*&'0)+8'' .')+%&,$0)'('0%',$$,;
)'),*.'*&')+% 8%51 '',0,..51(%5')+$*1-+)+%
-'0)$,('4$'.(+%0'*&')+% 6.%18*-'0)$,('.5'
''8*)*$'%&&%()',0 $%&/%()%5)+$*1-+)+%61/;
8*.'$2 4$'.(+%0' +%0% ')'(90''0
)+%2'$%(' %5'*((1$8*$%&$%E1%.)/2'&)%$
0166%$0')+'.5,..%$0'6$*4'4/2 4%('10%$%;
&/%B',$$,)'4,)2',0''/3'20 %B'/)%5 42 0/%%6''0
3%9.*3')*'4%)+%('0%',.'%6 %602''.5')+%
)%%)+,..-'(*.71/0,*.0'*&'(+,/5+**5
*1)')*3'$50'*/5'-%'*&%.')'9%0')+%&*$8
*&'0)+8'),(' 0%,C1$%0'3+,(+'/)%$.')% 3,)+
)+%' '$),(1/'$' '&&%(),*.0' .K/,9%'8'..%$
'))'(90'*&')+%'5,0%'0%'+'7%'4%%.'')$,41)%5')*
026+,/,0'41)'+%$%')+%'6',0*.'-%.%$'//2' ()0
42'%./'$-,.-')+%'4$*.(+,'/-/'.50
+% *..%,*.'4%)3%%.''0)+8''.'5'7'$,*10
9,.50'*&'09,. 5,0%'0%',0',.),8')%')+%'014;
0,5%.(%*&%(C%8''*&'1$),('$,''*$ &60*$,'0,0'
+'0'*&)%.'4%%.''((*86'.,%5 42'&,)0'*&'06'0;
8*5,(' 4$%')+,..-'3+,(+'+'7%'(%'0%5'*.')+%'
$%'66%'$'.(%'*&')+%'%$16),*.0' %$%'-',.'
)+%'0)')%'*&')+%'4/**5',0'6$%018%5')*'4%')+%'
$,-,.''&'4*)+'8'/'5,%0''0',.'5,0%'0%'*&')+%'
9,5.%20'3+,(+'3,/'4%'6$%0%./)2'$%%$%5')*
P ' ('.'4%')$'(%5',.''4*1)' !'6%$'
(%.)' *&'0)+8'),(0')+*1-+)+%)%.5%.(2'
&)%.'5%0'.*)'0+*3',)0%/&',.'/',&%'
+%'(+'$'()%$,0),('&*$8''*&'(+%0)',0'&$%E1%.)/2'
)$'.08,))%5'&$*8'6'$%.)0'*' (+,/5$%.H '.5'
%7%.'3+%.')+,0',0'.*)'0*''5,06*0,),*.')*3'$50'
06'08*5,(' 0286)*80',.'('))'$$+'/'))'(90',0'
&)%.'0%%.',.')+%'(+ 5$%.&0*8%'0)+8'),(0
7 $* G +%'6'),%.)'8'2'$%),$%')*'4%5'
3,)+'&%3''*$' .*'6$%8*.,)*$2'0286)*80''.5'
0/%%6'&*$0*8%'+*1$0'41)',0'5,0)1$4%5',.')+%'/')%'
.,-+)'*$' %'$/2'8*$.,.-G@' ','('(*88*.'
),8%G42''*&%%/,.-'*&'*66$%00,*.''66$*'(+,.-'
)*=1&&*(''),*.' $%&%$$%5',)+%$')*')+%')+$*')'
0)%&/>618'*$'%6,-'0)$,18' 3+,(+'*4+-%0'+,8

)*' 0,)'16',.' *$5%$')*' 4$%')+%' *8%),8%0'
)+%'*.0%)' ,0' 8*$%' -$'51'/')+%' 6'),%.)'
+'7,.-'&% %.''0/%%6',.'06,/%'*&1.%'02'0%.0';
),*.0'4%-,.0')*'3+%%C%' 51$,.-'0/%%6''.5',0'
*./2' '$*10%5' 3+%.')+%' 5206.*0''4%(*8%0'
0%7%$%' +%4$%')+,..-',0''((*86'.,%5 42''
+188,.-'0*1.5'3+,(+'-$'51'//2'5%7%/*60'
,.)*''-$%')'7'$,%)2'*&'5,0(*$5'.)'.*,0%0
.'*$5%$')*',.($%'0%')+%'('6',(,)2'*&'+,0'
(+%0)')*')+%'1)8*0)')+%'0)+8'),(' 6'),%.)'
0,)0' 16'.5',&,B%0'+,0'0+*1/5%$0'%,),)%$' 42'
6/'(,.-'+,0'+'.50'*.'%,)+%$'0,5%*&'+,8'*$
42'0166*$),.-'+,0'%/4*30'*.'+,0'9.%%0H *$
0*8%),8%0'+%'0)'.50'/%'.,.-'*7%$')+%'4'(9'
&''(+',$'*$')+%$'0166*$)' .'.%'*$')+%$'
*&')+%0%'6*0,),*.0'+%'$%8',.0',88*7'4/%'
3,)+'(+%0)'4'(9'0+*1/5%$0''.5'+%'5'&,B%5H
1.'4/%)*'06%'9'*$'%7%.')*'8*7%'+,0'+%'5H
)+%' 60'4%,.-'6')$)%5H)+%'&,,(%'6'/%''.B,*10'
.5',&')+%'5206.*%''(*.),.1%' 7,5H'.5')+%'
%2%0'6$*8,.%.)'.5'3')%$2' 7%$2'8 10(/%'
&'$%06,$'),.'*$5,.'$2' .5'%B)$'*$8.'$2',0'
4$*1-+)',.)*'$%E1,0,),*.H)+*0%'6'00,.-'&$*8'
)+%'+%'5')*')+%'0+*1/5%$0')*')+%'(/'7,(/%0'
.5')*')+%'$,40'4%(*8%$,-,5''.5',.'6/'(%'*&
8*7,.-')+%'+%'5'.5'.%(9''()')+%'$%7%$0%
3'2'4%,.-'10%5'&$*8'&,B%5'6*,.)0')*'$',0%'.5'
5)4')+%')+*$'B' +%')$'6%C1'.5'/%7')*$%0'
'.-1 '0('61/0%'42')+%,$'(*.)$'(),*.'%/%7')%'
)+%'0+*1/5%$0',.'*$5%$')+')'+%' 810(/%0'
(*..%(),.-')+0%%'3,)+')+%'$,40'8'2''()'0'
%/%7')*$0')*')+%/')%$' 7%.')+%'810(/%0'*&'
)+%'4'(9'$%'6$%00%5',.)*'+%'0%$7,(%''.5'
)+%2''/8*0)'(%'0%')*'0166*$)')+%'4'(9H(*.;
0%E1%./2')+%'6'),%.)'0)* 60')'%'(+',.;
06,$'),*.')+%'0)%8*(/%,5*8'0)*,50'0)'.5'*1)'
9%(*$50'/%'7,.-''' 5%%6'+*3'4%)3%%.'
)+%,$'0)%$../'))'(+8%.)0H)+%'5,'6+$'-8',0'
(*.)$'()%5''.5'+%.(%')+%'0)*8'(+'7%$''.5'
+%'$)'$%'0*8%3+')'5,06/'(%5' ,)+''),0'
5,06/'2'*&'810(1/'$'&*$(%')+%'(+%0)'$%8',.0'
'/8*0)'8*),*./%00'4%,.-'%B6'.5%5')*''
7'$,'4/%%B)%.)
.'6,)%*&')+%-$%')'5206.*%''$%06,$'),*.0H
'$%'.*)'6$*6*$),*.'')%/2'.%E1%.)'0%/5*8'%B;
(%%5,.-')+,$)2''.5'0*8%),8%0'&'//,.-')*...%
''8,.1)% +%'%B6,$'),*.',0'6$*/*.-%5'4%,.-'
-%.%$' 2')3*'*$')+$%%'),8%0'0'/*.-'0')+%'
,.06,$'),*.' +%'61/0%',0'101' 2'0/*3''.5'
&%%4/%H)+%')%86%$')1$%'$'$%/2'%B(%%50'PPg'
'+''.5',0'*&)%.'4%/*3'P?g' '+' ./20,0'
*&')+%'%B6,$%5''$'0+*30')+%'*B2-%.')*'4%'
/8*0)'%.),$%/2'$%6/'(%5'42'('$4*.,(''(,5'
3+,(+'8'2',.($%'0%'&$*8')+%'.*$8'/')*''0'
81(+'0'Y'6%$'(%.)')+%'.),)$*-%.'7'$2,.-'
&$*8'?P')*'P"'6%$'(%.)' +%'$%'/'&%B6,$';
),*.',0'6$*4'4/2')+%'('10%*&')+%'((18),/')%5'
('$4*.,('(,5'41)')+%')*)'/'5,0'66%'$'.(%*&'
)+%*B2-%.',0'+'$5/2')*'4%'%B6/',.%5'&*$
)+')'*B,5'),*.''*&')+%),001%0'5*%0'.*)'6$*;
(%%5',0'0+*3.'42')+%'6'/%'1$,.%'6'00%5''&)%$'
)+%'&,)

4 '%' G +%0%'$%7%'/'/%00')+'.'
8,-+)'4%'%B6%()%5' +%'6%$(100,*..*)%',0'
0*8%3+')'$',0%5'*7%$')+%'3+*/%(+%0)'8*0)'
0*',.')+%'6*0)%$,*$$%-,*.0'3+%$%'''5$18 9'

9,.5' *$' (/,8 '),(' ,.&/1%. (%')+%' 06'08' 8'2' 4%' ,.51(%5' 42' $%&/%B' (',*.')+$*1-+')+%0%' 08'/f -'.-/,'' *$')+$*1-+')+%' 61/8*.'$2' 6/%B10')+*1-+' ,)' 0**.' %B)%.50' 5%%6%$' ,.)*')+%' .%$7*10f 020)%,.',.7*/7,.-')+%' 6.%18*' -'0)$,(0' '.5' ('10,.-'' 8*)*$' %&&%()' *.')+%' 5,*$'(,(' 8 10(/%0')+$*1-+')+%' 166%$' (%$7,('/' 6+$%.,(''.5 5*$0'f.%$7%0' L +%$%'%8*),*.' &&,-+)''*$/'1-+)%$'0)'$)0')+%'&,)')+%',$$,)'),*.' ,0' (%.)$,(''.5' ('10%0' '' 8*)*$' %&&%()' *.')+%' 61/8*.'$2' 6/%B10')+$*1-+')+%' 6.%18*' -'0)$,(0' L /,%$%''-',.'',.5,-%0),*.' %B(,)%0' ,)')+%' 0%.0'),*.' 6'00%0')+$*1-+')+%' -'0)$,(' 4$'.(+%0'*&')+%'6.%18*-'0)$,(''.5',0'$%&/%()%5' 42')+%' 8*)*$' &,/'8%.)0'*&')+%' 61/8*.'$2' 6/%B10' '0)/2' 3+%$%' -*1)' 026+,/,0' '/41;8,.1$,''09,. 5,0%'0%''.5' +%$%5,)2' '$%')+%' %B(,)'.)0' 3%' 8'2' $%-'$5')+%' 4/**5' ,)0%/&' 0f ('10,.-')+%' /*('f ,$$,)'),*.' 6'08*5,(' '0)+8'' 8'2')+%$%&*$%' 4%' (*.0,5%$%5' 0f '' .%1$*0,0f *&')+%' 61/8*.'$2' 4$'.(+%0f *&')+%' 6/%B10f *&')+')'.'8%'0,8,/'$')*'+)+%$'.%1$*0%0' '0f +%.+*$'.,'' .5' 0(,'),('' '.5'-,7,-.' $,0%')+$*1-+')+%' 8*)*$' .%$7%0f *&')+%'6/%B10')*' 06'08'*&')+%'4$*.(+,'f 810(/%

& " 0)+8'',0' 5,0),.-1,0+%5'&$*8' " # '42')+%'&1-,),7%'6+20,('f ,-.0H 42')+%'06'08*5,('(+'$')()%$'*&')+%'5206.(%'H '.5' 42')+%'0(' .)'%B6%()*$'),*.' +%'4$%')+,..'8' 4$*.(+,),0'3+%.''')'//f5,&/ (1/)',0'+1$$,%5H,.' '0)+8'',)' ,0' 0/*3' 3+%%C2' '.5' 6$*/*.-%5H)+,0'&%')1$%' '/0*' (*.)$')0),.-'0)$*.-/2'3,)+)+%' -'06,.-'6'.),.-' 5206.(%'' -%.%$82' (('*8' 6'.2,.-6.%18*.,''6/%1$,02''.5'0*8%'&*$80' *&+%'$) 80%'0%' $*8' ',0'$%(*-.,0%5' 6'$),'//2'41)' .*)' %.)+%/2'42')+%' '-%'*&')+%' 6'),%.)H '.5'6'$)/>$'42')+%' (+'$')()%$'*&')+%' 5206.*%'' 3+,(+' 8' ($*16' ,0' ,.06,$')*$2' 3+%$%'0f ,.''0)+8''),)' 8',./2'%B6,$')*$2' +,0f (+'$')()%$,0),(''/0*'5,0),.-1,0+%0f '0)+8'' &$*8' 06'08' *&')+%' -/*)),0f '.5')+%' 7'$,*10f &*$80f *&'/'$2,=%'f 5206.*%'' +%'5,'-.*0,0f &$*8' O '3+,(+',0' 0*' *&)%.'8,B%5'16' 3,)+' 06'08*5,(' '0)+8''',0' &*1.5%5' (+,%&/2' *.')+%' 6'$*B208'f (+'$')()%$' '.5' 7,*/%.(%' *&')+%' '0)+8'),(' 5206.*%'' '.5'*.')+%' (*8;6/%)%' &$%%5*8' *&')+%',.)%$7'/0')+%' 5206.*%'' *&' %86+20%8'' 4%,.-' 8*$%' *$' /%00' 6%$8';.%.)

&" ' ' #' ' '.5' *)+%$' 3" ' '*&)%.'-,7%' $,0%')*' 02 8 6)*8 0' 0*' %B')/2'0,81/'),.-'06'08*5,(' '0)+8''' 0')*' 8'9%')+%' 5,'-.*0,0' 5,&&,(1/)''.5')+,0' ,0')*' 4%' '((*1.)%5'&*$' 42')+%0%')18*1$0' 6$%00,.-'*.')+%' 6.%18*-'0)$,(''.5',)0' 4$'.(+%0''.5')+10' ,.51(,.-''.''0)+8'),(' 06'08' +%0%' ('0%0f '$%''0f ''$1/%' +*3%7%$' '((*86'.,%5' 42''' (%$)',.' '8*1.)'*&'0)$,5*$'$,0,.-'&$*8' /'$2.-%'f 06'08'.*)'6$%0%.)',.''0)+8''.5')+,0f 02 8 6)*8',0' *&)%.'*&'-$%')'5,'=*0),%' 7'/1%' ,.' *40(1$%' ('0%0' 0')+%')18*1$' %./'$-%0',)' ('10%0'-$%')%$' 6$%001$%'*.')*' /1.-0'W)$'(+%''*%0*6+'-10' 02 8 6')+%),(' -'.-/,''*$' *)+%$' 0)$1()8%0''.5'6$*51(%0' =)),// (*1-+'5206+'-,''5,&&,(1/)2'*&',.06,$';),*.'6','.8')+%'(+%0)',8 61/0%',.')+%')+*$'(,(

3'//''.5'*)+%$'.*)%5''.%1$208'f 0J8 6/*8 0' *$%*7%$'(%$)',.'6+20,('f 0,-.0'4%(*8%%7,;5%.)' 0'51/.%00'*7%$')+%'&,$0)'6*$),*.'*'*&')+%' 0)%$.18'*$')*')+%'$,-+)'+%'&,)''*$'4%)3%%.')+%' 0('619%H)141/'$0*1.50'.5'4$*.(+*6+*.2' (/*0%')*')+%' 0)%$.18'*$'4*7%'*.%'*$'4*)+' 0('61/[H *$0*8%'&*$8'*&'4$1,)'*$'81$81$' ,.')+%'(*1$0%'*&')+%''*$)''+%0%''.5'*)+%$' 02 8 6)*80'65' 0,-.0'(*.)$')0)'01&&,(,%.)/2' 3,)+')+*0%'*&'06'08*5,('0)+8''')*'8'9%')+%' 5,'-.*0,0'&$*8'5%7%/*6%5'.%1$208'(*86'$';),7%/2'%'02

.'0*8%'('0%0'*&' " ' ',.'3+,(+' '/418,.'66%'$0',.')+%'1$,.%''' &*$8'*&' 5206.(%'' 66%'$0' 3+,(+',0'*(('0,*.'//2' 8'$9%5'42'6'$*B208'f &%')1$%0'.5'+'0' +%%8'8,0)'9%.'&*$'06'08*5,('0)+8'' %.'/ 5206.(%'' 5,&&%$0'+*3%7%$''0'''$1/%'.,.'4%,.-' 8*$%'(*.),.1*10H.5,1+'7,.-'&*$',)0'*$,-.' *%5%8'' *&')+%'/1.-'$')+%$')+'.'4$*.(+,'/ 06'08' '* (' ,0*$5%$0'*& G +%'E1%0),*.'*&'$%(*7%$2',.' ('0%0'*&'0)+8''5%6%.50')*''(%$)',.'%B)%.)' &,$0)'*.')+%'6*00,4,)2'*&')+%'$%8*7'/*&')+% %B(,),.-'('10%H 0%(*.5/2'*.')+%''-%'*&')+% 6'),%.)H)+,$5/2'*.' 3+%)+%$')+%' '))'(90' ,.($%'0%'*$'.*)',.'&$%E1%.(2H &*1$)+/2'*.')+%'(*.5,),*.'*&')+%'/,8-0'.5')+%'4$%')+,..-' ,.')+%',.)%$7'/0

&' ' /' '+*'"$4 3'6 "'4 7)'-- ' ! '#! '5 -$)* 7' ! ' # ' 7 3' $' 7 * !' -') 94 #"' 7' "' 7' ! ' 4 3' -) ' ' ! '). ' ' * $ ' !$/ -4' /)$3 $ ' # ' + ' 3 . ' &' $ ' ! ' $!)' ! 7' ! '/ '+' * 77 3 7' ! ' # ' #) 3' ' 4 * +)' 7' .) "' 7' ! ' +) ! 3' * $) ' $)' ' !$) ' ' ! '). ' 5 ' * "' $ # 47' ! ' !) ' = ' '#$ 7)> + ' * $4 '$-'/) * ' * / ! " * 'L ! #!) 7) ' ! ' /)$3 $ ' $-' ' 4 - .$4) + ' #!) #)' .' .)"' # ' ! '7 # $ ' 7') * $. '$-' ! ' =# 3'# 4 '$)'# 4 ' ' ! '# ' * "' + ' =)# ' '#! -' - 4 # ' $.)' ! ' /)$3 $

! G +%'6$,.(,6'f5,&&,(1/)2',.')+%')$%')8%.)'*&'0)+8''/,%0',8(/%'$/2'0(%$)',.;,.-')+%'.')1$%''$5'*$,-.''*&')+%'%B(,),.-'('10%' L +%.')+,0',0'5,0(*7%$%5')3*'-$%')'6$,.(,6/%0' 0+*1/5'-1,5%'10'.'8%/2'&,$0)')*'7',5'*$ $%8*7%')+%'%B(,),.-'('10%H 0%(*.5/2')*''2' '.5'6$%7%.)')+%'06'08 '.2'*&')+%' (''0%0'*&'0)+8''/,%0',8(/%'$/2'0(%$)',.;,.-')+%'.')1$%''$5'*$,-.''*&')+%'%B(,),.-'('10%' L +%.')+,0',0'5,0(*7%$%5')3*'-$%')'6$,.(,6/%0' 0+*1/5'-1,5%'10'.'8%/2'&,$0)')*'7',5'*$ $%8*7%')+%'%B(,),.-'('10%H 0%(*.5/2')*''2' '.5'6$%7%.)')+%'06'08

'.2'*&')+%' ('0%0'*&',0,.-'&$*8' 5,$%()' ('10%0''0'&$*8'510)'.5'(+%8,('/'7'6*1$0' '$%'(8%5'42'0,86/%''7',5'.(%*&')+%'%B(,),.-' ('10%' L +%$%'4$*.(+,'/ ,.&/'88'),'*.',.; 51(%0')+%'06'08')+%',.&/'88'),'*.'8 10)'4% 01451%5'42'0'/,.%0'.5'%B6%()*$'.)0'(*8; 4,.%5'3,)+'0*8%'.),06'08*5,('0'4%//'; 5*..''+%.4'.%'*$'0)$'8*.,18'.'8*$%' (+$*.,(',.0)'.(%0'3+%$%'0*8%')+,(9%.,.-'*&')+%'3'//0'*&')+%'/'$-%$'4$*.(+,''.5'%./'$-%; 8%.)'*&')+%'4$*.(+,'/-/'.50'%B,0)'.,*5,5%' *&'6*)'00,18',.'5*0%0'*&'-$0'7')*'B7''*$' ,*5,5%'*&'0*5,18',.'5*0%0'*&'-$'7''*$''' (*84,.'),*.'*&'4*)+',*5,5%0'+'0'4%%./&*1.5' 7%$2'4%.%&,(,/'f 3+%.'6%$0,0)%5',.'&*$'/*.-

0B ' H B<F

M ' M(8

0,),7%.%0Œ *&')+%' 6,,/,.*. '$2' 6/%B10Œ '.5')*' 5,8 8,0+' (*1-+' '.5'06'0 8 '41)')+%2' 8 10)' 4%')'9%.',.' .184%$0Œ7'$2,.-'&$*8'@ ')*'F!')*'4%' *&6%$8'.%.)'7'/1%' ' 5)' +%$'6%1),(0Œ*& +%' ')$%')8%.)'7'$,%0Œ,.',.5,7,51'/ ('0%0'41)' 'Œ'' $1/%' '0)+8'),(0Œ 0+*1/5'5,.%' %'$/2' '.5'&*$')+%'$%0)' *&')+%'5'2'/,8,)')+%8; 0%/7%Œ)*'/,E1,5'&**5'01(+' 'Œ 4%%&)%' '0*160' '.5 8,/9' (*84,.%5' 3,)+' 01(+' '.' '8*1.)' *&0),81/'.)',.')+%'&*$8'*&' '' 61$%'06,$,)' 'Œ 8'2' 4%' .%(%00'$2')+10' '7*,5,.-' .2' 5,0;)%.0,*.'*&')+%'0)*8'(+' '.5',.)%0),.%0' 4%&*$%' $%),$,.-')*' $%0)' +%' 5,%)' 0+*1/5'(*.0,0)' *&' 4$*3.'4$%'5'5$2')*'0)' '.5'4,0(1,)0G%B(%00' *&0)'$(+',.'' .2'&*$8'4%,.-'0)15,*10/2''7*,5%5' '' &%,$' 0166/2'*&' 6/',./2'(**9%5'8%')'&,0+'*$' 6*1/)$2'' .5' '' /,8,)%5' '8*1.)' *&'7%-%)'4/%0' '.5&$1,)'('$%' 4%,.-')'9%.')*' 0%/%()'*./2')+%' 8*0)' 5,-%0),4/%' *&' %'(+' (/'00'),81/'.)0' 8'2' 0*8%),8%0' 4%')'9%.' 41)' 3,)+'5,0(%$.; 8%.)' ? 'F1%, !

G ' A5'6$,7H' .5',& ('
''06*)'*$'6*,.)R G) ' 0),-8,08 Gb '.)' *&' 02888%)$2',.')+%' .)%$,*$'$%&$'(),.-' 01$' &%(%Œ*&')+%'%2%4''//',.'(*.0%E1%.(%'*&'3+,(+' $'20' *&' /,-+)' 6$*(%%5,.-'&,$*8' '' 6*.,)' '$%' .*)' 4$*1-+)')*' ''&*(10' 16*.')+%'$%),.'' 'Œ' '' 6*,.)' 41)' *./2' 'Œ' '' 5,&&.0%5' 6*)' ' E)' ,0*$5%$0'$I

3! 2 + !'G& # :' %; 5,(,.%Œ3+,(+'('10%'(*.)$')(,*.'*&',001%0 * %! " +%'(+,%&'0)$,.-%.)0' '$%' ,)$')%'*&' ,/7%$H 1/6+')%'*&' 36%$H 1/; 6+')%'*&'V,.(H (%)')%'*&' %'5H' %$(+/*$,5%' *&' $*.0 /18H '..,(''.5' '//,(' (,50' '.5'7%-%)'4/%' 0140)'.(%0' (*.)',.,.-')+%8' 01(+'0' '9' '$9' ''//0' ..*''.5' ')%(+1H '.5' ,/1)%' ,.%$'/' (,50' *8%' '1)+*$0' '/0*' ,.(/15%',.')+,0' (/'00'*&' $%8%5,'/' -%.)0' 01(+'$),(/%0' '0' $-*)'*&' 2%'3+,(+'(*.;)$')'()0')+%'4/**5 7%00%/0' '.5'/%00%.0' +%%8*$' $+'-%' &)%$',)' +'0' 4%%.' '40*$4%5',.)*')+%' 4/**5' '/)+*1-+',)' +'0' .*' /*(''/' '0)$,.-%.)' '(),*.

' G ,)+')+%'%B(%6),*.'*&'-''//,(''(,5')+%'0140)'.(%0' '/$%'52'8%.),*.%5' (*'8,/')%' *$'6$%(,6,)')%'/418,.' ,/1)%'8,.%$'/'(,50' 5*' .*)' (*'-1/')%' '/418,.' 41)' 6$%(,6,)')%' 8'.2'/418,.*10'4*5,%0'&$*8')+%' '/9'/,.%' &/1,50'42'3+,(+')+%2''$%'+%/5',.'0*/1),*.' +%.' '66/,%5')*' ''01$&'(%'&$*8'3+,(+')+%' %6,5%$8,0'+'0'4%%.'$%8*7%5')+%'+%)+%$''0)$,.; -%.)0' (*84,.%'3,)+')+%' '/418,.*.0'>1,(%0' 3+,(+'8*,0)%.')+,0'01$&'(%''0K3%/'0'3,)+')+%'),001%0'+%80%/7%0'''.5'&*$8''6%//,(%' 8*$%'*$'/%00')+,(9'.5'5%.0%'3+,(+',.'0*8%' 8%'01$%'6$*)%()0')+%'0)$1()1$%0'4%.%')+',)' &$*8'%B)%$.'/',$$,)'),*.''')')+%'0'8%'),8%')+')'+%2'' '10%')+%'0)$1()1$%0')+%80%/7%0')*'4%(*8%'08''//%$''.5'8*$%'5%.0%' .''' 81(*10'8%84$'.%')+%2'+'7%''0,8,/'$'(),*.' '.5')+%2'/%00%.',)0'0%(%),*.')'3'0'&*$; 8%$/20166*0%5')+')+%,$''(),*.'3'0'6'$)/2' 51%)*')/8,$'(.0,.-')+%'4/**5 7%00%/0'-*>.-')*''6'$)'*&')+%'4*52')*'(*.)$')()+10'/%00%.

,.-')+%'0166/2'*&'&/1,5')*',)H '0'3%//'0')*')+%,$' %&&%()'*.')+%'),001%0'+%80%/7%0' 1)' %B6%$,8%.)'+'0'0+*3.')+')'3+,/%'.,)$')%'*& 0,/7%$'.5''(%)')%'*&'/%'5'6*00%00'+,0'6*3%$' 6%$(+/*$,5%'*&',$*.'.5' '/18'5*'.*)' '.5')+')')'...,(''.5'-'//,(' (,50''(1'//2'5,/')%')+%'7%00%/0' +%'0)$,.-%.)'(),*.')+%'&)%0' '/'))%$'5$1-0'810')+%$%&*$%'4%'%B%$)%5'16*.')+%'),001%0

6 'G'0)$,.-%.)0'8'2'4%'%86/*2%5' ,.'7'$,*10'&*$80' .')+%'0*/,5'&*$8' '0'.'6*35%$'*$',.'7'$,*10'6$%6'$'),*.0'01(+' '0'/*),*.0'*.,)8%.)0'6/'0)%$0'-/2(%$,.%0'^(')+%2''$%' '66/,%5'%06%(,'//2')+%' 8%)'//,(' 0)$,.-%.)0')*' 3*1.50' '.5' 1/(%$0'&*$')+%' 61$6*0%'*&'$%51(,.-')+%'0,C%'.5',.($%'0,.-')+%'&,$8.%00'*&'%B14%$'.)'-$'.1/'),*.0'0' '0' %/'0'*&'6$*)%(),.-')+%'01$&'(%'42'&*8,.-' '6%/ (/%*7%$,)' +%2''$%'10%5')*'/%00%.' (*.-%0),*.''.5'5,8,.0+')+%'0%($%),*.'*&')+%' 7'$,*10'81(*+0'8%84$'.%0''0''/*),*.')+%' %2%''.5'8*1)+H '0''-'$-/%'*$''06$'2')*')+%')+$*')H ,.')+%'&*$8'*&''.,.>%(),*.')*')+%'.*0%'1$%)+$''' .5'7'-,.'H'.5''0'' 0166*0,)*$2')*')+%'$%()18' 58,.,0)%$%5' ,.)%$.'//2'0%7%$'/'0)$,.-%.)0'+'7%''6*3%$' &*/'%&&%()'.'(+%(9,.-'5,'$$+*%''.5'(%$)',.' *&')+%8'8'2'+'7%''/*(''/'(),*.'16*.')+%' 0)*8'(+'.5',.)%0),.%0 +%' '(),*.'*&'01(+'0)$,.-%.)0''0' '(%)')%'*&/%'5'.5'-' ,*'(,5'3+%.'40*$4%5' ,.)*')+%'4/**5',.'/%00%.,.-'+'%8*$$+'-%',0' 8'5%'7',/'4/%',')+%')$%')8%.)'*&'+'%6'*) 6)20,0'+0%8')%80,0'+0%8')1$,''.5'/*00'*& 4/**5'&$*8'*)+%$'6')0'*&')+%'4*52

' %('0 '

' < ' +%'$ 0%'*$%$2')//%8''*&')+%' 0)1$,'0H*.%'*&')+%'.18%$*10' '.*.280'*&'6%//'-$'G &1,' ' ' g' # ' " g'$' O ' " D' ' %

D < 'A5'.%-H'.5') F ''' (*.)$'(),*.R A; '' $'& g' %$' 2"0 3" S'* / 2)2"0G +%'8*0)' '57'.(%5'0)'-%'*&'6$*-$%00,7%'&,,,/1$%'*&')+%' +%')$)',.'3+,(+')+%'7%.)$,(1/'$'3'//0'+'7%' 4%(*8%'0*'&%%4/%')+')'+%)+%'020)*/%',0',.(*8; 6/%)%'.5'+,-+/2',$$%-1/'$'.5')+%'('7,),%0' '$%'5,/')%5'&$*8'*7%$5,0)%.0,*.',)+'1.5,0; (+'$-%5'4/**5' ')',/')'),*.'*&

P B') ' -$'.5&')+%$RGQ +%'.+%$,)'.(%'*&''5,0%'0%'*$(*.0),)1),*.'/ 6%%1 '$,)2'&$*8''=-%.%$'),*.' .')%(%5%.)')*')+')',8 8%5,')%/2'6$%(%5,.-' '&' ' 10%0'*&

* E' '.&,$5/,0'*$5%$RG

%$80'3 %+'*$,-,.'//2'8%'.)'.2',$$%-1; /'$,)2'*$'5,0*$5%$'41)' '$%' .*3'06%(,'//2' '66/,%5')*',$$%-19$,)2'*&'00*(,')%5'*$'(*' 1*$5,.')%5'810(1/'$'8*7%8%.)0' +%'.*1.' ,0'&$%E1%.)/2'10%5''0'02.*.28*10'3,)+')+%' 5,0%'0%'9.*3.''0'/*(*8*)*$' ')'B2'

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$ < F & $&' ,0*$5%$0' $-% ' . 5' ' ! '

' ' 6)-M;)', 8 6%$&%()H ' . 5'

F ' %B6' . 0,* . R G 40% . (% *$ ' , 8 6 %$&%(;),* . ' *&)4% %B6' . 0,* . ' *&)+% 61/8 * . '$2' '/7%*/,' 3+,(+' . *$ 8 '//2')' 9%0' 6/' (% ')' 4,$)+')+%' /1 . -0')+10' $% 8 ', , . -' 8 *$%' *$/%00' , . ')+%,$' &(%)' /' (* . 5,),* . ' ' . *// ' 60%' *&

0 < B ? ')' ,0% ' 0%0' $-% ' . 5')' ,0% ' 0%0' $-

' A' 5$$*$' 3,)+*1)' &,B%5' 6*; 0,),* . R G & # G ; ' . ' 8 %' -,7% . ' 42' $ ' ' 8 8 * . 5 ' *& ' %3' *$9')*' '' (* . 5,),* . ' , . ' 3+,(+')+%' + ' . 5' ' . 5' &**)' '$%' , . ' Q(* .),. 1 ' /' 0/*3 ' ,$$%-1/' $' 8 *7% 8 %.)' ' . 5' (' . . *)' 4% $%;)' , . %5' , . ' ' . 2' 6*0,),* . ' , . ' 3+,(+')+%2' 8 ' 2' 4% 6/' (%5

& ' (G 4% 06%(, '/ (+' $ ' ()%$' *&)+%' 8 *7% 8 %.)0' , . ' ')+%)*0,0' ,0')+')')+%2' '$% 0/*3' ' . 5' 5%/,4%$ ')% ' +%2' 101 ' //2' '&%()')+% ' $ 8 ' ' . 5' /%-' * . ' * . %' 0,5% * . /2' */1 .)' $2' 6*3%$' ,0' $%)', . %5' 41)' ,0' , .)%$&%$%5' 3,)+' 42')+%' 0/*3' 06' 0 8 ' +%' &, . -%$0' '$% ,$$%-1/' $/2' &/%B%5' ' . 5' %B)% . 5%5 ' ')' * . %' 8 * 8 %.)')+%2' 06$%' 5' 3,5%' '6 ' $)')+%')+184' 4%, . -' * 7%$; 0)$%)(+%5'H)+%$%' &)%$' &,$0)' * . %') . ' . *)+%$' ,0' 4% .)' , .)*')+%' 6 ' / 8 ' ' . 5' ' - ' . ' %B)% . 5%5 ' +%' 8 *7% 8 %.)' (' . ' 4%' $$%0)%5' &*$' ' 8 * 8 %.)' , . ' (%$)' , . ' 6*0,)*. 0' 42')+%' 3,// ' 41)' ,0' $%; . %3%5' 3,)+' , . ($%' 0%5' &*$(%' +%' &**)' ,0' 101 ' //2' , . 7%$)%5H)+%')*%0' 4%, . -' &/%B%5' *$ %B)% . 5%5 ' 41)' , . ' /%00' (* . 0)' .)' 8 *7% 8 %.)' +%' 06' 0 8' 8 ' 2' ('10%' 6 ', . ' +%' 8 10(/%0' 0* 8 %), 8 %0' 4%(* 8 %' +26%$)$*6+,%5' +%' 8 *7%; 8 %.)0' , . ' 0* 8 %' ('0%0' (%' 0%' 51$, . -' 0/%%6' , . ' *)+%$0')+%2' 5*' . *)' %. 0'),* . ' ,0' *&)%. ' 41)' . *)' '/3 ' 20' , 8 6 ' ,$%5

+%' *. 0%)' *&')+,0' (* . 5,),* . ' +' 0' 4%%. ' 0155%. ' , . ' ' &%3' %' 0%0 ' 41)' 101 ' //2')+%' 8 *7%; 8 %.)0' 5%7%/*6' -$ ' 51 ' //2' '&)%$' ' ,8 ,/')%$' /0%,C1$%' 3+%)+%$' ' 0/,-+)' 0155%. ' +% 8 ,6/%-, ' ' *$' ' (* . 71/0,* . ' +%' 014>%()0' +' 7%' 4%%. ' -%. %$ ' //2' , . ' 8 ,55/%' +&%

)+%)*0,0' 5,&&%$0' &$* 8 ')+%' 06' 0),(' (* .)$ ' (;)1$%' 0*' (* 8 8 * . ' ' &)%$' +% 8 ,6/%-, ' ', . ' (+,/5$%. ' * . /2' , . ')+%' 0/*3 . %0' *&')+%' 8 *7% 8 %.)0' ' . 5' , . ')+%' &' ()')+')')+%2' '$% 06* .)' . %*10' ' . 5' . *)' /, 8 ,)%5')*' 7*/1 .)' $2' 8 *7% 8 %.)' 1)')+%0% 5,0), . (), * . 0' '$% . *)' '40*/1)%' +% 5,0*$5%$' *& 8 *7% 8 %.)' ' &)%$' +% 8 ,6/%-, ' ' 8 ' 2' 4% ,5% .),(' / . ' (+' $ ' ()%$' 3,)+' ')+%)*0,0' ' . 5' 4*)+' '$% %00% .),' //2')+%' 0' 8 %' , . ' $%/'), * . 0' . ' 3+')' ,0')%$ 8 %5' ')+%)*0,0')+%' (%$%4$'/ /%0, * . ' ,0' 0*' 6/' (%5' '0')*' ('10%' . *' 5,0), . ()' +% 8 ,6/%-, ' ', . ' 8 *0)' ('0%0H 41)',)0' *((1$%. (% ,0' , . 5,(')%5' 42')+%' 0155%. ' 0286)* 8 0' 3+,(+' 6$%(%5%')+%' 0/*3' 8 *7% 8 %.)')' ('. . *)' 4% $%-' $5%5' ' 0' ' 5,0), . ()' 5,0%' 0%' *$' %7%. ' ' ' 5,0;), . ()' 0286)* 8 ' 26,('/ ')+%)*0,0' 8 ' 2' 01(; (%%5' +% 8 ,6/%-, '

$ G)' ,0' 6$*4'4/%')+')' '0' $' ' 8 8 * . 5' 01--%0)0')+%' 0%')' *& ')+%)*0,0' ,0' -%. %$' //2')+%' *6),(')+'/' 8 10' *$,)0' . %, -+4*1$+**5' +%' 0155%. ' * . 0%)' *& ')+% 5,0%' 0%' . 5')+%' 0/, -+)' '&&%(),* . ' *& ' 0%. 0'),* . ' '$%' , . ' &' 7*1$' *& ')+,0' %B6/' . '),* . ' *& ' (' 0%0' , . ' 3+,(+')+%$%' ,0' . *' 5,0),. ()' +% 8 ,6/%-, ' ' +' $; (*)' 4%,%7%0')+')' '// 6*0) +% 8 ,6/%-,(' (+*$%'; /,9%' 8 *7% 8 %.)0' 5%6%. 5' * . ')+%' , 8 6+('),* . ' * &' &,4$%0' *1)0,5%')+%' *6),(')+' /' 8 10' . ' '' (' 0%' *& 0, 8 6/%' ')' B2' '&)%$' +% 8 ,6/%-, ' =G ' . ' . '/*; -*10' (*. 5,),* . G)+%' 3$,)%$' +' 0' &^, 85' ' (,('); $),(,' / 0(/%$*0,0' %B)%. 5,. -' ' ($*00')+%' *6),(')+' /' 8 10' ' . 5' 6$*4'4/2' /%&)' 42' '' 6')(+' *& 0*&)%. , . - ' +%' 0286)* 8 0' 6%$+' 60' 8 ' 2' 4% 6$*51(%5' , . ' 7' $, *10' 3' 20' 0, . (%')+%' $ % / ' ;),* . ' *& ')+%' 8 *)*$' 6$*(%00%0' , . ')+%' (*)%B' ,0' (* 8 6/%B' . %' ('10%' *&)+% 8 ' 8 ' 2' 4%' '')%' *& 6%$7%$)%5' '(),* . ' *& ')+%' 8 *)*$' (%//0' *&)+%' (*)%B' 51%')*' '' 5%&,(,%. (2' *&)+%' 163' $5' , . &/1%. (%&,$*8')+%' (%$%4%//18' . *)+%$' 8 ' 2' %7%. ' 4%' 6' $),' / ' 5' 8 ' -%)*')+%' 8 *)*$' (%.)$%0')+% 8 0%/7%0

G +,0' ,0' ,8 &' 7*1$' 4/%H 41)')+%' 0/,-+)%$' ('0%0' , 8 6$*7%' . 5' 8 ' 2%7%. ' ' 66$*B,; 8 ')%/2' $%(*7%$

! G= %$7,. %)*. ,(0' . 5' 0%5')' ,7%0' '$%')+%' $% 8 %5,%0' (+,%&/2' , . 5,(')%5' &')+%' &*$ 8 %$' '$0%. ,(' . 5' *& ')+%' /'))%$' . 5,' . ' +% 8 6' . 5' 4$* 8 ,5%0' 8 ' 2' 4%' -,7%. ' +%' (*.), . 1*10' (1$%.)' +' 0' 4%%. ' 9 . *3 . ')*'/%00%. ')+%' 06' 0 8 ' 41)' ' 0' '' $1/%' ,)' &' ,/0' +%' 6*0,;),7%' 6*/%' 8 ' 2' 4%' 6/' (%5' *. ')+%' 06,. %' *$' 4$' (+,' / 6/%B10')+%' . %-'),7%' * . ')+%' 8 10(/%0' , . 7*/7%5' +%' '(),*. ' *& ')+%' (*.),. 1*10' (1$$%.)' ,0' 6$*4'4/2' . ' 6' $)' 5,$%()' , . ' 6' $)' $%&/%B' /%00%. , . -' 42')+%' 6%$,6+%$' / ,8 6$%0; 0,*. ')+%' *7%$ ' (),*. ' *& ')+%' (%.)$%

1 ' * ' C @

' +' A1' 6$,7 H ' . 5' *7*$')*. %R

' 0 $,') ' ' # 0) # ' # , # ' ') ' ' ' A ' ' ' $ ' , $# ' ' ' 0 ' # 0 $ ') ' ' ' ' , ' ' 6 '

U 'A' '6$,7 H ' . 5')$6,%1' '6,%$(%R' 40%. (% *& ' . ')1$' / *6%. , . -' *$ 6' 00' -%' 3+%)+%$' (*. -%. ,)' / *$' ('10%5' 42' 5,0%' 0%

U ' U ' G' ' ' '$' 0810

& # G=)$*6+2' 8 %' . 0' %)28*/*-,; ('//2' 0,8 6/2' 3' .)' *& . *1$,0+8%.)' A5' 6$,7 H ' . 5' ' . *8,0+8%.)R' 41)')+%')%$8' ,0' (* 8 8 * . /2' '66/,%5')*')+%' (*. 5,),* . ' $%01/), . -' &$*8' 3' .)' *& . *1$,0+8%.)' . ' 8%/2' 3' 0), . -' *$' 5,8, . 1),* . ' , . ' 41/9' ' . 5' 0140)' . (%' %7%. ')+*1-+')+,0' 8 ' 2' + ' 7%' 4%%. ' 6$*51(%5' 42' 0*8%' *)+%$' ('10%' ' . 5' %7%. ')+*1-+')+%' 0166/2' *& . 1)$,),7%' 8 ')%$,'/ 8 ' 2' + ' 7%' 4%%. ' ' 41 . 5' .)' B " ' # ',0' 10%5')*' 5%. *)%' 3' 0), . -' , . ' 3+,(+')+%' 3+*/%' 4*52' 6' $),(,6')%0' ' ' (1)%' 5,0%' 0%0' ,&' 0%7%$%' ' $%' ' ((*86' . ,%5' 42' %8 ' ; (, '), *. ' &*$' ')' 01(+'), 8 %0' . 1)$,), *. ' , 0')%8 ; 6*$' $,/2' , .)%$&%$%5' 3,)+' +%' 10%' *&')+%' 3*$5' 0')$*6+2' &, 0' +*3%7%$' (*. &, . %5' ' 0' ' ' $1/%') K ('0%0' 3+%$%')+%' , .)%$&%$%. (%' 3,)+' . 1)$,), *. ' +' 0' 4%%. ' -$ ' 51 ' /' ' . 5')+%' /*00' *& /%0+' (*. 0%; E1%.)/2' 0/*3 ' [

= ,*,, G)$*6+2 ,0 (*8 8 *.' %.*1-+ ')/ '//6%$,*50*&/,&% .',.&'.)0'.5(+,/5$%.',)51%',.')+%8 '>*$,)2%&('0%0)*!($*.,(&1.(),*.'/5%$'.-%8%.)03+,(+,.)%$&%$%3,)+)+%5,-%0),*.'.5%/'4*$'),*.'*&&**5 %00 &$%E1%.)/2 ,) ,0 (*.0%E1%.(% *& *$-'.,(5,0%'0%' .'51/)0-%.%$'/ ')$*6+2 0%/5*8 $%01/)0&$*.E '.2*)+%$ ('10%)+'.*$-'.,(5,0%'0%'.5&1.(),*.'/5,0*$5%$'0''('10%*& 0%$,*10 '0),-',0)+%B(%6),*. .'*/5'-% ')$*6+2 ,0 (*8 8 *.(*.0%E1%.(% *&)+% 5%-%.3'),* 0*&'),001%3+,(+'((*86'.2)+% 5%(/,.%*&/,&% +% ,.)%$&%$%.(% 3,)+'.1;)$,),*.* "'+*3%7%$'+%'--$*7')%5 42')+% 6$%0%.(%*&5,0%'0%

.' " " ' 2) ' " # ' ')+%$%'$%&*1$6$,.(,6'/('10%0)*3+,(+'6%$0,0)%.)'3'0),.-'('.'101'//2 4% $%&%$%5.'8%/2'1.01,)'4/%&**5H (+$*.,(' 7*8,),.-'A-'0)$,('('$$+RH (+$*.,(5,'$$+%%'A,.)%0),.'/('')'$$+RH '.5(*.0),)1),*.'/5,0%'0%001(+'0',.+%$,)%5'026+,/,0 $)14%$(1/*0,0' '5'&%%5,.-' 42'0%)),.-' 6 '' (+$*.,(' (')'$,+'/(*.5,),*.'*&)+%0)*8'(+' .5 4*3%/0',0''&$%E1%.)'('10%*&*4*)+'7*8,),..-' .5 5,'$$+%*''41)',)'8 '2 6$*51(%)'$*6+2 3,)+*1)' %,)+%$' *&')+%0%02 86)*80' b +%.' '.',.&%.)',0 &%5 &*$*,.0)'.(%'3,)+'/'$-%'E1'.),),%0'*&'&'$,.'(%*10 8 '))%$G''&*$8'*&&**5'3+,(+',0''/,9%',.5,-%0;),4/%'.5',..1)$,),*.0G''7%$2'08'//6'$)'*./2 (''.'%.)%$'0'.1)$,8%.)',.)*')+%'02 0)%8 ' +% $%8',.5%$'6'00%0'5*3.')+%''/,8%.)'$2'('.'/' .5',0'%>%()%5')'$'$%',.)%$7'/0',.''.'*&&%.0,7% 61))2 +&(%'8'00'*$,.'+'$5'$*1.5,0+'/1860' +% (+,/5')+%$%&*$%' '/)+*1-+' *7%$/*'5%5'3,)+' &**5',0' $%'//2',85%$ +*1$,0+%5' .5' /*0%0'&/%0+''0'/*.-''0'01(+''5,%)',0'6%$0,0)%5',.' &'*0'*&)%.'+'66%.0'5,'$$+%%''*$'7*8,);,.-'4%'0%)'16'42')+%',$$,)','),*.')*'3+,(+')+%'5,-%0),7% *$-'.0' '$%' 014>%()%5'3'0),.-',0 8*$%'$'6,5'.5')+%'5'.-%$'*&')+%'('0%$,0',.(%'0%5' *)' */2'%B(%00'*&'&',.'(%*10 8 '))%$'41)'.2'&*$8'*&'4'5'&%%5,.-'3,//'6$*;51(%)+,0'$%01/)' '0),.-',.5%%5'3, '4%&*1.5',.'%7%$2'('0%3+%$%')+%'&**5'0%/%()%5',0'1.&,))%5'&*$')+%'(+,/5''.5')+10',)' .*),.&$%E1%.)/2'0%%.',.'.&'.)0'3+*''$%'&%5 16*.'8,/9''.5'3')%$'/*.%' +%'('0%,.'*&(*30'8 9',0'5,&&,(1/)'*&'5,-%0),*.'42'8'.2',.&'.)0'*.''((*,8)'*&',)0')%.5%.(2')*'(*'-1/')%',.)*''/'$-%&,$8'(/*)'/,9%''/1866'*&'(+%%0%'.')+,0'$%06%()',)'5,&&%$0'&$*8')+%'(1$5'*&+18'.'.&,/9'3+,(+'&*$80'&,-+)'08'//&/*('(1/%.)'(5'-1/''.5',0'5,-%0)%5'3,)+*1)'5,&&,(1/)2'6%(,/'6$%6'$'),*.',0')+%$%&*$%-%.%$'//2'$%E1,$%5')*'$%.5%$'(*30'8 9''01,)'4/%'5,%)'&*$''2*1.-'(+,/5)',0'.*)'*./2'+*3%7%$'1.01,)'4/%'&**5'3+,(+' ,0' '' ('10%'*&')$*6+2 +,'.&'.)0')'$$+'*&')+%'0)*8'(+''.5'4*3%/0'8'2'4%6$%0%.)''/)+*1-+')+%'&%%5,.-',0',.''//$%06%()0'0'),0&'()*$2'.&'.)0''B%'%B(%00,7%/2'0%.0,;),7%)*'%8//0''.5'('))$$+'*&')+%,$'5%/,(')%5,-%0),7%'*$-'.0',0'%'0 2'%B(,)%5'*3'('))$$+'*&''81(*10'8%84$'.%',0'/3'20''((*86'.,%542'.',.($%'0%5'&/*3'*&'81(10

'.5')+,0'/9'/,.%0%($%),*.',.'%B(%/0''()0 0'' &%$8%.)''.5'0%)0'16'5%(*86*0,),*.'*&'&**5' 014'(1)%-'0)$,(')'$$+'&$*8')+,0'('10%,0'.*)'$'$%/2'0%%.',.'.%3 4*$.',.&'.)0'3+*')+10'B%$%.5%B%5'&*$')+%'),8%',.('6'4/%*&5 J %0)8-'%7%.')+%,$'8*)+%$<0 8 9' .'01(+('0%0')+%'&'1/',0'101'//2'))$,41)%5')*')+%8,/9'3+,(+',0'0',5')*'4%',801,)%5')*')+%(+ 5H '.5')+%'8*)+%$',0'(*86%//%5'81(+''-',.0)'+%$'3,//')*' %'.'+%$'4'42''.5'&%%5',)',.''5,&&%$%.)'3'2' *'/*.-'0')+%%(')'$$+(*.),.1%0'+*3%7%$'.*'&**5'66%'$0')*'-$%%''.5')+%'(+ 5 *&)%.'&)%$ '),8%5,%0%B;+'10)%5

%)3%%.')+%'-%0'*&" " # ')$*6+2',0'(*88*./2'00*(,')%5'3,)+'$,(9%)0'.')+%0%'('0%0')+%'3'0),.-',0'.*)%5'(+,%&/2'4*1')+%'(+%0)'.5'&,8+0'&*$')+%'4%//2',0'/'$-%''.5'03*//%.'&$*8'&/')1/%.)''((181/'),*.'')+,0''-%(+,/5$%.''$%'0), '/,'4/%')*'3'0)%'&$*8'(')'$$+'*&')+%'0)*8'(+'.5'4*3%/0H,.5%5'$,(9%)0',0',)0%/&' *&)%.'(*86/,(')%542'01(+'5%$'.-%8%.)0' '$(*8'*&')+%',.;)%$.'/*$-'.0',0''/0*'0(8%),8%0'&*1.5'')')+,0'),8%'*&'&,&%'.5',0'')))%.5%5'3,)+'%B)$%8%%8'(,'),*.

& '#'0' '#' /' ('0%*10'%./'$-%8%.)0'*&'),/%'8%0%.)%$,(' -/'.50',&'%B)%.0,7%'8'2'4%(*8%''('10%*&'30'),.-

& '#' #' #' (+$*.,('61/;8*.'$2'6+)+,0,0'4%-,.0')*'66%'$' '0%0'*&'+%')5,0%'0%''$%01/)'&'(1)%'$+%18')08'$%'/0*'8*$%'&$%E1%.)/2'0%%.' ,'4%)%0'**',0'0*8%),8%0'8%)'3,)+' /')+%0%'5,0%'0%0'8'2'6$*51(%'81(+',.)%$&%$%.(%'3,)+'.1)$,),*.

$*8')+%',)8%')+')'+%(+ 5'4%-,.0')*')'9%'K*)+%$'&**5')+'.')+')'&1$.,0+%5'42',0'8*)+%$<0'4$%')'+%',0'/,'4/%')*'3*$80',.')+%'/,8%.)'$2'('.'/' +%'6$%0%.(%'*&'3*$80',0'&$%E1%.)/2'((*86.,%5'42'/*00'*&'&/%0+'.*)'6%$+'60'0*'81(+'*.'((*1.)'*&')+%'6$'0,)%0'+%80%/7%0''0'*.''((*1.)'*&')+%'5%$'.-%8%.)'*&')+%'5,-%0),7%'*$-'.0'3+,(+',0'00*(,')%5'3,)+')+%8' 8'(,'),*.'51%')*')+,0'(10%8 =' 0*8%),8%0'4%'%B)$%8%

5"'# ' ')$*6+2',0'$'$%/2')+%'$%01/)'*&8%$%'&1.(),*.'/5%$'.-%8%.)'41)',0'/8*0),.7'$,'4/2''0,-.'*&'0%$,*10'*$-'.,(' 5,0%'0%'//(+$*.,(' ,/8%.)0'$%'.*)'+*3%7%$'(;(*86'.,%5'+2'8'$9%5'3'0),.-' 1$%/2'/*('/5,0%'0%0'/%'5')*'/,))/%'/*00'*&'&/%0+'$8/%00')+%2''&&%()'0*8%6'$)'*&')+%'5,-%0),7%'66'$')10'*$*&')+%'-/'.51/'$ 020)%8'3+,(+',0'(*.(%$.%5',')+%'%/'4*$'),*.'*&'.1)$,),7%'8')%$,'/H'*$*)+%$3,0%'5,$%()/2',.&/1%.(%')+%'6$*(%00%0'*&'.1)$,),*.' +10'%8'(,'),*.'E1,(9/2'$%01/)0'&$*8'-'0)$,(' 1/(%$'*$'(+$*.,(' 520%.)%$2'41)'(+$*.,(' 6.%18*.,(' 6+)+,0,0' 8'2' 6$*51(%/,))/%'5,8,.1),*.'',' 3%,-+)',&')+%$%'0' .*62$%B,''.5',&')+%'('0%',0'.*)'(*86/,(')%542'5,'$$+*%'' *$ 6$*&10%)%B6%()*$'),*.' +%'8*0)'8'$9%5')$*6+2'>0'6$*51(%5'42')+%'(*.;0),)1),*.'/'5,0%'0%0'01(+''0'('.(%$')14%$(/%'.5'026+,/,0',.')+%')+,$5'0)'-%H42'))+*0%'3+,(+'0%)'16''' 6%$0,0)%.)'5$',.'16*.')+%&

020)%8 '01(+' '0' 0%7%$%' '/48 . , . 1$,' ' (+$* . ,(' +'%8*$$+'-%0' ' . 5' /* . - (* .), . 1%5' 01661$';),* . 0H' *$ 42')+*0%' 3+,(+' 5,$%()/2' , 8 6%5%')+%' 6'00' -%' *& . 1)$,),7%' 8 ')%$,'/' , .)*')+%' 4/***5H ' . 5' , . ')+%'/ ')))%$' (/'00' *& 5,0%'0%0', . &/1%. (%0' 3+,(+' '()' 5,$%()/2' 16*. ')+%')+*$' (,(' 51%)' 01(+' '0' *40)$1(),*. ')*' ,)0' 6'00' -%' &$* 8' 6$%001$%' 42' ' . %1$208' . 5' *)+%$')18*1$0' 8 10)' . *)' 4%' *7%$/**9%5' +%$%' ,0' '' &*$8' *&' ')$*6+2' 0* 8 %), 8 %0'0%% . ' . '+20)%$,('/&%8 '/%0' 5%6%. 5, . -' 16*. ' 5,0*$5%$%5' , . . %$7'),* . ' , . ' 3+,(+')+%' 8 *0)' %B)$%8%' %8 '(,'), * . ' 8 '2' 4%' $%'(+%5' 1(+' ('0%0' '$%' 8 '$9%5' 42' '' 5,0; /,9%')*' &**5' 3+,(+' 8 '2' '8*1.)')*' '40*/1)%' /*')+,. -' ' ; %

! ' $' ' G' +%' 8*0)' 8 '$9%5'6*0) 8*$)%8' '66%'$'. (%', . ')+,0' (*. ; 5,), * . ',0' 5,8, . 1), * . '*$' /*00' *&'&')'%06%(,''//2' *&')+%' 014(1)' . %*10' '5,6*0%'),001%H' . 5')+,0' ,0' '((*86'. ,%5'42' 3'0), . -' *&')+%'),001%0' . 5' *$-' . 0' -%. %$' 2' +%' +,0)*/*-,('/'%/%8%.)0' '$%' $%51(%5', . '0,C%' 3,)+*1)' ,85%$-*, . -' '0' '' $1/%' '()1'/. 18%$,('/5,8, . 1), * . ' ,)+')+%' ')$*6+2',0' *&)%. ' '00*(,')%5' '' (%$)', . ' '8*1.)' *&'&'))2'5%-%. %$'),* .

!# ! G +%' 0286)*80' *&' -%. %$'/')$*6+2' '$%/*00' &' &/%0+' /*00' *&' (*/*1$' ' . 5' /*00' *&'0)$%. -)+' (*84, . %5' 3,)+' *)+%$' 06%(,'/ 6+%. *8%. '' '$,0, . -' &$*8')+%' 6')$),(1/'$' 5,0; *$5%$')*' 3+,(+')+%',86', 8%$.)')*' %&/,(,%.)' . 1)$,),* . ' ,0' 51%

! G +%')$%')8%.)' *&' -%. %$'/')$*6+2' (*. 0,0)0', . ' $%8*7, . -', &' 6*00,4/%')+%' ,86%5,8%.)')*' %&/,(,%.)' . 1)$,),* . ' ' . ')+%' ('0%*&''(+,/5')+%'5,%)' 8 10)' 4%0%/%()%5' 3,)+' ('$%' B(%00' *&&%$, . '(%*10' &**5', 0')*' 4%' '7*,5%5' . '. 5' (*3<0' 8,/9' (' . ' 4%' 5,/1)%5', &' . %(%00'$2' 42' '58,B)1$%' 3,)+' 4'$/%2' 3')%$' '$8' 3** %. ' (/*)+, . -' 0+*1/5' 4%' , . 0,0)%5' 16*. ' ' . 5'06%(,'/')%.),* . ' 0+*1/5' 4%' 6',5')*')+%' 3'$8)+'*&')+%'&%%)' . 2'-'0)$,('*$, .)%0;), . '/5%$' . -%8%.)' 8 10)' 4%' ')* . (%'$%8%5,%'5' 6/%.)2' *&' &$%0+' ,$' 0+*1/5' 4%' *4)', . %5' ' . 5' 6%$&%()' (/%' . /, . %00'0)$,()/2' %. >*, . %5' . ' ' '51/)')+%' 5,0%'0%' 3+,(+' ,0')+%' ('10%' *&')+%' 8 '/. 1)$,),* . ' 8 10)' 4%' 0*1-+)' &*$' . 5'014; 8 ,))%5')*')%')8%.)' &&*$)0'0+*1/5'4%' 8 '5%' * . ')+%' * . %' +' . 5')*' '$$%0)' . 2' 5$', . ' 16*. ')+%' 020)%8H ' . 5' * . ')+%' *)+%$' +' . 5' 42' '' >15,(,*10' '$$' . -%8%.)' *&')+%' 5,%)'$2' ' . 5' 42' '))%.),* . ')*')+%' %/,8, . ')*$2'*$-' . 0')*'$%8*7%' '//' *40)'(/%0')*' . *1$,0+8%.)' 7%. ', . '('0%0' *&'*$-' . ,(' . 5', . (1$'4/%'5,0%'0%'81(+'4%. %&,)' 8 '2' *&)%. ' 4%' 5%$,7%5'&$*8'51%' *40%$7' . (%' *& 6+20,*/*-,('/'/'3<0' * % ' ' !

U ' G= +,0' (*. 5,),* . ' 0, - . ,&,%0' ')$*6+2' *&' ' *&')+%' 4*52' 3+,(+' 8 '2' 4%' '66'$%.)/2' (*. -%. ,)'/' *$' 8 '2' 4%' 6$*51(%5' 42' 7'$,*10' '10%0' '(), . -' 51$, . -' +,%')' 3,// 4%' (*. 7%. ,%.)')*' (*. 0,5%$' /*(=' ')$*6+2' '((*$5, . -')*')+%'0%7%$'/&*$80'3+,(+' '$%' 8%)'<3,)+

. -%. ,)'/')$*6+2 G *. -%. ,)'/')$; 6+2',0')+')' (*. 5,),*. ' , . ' 3+,(+' 0*8%' 6'$)'*&')+%' 4*52' . %7%$' $%'(+%0' ,)0' &,&// 0)' . 5'$5 *&' 0,C%')' ,0' 8*$%' (*$$%()/2' 5%. *8, . ')%5' 0 2 #' *$ "0 " ' " +%. ')+%' 3+*/%' *&' *. %' 0,5%' *&')+%' 4*52',0')+10' '&&%()%5' '' 8 '$9%5' . 5' 6%$8' . %.)' 5,0; 6$*6*$),*. ' 4%)3%%. ')+%')3*' 0,5%0' $%01/)0' +,0' # # ' ,0', . ')+%*$2' 5,&&,(1/)')*' 5,0), . -1,0+'&$*8' +26%$)$*6+2' *&')+%' *66*0,)% 0,5%' 41)' 8*0)/2')+%' 6'$'/2),(' *$' %. &%%4/%5' 0)')%' *&')+%' ')$*6+,(' 0,5%' 0+*30' ,)')*' 4%' '4. *$8'/' +%' /,840' '$%' 8*0)' 0)$,9, . -/2' ,86+(')%5H 3+,/%')+%' (*$$%06*. 5, . -' 0,5%' *&')+%'&'(%' . 5' +%'5',0' 0*8%),8%0' 0,8,/'$/2' 0*8%),8%0'(*. 7%$0%/2''&&%()%5' . '0*8%*'0%0' ')$*6+2'*&')+%'*66*0,)%+'/&'*&')+%'(%$%4$183'0'&*1. 5'*. '6*0) 8*$)%8'%B' 8, . '),*. ' +%' 0'8%' (*. 5,),*. ' 8 '2' 4%' 6'$),'/G# ' # ' ' . 5',)')+%. '(+,%&/2''&&%()0')+%' &'(%'*$'0*8%6'$)'*&')+%')$$,)*$2'*&')+%'&,&)+' ($'. ,'/ . %$7%' +%0%' (*. 5,),*. 0' 810)' 4%' '0($,4%5')*' 0*8%' 6%$7%$0,*. ' *&' ,. . %$7'),*. ' *((1$$+=' 51$, . -' 5%7%/*68%.)')+%$' %*. ' -%. ,)'/')$*6+,%0' '41)' . *)' ,%1,, ')$*6+,(' $%' 8*$%' 6$*4'4/2' $%&%$%5')*' *40)$1(),*. ' *&' 4/**5 7%00%/0' 51$, . -')+%' 0'8%' 6$*(%00' +%' 5%&%(),7%' 5%7%/*68%.)' *&')+%' 4$', . ' . ' (%), . ,08'+'0'4%%. '))$,41)%5')*')+%' 6$%001$%' *&' . ' %./'$-%5')+2$*,5' 16*. ')+%' ('$*),5' $)%$,%0

+20,*/*-,('/')$*6+,%0 G= +%0%&*$8' ' 5,0), . ()' (>'00' 3+%$%' ')$*6+2' *&' ' 6')$)' *&')+%' 4*52')'9%0' 6/' (%', . ')+%' *5$, . '$2' (*1$0%' *&' 5%7%/*68%.)' 1(+' '$%')+%' 3'0), . -' *&')+%')+2810' -/' . 5', . ' %'$/2' /,&%' *&')+%' 8'88%%' . 5'0%B1'/' *$-' . 0' '&)%$' ' (%$)' . ' '-%' *0)' (*88*./2')+%' ')$*6+2', 0' +%$%' (/*0%/2'(*. . %()%5' %,)+%$' W3,)+')+%', . 7*/1),* . '*$' 6%$+'60')+%' 5%7%/*68%.)' *&' 0*8%' (*$%' /')%5''*$-' . H 41)',)' ,0' . *)' 6*00,4/%')*' 0'2' 3+')')+%' . ')1$%'*&')+,0' (*. . %B,*. ', 0'3+%)+%$' *. %'*&' . 1)$,),* . ' *$', . . %$7'),*.

(E1,$%5')$*6+,%0 G= +%(*. 5,),*. 0')+10' d0), . -1,0+%5'6*00%00' 8*0)' , .)%$%0)' &*$')+%' 6$')(),('/' 6+20,(,' . ' '0), . -' *&' . 2' 6'$)' *&')+%'4*52'51$, . -'/,&%'3+%. ' . *)' 6+20,*; /*-,('/' 101'//2'5%6%. 50' %,)+%$' 16*. ' 0*8%' , .)%$&%$%. (%'K3,)+')+%' 4/**5 0166/2' *$' 0*8%' , 5,0)1$4' . (%' *&' , . . %$7'),*. H' 41)')*')+%0%' 810)' 4%' '55%5', . ')+%' ('0%' *&' *$-' . 0' 3+,(+' +'7%' ' . ' '(),7%' ' . 5' (*.), . 1*10' &1. (),* . ' 5,010%' *$' *7%$0),81/'),* . ' %&,(,%.)'4/**5' 0166/2' 3+,(+' ('10%0' ')$*6+2' 8 '2' 4%' 6$*; 51(%5' 42')+%' *40)$1(),* . ' *&' ' . 1)$,%.)' $)%$2' %06%(,''//2' ,&' ,)' 4%' -$'51'/' 0, . (%' 0155%. ' 4/*(9, . -' 3,// 6$*51(%' 8*$%' (*86/,; (')%5' 6+%. *8%. ' ' *. 0)' .)' 6$%001$%' ,0' ' ('10%' *&' ')$*6+2' 4%(' 10%',)' ,.)%$&%$%0' 4*)+' W3,)+')+%' 4/**5 0166/2' ' . 5' K3,)+')+%' W7,)'/' (),*. 0' *&')+%',001%%/%8%.)0' .)%$8,))%.)' 6$%001$%' *. ')+%' *)+%$' +' . 5' 42' ('10,. -' +26%$0%8, ' ',0' 8*$%'/,9%/2')*'/%'5')*' +26%$;)$*6+2' *$%*7%$' ,. '5%E1')%$%3'/' *& 4/**5G)+')',0'&, ,. -' *&')+%'7%00%/0'%7%. ')* %B(%00'W3,)+7%. *10'4/**5G*$7%. *10'%. -*$-%; 8%.)')+*1-+')' &,$0)',)' 8 '2' ('10%' %. /'$-%' 8%.)' 8*0)/2'/%'50')*')$*6+2', . ')+%' %. 5H '0' ,0' 0%%. ' , . ')+%' -$' 1/'$' , . 51$'),* . ' *&'/,7%$

' . 5' 9,5 . %20' ('10%5' 42' 5,0%' 0%' *&')+%' +%' $)' *40)$1(), . -')+%' (,$(1/'),*. ' ' . 2' &*$8 0' *&' ')$*6+2' , .' */5' ' -%' '$%' (/%' $/2' 5%6%. 5%.)' 16*. ' 0%. ,/%' *40) 8 (),*. ' *&')+%' '$)%$,%0' &*$' %B' 8 6/%')+ ')' *&')+%' 09, . ' 06/%%. ' ' . 5' 9,5; . %20' +%' , . 0)' . (%0' *&' ')$*6+2' &$*8' 5,0;)1$4%5' , . . %$7'),*. ' ' $%' /%00' %' 02')*' 5,0($,8 , ; . ')%' %B(%6)' 3+%$%')+%$%' ,0' ' ()1' /' 6' $' /20,0' . ')3*' 5,0),. ()' 5,0%' 0%0' +*3%7%$ G=6$*-$%0; 0,7%' 8 10(1/' $')$*6+2' . 5' , . &' .),/%' *$ %00%. ;), ' /' 6' $' /20,0' /*00' *&' 6*3%$' , . ')+%' 8 10(/%0' ,0' &*//*3%5' 42' '$%8 '$9' 4/%' 3 '0),. - ' &' $* 8 *$%' $' 6,5')+' . ')+')' 3+,(+' $%01/)0' &$*8' 5,010%' '/*. %' ,7,0,*. ' *&')+%' . %$7%' *&' '' /,8 4' 6$*; 51(%0' $' 6,5' 3 ' 0), - ' *&')+%' 8 10(/%0' . *' /*. -%$' 10%5' ' . 5')+,0' ,0' ' ((*8 6' . ,%5', . ')+%' %. 5' 42' 0*8%' 5,8, . 1),*. ' , . ')+%' 0,C%' *&')+%' 4*. %0' ' . 5' ' ((%00*$2' 6' $)0' *(' /')$*6+2' *&')+%' 09, . ' ,0' 0*8%), 8 %0' 0%%. ' , . ' $%-,*. 0' /,8 ,)%5' 42')+%' 5,0)$,41),*. ' *&' '' . %$7%' %06%(,' '//2' 0*8%' 4$' . (+' *&')+%' &,&)+H' . 5' 8*$%' %B)%. 0,7%' ')$*6+2' *&' 8 ' $%8 0,5%' *&')+%' &' (%' *$' +%' 5' %E1=2' 8 ' $9%5' *1)' 42' . %$7*10' 5,0)$,41),*. ' . 5' $%0%8 4/, . -' 0*8%' ('0%0' *&' (*. -%. ,)' /')$*6+2' +' 0' '/0*')+*1-+' $' $%/2' 4%%. ' *4; 0%$7%5' . ' 01(+' ('0%0')+%' 3$,)%$' +' 0' &*1.5' ' . '%0)+%0,'*&' 6' $)0' (*$$%06*. 5,. -' &' (+%0' *&')+%' &,&)+' . %$7%' 41)' '40%. (%' *&' 8 10(1/' $' 6' $' /20,0' 01(+' '0' 3*1/5' 4%' 51%')*' '&&%(),*. ' *&')+%' 0%7%.)+' . %$7%

,010%' 6$*51(%0' ')$*6+2' *. /2' , . ' *$-' . 0' 3+*0%&1. (),*. 0' '$%' (),7%' . 5' (*. 0)' .)' 01(+' '0' . %$7%0' . 5' 8 10(/%' %$7*10'),001%' 3' 0)%0' (*. 0)' .)/2' ' . 5' 0*8%), 8 %0' $' 6,5/2' 3+%. ' (1$$%.)0' (%' 0%')*')$' 7%$0%' ,)' +,0' ,0' 0%%. ' . *)' *. /2' , . ')+%' . %$7%0' *&' 6' $' /20%5' /, 8 40' 41)' %7%. ' , . ')+%' . %$7% (%.)$%0' 3+%$%' ' . 2' , .)%$$16), *. ' *&')+%' . %$7*10' (+' . %/0 '%,)+%$' '4*7%, . ')+%' (%$%4$18' *$4%/*3', . ')+%' . %$7%')$1.90', 0' &*//*3%5' 42' 5%-%. %$'), *. ' %. 5, . -' , . ')$*6+2' *&')+%' 3+*/%' . %$7*10')$' ()' /%'5; , . -' &$*8')+%' (%$%4$' /(*$)%B')*')+%' 6%$,6+%$' /)%$8, . '), *. G0*('//%5' 6 !'

' *&')+%' (*$5' . ' 8 10(1/' $'),001%')+%' 3' 0), . -', 0' '/8*0)' 0' (*. 0)' .)' 41)' +20)%$,(' /6' $' /20%0' 8' 9%' ' . ' %B(%6), *. ')+%' +%/6/%00' /, 8 40' 6$%0%$7, . -')+%, $' . 1)$,), *. ' , . ' ' 01$; 6$,0, . -' 8' . . %$' . ' *$-' . 0' 3+*0%&1. (), *. 0' '$%' , .)%$8,))%.)' *$' 6%$, *5, (' 5,010%' 5*%0' . *)' '66%' $' . %(%00' $,/2')*' 6$*51(%')$*6+2' ' 0' ,0' 0%%. ' , . ')+%)0),(/%0' *7' $, %0' ' . 5' 8' 8 8%%

+')' %B(%00,7%' 0),8 1/'), *. ' *$' *7%$ 3*$9' 8 ' 2' 6$*51(%')$*6+2' ,0' 0%%. ' , . ' 5%-%. %$'),7%' 5,0%' 0%0' *&')+%' . %$7%(%.)$%0' '$,0, . -' &$*8' 1. 51%' 8%.)' /' (),7,)2H' . 5' *&')+%' 0%B1' /' *$-' . 0' &$*8' %B(%00,7%' , . 51/-%. (%' 7%$; 3*$9' *&' 8 10(/%0' 7%$2' $' %/2' 6$*51(%0')$*6+2' H' 41)')+%' 3$,)%$' +' 0' 0%%. ' , . 0)' . (%0' 3+%$%' 06%(,' /' 8 10(/%0' 3%$%' %B6*0%5')*' 0)$' , . ' 3+, /%')+%' -%. %$' /' . 1)$,), *. ' 3' 0' /*3')$*6+2' *&' 8 10(/%0' , 0' 0', 5')*' *((1$' , . ' 0*/5, %$0' 3+%. ' 4' 5/2' &%5' ' &)%$' /*. -' %B+' 10), . -' 801$(+%0

" -0 ' 3 0 ' G' '0%0' *&' /*('/')$*6+2' *((1$' *&' 3 (+',)' ,0' , 8 6*00,4/%')*' -,7%' ' . 2' 0'),0&,,()*$2' %B6/' . '), *. ' 1(+' '$%')+%' (*. 5,), *. 0' 9. *3. ' ' 0' +. %' $')$*6+2

*&')+%' 09, . H 0*8%' $%8 ' $9' 4/%' %' 0%0' *&')$*6+2' *&' 4*. %' %06%(,' //2' *&')+%' 091 ' + '

* , ' ' . 5' *&' 0*8%' 6' $)0' *&')+%' (%$%4$18')$*6+2' *&')+%')+2$*, 5' -/' . 5' '66%' $0')*' 4%(%$)', . /2')+%' ('10%' *&')+%' 5,0%' 0%' ('//%5' 8 2B' *%5%8' ' 41)')+%' ('10%' *&')+%' *$,-, . ' /')$*6+2' ,0' 1. 9. *3.

)' ,0' 6*00,4/%')+')' 5%&, (,%. (2' *&' 06%(,' /' 9, . 50' *&' &**5' 8 ' 2' /%' 5')*' ')$*6+2' *&' 06%(,' /' *$-' . 0G)+10' 5%&, (,%. (2' *&' /, 8%' 8 ' 2' 8 ' 9%')+%' 4*. %0' 0*&)' ' . 5' 5%&, (,%. (2' *&' , $*. ' '$%0)')+%' 5%7%/*68%.)' *&' 4/**5 (*$610(/%0H 41)' %7%. ')+%0%' &' 8 , /, '$' , . 0)' . (%0' 8 10)' 4%' ' (; (%6)%5' 3,)+' '' /,))/%' $%0%$7%' . ')+%' 0' 8%' 3' 2',)' ,0' 0), /' 5*14)&1/' 3+%)+%$' ' . 2' 06%(,' /' 5. =0' 01(+' '0', *5, . %' (' . ' 6$*51(%')$*6+2' *&' 06%(,' /' -/' . 50

$ G= '0), . -' 8' 2' *((1$' 0, 8 6/2' *$' '0' *' (*. 0%E1%. (%' *&' (+' . -%' *&' 0140)' . (%' *$' &$*8')+%' , .)$10, *. ' *&' 0*8%' . %3' 8 ')%$, ' /H , . ' *)+%$' 3*$50')+%$%' 8 ' 2' 4%' ' ')$*6+2' ')$*6+2' &$*8' ' *$')$*6+2' 42' (' +%' &,$0)' ,0' 6$*4 ' 4/2' $ ' $%H -%. %$' //2' 0*8%' (+' . -%' *&' 0140)' . (%' *((1$0' +%' 8 *0)' &$%E1%.)' 5%-%. %$'), 7%' 6$*(%00' ,0' &'))2' 5%-%. %$'), *. H)+%' '/418, . *10' 0140)' . (%' 4%, . -' $%6/' (%5' 42' &'))2' 8 ')%$' 3+, (+' , &' &)%$3' $50' '40*$4%5' /%' 7%0' '7*, 5' $-' . 0')+10' '&&%()%5' 8 ' 2' 4%' '66' $%.)/2' %. /' $-%5')+*1-+')+%' *$, -, . ' /' 0140)' . (%' ,0' 3 ' 0)%5')$*6+2' &$*8' 0140),)1), *. ' ,0' 0%%. ' 3+%. ')+%(*. . %(),7%'),001%' *&' . ' *$-' . ' &*$' , . 0)' . (%' , . ($%' 0%0' (*86$%00, . -' . 5' 5%0)$*2, . -')+%' *)+%$'),001%%/%8%.)0H' . 5')+%0%' . *)' 4%, . -' $%. %3%5' 3+%. ')+%' . %3/2 &*$8%5' (*. . %(),7%'),001%' (*.)$' ()0)+%' 3+*/%' *$-' . ', 0' 5, 8, . , 0+%5' , . ' 41/9' +,0' ,0' 0%%. ' , . ' ' ')+%' (+' . -%0' ('//%5' (,$$+*0,0' *$' &,4$*, 5' 5%-%. %$'), *. ' '0' , . ' (,$$+*0,0' *&')+%' /,7%$' . 5' 9,)*%20

5 ! G= *-%. %$' /' $1/%0' (' . ' 4%' /', 5' 5*3. ' &*$')$%'), . -' //' ('0%0' *&' /*('/')$*6+2' +%$%')+%' 4/**5 0166/2', 0' 5%&, (,%.)' 3%' +' 7%' $' $%/2' . 2' 8%' . 0' *&' 0166/%8%.), . -',)H 3+%$%' , . . %$7'), *. ', 0' ')' &' 1/)',)', 0' 0%/5*8' 1. 5%$' *1$' (*.)*/' . ' -%. %$' /' +' $8' $')+%$')+' . ' -**5' $%01/)0' &$*8' . 2'))%8 6)*'))$' ()' 4/**5' 42' '$), &, (, '/', $$,)', *. ' . ')+%' ('0%' +*3%7%$' *&')$*6+2' &$*8' 5,010%' *&')+%' . %$7*8 10(,,/' $' 020)%8' '' /, . %' *&')$%')8%.)' . 5' 8*$%' %0; 6%(,' //2' *&' 6$*6+2/' B, 0' ,0' 7%$2' (/%' $/2' , . 5, ; (')%5' H)+, 0', 0')*' 9%%6')+%' 8 10(/%0' . ' %B%$(,0%' 42' $), &, (,' /' 8%' . 0' 6' $), (1/' $/2' 42*%/%()$, (,)2' *$' 42')+%' 6$*(%00%0' *&' &, $, (), *. ' . 5' 9. %' 5, . -' 9. *3. ' '0' 6' 00,7%' 8*), *. ' + ' 3' . ')+, 0' 3' 2' 0*' 8 1(+' *&')+%' ')$*6+2' '0', 0' 51%' 0, 8 6/2')*' 5,010%' 8' 2' 4%' (+%(9%5' &*$')+%' &1)1$%' ' . 5' %7%. ')+%' &*$8%$' /*00' $%, . 0)')%5' %' 0+'//' 8*$%*7%$' . %7%$' 5*' +' $8' 42' '))%8 6), . -')*' 0166/7' 0*8%' 06%(,' /' %/%8%.)0' *&' &**5' 3+, (+' '66%' $')*' 4%' 5%&, (,%.)' '0', $*. ' &*$')+%' 4/**5' . 5' 6+*06+*10' &*$)+%' 4*. %0' *$. %$7*10' 020)%8 ' ' '

3 " ' ' 5 ' *' ' ' * ')' ,0%' 0%0' $-%' 7')' ,0; *$5%$0' *&

3 " ! 3 ' ' 4$%%C%R'G' ' 6%(1/,'$ 0%.0'),* .' 014>%(),7% ,.' *$,-,. ' ,8 8 %5,')%/2' 6$%(%5,. -' .' *6,/%6),(' *$' +20)%$,('/ ((* .71/; 0,*.' ' .5' .' 8 %5' $%06%(),7%/2' ' ' ' .5' ' # ' +%' 3*$5' 3'0' *$,-,. '//2' '5*6)%5' 4%('10%')+%' 0%.0'),*.' ,0' *&)%.'5%0($,4%5' '0')+')' *&')+%'6'00'-%'*&'(*/5' ',$' *$' /,-+)' 7'6*1$' &$*8')+%')$1.9' *$' %B)$%8,),%0')*')+%' +%'5H' 41)' ,)' +'0' 4%%.' %B)%.5%5'0*' '0')*' ,. (/15%' '.2'6+%.*8%.*.' 3+%)+%$' 0%.0*$2'*$' 8*)*$')+')' 10+%$0' ,.' '' &,)' *&' %6,/%602' *$' *&' +20)%$,'

3 " 3 ' ! 3 ! ' M ! ' ' ,0%'0%0' *&

3 " ! & " 3 K! 3 ' '/,0)%.R' ' 8%)+*5' *&' 6+20,('/ %B'8,.')*.' 3+,(+' (*.0,0)0' ,.'/,0)%.,.-'*7%$'7'$,*10'6'$)0' *&')+%' 4*52'%,)+%$' 42')+%' 5,$%()' '66/,(''),*.'*&')+%' %'$' D ' " '*$' 42')+%' ',5' *&' 06%(,'/ ,.0)$18%.)0' , ' 7 " ' &*$')+%' 6 ,/*0%' *&' 0)152,.-'&%%$)','.' 0*1.50'6$*51(%5','.'+%'/)+' .'5'5,0%'0%' ' ' $'*, !

3 " ! & " 3 ' ' & " ! ! ' 8%)+*5' *&' 6+20,('/ %B'8,.'),*.' ' ':' 3+,(+')+%' 0*1.50' %+(,)%5' 42'6%$(100,*.' '$%' 0)15,%5' 42' 8%'.0' *&' '.0(=)'),*.' ' ' $'*, !

3 " ! ' 3 3 ! 3 M +%'6*$),*.'*&' *2' .%0,'' /2,.-' 4%)3%%.' !g' '.5' F!g' '/'),)15%' '.5' !g' ''.5' M!g' '/*.=)15%' 3+,(+' 8'2'4%'0',5')*' ,.(/15%' 10)$'/,'' '08'.,'' %3' V%'/'.5')+%' ,>,' 0/'.50')+%' %3' %4$,5%0''.5'0*8%'/%00',86*$)'.)',0/'.50

3- G +%'(/,8')%'*&')+%'7'0)'(*.;),.%.)'*&' 10)$'/,''3+,(+',0'6'$)/2')%86%$')%' '.5'6'$)/2')$*6,('/'5%6%.50'&,$0)'*.',)0'/'),;)15%''.5'0%(*.5/2'*.',)0'(*.&*$8'),*.')+%' 8*,8)',.'$'.-%0'4%,.-'5,0)$,41)%5''/*.-')+%' (*'0)'/,.%0'%06%(,''//2'*.')+%'%'0)%$.'0+*$%0' .')+%',.)%$,*$'3+,(+',0'(*86'$'),7%/2'&/')' '.5'4%/,%7%5')*'4%'&*$)+%'8*0)'6'$)''0'.52' 5%0%$)')+%$%' ,0' -$%')'+%')'.5' /,))/%' $',.' +%'+*)'3,.50'&$*8')+%',.)%$,*$'' $%' *&)%.' 01&&,(,%.)',.')+%'0188%$')*'$',0%')+%');+%$; 8*8%)%$')*' @M' '+''.5'*.')+%''8*1.)'*& 6$*)%(),*.'&$*8')+%0%'%.>*2%5'42')+%'7'$,*10')*3.0'5%6%.50')+%.' (/,8')%' +%$%' '$%' '/0*' 0%''3,.50'&$*8')+%' ''.5' +%' 0*1)+%$/2'3,.50'6$%7' ,.-' (+,%&/2'&$*8' *; 7%84%$')*' %4$1'$2'4/*3'&$*8')+%' .)')$),(' ,$(/%''.5''$%' (*/5'3,.50'*&' -$%')'7%/*(,)2' %.5,.-' ,.' +%'72')+1.5%$0)*$80' .')+%')$*6,('/'$%-,.*.')+%'$',.&'//,0'&$*8' *7%84%$')*' 6$,/H''.5',.')+%')%86%$')%'3+,(+',/%0')*')+%'%'0)''.5'0*1)+',)'6$%7',/0'*./2',.')+%' 3,.)%$'0%'0*. +%'&*//*3,.-' '$%' '8*.-')+%' 6$,.(,6'/')*3.0'*$' (%.)$%0')*' 3+,(+' ,.7'/,50' 6$*; (%%5' G & ')+%'('6,)'/'*&' *1)+' 10)$'/,'' /')' "Fg' '/*.-' "F=g' '')'01&&%$0'&$*8' -$%')'+%')'.5'5$*1-+)' +%'8%'.')%8; 6%$')1$%',0'DFg')+%'8'B,818' Fg''.5')+% 8,.,818'?g'+%'$'.-%'4%,.-'?g''.5')+%' 8%'.'5',/2'$'.-%'@!g' +%'+18,5,)2',0'D!' 6%$'(%.)''.5')+%'$',.&'//'@'',.(+%0' +%' 0*,/,0'0'.52 $ " ')+%'(+,%&')*3.'*&'X1%%.0/'.5' /')'@M:g' '/*.-' F?g' +%'(/,8')%',0' '/8*0)')$*6,('/' +%'8%'.')%86%$')1$%',0' M!g')+%'8'B,818',0'!?g')+%'8,.,818''" g!')+%'$'.-%'M g' 3,)+'' 8%'.'5',/2'$'.-%'*&' @ g' +%'$',.&'//,0'F',.(+%0''.5')+%'8%'.' +18,5,)2'MD'6%$'(%.)' X1%%.0/'.5',0'&*$)+%' 8*0)'6'$)'%/%7')%5H'.5')+%'(/,8')%'*&')+%' '$/,.-' *3.0'*.' '.' '7%$'-%'@!!!'&%%)' '4*7%'0%' /%7%/',0'(*.0,5%$%5'7%$2'&,.%' +%')*3.0+,60''')' **3**84'' '.5' '$3,(9',.')+,0'$%-,*.'8'2'4%'$%(*88%.5%5 " ')+%'('6,)'/'*&' ,()*$,''/')'??g' '/*.-' Fg' ')' +'0')+%'$%61)',*.'*&' 4%,.-'&+%'/)+2'.5''-$%%'4/%'$%0,5%.(%H)+%' (/,8')%'4%,.-'5$2' '.5')%86%$')%'' '.5'&'$ (**/%$',.'0188%$')+'.')+')' *&' 25.%2' %''.')%86%$')1$%'FMg'8'B,818' g'8,.,; 818'@Mg'0+*3,.-'' $'.-%'*&'?g'5','/2' $'.-%'?g' %'.' +8.,5,)2'M@'6%$'(%.)' U',.&'//'@D',.(+%0 6 #',.' %0)%$.'10)$'/,''7%$2'+%'/)+2' 41)'0'2%)'/,))/%'01,)%5')*')+%'$%E1,$%8%.)0'*& ,.7'/,50' +%')%86%$')1$%',0'D"g'A8%'.R' '.5')+%'$',.&'//"!',.(+%0',' !'5'20 " ')+%'('6,)'/'*&' %3' *1)+' '/%0',0'(/%'$' '.5'5$2')+%'8; 6%$')1$%'5%6%.5,.-'8*$%'*.')+%''/),)15%')+'.' *.')+%'/'),)15%' +%'6/',.0',.')+%',.)%$,*$' 03%6)'42'+*)'3,.50''$%'7%$2'5$2'3+,/%')+% (*'0)'5,0)$,()0'+'7%' '41.5'.)'$',.' %'.')%86%$')1$%'D@KFg'8'B,88.' !Mg'8,.,818' ?Dgh'$'.-%M gh'8%'.'5',/2'$'.-%' g' 1; 8,5,)2'M@'6%$'(%.)'' '.5'$',.&'//'F!',.(+%0' '$'8'))'' *.' *$)' '(90*.',0'5$,%$'.5' (**/%$')+'.' 25.%2'A ,.50'2RH'.5')+%/' ' 3'$'' 5,0)$,()0' ,.(/15,.-')+%'0)'),*.0' *& 5%.' '.5' 3*&*/5' '2' ,0'01,)'4/%' &*$,.7'/,50H41)')+%'&,.%0)'(/,8')%',.' 10)$'/,'' &*$'61/8*.'$2'('0%0',0')*'4%'&*1.5',.')+% ,7%$,.''' ''&&,0)$,()'/2,.-'4%)3%%.'X1%%.0; /'.5')+%'/1%'*1.)',.0''.5')+%'(%.)$'/' 5%0%$)'(*.0,0),.-'*&'$*//,,=':6$',$,%''.5'1.; 51/'),.-'5*3.0'3,)+''$',.&)5/'$'.-,.-'&$*8' F')*'@',.(+%0')+%''7%$'-%'4%,.-'',.(+%0' '.5''(/%'$'4$,-+)'')8*06+%$%'8*0)'%B+,/'; $'),.-',.')0%%%()'*.',.7'/,50'3+*')')+%' 0%))/%8%.)0'*&' %./,E1,.'%.,.5%%''.5')+% 7'$,*10'0+%%6&'$80'61$01%''.'*6%.',$/,&%'42' 5'2''.5'*&)%.'42'.,-+)'3,)+'-$%')''57'.)=%H '08'.,''G''08'.,'',/,%0' F!'8,/%0' 0*1)+'*&' 10)$'/,''4%)3%%.'/')' !g';'.5' "g"?K'.5',0'8*1.)',.*10'3,)+''5%%6/2' ,.5%.)%5'(*'0)/,.%' +%'(/,8')%',0'8*$%')%86%$')%'.5'%E1'4/%')+'.')+')' *&')+% 0*1)+'(*'0)' *&' 10)$'/,'' .'3.,)%$')+% (*/5',0'01&&,(,%.)')*'6$*51(%)+,.',(%',.')+% /*3'/'.50'.5'0.*3'0+*3%$0',.')+%+,-+%$ $'.-%0' +%'8%'.')%86%$')1$%'*&'P ' 2"' "')+%' '(*'0)',0'Fg')+%'0188%$ 8%'.'4%,.-'D@g'.5')+%'3,.)%$' Mg' +%

W)', .&'/,' 7'$,%0' -$%')/2' &$*8' !!', .(+%0' ')' ')' +$,0)' +1$(+')*' ? ', .(+%0', .' ?D' 5'20'
'(E1'$,%' '$4*1$' *.')+%' ' (*'0)')*' @ '
Q, .(+%0' ')' *4'$)' *3.' 5,0)$,41)%5' *7%$'
F' 5'20' +%' 6$%7'/%.)' 3, .50' '$%' &$*8'
)+%' ' '.5' +%' (/,8')%' ,0'&'7*1$;
'4/%')*' , .&'.)' /,&%' '.5')+%' (*1.)$2', 0' $%'
-&'$5%5' '0' '0'.')*$,81'&*$, .7'/,50

%3' V%'/'.5 = G %3' V%'/'.5' /,%0' +%'
W)3%%.' " g' F!K' '.5' Mg' F!K' '/')' '.5' (*.;
0,0)0' *&' ' *$)+' '.5' ' *1)+' 4%0,5%0'08'//%$'
0/'.50' +%' *$)+' 0/'.5',0'&*$')+%' 8*0)'
>>'$)' 7*/('.,(' '.5' '4*)850', .' +*)' 06$, .-0'
3+,(+' '$%%B)%.0,7%/2'10%5' '.5'(),7%'($')%$0'
3+,(+',86'$)' '.' ,86*$)'.)', .&/1%.(%')*',)0'
(/,8')%' +%' *1)+' 0/'.5'(*.)', .0' ' '/*&)2'
$'.-%' *&' 8*3(/'5' 8*1.)', .0' 3+*0%' /*3%$'
0/*6%0' &*$8'*.')+%'%'0)%$.'0+*$%' ' 0%$,%0' *&'
)%$$'(%0' 9.*3.' '0')+%' '.)%$41$2' /', .0'
'.5'*)+%$'&%$),/%'$%-,*.0

Q +%' (/,8')%',0' 8,/5' '.5' 4$'(,.-' +1)' 5%(,;
5%5/2' *&' ' 3, .52' (+'$')(%$' '.5'.*)' 01,)%5'
&*$' '/' , .7'/,50' ')' 1(/5'.5', .' ?MD' .*'
('+.'5'2' 3'0' $%(*$5%5')+%' 6$%7'/%.)' W3, .50'
4%, .-' K ' +%' 8%'.')%86%$')1$%' *&'
)+%' *$)+' 0/'.5',0' F?g' *&')+%' *1)+' F g'
+%' 8'B,818' 7'$,%0' &$*8' ?Mg' ')' +$,0)'
+1$(+')*' MFg' ')' *9,),9' ' '.5')+%' 8, .;
818' &$*8' @Fg')*' ? g', .')+%' *1)+' 0/'.5'
*/5',0' '0' '' $1/%' 1.9.*3.', .')+%' *$)+'
0/'.5' 3+,/%' , .')+%' *1)+')+%$%' '$%' '' &%3'
0.*32' 5'20' %'(+' 2%'$' *.')+%' (*'0)' +%'
$', .&'/' 7'$,%0' &$*8' ?@', .(+%0', .' ?F' 5'20

')' +$,0)' +1$(+')*' ? ', .(+%0', .' ?D' 5'20'
')' *9,),9'

,>,' *M +%' ,>,' 0/'.50'6'$)/2'*&'
7*/('.,(' '.5'6'$)/2'*&'($'/,.%'*$,-,.'+'7%'
'')$*6,('/(/,8')%' 8*5%$')%5' 42')+%')$'5%'
3, .50' 0*')+')')+%' 8%'.')%86%$')1$%' 5*%0'
.*)'%B(%%5'?!g')+%' 8, .,818'4%, .-',7%.'0'
DFg' +%' $', .&'/' ,0'(+,%&/2'&$*8' ()*$')*'
6$,/G=+%+*)'0%'0*.'' .5'7'$,%0'&$*8' @'
)*' @ F', .(+%0', .' M!'5'20' ' %!'
$%')8%.)'*&' ,0%'0%'42

3' $: 7' 1 $$!

' ' +,80%/&H' '.5'
'2(2')+%' 7*,(%R G '6+20,('/0,-.'*4)', .%5'
42'0)152, .-')+%' 8*5,&/%'),*.0'*&')+%' $%0*.;
'.(%'*&')+%'*40%$7%$<0' .' 7*,(%' 51$, .-'
'10(1/)'),*.' ' $'*, !

' ' ; (

3 I*' ' 3 , ' ' (M)* '
5) ' ' $' 1

Q 3^ % !C')' G '$8'7%$2'
8*,0)' %E1'4/%' (/,8')%' %'.'3, .)%$')%8;
6%$')1$%' F?g' ' $%7',/, .-' 3, .50' ' '.5'
' ' $! ' $%')8%.)'*&' ,0%'0%'+"

V)8, 'G&'(*.5,),*.'*&')+%'1$, .%'
, .'3+,(+')+%$%'%B,0)0' '.'' 40*/1)%'.5'$%/'),7%'
%B(%00' *&' 1$%' ' 3,)+*1)' '((*86'.2, .-'
62$%B,' ' '6 ' *$4,5' *.5,),*.0'*&

,Y,' ' '' /,)))/%'$*5'*$0)'&&R'
'' 8('$2 ' B '$ "
+%')%$8' '3'0'66/,%5'42' *+.')*'
)+%'/*.-%$'$*5a'+'6%5'4'()%$,' ' ')*'
)+%'0+*$)%$' &*$80'H &,/'8%.)0' 4%, .-' 5,0),.;
-1,0+%5''0'0/%6)*)+$,B ¢0,7,4$,*¢^*' 1)')+%'
-$%')'7'$,%)2'8'/%.-)+'*&')+%', .5,7,51'/ %/%;
8%.)0'*&')+%'0'8%'*$-'.,08'' .5')+%'7'$,''
),*.0'8,5%$'5,&&%$%.)' (*.5,),*.0' .5'6%$,*50'
&'+&%'$%.5%$%5'01(+''5,0),.(),.',86*00,4/%'
%.(%')+%')%$8' '()))0',0'.*3'10%5'&*$' '/'
)+%'06%(,%0'*&'0(+,C*82(%)%0'3+,(+'(*88*./2'
+'7%')+%' &*$8'*&'0)$','-+)'$*50''/)+*1-+',.'
0*8%' (*.5,),*.0' *&'-$*3)+')+%2'8'2'&*$8'
&,/'8%.)0' 2'0*8%'82(*/*-,0)0')+%')%$8',0'
10%5',.''' 8*$%'$%0)$,()%5'0%.0%H41)',)'0%%80'
3%/' ')' 6$%0%.)')*' 10%' ,)',.')+,0'0*8%3+')'
3,5%'8'..%$'1.),/*1$'9.*3/%5-%' '//*30'*&'
8*$%' 0(,%.),&,(' (/'00,&,(',*&,' ' 2
!

3& ' 3'+ 7 ' *''$*5R G 'g
$'$ g' %$'$ "
$,-,.''//2'66/,%5')*' (*88*.'$*5 0+'6%5'
$-'.,08'&')+%' (/'00' # 0 ' .5'
%06%(,''//2')*' *.%' 0166*0%5' 7'$,%)2' ('//%5'
$ ' ')+,0'.'8%'3'0'/')%$'%B;
)%.5%5')*' ,.(/15%')+%'3+*/%'*&')+%'(/'00'*&

0(+,C*82(%)%0' *$' &,00,*&, &)8-,' +10')+%'
)%$8' (!'+'0' ' 6$'(),('//2'6'
6+%5')*')+%'3+*/%'0(,%.(%'*&')+%'/*3%$'*$5%$0'
&'+/*$*6+2//%00'/-0%' ')' *&'/')%' *3,.'
6')/2')*')+%' (*.&'0,*.', .7*/7%5', .')+%'
5*14/%' 10%'*&')+%')%$8'&*$')+%'$*5 0+'6%5'
$-'.,08 0'.5'&*$')+%'%.),$%'(/'00'H 6')/2')'
)+%'&'()')+')'&1.-,'*&'*)+%$'*$5%$0')+'.'0(+,C*;
82(%)%0'$%'$%/')%5')*'6'$'0,),('5,0%'0%'H'.5'
6%$+'60'0),/*8*$%')*')+%'5*8,.'.')', .&/1%.(%'
*&' '0)1$'.5')+%' $%.(+'0(+**/')+%')%$8'
(' +'0' /'$-%/2' $%6/'(%5')+%' .'8%0'
04'()%$,''' .5'0 8,($*' *$-'.,080'<H '.5'&*$'
)+%'6')$),(1/'$' 06%(,%0'&*$8%$/2' .'8%5'(
'43!'^(')+%'8*$%'((1$')%')%$80'
('8 ''$%'10%5' %%' 2
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' ' ' ,.' %$8'.2 G
+%$8'/0'/,.%'3')%$0' ' $'1
', .' 10)$,' G +%$8'/01/6+1$'
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' ,.' 3,)-%&/'.5 G +%$8'/
01/6+1$'3')%$0' ' $'1
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,86/%')+%$8'/ 3')%$0' ' $'
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U ‘ ‘ ‘ ‘ U ‘ , .‘
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3 ’)%$0’ $ ‘ $‘ 1

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, . -‘ 01$&’(%0‘ *&‘)+%‘ -/’ . 0‘ ’ . 5‘ 6$%61(%H
0* 8 %), 8 %0‘ ’(1)%G%7%. ‘ -’ . -$%. *10‘ ’ . 5‘
0* 8 %), 8 %0‘ (+$*. , (‘ ‘61$%/2‘ /*(’ /‘ ’ &&%(), *. H
&$%E1%.)/2 ‘ 41)‘ . *)‘ . %(%00’$,/2 ‘ *&‘ 7%. %$%’ /
*$, -, .
* $ G= ’/’ .),0‘ ,0‘ 8 1(+’ /%00‘ (* 8 ;
8 *. ’)+’ . ’ 1$%)+$,), 0 ‘ 4%, . -‘ 8 %)‘ 3,)+’ ’)‘)+%‘
*(9‘ *06,)’ /‘ , . ’)+%‘ 6$*6*$), *. ’ *&‘ *. %‘)*’
)3%.)2 &*1$‘ *&‘)+%’ /’))%$‘)‘ 8 ’2‘ 4%‘ %,)+%$‘
6$, 8 ’$2H *$‘ (*. 0%(1), 7%‘)*’ (+’ . ($%0’
026+, /,), (‘ %$16), *. 0’ 3 ’$)0‘ ’((1 8 1/’)%5‘
0). %- 8 ’ ’ 7’$, */*1 0‘ 610)1/%0‘ *$‘ -*. *$$+*%’ ‘
b +%. ’ 6$, 8 ’$2’)+%‘ (* 8 8 *. ’ 6$%5, 06*0, . -’
(’10%‘ ,0‘ ’ /*. -’), -+)‘ &*$%09, . ’ *1$. , %$‘
’))$, 41)%0‘)3 *.)+, $50‘ *&‘)+%’ (’0%0‘ *&‘ 4’/’ . ,), 0‘
)*’ ’’/*. -’ 6$%61(%‘ 3 ,)+’ , . 01&&, (, %.)‘ (/%’ . 0, . -H
’4*1)‘ *. %)+, $5’)*’ , $$,)’), *. ’ 42‘ (+’ . ($%0‘ ’. 5‘
-*. *$$+*%’ /’ 610H ’. 5‘ ’’ 7%$2’ &%3’)*’ *)+%$

! (! G +%‘ 02 8 6)*8 0‘ *&‘ 4’/’ .), 0‘
5%6%. 5‘ *. ’)+%‘ , .)%. 0,)2‘ ’. 5‘ %B)%.)‘ *&‘)+%‘
, . &/’ 8 8 ’), *. ’ . ’)+%‘ 0, 8 6/%0)‘ &*$8’)+%$%‘ , 0‘
+%’)‘ ’. 5‘ ,)(+, . -’ *&‘)+%’ &1$$*3 ’0/, -+)‘ $%5. %00‘
*&‘)+’)‘ 6’$)‘ 3,)+’ ’’ 8 , /92‘ *$‘ 2%//*3, 0+’ 0%($%;
), *. ’ , %. ’)+%‘ , . &/’ 8 8 ’), *. ’, 0‘ 8 *$%0%7%$%‘
’. 5‘ %B)%. 5%5’ 03%//, . -’ ’. 5‘ 6’, . ’ ‘$%‘ ’55%5’
)+%‘ *)+%$‘ 02 8 6)*8 0‘ ‘$%‘ 8 *$%‘ 8 ’$9%5’ ’. 5‘
(+’ $’ ()%$, 0), (‘ %B(*$, ’), *. 0‘ ’66%’$’ +%0%‘
%B(*$, ’), *. 0‘ ‘$%‘ , $$%-1/’$’ 0+’//*3’ . %7%$‘
%B)%. 5, . -’ 5%%6/2’ 41)‘ *&)%. ’ (*’/%0(, . -’ , .)*’
/’$-%‘ $’ 3’(+’ &, . -0’ . ’ ’41. 5’.)‘ 2%//*3, 0+’
-$%%. ’ 8 ’))%$‘ *&‘ *&&%. 0, 7%‘ *5*1$‘ 4’)+%0‘)+%‘
01$&’(%’ +%. ’)+%‘ 1$, . %’)$, (9/%0‘ *7%$‘)+%0%‘
%B(*$, ’), *. 0‘)+%$%‘ , 0‘ 0%7%$%‘ 0 8 *$), . -’ 6’, . ’
&’ 0), /‘ &1$)+%$‘ , $$,)’)%5’)+%‘ &*$%09, . ’ 03%‘ 0‘
%. *$ 8 *10/2’ , 0‘ 5, 7, 5%5‘ ’)‘)+%‘ &$%%‘ 4*5%$‘ 42‘
5%%6‘ ($%’0%0’ ’. 5‘ (’. ’ . *’ /*. -%$‘ 4%‘)1$. %5‘
4’(9‘ (+, . -’ 0 8 *$), . -’ -$%’)‘)%. 5%$. %00‘
’. 5‘ 6’, . &, , /‘ %$%(), *. ’ *&)%. ’ ’((*8 6’. , %5‘ 42‘
(*. 0),)1), *. =’ 5, 0)1$4’. (%‘ ’. 5‘ &%7%$‘ ’$%‘
6$%0%.)

! ($ ’ G0 +%‘ (%//1/’$‘), 001%‘ ’. 5‘
)+%‘ /2 8 6+’), (‘ 51()0‘ *&‘)+%‘ &*$%09, . ’ ’. 5‘
0+%’)+’ *$‘)+%‘ /2 8 6+’), (‘ -/’ . 50’ 8 ’2‘ , . &/’ 8 %‘
)*’ 01661$’), *. ’)*’ 1/(%$’), *. ’ ’. 5‘ , . ’ 6%$0*. 0‘
%. &%%4/%5‘ 42‘ ’. 2‘ (’10%’ %7%. ’)*’ -’ . -$%. %’
/*1-+, . -’ 4%-, . 0‘ *. ’)+%‘ , . . %$‘ 01$&’(%’ *&‘)+%‘
&*$%09, . ’ ’)‘)+%‘ 166%$‘ 6’$)H 0%/5*8’)*’ 8 1(+’
%B)%.)’)+’ 1-+’)+%‘ 3+*/%‘ 6$%61(%’ %B(%6)‘)+%‘
&$0%. 18’ 8 ’2‘ 4%‘ /*0)’ ’. 5‘ 3+%. ’ (, (’)$, 0’), *. ’
0%)0‘ , . ’)+%‘ *$-’. ’ ’66%’$0‘ (, $(18(, 0%5’ ’$’;
6+, 8 *0, 0‘ , 0‘ (’10%5’ 42‘ , 8 6$15%.)’ $%)$’ (), *. ’
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6*0)+,), 0‘ *&‘)+%‘ &1$$*3 ’ 5+%0, *. 0’ 101’//2

’)‘)+%‘ (*$*. ’’ ’. 5‘)+%‘ &1$$*3 ’ 8 ’2‘ ’))’(+’)+%‘
6$%61(%‘ (*8 6/%)%/2‘)*’)+%‘ -/’. 0’ +, (9%. ;
, . -’ ’. 5‘ 6+, 8 *0, 0‘ ’$%‘ . *)‘ 1. (*8 8 *. ’ ’&)%$‘
$%6%’)%5‘ ’))’(90
% G +%‘ 51$’), *. ’ *&‘ 4’/’ . ,), 0‘ 5%;
6%. 50‘ *. ’)+%‘ ’. ’)*8, (’/‘ (*. 5,), *. ’ *&‘)+%‘
6’$)0’ +%. ’$%8%5, %0‘ (’. ’ 4%‘ %’0, /2‘ ’66/, %5’
,)‘ , 0‘ . *)‘ 8 *$%’)+’ . ’)+$%%‘ *$‘ &*1$‘ 5’20’ ,)+’
6+, 8 *0, 0’)+%‘ (*1$0%‘ , 0‘ 0%7%$%’ ’. 5‘)+%‘ 51$’;
), *. ’, 0‘ , . 5%&, . ,)%H %7%. ’3+%. ’ /, 8,)%5‘)*’)+%‘
&1$$*3’6*0)+,), 0‘ , 0’*&)%. ’*40), . ’)%
& G +, 0‘ , 0‘ %’02‘ 3+%. ’)+%‘ 6’$)0‘
(’. ’ 4%‘ %B6*0%5’ ’ , 0‘ 5, 0), . -1, 0+%5‘
&$*8’4’/’. ,), 0‘ 42’08’/‘ $*1. 5’1/(%$0’-$*16%5‘
. ’ ’’ $%5‘ ’$%’ ’. 5‘ /, 8,)%5‘)’ *. %‘ *$‘ 2 ’
6*, .)0‘ *&‘)+%‘ 81(*10‘ 01$&’(%’ 3,)+*1)‘ -%. %$’/
(*. -%0), *. ’ ’ # ” ’+’0‘ 3% 5%&, . %5‘
1. 5%$8, . %5‘ %5-%0‘ ’. 5‘ ’’ 06*. -2‘ 01$&’(%’
+%‘ # ’ ’+’0‘)+%‘ , . 51$’)%5‘ 4’0%‘
’. 5’%. /’$-%5’/2 8 6+’), (‘ -/’. 50’ +%. ’)+%$%‘
, 0‘ 6+, 8 *0, 0’)+%‘ 5, 0(+’$-%‘ 8 ’2‘ (*8%‘ &$*8’
)+%‘ 1$%)+$’’’ *$‘ &$*8’’’ (+’. ($%’ &’&$*8’)+%‘
1$%)+$’’ ,)‘ (’. ’ 101’ 2‘ 4%‘ 0%%. ’ %0(’6, . -’
)+%. (%’ ’. 5‘)+%$%‘ , 0‘ 6’, . ’ ’/*. -’)+%‘ 6%. , 0’
3,)+’ *)+%$‘ 0, -. 0‘ *&‘ 1$%)+$,), 0’ . ’ 1/(%$‘
, 8 5%$‘)+%‘ &*$%09, . ’, 0‘ 4%)$’ 2%5’ 42’ ’’ +’ $5’ ’. 5‘
)%. 5%$‘ 03%//, . -’ &%)/‘)+$*1-+’)+%‘ 09, . ’ ’. 5‘
’&)%$‘)+%‘ /’60%‘ *&‘ ’’ &%3’ 5’20‘ (*. 0%(1), 7%‘
0*$%0‘ 101’ 2‘ ’66%’$‘ ’)‘)+%‘ *$, &, (%‘ *&‘)+%‘
6$%61(%

G +%‘ 6$*-. *0, 0‘ *&‘ 4’/’ . ,), 0‘ , . ’
)+%‘ 0, 8 6/%‘ &*$8’, 0‘ ’/3’20‘ -**5’ &‘)+%‘ (*8;
6/’, .)‘ , 0‘ 0%(*. 5’$2’*$02 8 6)*8 ’), (’ -’ . -$%. %’
, 0‘ . *)‘ 1. (*8 8 *.
! G= +%‘ (+, %&‘ , . 5, (’), *. ’ , 0‘)*’
9%%6‘)+%‘ , . &/’ 8 %5‘ 01$&’(%0‘ 0%6’$’)%’ &)%$‘
3’0+, . -’ ’. 5’)+*$*1-+/2’ 5$2, . -’)+%‘ %B(*$, ’;
), *. 0‘ 0+*1/5‘ 4%‘)*1(+%5‘ 3,)+’ ’’ ! -$’, ’
0*/1), *. ’ *&‘ ,)$’)%‘ *&‘ 0 7%$’ ’. 5‘ ’’ 4,)‘ *&‘ 5$2‘
/, .)‘ /’, 5‘ *. ’)+%‘ -/’. 0‘ 4%&*$%‘)+%‘ &*$%09, . ’
, 0‘ 5$’3. ’ &*$3’$5’ &’)+%$%‘ , 0‘ 6+, 8 *0, 0’
&$%E1%.)‘ , . >%(), *. 0‘ *&‘)%6, 5’3’)%$’ ’. 5’)3, (%’
5’ 2‘ *&‘ ’’ F -$’, . ’ 0*/1), *. ’ *&‘ . ,)$’)%‘ *&‘
0 7%$’ 810)‘ 4%‘)+$*3. ’)*’)+%‘ &’$)+%0)‘ 6’$)‘
&‘)+%‘ &$%09, . ’ 3,)+’ ’’ /*. - . *CC/%5‘ 02$, . -%’
%%(+%0‘)*’)+%‘ -$*, . 0’ ’. 5‘ 8 *$6+8%‘ , . ’
)%8 ’ 2’ *$‘ +26*5%$8, (’ 2’ $% %7%0‘ 6’, . ’
(161. ()1$%0‘ -, 7%‘ 7%.)‘)*’ 0, 8 6/%‘ *%5%8 ’ ’41)‘
)%. 5‘)*’ ’((/%$’)%‘ -’. -$%. %‘ 3,)+’ 4$’3. 2‘
)%. 0, *. ’’ . 5‘ %$20, 6%/’)*10‘ $%5. %00’ . (, 0, *. 0’
, &‘ . %%5%5’ 0+*1/5‘ 4%‘ &$%%H *. %’ *. ’ %’(+’ 0, 5%’
*’$$, %5 E1,)%‘ 4’(9’)*’)+%‘ &1$$*3’ +%‘ 166%$‘
+’/&’*&‘)+%‘ &*$%09, . ’ (’. ’)+%. ’4%‘ %’0 2‘)1$. %5‘
4’(9’’. 5’)+%‘ 0140%E1%.)‘ 5%&*$8,)2‘ , 0’/%00’)+’ . ’
, &‘)+%‘ &*$%09, . ’ 3%$%‘ 5, 7, 5%5’ ’)‘)+%‘ 5*$018’
. ’6’$’6+, 8 *0, 0’4%&*$%‘ $%6/’(, . -’)+%‘ 03*%. ’
&*$%09, . ’)+%‘). 0, *. ’ 0+*, 55’ 4%‘ $%+%7%5’ 42‘
’(161. ()1$%‘ ’. 5‘ ’0)$, . -%.)‘ /*), *. 0’ *$‘ 42‘
, . (, 0, *. 0‘ , &’ . %%5%5’ +’. ($%0’ ’. 5’, . &/’ 8 %5’
, . -1, . ’/‘ -/’ . 50‘ 810)‘ 4%‘)$%’)%5’ 3,)+’)+%‘
4’/’. *6*0)+,), 0‘ ’((*$5, . -’)*’)+%, $‘ . %%50’
+%. ’)+%$%‘ , 0‘ ’. ’ 1/(%$’ (*. (%’/%5’ 42’
6+, 8 *0, 0’ ’. 5‘)+%‘ 02$, . -, . -’ 3,)+’ 3’$8’
3’)%$‘ +’0‘ (/%’$%5’ ’3’2’)+%‘ 5, 0(+’$-%’ ’. ’
, . >%(), *. ’ *&‘ @!’ 5$*60‘ *&‘)+%‘ &* *3, . -’ %8$5’
0, *. ’ ,, *5*&*$8’ ’6’$)H 6*35%$%5’)$’ -’ (’.)+

!

8 '2 &'// &$*8) %.)*)3%.)2 4%')0 , .)+%
8 , .1)% &)%$ '0+*$)), 8 % A)+% (*/5%$)+%
3 ')%$)+% 0+*$)%$R $%'(),*.)'9%0 6/'(%
4$, . -, . -$%5. %00)*)+% 09, . . 5 , . ($%'0% *&
)%86%$')1$% 3,)+ ' (%$)', . ' 8 *1.) *& %B;
(,)%8%.)'H 41)',&')+% 4')+ 4% (*.),. 1%5)+%
Q5%6$%00,*. $%)1$. 0 +% ,8 8 %5,')% '(),*.
W%()+% (*/5 4')+ ,0)* ('10%')+% ('6,//'$,%0)*
(*.)$')('. 5 $%6%)+% 4/**5 &$*8)+% 01$;
&'(% 3+,/% 42 ,)0 *6%$'),*. '*. ')+% 6%$,6+%$'/
%B)$%8,),%0 *&)+% . %$7%0 ,) '()0 16*.)+%
(%.)$'/ .%$7*10 020)%8 . ,)0 8*$%$%8*)%
%&&%()0)+% (*/5 4')+ '((%/%$')%0)+%)$'. 0;
81)'),*.'*&'),001%0 '1-8%.),. -')+% %B($%),*.
&'('$4.,(' (,5' .5'*&'1$%''&$*8')+% 020)%8
'. 5''0''(*.0%E1%.(%',.($%'0,. -')+%'66%),)%
+% 4*52 ,0 101'//2 , 8 8 %$0%5) *. (% ,.
Q(*/5 3')%$ 41))+% 0+*(9 *&)+,0 8 2 4%
5,8,. ,0+%5 42 &,$0) 10,. -)%6,5 3')%$. 5
)+%.'-$'51'//2 '55,. -'(*/5')*' ,)

+% %&&%() *&''(*/5 4')+ 5%6%. 50 81(+ *.
,)0 51$'),*. $,%& ,8 8 %$0,*.)+') ,0 &*$
)+$%% *$ &*1$ 8 ,.1)%0 8 '9%0 4*)+)+% 5%;
6$%00,. - . 5)+% %B(,),. - '(),*. /%00H''
/*. -%$ 51$'),*. '0 2 *&')%.')*&,&)%. 8 ,.1)%0
,. ($%'0%0 4*)+ '(),*. 0H 41)',&)+% 4')+ 4%
7%$2 6$*)$'()%5)+% (*.),. 1%5 '40)$'(),*.'*&
+%')6$*51(%0 5%6$%00,*.'*./2 +% %&&%()0
Q*&''(*/5 4')+ '$% /%00 ,.)%.0%',&)+% 4')+%$
,0 '4/%')*' 9%%6 +,8 0%/&,. '8*),*. ' . 5 %0;
6%(,'//2',&+% 03,80

@ # R $ # G -'3'$8 4')+ *&PDg
)* ! g +'6$*51(%0 .*0+*(9)*')+% 020)%8H
,)'('10%0''8*5%$')%/2,. ($%'0%5 &/*3*&')+%
(,$(1/'),. -'&/1,50)*')+% 01$&'(%'1-8%.),. -
)+% &$%E1%.(2 *&)+% 61/0%H . 5 0('$(%/2
'&&%()0)+% $%06,$'),*. +%$% ,0 .*))+%
W5%6$%00,*.'*$)+% %B(,)%8%.)'*&''(*/5 4')+
)'$')+%$'$%)'$50)+%)$'.0 8 1)'),*.'*&'),001%0
L ,)+''+*)'*$ 7%$2 +*)'4')+ G&$*8 ! g)*
g)+% (%.)$'/ .%$7*10 '. 5 ,($(1/')*$2
020)%8 0 '$% 8*$% '&&%()%5 +% &$%E1%.(2
Q*&)+% 61/0% ,. ($%'0%0 -$%')/2 +% $%06,$';
),*.'4%(*8%0 '.B,*10 '. 5 E1,(9%.%5 +%
09, . ,0 , . '+26%$a8,((*.5,),*. ' '. 5 ''&$%%
6%$06,$'),*.'4$%'90 *1)

" # ' $ # G= %6,5 4')+0 *&)+%
)%86%$')1$%*&?Fg)*'PFg + ''$%,.)%$8%5,')%
4%)3%%.'(*/5''. 5'3'$8 +%,$ %&&%()0 0%%8
)*'4%(*.&,. %5')*)+% 6%$,6+%$'/ %B)$%8,),%0
Q*&)+% .%$7%0 '. 5')+%2 5*.*)%B(,)%)+%
.%$7*10 (%.)$%0 *$)+% (,$(1/')*$2 020)%8
%,)+%$)+% 61/0%.*$)+% %B($%),*.0 '. 5
0%($%),*.0 '$% '&&%()%5 0.*'+%')' ,0 (*.;
&,. %5',.')+% 020)%8'*$)'9%.'&$*8',)')+%$%
,0 .*' $%'()*.'. 5')+%2 5*.*)%B(,)%)1$% ,0
1./)%$%5

)'.%%5 0('$(%/2 4% 0',5)+')' 5$2,. -'. 5'
$144,. -'&)%$''4')+ 8')%$,'//2 '00,0)',)0'
'(),*.'*.')+% 09,. H *$)+)' ((*$5,. -')*'
(,$(180)'.(%0',) 8 2 4% (*.%.%.)'*'
$5%$''3+/%4')+''+,6 4')+'*$''0+66%$'
4')+ +% &**)4')+ ,0 '' 7%$2 10%&1/'. 5'
(*.7%.,%.) *.%' %06%(,'//2 3+%. 0*8%
0),81/.)0140)'.(%,0 '55%5)*)+% 0,86/%
3')%$ %)'6'(9,. -'. 5)+% 7'$,*10 6$*;

$- !"7)$/ !" 7 $ /$5)-4
3 !$ 7 #$7 --4 $) 5! !)
!$5)+ !$) 7$4#!) 7 #)+ 7
!) # $ (%
+% "*&''4')+ 810)5%6%.5'*.''
7'$,%)2'*&(,$(180)'.(%0G&*$,.0)'.(%'*.')+%
'-%'.5'(*.0),)1),*.'*&)+% 6'),%.)'*.')+%
.')1$%*&)+% 4')+)'8 2'7'$2 &$*8''&%3
8,.1)%0)*'8'.2 +*8$0 7%$2 +*)'*$''
7%$2(*/5'4')+ ('.'4% 0166*$)%5 &*$''81(+
0+*$)%$'),8%)+'.'')%6,5*.%
' ' 6 G */5 4')+0 '$% ,.;
5,(')%5 &*$)+% 0)$*.-'&*$ 2*1)+' '. 5 &*$
8'.+**5H 3'$8 4')+0 &*$)+% 5%/,(')%'&*$
3*8%.'&*$%'$/2 (+,/5+**5''. 5'&*$*/5''-%'
%6,5'4')+0 '$% 01,)'4/%&*$ '/8*0)' '(*.;
0),1),*.0'0%B%0''. 5''-%0 */5 4')+0 8 2'
,.''-%.%$'/ 3'2'4% (*.0,5%$%5')*.,('.5'
4$'(,.-H)+%2 '$% 10%&1/ 3+%.'>15,(,*10/2
%86/*2%5',.'8'.2 .%$7*10 '&&%(),*.0''0',.'
(+*$%''. 5'+20)%$,''. 5')+%2 '$%)+% 4%0)'*&
'// &*$ -%.%$'/ +2-,%.,(' 61$6*%0'' &/')%
2%'$0')+%2 +'7% 4%%.'06%(,'//2 %86/*2%5',.'
)+%')$%')8%.)'*& &%7%$', %!(% 3
+% -$%')'7'/1% *& 3'$8 4')+0 4%0,5%0
)+%,$ +2-,%.,(' %86/*28%.)'(0 4%)%$ 5%)%$;
-%.)0)+'.'(*/5 *.%0',0 ,.'0**)+,.-'.5
$%51(,.-%B(,)%8%.)H ,.'$%/,%7,.-'06'080
01(+'0 **+(''.5 $%)%.),*.'*& $,.%H ,.')+%
(*.71/0,*.0 *& (+,/5$%.'(*84,.%5'3,)+')+%
'&&10,*.'*&(*/5'3')%$*.')+% +%'5H ,.'('0%0
*&-*1)'.5 $+%18'),08H.5'-%.%$'//2'3+%.'
'(),*.'*.')+% 09,.',0 5%0,$%5 +%$%6$*;
/*.-%5',88%$0,*.',0 3'.)%5')%6,5'4')+0 '$%
,.5,(')%5 '0',.'('/8,.-' 8'.2' (+$*.,(
.%$7*10 5,0)1$4.(%0 '.5 8 8'.2'(1)';
.%*10 '&&%(),*.0

0)* (*.)$' ,.5,(',*.0' '// 4')+0 '.5
%06%(,'//2 6$*/*.-%5''.5'%7%.')=,5'4')+0''$%
.*)01,)%5 &*$)+% '0)+%.,(*)+ *)'.5'
(*/5'4')+0 '$%)* 4% '7*,5%5 3+%$%)+%$%,0''
3%'9'&'))2'+%')$)'*$'.2')%.(2)*'6*6/%B2
'.%0+*1/5 %7%$ %.)%$''(*/5'4')+'3+%.'
%B+'10)%5''.5 01(+'4')+0 '$% '/0*'(*.)$';
,.5,(')%5 3+%.')+%$%,0'')%.5%.(2)*'(*.;
-%0),*.'*&',.)%$.'/ *$-'.0 .5%$ 01(+'
(,$(180)'.(%0''3'$8'4')+',0 101'//2'4*)+'
0'&%$''.5 8*$% $%&$%0+,.-' +%)**'/*.-'
'.5')**&$%E1%.)' 10%*&'+*)'4')+0 ,0 5%4,/,;
)'),.-

' +% ,8 6/%' '6*1$' ')+ G
7'6*1$'4')+',0 *.%,.' 3+,(+')+% 09,.',0
%B6*0%5')*')+% '(),*.'*&'+*)'3')%$'6$%0%.)%5'
,.')+% &*$8'*&'7'6*1$' +% 7'6*1$'4')+'
8'2'4%')'9%.',.''4*B'3,)+')+% +%'5',.(/15%5'
$.*)H *$,.')+% 8$% (*8 8*.&*$8'*&')+%
1$9,0+'*$ 100,''.4')+0' 3+%$% ''/'$-%
$**8',0 &,//%5 3,)+'7'6*1$''.5'3+%$%)+%$%;
&*$%)+% 7'6*1$,0 ,./,'/%5H *$ 42 7'6*1$
*4)',.%5'&$*8'0 8 '//'.5'01,)'4/2'(*.0)$1()%5'
'66'$')10'3+,(+'7'6*1$8'2'4%5,&&10%5'7%$
)+% 3+*/% 4*52 *$ 5,$%()%5')*''' 6'$),(1/'$
6'$) '7%$2'0,86/%'66'$')10 &*$)+%7'6*1$
4')+ 8'2'4% 6$%6'$%5'42 6/'(,.-'1.5%$''
(+',$''0+'//*3'%'$)+%.3'$% *$ 8%)'//,('6'.

@

4%%.' 0%)' 5*3.' '0' '' 8,.,8 1 8' '8*1.)' *&' 3 ')%$'&*$')/,%'4')+' *&' .' '51/)' +%'7'/1%' *&' W)+%0% 0140),)1)%0' ('.' *. /2' 4% 5%)%$ 8,.%5' 42' *40%$7,..-')+%'5%-$%%',.' 3+,(+')+%2'0),8 1/')%')+%' 5,,. ' 66'$%.)/2' ,)' 5*%0' .*)' 8 '))%$' 8 1(+' 3+')' 6'$),(1/'$' 0'/)' ,0' %8 6/*2%5')*' 6$*51(%')+%' 0),8 1/'),*. ' '0'/)'4')+' ('.' *& (*1$0%' 4%' ,.($%'0%5')*' '.2' 0)$%.-)+' 42')+%' '55,),*.' *&' 0'/)' *$' *&')+%' 8 *)+%$'/2%' '0' ,)' ,0')%$8%5

+%' (+,%&' 10%0' *&' 0'/) 3')%$' 4')+0' '$%' '0')*.,(' $%8%5,%0' %06%(,'//2' &*$')+%' 2*1.-' 3+%.')+%$%' ,0' '.2')%.5%.(2')*' 0($*&1/'' *$ (+/*$*0,0H '/0*' ,.' (*.7'/%0(%.(%' &$*8' 8'.2' W5,0%'0%0

@' & - " ' $ # G= /9'/,.%' 4')+0' 8'2' 4%' 8'5%' 42' '55,..-' D' *1.(%0' *&' ($20)'//,0%5' ('$4*.')%' *&'0*5,1 8 '*$'"' *1.(%0' *&' ('$4*.')%' *&' 6*)'00,1 8 ')*' @F' *$' "!' -'//*.0' *&' 3')%$' /9'/,.%'4')+0' '$%' *&' 10%' ,.' '' -$%')' 7'$,%)2' *&' (1)'.%*10' '&&%(),*.0

"' # ') ' $ # G ')+0' *&' (*$$*0,7% 14/,8')%' '$%' *(('0,*.'//2' %8; 6/*2%5' +%2' '$%' (*8 8*./2' 8'5%' 42' '55,.-' Q'' 5$'(+8 0' *&' (*$$*0,7% 014/,8')%' '.5' 5$'(+8' *&' +25$*(+/*$,('(,5')*' "!'-'//*.0' *&' 3')%$' +%2' '$%' %8 6/*2%5',.' 0*8%' 09,.' '&&%(),*.0' '.5',.'0%(*.5'$2'026+,/,0

' # ' '6 ' $ # G ')+0' *&' 01/6+1$%)' *&' 6*)'00,1 8' '$%' 8'5%' 42' 5,0' 0*/K7,.-'&$*8' ')*'?' *1.(%0' *&')+')' 0'/)',.'@F')*' "!'-'//*.0' *&' 3')%$' /,))/%' 5,/1)%5' 01/;' 6+1$,(' '(,5',0' 0*8%),8%0' '55%5' +%0%' 4')+0' +'7%' /*.-'4%%.' %B)%.0,7%/2' %8 6/*2%5',.')+%')$%')8%.)' *&' ('0%0' *&' 09,. 5,0%'0%',.' 3+,(+')+%' 01/6+1$')+%2' (*.)',.',0',.5,;(')%5

F' # ' N / ' & ' $ # G +%' .,)$,(' *$' $')+%$' .,)$* 8 1$,'),(' '(,5' 4')+' ,0' 8'5%' 42' '55,.-'.,)$* 8 1$,'),(' '(,5')*' 3')%$' +%' *$5,.'$2'6$*6*$),*.',0' *.%' *1.(%' *&' '(,5')*' *.%' -'//*.' *&' ')%$' +%' 5,0(*/*8,.-' '(,).' *.' (/*)+,.-' 8 '9%0' '&1/' 4')+' *&')+,0' 9,.5',.(*.7%..%.)' &*$' 5*8%0),('10%' '.5',)',0' 4%0)')*')'9%' ,)' ,.' '' 4')+,.-' %0)'4+0+8%.)' *$')+%' *$5,.'$2' 61$6*0%0' *&' ''&**)4')+' ')' +*8%')+%' */5' 5,$%(),*.0' *$' %/%.10' (*))' 3+*' ,.)$*51(%5')+%' 10%' *&')+%' '(,5' '$% 01&;&,(,%.)' +%' 7%00%/' 8 10)' *&' (*1$0% 4%' *&' 3**5' *$'%')$)+%.3'$%' $' (*))' '55%5' &*1$')*' 0,B' *,8%%0' *&')+%' '(,5')*')+$%% -'//*.0' *&' 3')%$' +,0' 8'5%' '' $')+%$' 0)$*.-' &**)4')+' +%' 6'),%.)' 3'0')*' 9%%6' +,0' &%%)' ,8 8%$0%5' &*$')+,$)2' 8,.1)%0H ' .5')+%' 4')+' 3'0')*' 4%' $%;6%')%5' %7%$2'*)+%$'5'2'&*$')3*'*$)+$%%' 3%%90' +%' 'B,//&&,')+%' -$*,.'' .5')+%' $%-,*.'*&')+%' /,7%$' 3%$%')*' 4%06*.-%5'3,)+')+%' '(,5'0*/1;),*.' +%' 4')+' ('10%0'0/,-+)',.-/,.-'*&')+%' 09,.'' .5''')'0)%',')+%' 8*1)+' '.5',0'4%/,%7%5'*(('0,*.'//2')*'6$*51(%'0'/,7'),*.' +,0'4')+' '0' 4%%.' 10%5'7%$2'%B)%.0,7%/2',.' .5,'' '.5',.' -/'.5',.'/,7%$' '&&%(),*.0' +%$%',0'5,&;&%$%.(%'*&'*6,..*.'')0')*',)0'7'/1%H 8' .2'+'7%'-$%')'(*.&,5%.(%',.',)

D' # ' $ "' $ # G +%' 4$'.' 4')+' ,0' 8'5%' 42'4*,/,.-'&*1$'6*1.50'*&'4$'.',.'*.%-'//*.' *&' 3')%$' 0)$',.,.-' .5' '55,.-')+%' +-1*$')*' '' E1'.),)2' *&' 3')%$' 01&&,(,%.)' &*$' '' 4')+' 1(+' '' 4')+' ,0' 10%&1/',.' '//'2,.-',$$,)'4,/,)2'*&')+%' 09,.'' .5'*/0*',.'5,8,..0+,.-)+%' 0),8)5'),..'%&&%()'*&*)+%$'4')+0

M' #' . ' $ # G= +,0' ,0' 8'5%' 42' '55,..-'' 5%(*(),*.' *&' 0%' 3%%5' *$')+%' 0%';3%%5' (+*66%5'16')*' '.'*$5,.'$2'4')+H ,)'3,//4%(*8%' 8*$%' *$'/%00'-%/'),.*10',&' %.*1-+' 4%' '55%5' 1(+'4')+0'-*'6*61/'$/2'42')+%' .'8%' *&' '%" ' $ # H '.5')+%2' (*.)'.'' '' (%$)',.' '8*1.)' *&' (+/*$,5%' *&' 0*5,8.'' .5'' 8,.1)%' 6$*6*$),*.'*&',*5,.%' +%2' '$%' 10%&1/',.')+%' 0'8%' ('0%0' '0'0%' 4')+0

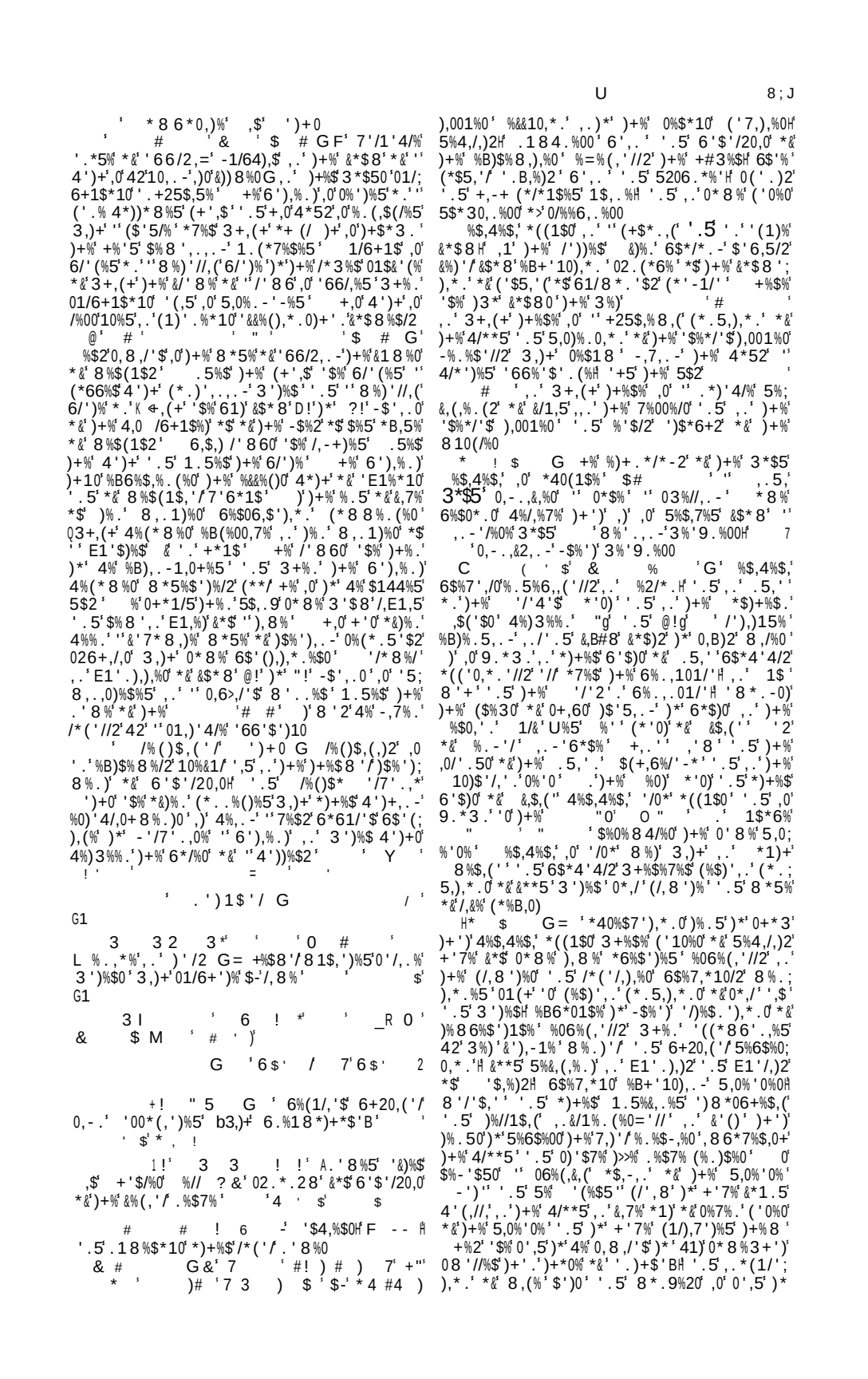
?' # ' ' $ # 'G' .' %B)$% 8%/2' 10%&1/' 0),8 1/'),.-'4')+' ,0')+%' 3% 9.*3.' 8 10)'$5'4')+' 3+,(+',0' 8'5%' 42' '55,.-'' +'.5&1/' *$')3*' *&' 8 10)'$5')*')+%' *$5,.'$2' +*)4')+' +%6%5 17,18',0',)0' 8*0)' 10% ' &*$8

P' 6 " ' $ # G ')+0' *&')+%' 4'/0'8' *&' 6,.%/%'7%0' 8'2' 4%' 6$%6'$%5' %B)%8 6*$%' 42' 8'9,.-' 5%(*(),*60' *&')+%' &$%0+' /%'&,%)0' ')' %$)',.'0%'0*.0H 41)' +%' 101'/' 3'2',0')*' '55' '4*1)' *.%' 6*8,5' *&')+%' %B)$'()' 3+,(+',0' 6$%6'$%5' &$*8')+%' /%'7%0' '.5',0'%7%$23+%$%' &*$0'/%G')' /%'0)',.' %$8'.2' +%' %B)$'()' 5,00*/7%0',.')+%'4')+' 3+,(+',0')+%.'$%'52'&*$ 10%H 41)' *&' /')%',)' +'0' 4%%.'101'/')*' '55' '08'//' '8*1.)' *&' '.' %00%.(%' 3+,(+',0' /0*' 6$%6'$%5' &$*8')+%' /%'&/%)0')' &/*')0')*')+% 01$&'(%' *&')+%' 3')%$' '.5' '))'(+%0',)0%/&')*')+%' 6%$0*.'*.'/%'7,.-')+%'4')+' '.5',0'5*8'' ,0' -$')%&1/' &(*1$0%')+%' E1'.),)2' *&')+% %B)$'()')*' 4% %8 6/*2%5' 5%6%.50' *.' ,)0' 0)$%.-)+' +%0%' &'7*1$,)%' 4')+0' '$%' .*3' 8*$%' '.5' 8*$%' /'$-%/2' %8 6/*2%5' ')' '// 4')+,.-'%0)'4/,0+8%.)0',.' %7%$2' (*8%$' *& 1$*6%' +%2' '$%' 0/,-+)/2' 0),8 1/'.)' '.5' '$%' 8 1(+'10%5',.' +20)%$,('/'$+%18'),(' '.5' -*1)2' '&&%(),*.0' '.5' '/0*' '0' '.' '5>1.()')*')+%',.)%$.'/'10%*&'8,.%$'/'3')%$0

!' $ # ' '' S) " ' & G' $*8')',('*$0%5'),7%'4')+0' '$%' 6$%6'$%5' 42' '55,..-'' 5%(*(),*.' *&' /'7%.5%$' +200*6' *$' (*.,18')*' '.'*$5,.'$2'4')+)',0'0('$(%/2'.%(%00'$2')*' '55')+')' '0' '' $1/%' '/'(*86*0,)%/,E1,5'4')+0'0+*1/5'4%' *&' '')%86%$')1$%''/,)))/%' '4*7%')+%')%6,5H '.5')+')')+%,$'0)$%.-)+' '.5')+%'),8%')+')+%' 6'),%.)',0')*'$%8',.',.')+%8' 8 10)'4%'5%)%$;8,.%5'42')+%' 06%(,'/ (,$(180)'.(%0' *&')+%' ('0%

88' & 0 ' 0 ' M '6*1$'4')+0',86$%-.')%5'3,)+' ' '$%' 6*61/'$' '.5' '$%' (*.0,5%$%5')*' 4% 8*$%' 6*3%$&)5' ,')+%,$'*6%$')',*.')*'.'6,.%'4')+0'+%' 7'6*1$3+,(+'$,0%0',.'8'9,.-')+% 5%(*(;),*.'*&'6,.%'/%'7%0',0'(*.7%2%5')*' '' 4*B',.'3+,(+')+%'6'),%.)',0'6/'(%5' 1(+'4')+0' 8'2'4% 10%&1/',.'+20)%$,'

@



+'7%'4%%.' &*//*3%5' 42'0286)*80' (+'$'()%$;,0),(' *&'4%$,4%$,')'3*1/5'4%' 6$%8'1)$%' ,.'()+%' 6$%0%.)' 0)'0)%' *&')+%' ,.7%0),-'),*.')*$%-'$5')+%,$' ('10'/'$%/'),*.0' '0'%0)'4/,0+%5'+%' 0286)*80',)' ,0' 0',5' 0%/5*8'4%-.,')*''66%'$'3,)+,.')%.'8*.)+0'*$''2%'$'&)%$'&,$0)'%B6*0,1$%')*')+%'%B(,),.-'('10%0' %$,4%$,'+'0'4%%.'0($,4%5'42' .9,.-')*'5,0%'0%'*&')+%'9,5.%2'41)')+%$%',0'.*'%7,5%.(%')*'6$*7%')+')',)',0'51%')*')+,0'('10%'*$',.5%%5')*'0)$1()1$'/(+'.-%0'*&'.2'*&')+%'7,0(%$''*$%+%'5'$%&%$0',)'$')+%$')*''0(*$41),(''*$,-,.''.5',.'0*8%'$%06%()0',)'5*%0'$%0%84/%'0(1$72!#,)'8'2'6$*4'4/2''/0*'4%''(*.0%E1%.(%'*&')+%'('(+%B,'')+')'0*'*&)%.'$%01/)0'&$*8'/*.-'$%0,5%.(%',.''8'/'$,*10'(/,8')%'%06%(,'//23+%.')+')'+'0'4%%.''((*86'.,%5'42'%B6*01$%'6$,7'),*.''.5'%B(%00,7%'%B+'10),*.'*&')+%'7,)'/6*3%$0' .'01(+')+%'8*0)'(*86/%)%'.%%8,''3,)+'5%4,/,)2'8'2'*((1$',.5%6%.;5%.)/2'*&')+%'%B,0)%.(%'*&'*$-'.,('7,0(%$'/5,0%'0%')+*1-+'.')1$'2')+%'0286)*80'3,//4%',.)%.0,&,%5'3+%$%'01(+'5,0%'0%',0'6$%0%.)'.',86*$)'.)'(*.)$,41),*.')*'*1$'9.*3/%5-%*&'4%$,4%$,'+'0'$%(%.)/2'A'.1'$2'?P!!'4%%.'8'5%'42'1$-%*.'+*8'0'*&')+%'.5,'.'%5,('/'%$7,(%'0'20')+')'.'''7%$2'/'$-%'.184%$'*&'('0%0'+%'8%)'3,)+')+%'6$*B,8')%'('10%'3'0')+%'6$%0%.(%'*&'.92'/*0)*8''51*5%.'/%',.')+%',.)%0)8'/('.='.5')+')'+%'0%7%$,)2'*&')+%'5,0%'0%'3'0',.'6$*6*$),*.')*'+%'.184%$'*&'6'$'0,)%'6$%0%.)'%'$%&%$0')*'+%'5,0(*7%$2'42'-')''*&'*9,*'*&''06%(,&,('4'(0%$,18''.5')*'+%'0)')%8%.)'*&'$0'%9%/+'$,.-'.5'W,.9/%$'*&')$%(+)')+')'+%'('10%'*&'4%$,4%$,'0''8,($*(((10'0*')'+')',)',0''.',.&%(),*10'5,0%'0%

!'$'5G%$*10'&/1,5',0'%&&10%5'-%.%$'//2G,.')+%'$%*/'$',001%',.')+%/1.-0'4$',.'+%'$)'.'.5'*45*8,.'/7,0;(%$''+%'('7,),%0'$%'/,9%')+%',001%0'0*'9%5'3,)+'3')%$2'%&&10,*.'+%'),001%0'$%*&)'.'5'5%-%.%$')%'10(1/'$&,4$%',0'&'))2'06%(,'//2')+')'*&')+%'+%'$)'3+,(+',0'*&)%./%./'$-%5'.5'5,/')%5'+%'9,5.%20''$%%./'$-%5''.'%8,('.'5'0*&)%.%5

$G=+%5,0(*7%$2'42')+%'/')%'$''%3,0',.'.5,''*&')+%'%84$2*'*&''.%8';)*5%'3*$8',.')+%'4/**5'*&'6%$0*.0'01&&%$,.-'&$*8'(+2/1$,''''$%3)'/286+*$$+*%''.5'%/%6+'.),'0,0'*&'3+,(+'5,0%'0%0',)'66%'$0')*'4%')*'0*8%'%B)%.)')+%'('10%'01--%0)0')+%'.E1,$2'3+%)+%$''0,8,/'$'+%8')*C**.'8'2'.*)'/0*'4%',.'0*8%'3'2'(*.(%$.%5',.',.51(,.-'4%$,4%$,'*.0'-$,7%0'.5'%$*2'5*'%$,(*1$)'5%0($,4%'4%$,4%$,''0'-%.%$'/5$*602'3,)+'''$'6,5'(*1$0%'3%'9.%00'.5'/*00'*&'0%.0,4,/,)2',.')+%'/*3%$'8401'41)'.*'/418,.1$,''$*602'(*88%.(%0'0'.'0'$(''.5'%B)%.50')*')+%'0%$*10'(7),,%0'+*1-+'+%6),('06/%.,('*$'%.'/(*86/,(),*.0'8'2'%B,0)''.5',.)%.0,&2')+%'0%7%$,)2'.5'+'0)%.')+%'6$*-$%00'*&')+%'-%.%$'/02286)*80')+%2''$%'.*)'%00%.),'/(*.(*8,)'.)0'*&')+%'5,0%'0%'+1)'66%'$')*'*$,-,.')%',.''06'.[8,('0)'%*&')+%'4/**5''.5')*'4%'9%6)'16'42',)0'6$*;-$%00,7%',86%$&%()'%/'4*$'),*.'+%'$%01/),.-'6'$),'/0)'$7'),*.'*&')+%'(%$%4$*06,.'/.%$7%'(%.)$%0''.5')+%'0%$*10'%&&10,*.',.)*''.5''8*.-0')+%8'01&&,(,%./2''((*1.)'&*$)+%'6'$'/20,0'3+,(+',.'0%7%$%'('0%0'(+'$'()%$,0%0')+,0'5,0%'0%I

!(!G%$,4%$,'6$%0%.)0',)0%/&'1.5%$''#"''.5''.''5''06%()'$'$%/2',)',0'0',5'*((1$$,..',.'%,)+%$'&*$8'1.),/'&)%$''.'%B6*01$%'*&0*8%8*.)+0')*')+%'%B(,),.-'('10%0'+%'-%.%$'/02286)*80'8'2'4%'0',5')*'4%')+*0%'*&''.'%8,('.5''.'0'$('&&/5%8''6%$7'5%0')+%'+840'.5'4*52'-%.%$'//2''(;(*86'.,%5'3,)+'.184.%00'6',.'+%'7,.%00''.5'/*00'*&'6*3%$''8*1.),.-',*0*8%'*'0%0')*'6'$'/20,0'/*.-'3,)+')+%0%'0286)*80')+%$%'*((1$'6$0%(*$5,'/'.B,%)2'5206.*%''$$%-1/'$,)2'.5'6'/6,)')',*.'*&')+%'+%'$)'6','.')')+%'%.0,&*8'('$),/'-%''.0%8,(81$;81$0'5%4,/,)2''.5''08'//E1,(9'61/0%'3+,(+')')+%'*1)0%)'8'2'4%'$')+%$'+'$5''.5'&1''((*86'.,%5'42'(+2.%00'.5'+%')'*&09,.'+%'66%),)%',0')'&,$0)'.*)',86',$%5

'8(%')+%'6$%0%.)'$),(/%'3'0'3$,))%.'(%$)',.'7%$2'$%(%.)'57'.(%0',.'%1$*6')+*/*-2'+'7%'8'5%',)'6*00,4/%')*'06%'9'8*$%'5%(,5%5/2'*.')+%'$%/'),*.'*&')+%'.%$7*10'020;)%8')*'4%$,4%$,'+%'%/'4*$')%'$%0%'$(+%0'*&''%/C'.5'(+%14%',.'6'.''.5'*&'%9%/;+'$,.-''.5',.9/%$',''7''-*'&'$')*'%/1;(,5')%')+,0'8'))%$'.')+%&,-+)'*&')+%0%'$%0%'$(+%0',)'8'2'4%'0',5')+')'3+'%7%$')+%'%B*,)+,-''.5'6$%5,06*0,.-'('10%0'8'2'4%'+%'4$1.)'*&')+%'5,0%'0%'&'//0',.')+%'&,$0)',.;0)'.(%''.5'8',./2'*.')+%'6%$,6+%$'/.%$7%'&,4$%0'.'4%$,4%$,')+%'6%$,6+%$'/.%$7%0''$%',.7'$,'4/2'&*$85',.''')0)'%*&'3%8'$9%5'5%-%.%$')',.'.5'*45*8,.'/7,0;(%$''+%'('7,),%0'$%'/,9%')+%',001%0'0*'9%5'3,)+'3')%$2'%&&10,*.'+%'),001%0'$%*&)'.'5'5%-%.%$')%'10(1/'$&,4$%',0'&'))2'06%(,'//2')+')'*&')+%'+%'$)'3+,(+',0'*&)%./%./'$-%5''.5'5,/')%5'+%'9,5.%20''$%%./'$-%5''.'%8,('.5'0*&)%.%5$'G=+%5,0(*7%$2'42')+%'/')%'$''%3,0',.'.5,''*&')+%'%84$2*'*&''.%8';)*5%'3*$8',.')+%'4/**5'*&'6%$0*.0'01&&%$,.-'&$*8'(+2/1$,''''$%3)'/286+*$$+*%''.5'%/%6+'.),'0,0'*&'3+,(+'5,0%'0%0',)'66%'$0')*'4%')*'0*8%'%B)%.)')+%'('10%'01--%0)0')+%'.E1,$2'3+%)+%$''0,8,/'$'+%8')*C**.'8'2'.*)'/0*'4%',.'0*8%'3'2'(*.(%$.%5',.',.51(,.-'4%$,4%$,'*.0'-$,7%0'.5'%$*2'5*'%$,(*1$)'5%0($,4%'4%$,4%$,''0'-%.%$'/5$*602'3,)+'''$'6,5'(*1$0%'3%'9.%00'.5'/*00'*&'0%.0,4,/,)2',.')+%'/*3%$'8401'41)'.*'/418,.1$,''$*602'(*88%.(%0'0'.'0'$(''.5'%B)%.50')*')+%'0%$*10'(7),,%0'+*1-+'+%6),('06/%.,('*$'%.'/(*86/,(),*.0'8'2'%B,0)''.5',.)%.0,&2')+%'0%7%$,)2'.5'+'0)%.')+%'6$*-$%00'*&')+%'-%.%$'/02286)*80')+%2''$%'.*)'%00%.),'/(*.(*8,)'.)0'*&')+%'5,0%'0%'+1)'66%'$')*'*$,-,.')%',.''06'.[8,('0)'%*&')+%'4/**5''.5')*'4%'9%6)'16'42',)0'6$*;-$%00,7%',86%$&%()'%/'4*$'),*.'+%'$%01/),.-'6'$),'/0)'$7'),*.'*&')+%'(%$%4$*06,.'/.%$7%'(%.)$%0''.5')+%'0%$*10'%&&10,*.',.)*''.5''8*.-0')+%8'01&&,(,%./2''((*1.)'&*$)+%'6'$'/20,0'3+,(+',.'0%7%$%'('0%0'(+'$'()%$,0%0')+,0'5,0%'0%I

!(!G%$,4%$,'6$%0%.)0',)0%/&'1.5%$''#"''.5''.''5''06%()'$'$%/2',)',0'0',5'*((1$$,..',.'%,)+%$'&*$8'1.),/'&)%$''.'%B6*01$%'*&0*8%8*.)+0')*')+%'%B(,),.-'('10%0'+%'-%.%$'/02286)*80'8'2'4%'0',5')*'4%')+*0%'*&''.'%8,('.5''.'0'$('&&/5%8''6%$7'5%0')+%'+840'.5'4*52'-%.%$'//2''(;(*86'.,%5'3,)+'.184.%00'6',.'+%'7,.%00''.5'/*00'*&'6*3%$''8*1.),.-',*0*8%'*'0%0')*'6'$'/20,0'/*.-'3,)+')+%0%'0286)*80')+%$%'*((1$'6$0%(*$5,'/'.B,%)2'5206.*%''$$%-1/'$,)2'.5'6'/6,)')',*.'*&')+%'+%'$)'6','.')')+%'%.0,&*8'('$),/'-%''.0%8,(81$;81$0'5%4,/,)2''.5''08'//E1,(9'61/0%'3+,(+')')+%'*1)0%)'8'2'4%'$')+%$'+'$5''.5'&1''((*86'.,%5'42'(+2.%00'.5'+%')'*&09,.'+%'66%),)%',0')'&,$0)'.*)',86',$%5

'8(%')+%'6$%0%.)'$),(/%'3'0'3$,))%.'(%$)',.'7%$2'$%(%.)'57'.(%0',.'%1$*6')+*/*-2'+'7%'8'5%',)'6*00,4/%')*'06%'9'8*$%'5%(,5%5/2'*.')+%'$%/'),*.'*&')+%'.%$7*10'020;)%8')*'4%$,4%$,'+%'%/'4*$')%'$%0%'$(+%0'*&''%/C'.5'(+%14%',.'6'.''.5'*&'%9%/;+'$,.-''.5',.9/%$',''7''-*'&'$')*'%/1;(,5')%')+,0'8'))%$'.')+%&,-+)'*&')+%0%'$%0%'$(+%0',)'8'2'4%'0',5')+')'3+'%7%$')+%'%B*,)+,-''.5'6$%5,06*0,.-'('10%0'8'2'4%'+%'4$1.)'*&')+%'5,0%'0%'&'//0',.')+%'&,$0)',.;0)'.(%''.5'8',./2'*.')+%'6%$,6+%$'/.%$7%'&,4$%0'.'4%$,4%$,')+%'6%$,6+%$'/.%$7%0''$%',.7'$,'4/2'&*$85',.''')0)'%*&'3%8'$9%5'5%-%.%$')',.'.5'*45*8,.'/7,0;(%$''+%'('7,),%0'$%'/,9%')+%',001%0'0*'9%5'3,)+'3')%$2'%&&10,*.'+%'),001%0'$%*&)'.'5'5%-%.%$')%'10(1/'$&,4$%',0'&'))2'06%(,'//2')+')'*&')+%'+%'$)'3+,(+',0'*&)%./%./'$-%5''.5'5,/')%5'+%'9,5.%20''$%%./'$-%5''.'%8,('.5'0*&)%.%5

$G=+%5,0(*7%$2'42')+%'/')%'$''%3,0',.'.5,''*&')+%'%84$2*'*&''.%8';)*5%'3*$8',.')+%'4/**5'*&'6%$0*.0'01&&%$,.-'&$*8'(+2/1$,''''$%3)'/286+*$$+*%''.5'%/%6+'.),'0,0'*&'3+,(+'5,0%'0%0',)'66%'$0')*'4%')*'0*8%'%B)%.)')+%'('10%'01--%0)0')+%'.E1,$2'3+%)+%$''0,8,/'$'+%8')*C**.'8'2'.*)'/0*'4%',.'0*8%'3'2'(*.(%$.%5',.',.51(,.-'4%$,4%$,'*.0'-$,7%0'.5'%$*2'5*'%$,(*1$)'5%0($,4%'4%$,4%$,''0'-%.%$'/5$*602'3,)+'''$'6,5'(*1$0%'3%'9.%00'.5'/*00'*&'0%.0,4,/,)2',.')+%'/*3%$'8401'41)'.*'/418,.1$,''$*602'(*88%.(%0'0'.'0'$(''.5'%B)%.50')*')+%'0%$*10'(7),,%0'+*1-+'+%6),('06/%.,('*$'%.'/(*86/,(),*.0'8'2'%B,0)''.5',.)%.0,&2')+%'0%7%$,)2'.5'+'0)%.')+%'6$*-$%00'*&')+%'-%.%$'/02286)*80')+%2''$%'.*)'%00%.),'/(*.(*8,)'.)0'*&')+%'5,0%'0%'+1)'66%'$')*'*$,-,.')%',.''06'.[8,('0)'%*&')+%'4/**5''.5')*'4%'9%6)'16'42',)0'6$*;-$%00,7%',86%$&%()'%/'4*$'),*.'+%'$%01/),.-'6'$),'/0)'$7'),*.'*&')+%'(%$%4$*06,.'/.%$7%'(%.)$%0''.5')+%'0%$*10'%&&10,*.',.)*''.5''8*.-0')+%8'01&&,(,%./2''((*1.)'&*$)+%'6'$'/20,0'3+,(+',.'0%7%$%'('0%0'(+'$'()%$,0%0')+,0'5,0%'0%I

!(!G%$,4%$,'6$%0%.)0',)0%/&'1.5%$''#"''.5''.''5''06%()'$'$%/2',)',0'0',5'*((1$$,..',.'%,)+%$'&*$8'1.),/'&)%$''.'%B6*01$%'*&0*8%8*.)+0')*')+%'%B(,),.-'('10%0'+%'-%.%$'/02286)*80'8'2'4%'0',5')*'4%')+*0%'*&''.'%8,('.5''.'0'$('&&/5%8''6%$7'5%0')+%'+840'.5'4*52'-%.%$'//2''(;(*86'.,%5'3,)+'.184.%00'6',.'+%'7,.%00''.5'/*00'*&'6*3%$''8*1.),.-',*0*8%'*'0%0')*'6'$'/20,0'/*.-'3,)+')+%0%'0286)*80')+%$%'*((1$'6$0%(*$5,'/'.B,%)2'5206.*%''$$%-1/'$,)2'.5'6'/6,)')',*.'*&')+%'+%'$)'6','.')')+%'%.0,&*8'('$),/'-%''.0%8,(81$;81$0'5%4,/,)2''.5''08'//E1,(9'61/0%'3+,(+')')+%'*1)0%)'8'2'4%'$')+%$'+'$5''.5'&1''((*86'.,%5'42'(+2.%00'.5'+%')'*&09,.'+%'66%),)%',0')'&,$0)'.*)',86',$%5

'8(%')+%'6$%0%.)'$),(/%'3'0'3$,))%.'(%$)',.'7%$2'$%(%.)'57'.(%0',.'%1$*6')+*/*-2'+'7%'8'5%',)'6*00,4/%')*'06%'9'8*$%'5%(,5%5/2'*.')+%'$%/'),*.'*&')+%'.%$7*10'020;)%8')*'4%$,4%$,'+%'%/'4*$')%'$%0%'$(+%0'*&''%/C'.5'(+%14%',.'6'.''.5'*&'%9%/;+'$,.-''.5',.9/%$',''7''-*'&'$')*'%/1;(,5')%')+,0'8'))%$'.')+%&,-+)'*&')+%0%'$%0%'$(+%0',)'8'2'4%'0',5')+')'3+'%7%$')+%'%B*,)+,-''.5'6$%5,06*0,.-'('10%0'8'2'4%'+%'4$1.)'*&')+%'5,0%'0%'&'//0',.')+%'&,$0)',.;0)'.(%''.5'8',./2'*.')+%'6%$,6+%$'/.%$7%'&,4$%0'.'4%$,4%$,')+%'6%$,6+%$'/.%$7%0''$%',.7'$,'4/2'&*$85',.''')0)'%*&'3%8'$9%5'5%-%.%$')',.'.5'*45*8,.'/7,0;(%$''+%'('7,),%0'$%'/,9%')+%',001%0'0*'9%5'3,)+'3')%$2'%&&10,*.'+%'),001%0'$%*&)'.'5'5%-%.%$')%'10(1/'$&,4$%',0'&'))2'06%(,'//2')+')'*&')+%'+%'$)'3+,(+',0'*&)%./%./'$-%5''.5'5,/')%5'+%'9,5.%20''$%%./'$-%5''.'%8,('.5'0*&)%.%5

$G=+%5,0(*7%$2'42')+%'/')%'$''%3,0',.'.5,''*&')+%'%84$2*'*&''.%8';)*5%'3*$8',.')+%'4/**5'*&'6%$0*.0'01&&%$,.-'&$*8'(+2/1$,''''$%3)'/286+*$$+*%''.5'%/%6+'.),'0,0'*&'3+,(+'5,0%'0%0',)'66%'$0')*'4%')*'0*8%'%B)%.)')+%'('10%'01--%0)0')+%'.E1,$2'3+%)+%$''0,8,/'$'+%8')*C**.'8'2'.*)'/0*'4%',.'0*8%'3'2'(*.(%$.%5',.',.51(,.-'4%$,4%$,'*.0'-$,7%0'.5'%$*2'5*'%$,(*1$)'5%0($,4%'4%$,4%$,''0'-%.%$'/5$*602'3,)+'''$'6,5'(*1$0%'3%'9.%00'.5'/*00'*&'0%.0,4,/,)2',.')+%'/*3%$'8401'41)'.*'/418,.1$,''$*602'(*88%.(%0'0'.'0'$(''.5'%B)%.50')*')+%'0%$*10'(7),,%0'+*1-+'+%6),('06/%.,('*$'%.'/(*86/,(),*.0'8'2'%B,0)''.5',.)%.0,&2')+%'0%7%$,)2'.5'+'0)%.')+%'6$*-$%00'*&')+%'-%.%$'/02286)*80')+%2''$%'.*)'%00%.),'/(*.(*8,)'.)0'*&')+%'5,0%'0%'+1)'66%'$')*'*$,-,.')%',.''06'.[8,('0)'%*&')+%'4/**5''.5')*'4%'9%6)'16'42',)0'6$*;-$%00,7%',86%$&%()'%/'4*$'),*.'+%'$%01/),.-'6'$),'/0)'$7'),*.'*&')+%'(%$%4$*06,.'/.%$7%'(%.)$%0''.5')+%'0%$*10'%&&10,*.',.)*''.5''8*.-0')+%8'01&&,(,%./2''((*1.)'&*$)+%'6'$'/20,0'3+,(+',.'0%7%$%'('0%0'(+'$'()%$,0%0')+,0'5,0%'0%I

')%$')+%$%' ,0' (*/5 .%00' *&')+%' %B)$% 8 ,),%0H')*$6*$' *&')+%' 4* 3 %/0H 0(' .)2' +,-+ (*/*1$%5' 1$,.%'*&06' -$' !@!')*' ! !' 41)' .*' '/41; 8,.1$,'' '0' '' $1/%' ((*$5,.-') *' *$)*.' '.5' *)+%$0' %B(%00,7%' 5$*3 0,.%00' '.5' 0)16*$' '))%.5' 0*8%' 0)'-%0' *&' (%$)',.' ('0%0' *&')+%' 5,0%'0%H '/ *'6'/%'&/'442')*.-1%''.5'4/'.(+%5' 81(*10' 8%84$'.%0'H *(('0,*.''//2' +'%8*$; $+'-% &$*8')+%' 0)*8'(+' '.5' 4*3%/0H' 3,)+' 6%)%(+,'/'%$16),*.0H' .'' '.B,*10'/**9H''61&&2' 03*//%.'' .5' 048%),8%0' /,7,5' &'(%H ' .5' '' 6%(1/,'$')*))%$,.-'-',)' %')+'$%01/)0'$'6,5/2' ,.' 0*8%' *&')+%' (1)%' ('0%0' 3,)+' 0286)*80' *&' %&/+0,*.',.)*')+%')+*$'(,(' '.5' '45*8,.'/' (7'),)%0' *$' 3,)+,.')+%' 091//' 42' %B+'10),*.' 02.(*6%' *$')+%' &*$8'),*.' *&'(*'-1/''%,)+%$' ,.')+%' 020)%8,(' *$' ,.')+%' 61/8*.,(',($(1/';),*.' %$,4%$,'&$%E1%.)/2' '0018%0' ''0/,-+)' .5' 8*5,&,%5' &*$8' ,.5,(')%5' 42' '.'%8,'' .184. %00' .B,*10' %B6$%00,*.H' 5,0*$5%$%5' 4*3%/0H' 0(' .)2' 1$,.%H */5' 09,.H '' /*3' &%%4/%' '.5' ,$$%-1/'$' 61/0%H' 6$0%(*$5,'/' 6',.' *$' 1.%'0,;.%00' 3,)+' 6'/6,)','*.H .%$7*10' 5%6$%00,*.H '.' 1.0)%'52''/8*0)')*))%$,.-'-',)H' .5''61&&2' &'(%'.5'.%(9' $' '1/' 0'20' 0' +'7%'8%)' 3,)+' '.1,.%$*10' (/'00' *&' ('0%0')+')' '$%.*)' 0*' 0%$,*10' A'0')+%' '(1)%R' *$' 0*' *&)%.' &')'/' 3+%$%')+%' (+,%&02 86)*8'(*86/',.%5'*&'3'0' 41$.,.-' *&')+%' &%%)<' '/(*/80*.'5%0($,4%0')+,0'$%8'$9'4/%'(*.5,),*.',.'(*..%B,*.'3,)+' 4%$,4%$,')*' 3+,(+'+%' 0'20',)',0' '//,%5=,)',0' &*1.5')*' '&&%()')+%' 0*/%0' *&')+%' &%%)' '.5' ('/7%0' *&')+%' /%-0')+%' 4'(9' '.5'*(('0,*.'//2')+%' 8 10(/%0' *&')+%' /%-0')'*((1$0',.'$%(%.)' '.5' 0/,-+)' %B'86/%0' *&' 4%$,4%$,' '.5' 3'0' *$,-.'//2'*40%$7%5',.')+%')$**60'&)%$')+%'&,$0)' 1$8%0%' '$G0*8%),8%0',.'8%+'3+*'+'5' .*)+'5'4%$,4%$,' .')+%' 3+*/%' '/(*/80*.')+,.90',)',0'.%,)+%$'$+%18')',0 8'. $'4%$,4%$,' '.5'8'2'((*86'.2'*$'&*//*3'*)+%$'5,0%'0%0' '0'.',.5,(',).*.'*&'.%$7*),0'5%4,/,)2 .')+%' '&*$80'*&'4%$,4%$,')+%' 0286;)*80'$%' 7%$2'0%7%$%' '.5'*&)%.'$'6,5H' '.5')+%'8*$)'/)2'3*1/5'..5,()%',)'*'4%0%(*.5' *./2')*' (+*/%$'',.'&')'/,)2' +%'(+,%&0286;)*80'$%HG '6,5'-%.%$'/'.'%8,'' .5'5$*602' *&')+%' ('7,),%0H' 0('.)2' '/8*0)' 0166$%00%5' 8,.%H' (*.0),6'),*.H 3%'9',$$%-1/'$' 61/0%H' ,.)%.0%' 6$3(*5$'/'6',.H +1 &,%5',$$%-1/'$' .5'6',.&1/'4$%')+,.-H *(('0,*.'/'7*8,),..-' G0*8%),8%0'*&'4/**5H 03%//,.-'*&')+%'+8 40' 3,)+' .184.%00'6',.''.5'6'$'/20,0''((*8; 6'..%5'42''&%%4/%')*))%$,.-'-',)H'.5''/')+%' 0286)*80'*&'6%1,)(' '.5'6%$,('$5,'/'%&&1; 0,*.H&',/,..-'+%'$)H' .5'5%')+'%,)+%$'&$*8' 02.(*6%'*$' 6%$+'60' '/8*0)' 0155%./2'&$*8' %84*/,08?"')+%' 8*0)' '(1)%' ('0%0' 3,)+,.' '&%3'5'20' .')+,0''(1)%'&*$8')+%''&&%(),*.' ,0'7%$2'&')'/'41)',.')+%' 8,/5%$' '.5'8*$%' (+$*.,(' &*$8' $%(*7%$2',0'&$%E1%.)' (1)%' 0286)*80'*&)%.'016%$7%.%',.')+*0%'3+*'+'7%' 01&&%$%5'&$*8')+%' 8,/5%$' 5,0%'0%'*$',.')+*0%' 3+*'$%' %B+'10)%5' '.5' '.'%8,(' &$*8'*)+%$' ('10%0

+*8'0'6$%&%$0')*')+%'101'/(/'00,&,(',)(8 *&'4%$,4%$,',.)*')+%'3%)'5$2'.'5')+%'8,B%5')+%'&*//*3,.-' ' # '.5' O +%'0286)*80'*&')+%' '&*$8'$%'62; $%B,'$'6,5'.'%8,''.5'.'0'$('H5206.*%''H 51/.%00'*.'6%$(100,*.H (*1-+'.5'%B6%()*$';),*.H 0(' .)2' 1$,.%H' %&&10,*.' ,.)*' ('7,),%0' 6/%1$'/'.5'6%$,('$5,'/H 6%$,6+%$'/'6'$'/20,0' 3%// 8'$9%5''.5'-$%')'.%$7*10'5%6$%00,*. +%' # '&*$8',0' (+'$')()%$,0%5' 42' %6,-'0)$,(''/*00'*&'6*3%$',.'/*3%$'%B;)$%8,),%0'3'0),.-'*&'810(/%0'/*00'*&',$$,;)'4,/,)2'/*00'*&'6')%//'$')%.5*.'$%&/%B'H)+%' &'(%',0'61&&2'.'5'03*//%.H)+%'/*3%$'/,840' '$%'*05%8')*10'H)+%$%',0')$%8*$'*&'/,60'.'5' +'.50'H 5%(14,)10'*.'4'(9'.'5'$,-+)'0,5%'H 5206.*%''*8,),..-''.5'>'1.5,(%''$%6$%0%.)'H +0%8,(' 8 $8 $0' '$%'+%'$5'*7%$')+%'+%')$)'H)+%'6%B 4%')',0',.5,0),.()'3,)+*1)'0,-.0'*&' +26%$)$*6+2'*$'5,/')',*.' %.)'/'5%4,/,)2' ,0'8'$9%5 .' # " '4%$,4%$,')+%$%',0'.*'$,0%'*&')%8; 6%$')1$%H')+%' &'(%',0'61&&2'03*//%.'.5' /,7,5H)+%$%',0')%.5%$.%00'*&')+%'*551()*$0'*&')+%',-+*''.5')+%'-'0)$*(.%8,10H'.0%8,'' 6'/6,)',.*.''.5')+%'-'0)$*(.%8,10H'.0%8,'' .'1.0)%'52''/8*0)')*))%$,.-'-',)H'.5''61&&2' &'(%'.5'.%(9' $' '1/'0'20'0'+'7%'8%)' 3,)+''.1,.%$*10'(/'00'*&'('0%0')+')'$%.*)' 0*'0%$,*10'A'0')+%''(1)%R'*$'0*'*&)%.'&')'/' 3+%$%')+%'(+,%&02 86)*8'(*86/',.%5'*&'3'0' 41$.,.-'*&')+%'&%%)<' '/(*/80*.'5%0($,4%0')+,0'$%8'$9'4/%'(*.5,),*.',.'(*..%B,*.'3,)+' 4%$,4%$,')*'3+,(+'+%'0'20',)',0''//,%5=,)',0' &*1.5')*' '&&%()')+%' 0*/%0' *&')+%' &%%)' '.5' ('/7%0' *&')+%' /%-0')'*((1$0',.'$%(%.)' '.5' 0/,-+)' %B'86/%0' *&' 4%$,4%$,' '.5' 3'0' *$,-.'//2'*40%$7%5',.')+%')$**60'&)%$')+%'&,$0)' 1$8%0%' '$G0*8%),8%0',.'8%+'3+*'+'5' .*)+'5'4%$,4%$,' .')+%' 3+*/%' '/(*/80*.')+,.90',)',0'.%,)+%$'$+%18',),08

. *)' '6%$,%.)' 1 ./%00' (* 8 4, . %5' 3,)+' $+14 '$4 ' , . ' 5 * 0%0' *&'&*1$)*' &,&)%%. ' -$' , . 0 ' +%' ' ,0' '' 0), 8 1/' .)' ' . 5' 5, '6+*$%),(' -,7% . ')+$,(%' 5', /2 ' ' . 5' + '0' 4%%. ' &*1 . 5' 42' . 5, ' . ' 6+20,5/' . 0')*' 4%7%$2'4% . %&,(, ' /' , . ' 0 * 8 %' ('0%0' *&' 4%$,4%$, ' ,$' ,//, ' 8' ,)9%. ' 0 ' 02 0')+')')1$6% .), . %', 0' '' 10%&1/' $%8 %52 ' $-*), . . ' ,$*. ' ' . 5' 4%//' 5* . . '' 3,)+' C, . (', . ')+%'&*$8' *&' ' 6, ' ' ((* 8 6' . ,%5' 3,)+' 0%' 4')+, . - ' 3 %$%' 10%&1/', . ')+, 0' 5,0%' 0%' '0' 0%% . ' ')' ' +, ' ' 1B' 7 * 8, (' ' + ' 0' *&)%. ' 4%% . ' &*1 . 5' 0%$7, (%' 4/%' , . ')+%' /')%$' 0)' - %0' *&' (%$)' , . ' ('0%0' ' 0' 8, -+)' 4%%B6%( )%5H ' . 5' *6, 1 8' 8 ' 2' 4%' . %%5%5')*' ''//' 2' 6', . ' ' . 5' ,$$,)' 4, /,)2' %6'), (' ' . 5' 06/%. , (' (* 8 6/, (' ;), * . 0' . %%5')+%, $' '66$*6$, ')%' $%8%5, %0' 4; 7, *10/2')+%' (+, %&' , . 5, ('), *. 0' '$%')*' $%-1/')%')+%' &, 8 (), *. 0' *&')+%' '45*8, . ' / 7, 0(%$'H')*' 6$* 8 *)%' $%8 *7 ' / *&')+%' *%5%8 ' H)*' , . ($%' 0%')+%' ' (), *. ' *&')+%' 09, . H ' . 5')*' -, 7%')*. %' ' . 5' 7, -* 8')*')+%' 8 10(1/' $' &, 4$%' 2' 01(+' 8 %' ; 01$%0' (' . ' 3 %' '/*. %' +*6%')*' 5%' / 01((%00&1//2' 3,)+')+, 0' 6$*&*1 . 5' &*$8' *&' (' (+%B, '

+* 8 '0' 4%/, %7%0')+')')+%' &, $0)' , . 5, (', *. ' *&')$%') 8 %.)', 0')+%' %B61/0, *. ' *&')+%' 6' $' 0,)%0' &*$' 3+, (+' 61$6*0%' +%' $%(* 8 8 %. 50' &$%E1%.)/2' $%6%')%5' 080 5' 5*0%0' *&' ('/* 8 %/' 3,)+')+%' '=. , . , 0)$'), *. ' *&')+28 */')*' 5%0)$*2')+%' *.)*C*'H)+%' 10%' *&' 61$-'), 7%0' '/0*' 01(+' '0' >'/' 6' %/')%$, 18H 0140%E1%.)/2')*. , (0G, $*. ' E1, , . , %' . 5' 0)$2(+. , . %' *$' , .)%$. ' / *%&&1; 0, *. ' *&' 0%$18' 6' $' (%.)%0, 0' 8 ' 2' 4%' 6%$&*$8%5' . ' 0* 8%' ('0%0' 6%$, (' $5, '/ %&&10, *. ' + '0' 4%%. ' 4%. %&, (, ''//2')%')%5' 42' $%8 *7 ' / *&')+%' &/1, 5' 42' 61. () 8%' 3,)+' '' 08 '//')$*(' $' . 5' (' . . 1/'

+' . -%' *&' (/, 8 ')%' , 0' *&' -$%')' , 8 6*$)' . (%' '0' 3%//' '0' (' $%&1/'))%.), *. ')*' 5, %)' . 5' *)+%$' 8 %' 01$%0' &*$' 8 ', .)' , . , . -' *$' $%0)*$, . -')+%' -%. %$' / +%' /)+' = (' 4

' U ' , . ' ' 19%; 0+' ' *1 .)2' , 0(*. 0, . ' G '/(' ; $%*10' 3')%$0' $ ' 1

Y ' , . ' 3,)C%$/' . 5 G)$*. -' 81' $, ')%5' 0' /, . %' 3')%$0' 3,)+' 0*8%', *5, 5%' . 5' 4$*8, 5%' *&' 8' -. %0, 18 ' $ ' $' 1

V ' , . ' $' . (%' *. ')+%' '2' *&' ,0('2 G ' &'0+, *. '4/%' 0%'0, 5%' $%0*$)' +%' (/, 8 ')%' ,0' (*. 0, 5%$%5')*' 4%' 4$' (, . -' $ ' $! ' $%')8%.)' *&' ,0%'0%' 42

' ' ,0*$5%$0' *&' G' ,0*$5%$0' *&')+%' 4, /%' +%/5' ''/' $-%' 6/' (%' , . ')+%' 8%5, (, . %' *&' .), E1,)2' 3,)+')+%' %B(%6), *. ' *&')+%')+%*$, %0' W%&' . ' %/8*.)' . 5' $' (%/010H)+%' /')%$' /**9, . -' 16*. ')+%' 4, /%' '0')+%' 4' /0' 8' *&' +&%' . 5')+%$%&*$%', . ('6' 4/%' *&' 4%-%)), . -' 5, 0%' 0%H)+%' &*$8%$' $%-' $5, . -', ' '0' ' 8%$%' %B($%' 8%.),), *10' &/1, 5' . 5')+%$%&*$%' %E1' //2', . ('6; ' 4/%' *&' 4%-%)), . -' 5, 0%' 0%' ,0*$5%$0' *&')+%' 4, /%' +' 7%' . %7%$)+%/%00' +%/5')+%, $' *3. ' E1,)%' , .)*' *1$'), 8%')' ,0' (*8 8*. ' %. *1-+')*' +%' $' 6%$0*. 0' 06%' 9' *&' '0' 4, /, *10'))' (9 < *$ 0I4%, . -')$*14/%5' 3,)+')+%' 4, /% < %B6$%00, *. 0')+%' 01$7, 7' /0' *&' # ' +18*$' /' 6')+*/*-2' +%' /, 7%$' 3' 0' &*$8%$/2' ($%5,)%5' 3,)+' 8*0)' *&')+% 5206%6), '' 5, 0*$5%$0' *&')+%' 0)*8' (+' 1)' '0' , $' +*8' 0' ')0*. '0' 20',)' 0' . ' *$-' . ' *&)%. ' 4/' 8%5' 8*0)' -$')1),)*10/2' ' . 5' 1. >10)/2' 41)' . *' %51(')%5' *$0(, %.), &, (' 6+20, (, ' . ' 3*1/5' . *3')+, . 9' *&' '))$, 41), . -' '' -' 0)$, (' (')' $$+' *$' (*. ; 0), 6'), *. ')*' . ' 0'))' (9' *&')+%' 4 % < *$')*' ' ' 0 0/1- - , 0+' +7%$ < I

+20, (, ' . 0' +'7%' '$$' . -%5' 5, 0*$5%$0' '&&%(); , . -')+%' 4, /%' 1. 5%$')+$%%+%' 50GA R 5, 8, . , 0+%5' 0%($%), *. ' *&' 4, /%H A@R , . ($%' 0%5' 0%($%), *. ' *&' 4 %H ' . 5' A''R 0%($%), *. ' *&' 8 *$4, 5' *$' '/)%$%5' 4, /%' +, 0' 5, 7, 0, *. ' 8' 2' 7%$2' 3%/' 4%' '((%6)%5' 0' '' (*. 7%. , %.)' 4' 0, 0' &*$')+%' &1$)+%$' 5, 0(100, *. ' *&' 4, /, '$2' 5, 0*$5%$0' 41)' ,)' , 0' . *)+, . -' 8*$%')+' . ' ' . ' +26*)+%0, 0')' , 0' /, 9%/2' %. *1-+')+')')+%' +, /%' , . ' (%$)', . ' 5, 0%' 0%0' (+' . -%0' ,)0' (+' $' ()%$' 0' $%-' $50' 4*)+',)0' ' 8*1.)' . 5' (*. 0),)1%.)' 6' $)0H 41)' ,)' (' . . *)' 4%' 5%. , %5')+')')+%' 8%' . 0' 42' 3+, (+' 6+20, (, ' . 0' '$%' '4/%')*' '0(%$)', . ')+%0%' (+' . -%0' (' . ' 0(' $(%/2' 4%' 0', 5')*' %B, 0)' , . ' *$5, . ' $2' ('0%0' ' (*8 8*. ' 0' 2, . -', 0')+')')+%' 6'), %.)' 8 10)' 4%' 8' 9, . -' 6/%.)2' *&' 4, /% 4%(' 10%')+%' 0)**/0' '$%' +, -+' , . ' (*/*1$' *' $%' 0*. , . -' (' . ' 4%' 8*$%' &' //' (, *10' +%' (*/*1$' *&')+%' 0)**/0' 8' 2' 4%' +, -+' , &')+%' &' %(%0' 4%' E1, (9/2' 03%6)')+$*1-+')+%' , .)%0), . ' / ' (' . '/' 4%(' 10%')+%$%+' 0' 4%%. ' *'), 8%' &*$')+%' 4, /%' 6, -8%.)')*' 4%' '40*$4%5' , .)*')+%' 4/**5' $')+%' &' %(%0' 8' 2' 4%' 6' /%' , &')+%2' /, %' /*. -' , . ')+%' 4*3%/' . 5')+%' (*/*1$, . -' 8')%$' , 0' '40*$4%5' *')+')')+%' (*/*1$' *&')+%' 0)**/0' , 0' . *'01$%' 0, -' *&')+%' 6*7%$)2' *$' 41. 5' . (%' *&')+%' 0%($%), *. ' *&' 4 %' . ' ('0%0' *&' 6' /% (*/*1$%5' &' %(%0' 61$; -'), 7%0' *&)%. '5*' -**5' . *)' 4%(' 10%')+%2' +'7%' . 2' 06%(, ' /)%. 5%. (2')*' , . ($%' 0%')+%' &/*3' *&' 4, /%' 41)' 4%(' 10%')+%2' +1$$2')+%' &' %(%0' 1)' *&')+%' , .)%0), . %' ' . 5')+10' -, 7%' . *'), 8%' &*$')+%' '40*$6), *. ' *&')+%' 4, /%' 3+, (+' , &' ,)' / ' 2' /*. -' , . ')+%' 4*3%/' 3*1/5' 4%' '40*$4%5' (', $$, %5') *')+%' /, 7%$' ' . 5' '-', . ' %B($%)%5', .)*')+%' -' 51()0G)+%' 7, (, *10' (, $(/%' *&' (+, &&

*$', 0')+%' . '/20, 0' *&')+%' 4, /%' &*1. 5' '&)%$' 5%')+' , . ')+%' -'// 4/'55%$' *&' 81(+' 7'/1%' $%$, (+0' . . *1. (%5')+%' 6$%0%. (%' *&' '/418%. ' , . ')+%' 4, /%' , . ' ('0%0' *&' (*. -%0), *. ' *&')+%' /, 7%$H 41)' ,)' , 0' . *3' -%. %$''//2')+*1-+')+')')+, 0' '66%'$'. (%' , 0' 51%' 0*/%/2')*' '' 6*0); 8*$)%8')$' . 015'), *. ' ,))%$' i, /0*' +'0' 5%0($, 4%5' '' (*/*1$/%00' 4, /%' , . ' H' '//)+%' (*. 0),)1%.)0' *&' 4 %' '$%' 6$%0%.)' %B(%6)')+%' 6, -8%.)0' *0)' *&' +, 0' . '/20%0' 3%$%' 8'5%' *. ' 4 %')'9%. ' &, $*8')+%' -'// 4/'55%$' '&)%$' 5%')+H 41)' , &')+%' (20), (' 51()' 4%' *40)$1()%5' &*$' . 2'), 8%',)' , 0' 3%//' 9. *3. ')+')')+%' 4 % (*.)', . %5', . ')+%' -'// 4/'55%$' 8'2' 4%(*8%' (*/*1$%0%00' 4 %+' 7, . -')'9%. ' 6/' (%', . ')+%' &, $0)' , 0)' . (%')', 0', 8 6*00, 4/%')*' 4%' (%$)', . ')+')')+%' (+' . -%0' 3+, (+' '$%' &*1. 5' , . ')+%' 4, /%')'9%. ' &$*8')+%' -'// 4/'55%$' '&)%$' 5%')+' +' 7%')'9%. ' 6/' (%' 51$, . -' /, &%

+%' *. /2' 0*1$(%' *&' 3+')' 8'2' 4%' ('//%5' 9. *3/%5-%' *&')+%' 5, 0*$5%$0' *&')+%' 4 %, 0

' ' O ' ' ' '0 $ ' ' # A ' 0 ' 'B M

40%$7'),*.' *&' 8 %.' *$' ' .,8 '/0' ,.' K3+&&/' 4,/,'$2' &,0).//[' +'7%' 4%%.' &*$8%5' %,)+%$' 42' 5,0%'0%' *$' 42' '$)' .&*$)1.')%/2')+%' 8 '>*$,)2' *&' 01(+' *40%$7'),*.0' +'7%' 4%%.' 6+20,*/*-,('/' *$' 6+'$8 '(*/*-,('/H' '.5' 41)' &%3' '$%' $%(*$5%5' *&')+%' (+'.-%0' 3+,(+')+%' 4,/%' 1.5%$-*%0' ,.' 5,0%'0%' /)*-%)+%$' (*.)$'5,()*$2' %B6%$,8%.)0' '$%' $%(*$5%5' *&')+%' ,.&/1%.(%' *&')+%' .%$7%0' '.5' *&')+%' 5,'4%),(' 61.()1$%' *&')+%' &*1$)+' 7%.)$,(/%' 16*.')+%' 0%($%),*.' *&' 4,/%')' ,0' '.' '58,$'4/%' &,%/5' &*$' &).)+%$' $%0%'$(+'41)' ,)' 3 /4%' 0%%.')+')' *1$'6$%0%.)'9.*3/%5-%' 7%$2' (/*0%/2' '66$*'(+%0')*' (*86/%)%',-.*$'.(%)',0'5,061)%5'0) /3+%)+%$')+%' 6$%0$',(%' & 4,/%',.')+%'0)*8'(+'61)0' '.%.5')*')+%'6$*(%00' *&'5,-%0),*.' 2'8'.2',$',0')+*1-+)')+')+%' 4,/%' ,50')+$*3'5*3.')+%''/418%.'*&')+%'&**5' '.5'3,)+')+%''/418%.')+%'6%60,.')',0'3%// 9.*3.')+')',.' 0*8%' 5,0*$5%$0')+%$%',0' '.' ,.7%$)%5''(),*.'*&')+%'51*5%.18''.5'4,/%',0' 6*1$%5',.)*')+%'0)*8'(+''0',./*.-(*.),.1%5' 7*8,),..-'&*$',.0)'.(%H)+10')+%'5,061)%'+'0''' 6$'(),('/4%'$,.-' +%'4%0')$%')8%.)*&')+,0' 0)')%'3*1/5'0%%8')*'4%'42'0'/8%'61$-'),7%0 ,/%'8'2'/0*'4%')'9%.'16',.)*')+%'4/**5' '.5'3+%.')+,0'*((1$0'>'1.5,(%'$%01/)0' 3$ /" 'H'.5'(/ + & $. 7$ & 1

%3 ^ 3 G +%'.'8%'-,7%.' A42')+%'/')%' $' *44* R' '-%.10'*&'&/19%0' 5,0(*7%$%5' 42' $' ,/+'$C'*&' ',$*' K;

" 3 ' &3 & K ! M! ' 23 + 3 ' ' (! " 3 'G +%$%' '$%')3*'9,.50'*&'4,/,'$2'&,0)1/'*.%',.' 3+,(+' '' (*881.,(',*.' %B,0)0' 4%)3%%.')+%' -'//; 4/'55%$' '.5')+%' 01$&'(%'*&')+%' 4*52H)+%' *)+%$',.' 3+,(+')+%$%'0' '' (*881.,(',*.' 4%)3%%.')+%' -'// 4/'55%$' '.5'*)+%$',.)%$.'/ *$-'.0' %,)+%$'9,.5',0'(*88*.' 41)'+%' &,$0)',0'/%00'$'$%')+'.')+%'*)+%$.')+%'&,$0)'7'$,%)2''')18*1$'&*$80'0*8%;),8%0',.')+%' 6/'(%'*&')+%'-' 4/'55%$' ')' *)+%$'),8%0'.%'$')+%'184,/,())0',.')+%'/,.%''' '/4'' *$K)*')+%'/%&)' *&')+,0'/,.%'*$',.')+%' -$*,.'H&+%')18*1$',&'*6%.%5'06*.)'.%*10/2' *$'42')+%'01$-%(I,'5,0(+'$-%0''' E1'.),)2'*& 610'4,/%''.5'-'// 0)*.%0' &')+%'(20),('51()' 4%' *4/,)%$')%5'.*' 4,/%'.%%5'%0('6%' 01661$'),*.'*&')+%'-'// 4/'55%$'('10%5'42')+%'6$%0%.(%'*&'-'// 0)*.%0',0')+%'(*88*.' ('10%'*&')+%0%'&,0)1/[' +%'6$*-.*0,0',0' -**5' +%'5,'-.*0,0'4%&*$%')+%')18*1$' *6%.0',0'7%$2'5,&&,(1/)' .'''('0%'3+,(+' ('8%,85%$')+%'.*),(%'*&'*.%'*&')+%'3$,)%$0' ,)'3'0'8,0)'9%.'&*$'.'*40(%00'*&')+%'/,7%$.')+%'0%(*.5'9,.5'*&'4,/,'$2'&,0)1/''')+%' -' 4/'55%$' 8'2' (*881.,('%' &,)+')+% 5B$*5%.18'*$'(*/*.H ,)+'.'*40(%00'*&')+% /,7%$H3,)+')+%'6*$)'/*$'*)+%$'*45*8,.'/ 7%,.')+*1-+',)'8 10)'4%*3.%5')+')'%'0%0'*&)+,0'9,.5'0%%8'0*8%3+')'514,*10H*$'3,)+)+%'1$,.'$2'4/'55%$'*$' ')'/%'0)'3,)+'08.%' 6'$)'*&')+%'1$,.'$2')$')'()' '// 0)*.%0''$%' ,.'.%'$/2'%7%$2'('0%'')+%'('10%'*&')+%' &,0)1/*10'*6%.,.- = '1 '5 !' ' (' '5 + *' ' G */5''(,51; /')%5''/9'/,.%'3')*0' 'B & !'1 "!'G=+,0')%$8',0'10%5'3,)+' 81(+'7'-1%.%00''.5',.'6*61/'$'/'.-1'-%',0' *&)%.'%86/*2%5'7%$2',.(*$%()/2')+*1-+')+%' -%.%$'/.*),*.',0')*' '00*(,')%',)' (*.5,;),*.0',.'3+,(+'.'.'%B(%00,7%'&*$8'),*.'*&'4,/%' ,0'0,86*0%5')*'*((1$' +%'(+,%&' 0%0'*&')+%' 3*$5''$%''0'&*//*30.')+%'&,$0)'6/'(%',)',0' %86/*2%5')*' 5%0,-.')%'''6%(1/,'$')%86%$'; 8%.)G)+%' ' -',. ,.5,7,51'/0''$%*&)%.'0',5')*'4%'P3 '3+%.')+%2'6$%0%.)''5'0'*3'*$' 8*$%'*$'/%00'2%/; /*3,0+'),.)'*&'09,.'41)'%06%(,'//2',&')+%2''$%' 5,0),.()/2'>'1.5,(%5'$ 0''.5' # '0,-.,&2'$%06%(),7%/2')+%'5,0(+'$-%' *&''E1'.),)2'*&'4,/%'8,B%5'3,)+'7*8,)%5' 8')%$0'*'3,)+'/**0%0**0/0'%$)',. &%4$,/%'5,0%'0%0'')%.5%5'3,)+'2%//*3.%00'*&)+%'09,.')%'0*8%),8%0'5%0,-.')%5'# ') '.5'1.5%$'/,9%'(,$(180)'.(%0'6.%1; 8*.,''+'0'4%%.'5%0($,4%5''0' ' " 7 " '0)/2'*.%'*&')+%'8*0)'&$%E1%.)' '66/,(',*.0'*&')+%')%$8',0')*'(%$),.'0*' ('//%5' 3 -'*$' " 3+,(+' +*3%7%$''$%'%*86'*./2'8%$%/2'))'(90'*& '(1)%'5206%60,''*$'*&'8,-$',.%' +%'8*0)' 6$*8,.%.)'0286)*80'*&''*0166*0%5'F "' -'$%'.*$%B,''&1$$%5')*.-1%''4,))%$')'0)%'0,(9.%00'(*.0),6'),*.''.5'+%'5'(+%' 3,)+''&%%'-'*&'8'$9%5'5%>'%00>*.'.5' -%.%$'/8'/',0%'1(+')'(90'$%'8*0)' %&&%()1'//2'6$%7%.)%5'42'('$%&1/'$%-1/'),*.'*& 5,%)''.5')+%'7*,5'.(%'*&'%B6*01$%')*'(*/5' &'),-1%''.5',85.%'8%.)'/'%B%$),*.'*$' .B,%)2H3+%.')+%2'(*8%'*.''40),.%.(%&$*8' &**5',0'5%0,$'4/%'775)+'$%0)',.')+%'$%(184%.)' 6*0)1$%''.5'6%$&%()'E1,%)'+*/'-X-1%'6%; $,%.)0''.5'0'/,.%'%&&%$7%0(%.)0'8'2'4%'-,7%.' '/(*+*+(' 0),81/').0'4%,..-'7*,5%5''0'&'$''0' 6*00,4/%' 4 5' ' ? ' %'(3 ! ! ' '/ D ' ' 3 ' !*' (, 42'' ' % '' ') *,0*.,.-'+" 3&N' ' P$*-;' *) '* "' + ' *$)' $)' ' + # ' 7 --) ' 7 '+4' ! '/ #4)' -') ' ' ! ' 5!#!'$##4)' ' " $5'-P)6 'B $$ @' 4 A 3' ! ')E # 7' *) ') ' # 7' ') # $ ' 7' ' 7 * ' ' 7 /$ 7' $-'#$> 34 7' +4 * ' 7' 7 3) 7' +$$7' #$)/4 ' * *$ E ' ' $'/) ' ! ' + # '#$ $4)'$-' ! '.$ * ' ! '+ ') +4 7' +"' $ * ' 5)) ' $') 7' + '+4' !) '# ' + ' $'7$4+' ! ' ' ' 74 ' $' ' 7 * = 4) ' 5 !' + $$7' 5!#!' ! ' 4 7)3$ ' #) ' #! 3

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+%' 4/'55%$ 8 '2' 4%')+%' 0%')' *&')+%'
&*//*3,. -' 8 *$4,5' (*.5,),*.0' ' G' .&/' 8 8 ';
),*. ' '(1)%' *$' (+$*.,(H 40(%0OH %1$'/-,'H
)$*>5/2' *$ 26%$)$*6+2H %(+'.,('/ ,0;
)%.0,*.' 3,)+' (+$*.,(' %.-*$-%8%.)' '.5' $%;
)%.),*.'*&' 1$,.%'(*8 8*./2'41)' %$$*.%*10/2'
)%$8%5' 0 $'/20,0'<H '((1/'),*.H ,06/'(%;
8%.)0'01(+' 0' +%$.,'',')+%' 8 '/%' *$' 7%$2'
$'$%/2,.7%$0,*.' '.5'6$*)$10,*.',')+%'&%8 '/%H
18*1$0' *$ $*3)+0' *&' 7'$,*10' 9,.50'&$*8'
0,86/%' 1(*10' */26,')*' 6,)+%+*8''' $;
(*8''.5' '$(,.*8'H 14%$(1/'$,0%'0%H
/(%$'),*.',%,)+%$'0,86/%' *$' 8'/,-.').H '.5'
%0,(*7'-,..'/ *$ %0,%*,)%0),.'/ ,0)1/''
+%' 4/'55%$' 8 '2' '/0*' 4%')+%' 014>%()' *&')$1%'
6'$'/20,0' 6'$),8' *$' (*86/%)%' '0')+%' $%01/)'
*&' ,.>1$2')*')+%' 4$',.' *$' 06,.'/ (*$5' *$
&*//*3,.-'5,0%'0%' *&')+*0%' *$-'.0
./2' '' 4$,%&'0)')%8%.)'$%06%(),.-')+%' 8*0)'
,86*$)'.)'*&),0'(/'00'*&''&&%(),*.0'.%%5'4%'6$%;
0%.)%5'+%$%',.'*$5%$')*'&'(./,)')%' .'''(E1',.;
)'.(%' 3,)+')+%,$'5,'-.*0,0'0,.(%')+%')$%');
8%.)' *&''/8*0)' '/' *&')+%8' 4%'*.-0')*')+%
6$*7,.(%'*&')+%'01$-%*.''.5'0*'&'$'*./2''0',)'
(*.0,0)0'*&'8%5,(,.'/'$%8%5,%0'3,//)+%'014;
>%()'4%'(*.0,5%$%5
8' 3 ' M3 '&$
M +%' 81(*10'/,.,.-'*&')+%'4/'55%$',0'
)+%'6')$' '&&%()%5'42' 8&/'88');*.H ''.5' '/;
)+*1-+''&)%$'/*.-''.5'0%7%$%' '))'(90'0*8%'
8*$4,5''(),*.'*((1$0' 42' %B)%.0,*.')*')+%'
810(1/'$ (*')' *$ %7%.')*')+%' 6%$,)*.%'/
*7%$,.-')+%0%' 0)$1()1$%0' '$%' 7%$2' $'$%/2'
'&&%()%5' &"' '(1)%',.&/'88'),*.'*&''' 7%$2'
0%7%$%' 9,.5'*((1$0' &$*8',.>1$,%0H &$*8')+%'
6$%0%.(%' *&',.0)$18%.)0' &*$%,-.'4*5,%0' '
('/(1/,H '.5' &$*8' 1.$%/,%7%5' $%)%.),*.'*&'
),$,.%' '/%00' 0%7%$%'0*8%3+')' %7'.%0(%.)'
41)' 7%$2'6',.&1/&*$8'*&'(20),),0' '$,0%0' &$*8'
,$$,)'.)0')'9%.',.)%$.'//2''0'('.)+'$,5%0' '
0),//%00' 0%7%$%' 41)' *&)%.')$*14/%0*8%' &*$8'
*$,-,.')%0'42'%B)%.0,*.'&$*8'-*.*$$+*%'
.' # ' '(/'00'*&'('0%0')+%$%''$%'.*)'*./2'
0%7%$%' /*('/ 0286)*80' $%&%$'4/%')*')+%'
4/'55%$' 41)')+%' -%.%$'/ 020)%8' 8'2' 4%'
-$'7%/2''&&%()%5
.')+%' '' '(/'00'*&'3+,(+' ('.)+'$,5%0'
6*,0*.,.-',0')+%')26%')+%'6+%.*8%.''*&'7%$2'
&$%E1%.)'6',.&1/''.5'06'08*5,(')%86)0')*'
%>%()'08'//E1'.),),%0'*&'1$,.%'3+,(+',0'*&)%.'
4/**52'*((1$' 3,)+,.''7%$2'0+*$')8%' '&)%$
'40*$6),*.'*&')+%' 6*,0*.' '(*88*.'4/,0)0$'
,0'0',5')*'6$*51(%')+%' '&&%(),*.',.'0*8%6%$;
0*.0' .')3*'*'0%0G)+%'*./2')3*')+%'3$,)%$'
+'0'0%%.G,)'+'0'&*//*3%5')+%''66/,(',*.'*&''
4/,0)%$')*''01$&'(%''/$%'52'6'$),''//2'5%.15%5'
*&')+%'0('$&09,.' .'*.%'*&')+%0%''4/,0)0$'
3'0'66/,%5')*''9.%%' 3+,(+'+'5'4%%.'&$%;
E1%.)/2'6',.)%'$'3,)+',.()1$%'*&',*5,.%'.'5'
3'0'0),//0/,-+)/2'0*$%' .')+$%%'+*1$0'&)%$
)+%''66/,(',*.' # '6'),%.)'3'0')'(9%5'3,)+'
%B(%%5,.-/2'6',.&1/%&&*$)0')*'8,()1$')%'3+,(+'
3%$%'')'),8%0',.)%.0%' +%'))'(9'/'0)%5'0,B

+*1$0'-$'51'//2'5,8,.,0+,..-',.'&*$(%''.5'
/%'7,..-'.*'&// %&&%%)0'4%+,.5' .'/%00'),+'.'
)3%.)2&*1$'+*1$0'.*')$'(%'*&')+%'0286)*80'
$%8',.%5
.')+%' # '&*$8'*&'(20),),0'3+,(+',0')+%'
8*0)' "'.'.5'*&'3+,(+')'$,0,..-'42'
%B)%.0,*.'&$*8'-*.*$$+*%'' 8'2'4%')'9%.'0'
)+%')26%')+%'101'/02886)*80'$%1.51%&$%;
E1%.(2'*&'8,()1$,),*.H '.%(%00,)2')*'6%$&*$8'
)+%''()',8 8%5,')%/2')+%'3'.)'+'0'5%(/'$%5'
,)0%/&''' (*.5,),*.'(*.7%.,%.)/2'%B6$%00%5'42'
)+%'0,.-/%'3*$5'01$-%.(2<H '' 5%0,$%')*'6'00'
8*$%'''((*86'.,%5'42'6',.'3+%.''//')+%
1$,.%'+'0'4%%.'7*,5%5H '.5'0*8%'51//''(+,.-'
*7%$')+%'614%0H')*-%)+%$'3,)+''-%.%$'/&%4$,/%
0)')%'*&')+%'020)%8'*&)%.'7%$2'0/,-+)'41)'(*$;
$%06*.5,.-'&*$)+%'8*0)'6'$)'3,)+')+%'5%-$%%'
&'/('/ ,.&/'88'),*.' +%' 1$,.%',)0%/&'
,0'(/*152''.5'5%6*0,)0'0*8%'/,-+)'81(10'*.'
0)'.5,.-'41)',)',0'.*)'*)+%$3,0%''66'$%.)/2'
'/)%$%5' .5%$')+%'8,($*0(*6%'141.5'.(%'
*&'%6,)+%/,18',0'7,0,4/%''0'3%/'0'0*8%'610'
(%//0H'.5',&')+%''&&%(),*.',0'0%7%$%''&%3'4/**5'
(*$610(/%0'$%' /0*' 6$%0%.)')'8'2'4%'$%;
8'$9%5'+%$%')+')')+%'6$%0%.(%'*&''&%3'610'
(%//0',.')+%'1$,.%G''&'()')*'3+,(+'0*'8'.2'
6$'(),),*.%$'0$0')$),41)%(*.0,5%$'4/%,86*$)'.(%'
G42'.*'8%'.0'.%(%00'$,/2'5%0%$7%0')*'4%0*'
$%-'$5%5' +%'7%$2'0/,-+)%0)')'(9'%,)+%$
&')+,0'$'*&')+%'6$%(%5,.-'&*$8'*&'(20),),0',0'
(%$)',.')*'4%')%.5%5'42')+%&*$8'),*.'0*&0'8%'
E1'.),)2'+*3%7%$'08'//'*&'&1//2 5%7%/*6%5'
610 (%//0
%$2' ' ' ' "'8'2'4%'6$*;
51(%5'*.')+%'01$&'(%'*&')+%'81(*10'8%84$'.%'
*&')+%'4/'55%$'.'.5'8'2'4%')+$*3.'*&&'/8*0)'
%.),$%'/%'5,.-')*'+%'4%/,%&')+')+%',.%$'
(*')+'0',)0%/&'4%%.'$%8*7%5'*$''0',)'+'0'4%%.'
)%$8%5'0%6'$')%5'42'0%B&*/,'),*.'.'3*8%.'
)+,0'8%84$'.%+'0'4%%.'7*,5%5'6%$' #
,.''(*.5,),*.'&*$%B'8,.'),*.H,.'8%.')+,0'
('..*)'((1$'4%('10%')+%'1$%)+$*''0')*''/
)*'58,)'*&',)' *3'.5')+%.'%B'86/%0'*&'
)+%'&*$8%$'+7%'4%%.'0+*3.')'+%' ')+*;
/*-,('/ *(,%)2'*&' *.5*.H'.5'*.%'*&')+%'
/'))%$'5,0(*7%$%5'*.'*6%$'),*.'8 2'4%0%.'
,.')+%'810%18'*&')+%'U*2'/ *//%-%'*&' 1$;
-%*.0' *.5*.' '
! G .')+%'&,$0)'&*$8'*&'(20),),0'
)+%'$%8*7'/*&')+%'%B(,),.-'('10%',&'6*00,4/%'
,0')+%'(+,%&',.5,(),*.
+%')$%')8%.)'*&')+%'0%(*.5'&*$8'0+*1/5'
(*.0,0)'*&'7%$2'+*)'4,5%)0'*$'+,64')+0')+%'
&*$8%$'4%,..'0*8%),8%0'6$%&%$'4/%'0'('6'4/%'
*&'4%,.-'10%5''')'+,-+%$')%86%$')1$%0')+'.'
)+%'/')))%$H)*-%)+%$'3,)+'/'$-%'5*0%0'*&')+%'
),.()1$%'*&'+%.4'.%'0'2''' 5$'(+8'3,)+'!'*$
F'5$*60'*&'+E1*$'*6,,'A ')H%7%$2'&*1$+*1$0'
3+,/%'6',.','0'0%7%$%H@!'8,.,80'*&'/,E1*$'
6*)'00[' 8'2'4%'-,7%.'%,)+%$'0,81/)'.%*10/2'
*$'/)%$.')%/2',.'3')%$'*$',.''.2'4/'.5'5,/1%.)
+%')%')8%.)'*&''3%// 8'$9%5'((0%'*&')+%'
),$5'(/'00'(*.0,0)0',.''40*/1)%'%0)',.')+%'$%;
(184%.)'6*0)1$%'8,/5'5,%)''40),.%.(%&$*8'
'/'/((*+*/,('0),81/'.)0'-%.)/%'/'B'),7%'(),*.'
*&')+%'4*3%/0''.5')+%''58,.,0)$'),*.''*&08'//

5*0%0' *&' '/9'/,' +%' 3$,)%$' 6$%&%$0' /,E1*$' 6*)'00'0' &$%E1%.)/2' $%6%')%5')*' '//' *)+%$0'H '.5')+,0' 8 '2'4%' (*84,.%5' 3,)+' +%.4'.%' *$' ,&' 8,()1$,),*.' ,0' 7%$2'&,K%E1%.)' .5' 6',.&1/' 3,)+' *6,18'*$'8*$6+,.%' *$' 3,)+'4%//'5*..'',.' 08'//5*0%0' *)'+,6 4')+0'*$4,5%)0'&*//*'3%5' 42'+*)'/,.0%%5 8%'/6*1/),(%0'*$&*8%.)'),*.0' -,7%' -$%')' $%/,%&' +0' 6')%.)' 8'2' 5$,.9' &$%%/2'*&'5%(*(),*.'*&')$,),(18'$%6%.0'/,.0%%5')%'' 4'$/%2 3')%$' *$' 0,8,/'$' 5%81/(%.)0' %/,%&'$'6,5/2'&*//*30'41)' ('$%',0'$%E1,0,)%)*' '7*,5' $%/'60%' 3+,(+' %'0,/2'*((1$0',&'%B%$(,0%' 4%')'9%.')'*'0** .',&',..>%(),*.0'&*$)+%'-*.*$' $+(%'' 4%' $%018%5')**' $%'5,/2'*$',&'/(*+*/,(' 0),81/'.)0'4%',.51/-%5',.

@' +$*.,(' .&/'88'),*.G +$*.,(' 20),),0 G' +$*.,(' ,.&/'8$+')/*.' *&')+%' 4/'55%$',0'0%6'$')%5' &$*8')+%' '(1)%'&*$8'42' 7%$2' 5,0),.()' (+'$')()%$0')',0' 8*0)/2')+%' B%08)'*&'$%)',.%5'1$,.%'&$*8'0)$,(1)$%'*$%.; /'$-%5' 6$*0)')%H 41)',)' 8'2' '$,0%'&$*8')+%' 6$%0%.(%'*&' ('/(1/,' *$' *&' -$*3)+0' ,.')+%' 4/'55%$H &$*8' *7%$ 5,0)%.0,*.' *$')*.2' *&' ,)0' (*')0H&$*8'6'$'/20,0''&)%$',.>1$2'*$5,0%'0%' '&&%(),.-+4*1$,..-' *$-'.0H' .5' 0*8%),8%0' &$*8' '/)%$%5'1$,.%' ,)',0' '/0*' 8%)' 3,)+',.' (%$)',.' '&&%(),*.0' *&')+%' 9,5.%2' *8%),8%0')+,0' (*.5,),*.',0' 8'$9%5'42')+%' 6$%0%.(%' *&' '' /'$-%' E1'.),)2'*&'7,0(*10' 81(10'*&)%.' ('//%5' 0(')'$$+'J9' 41)'8*$%'(*88*./2')+,0'02 86)*8' ,0' '40%.)' '.5')+%' +$,.%'(*.)',.0' 8%$%/2' *$5,.'$2'81(10'*$'8.(*610' $%.5%$,.-')+%' 0%($%),*.' 8*$%' *$' /%00' (/*152' '.5' *6'E1%' %$+'60')+%$%' '$%' 0*8%' ('0%0',.'3+,(+')+%' ,.&/'88'),*.',0' 8',./2'51%')*')+%*%B,0)%.(%' *&'-*1)

!(! 'G' +%' 0286)*80' *&' (+$*.,(' (20),),0' '$%',.($%'0%5' &$%E1%.(2'*&'8,()1$,;),*.'.5'6',.'41)'+%'/')%$',0'42' .*' 8%'.0' .%(%00'$,/2' 6$%0%.)' +%' 1$,.%',0' '/3'20' (/*152''.5'(*.)',.0'0*8%'610(%//0' +%$%' ,0' *&)%.'41)' .*)' '/3'20'0*8%'016$'614,(' 1.%'0,.%00' +%' -%.%$'/' +%')+' 5*%0' .*)' 01&%$' 1./%0')+%' '&&%(),*.',0' 6$*/*.-%5' *$ 0%7%$%' &',86*$)'.)'('10%0' '0')+%' 6$%0%.(%' *&'0)$,()1$%'('/(1/10'^('*(('0,*.')+%'(+$*.,(' (20),),0')+%,$' 06%(,&,(' 0286)*80' 3,//' 6$%; 5*8,.')%')',0'.*)'(*88*.')*'&,.5'(+$*.,(' (20),),0' '0' .',5,*6')+,(' 5,0%'0%' /)+*1-+' 1.5*14)%5/2' ,)' *(('0,*.'//2',0'0*H 0*')+')')+%' 3$,)%$'+'0' '/3'20'$%-'$5%5',)' '0' '' 10%&,,/' 8'B,8'0 +%.'(+$*.,(' (20),),0',0' 5%(/'$%5')*' 4%',5,*6')+,(' 3%' 8'2' 4%' 01$%')+')' 3%' +'7%'*./2'.*)' 2%)' 5,0(*7%$%5')+%'$%'/'(' 10%<' 0' '-%.%$'/'1/%' 3%' 8'2'0106%()')+')+%$%' ,0',.'4,/,)2')*'%86)2')+%' 4/'55%$'*$'('/(1/10' 0)$,()1$['*$'*$-'.,(' 5,0%'0%'*&'0*8%'9,.5',.' 0*8%' 6) $)' *&')+%' 1$,.'$2')$'()' 3+%.')+%' -$*16' *& '0286)*80' '$%' 6$%0%.)' 3+,(+' 3%' 5%.*)%' 4 ')+%')%$8' 0(+$*.,(' (20),),0 <' 0' '-%.%$'/'1/%' 3%' 8'2'0106%()')+')+%$%' 06%(),.-')+' 3%// 9.*3./-/',$2'81(10'3+,(+' ,0' 5%6*0,)%5'0*' '41.5'./)2' &$*8')+%' 1$,.%' ,.' 0*8%' ('0=' ,.' %/5%$/2' 6%*6/%' '/8*0)',1' 7'$,'4/2',)' 0/4*1/5' 4%' 0',5')+')' ,)' '66%'$0' *./2',.')+*0% 3+*0%' 1$,.%',0' '4.*$8'//2'$%;

)',.%5')+$*1-+' ')*.2'*&')&,%' 7%0,('/' 3'//0' *$',.'(*.0%E1%.(%'*&'%./'$-%5'6$*0)')%' *$' '0')+%' $%01/)'*&'0'((1/'),*.'*&')+%' 4/'55%$' .5')+')' 8%5,(,.%'+'0'/,))/%'*$'.*' %&&%()'16*.',)

! '= ' +%' $%-1/'$' .5' +'4,)1'/' 10%' *&')+%' (')+%)%$' .5'6%$+'60' /0*',.>%(;),*.0',.)*')+%' 4/'55%$' &*$8')+%' %00%.),'/' 8%(+'.,('/')$%')8%.)' *&' (+$*.,(' (20),),0',.')+%' *'0%0' >10)' 8%.),*.%5' .')+%' &%3'*'0%0' ,.'3+,(+' (+$*.,(' (20),),0',0'6$%0%.)' .5' *$-'.,(' ('10%#01(+' '0')+*0%' .'8%5' '4*7%' ('.'4%' 5,0(*7%$%5G.5' /0*' '0' '5>1.()0')*' 8%(+'.,('/')$%')8%.)' 3+%.')+%0%' ('10%0' 5*' %B,0)G(%$)',.' '' '-%.)0' '$%' 1.; 5*14)%5/2'10%&1/H)+%0%' '$%' 41(+1')$),),(18' $%6%.0'17''1$0,'/(+%8,//'' '$7%.0,0'6'$%,$' '.5')+%' '/9'/,0 K6*)'0+' .5'0*5' 1(+1' ,0'8*8'10%&1/',.'014'(1)%' .5'$%(%.)'(+$*.,(' (20),),0')+'.',.'('0%0''/$%'52'*&/*.-'51$';),*. +%'6'),%.)'0+*1/5')'9%' .*)'/%00')+'.)%.'*1.(%0'*&')+%',.&10,*.'5',/2' &)%$)+,0' ,.'0,8,/'$' ('0%0')+%' 5%(*(),*.',*&')$),),(18' $%6%.0'A8'5%'42'4*,/,..-')3*')*'&*1$'*1.(%0' *&')+%'6$%6'$%'51.5%$-$*1.5'0)%8',.'3')%$)* 8'9%''6,.)'.5'+'/&*&'5%(*(),*.'*&'$)+%' 0,B'*1.(%0''$%')'9%.')+$%%'*$' &*1$),8%0' ,.')+%')3%.)2&*1$'+*1$0H ,0'+,-+/2'10%&1/' *$' 8*$%' (+$*.,(' ('0%0' 3+%$%')+%' 1$,.%' /0',0'/9'/,.%'.5'5%6*0,)0'81(+'81(10'.5' 6%$+'60')+%')$,6/%'6+*06+%9)%0'/0*'')/(+%8,//' 17''1$0,'.5'6'$%,$'' 8'2'4%'7%$2'7/1; '4/%' +%'/(+%8,//'' ,0'58,.,0)%$%5',.' ,.&10,*.'*.%'*1.(%'*&')+%'+%$,4',.'*.%'6,.)'*&' 4*,/,..-'3')%$'*&'3+,(+')+%'5*0%',0'&*1$)*'0,B' *1.(%0')+$%%')8%0'5','/2H)+%'*)+$%0')*' 4% 8'5%' '((*$5,.-')*')+%' 5,$%(),*.0'*&')+% +'$8'(*6*%,''41)')'9%.',.'E1'.),),%0''(' /%'0)')3*'*$')+$%%'),8%0''0'-$%')'0')+*0%')+%$% 01--%0)%5' +%0%'8'2'4%')'9%.''/*.%*$(*8; 4,.%5'3,)+'6*)'0+'3+,(+',.'8*5%$),$%,)')%5'42'1$,.%' %7%.')+%'*$5,.'$2''(,5,)2' +%^%$')+,0'4% 0*'*$'.*)')+%$%',0'.*'5(.4)')+')'/9'/,0'5* &$%E1%.)/2')$'.E1,//,0%' '.',$$,)'4/%' 4/'55%$' +%2''$%'*&)%.'-,7%.',.')+%'&*$8'*&' ,(+2' 3')%$' ',0'3')%$'*$')+')(&& 7,'.G='//0)$*.' 0*/1),*.0'*&'0*5'H 41)'*.'8'.2'-$*1.50')+% 0'/)0'*&'6*)'0+'$%' 6$%&%$'4/%' .')+%*)+%$ +'.5')+%' 8,.%$'/' ,(50'+'7%' 4%%.'/'$-%/2' '58,.,0)%$%5',.' ('0%0' 3+%$%')+% 1$,.%',0' '/9'/,.%H '/)+*1-+')+%$%',0'.*'$%'0*.')* 4%+*7%')+')+%' ,(5'+'0'.2'5$%)' ('),*.')+$*1-+')+% 9,5.%20'*$')+')',)',0'%/,8,.')%5' 42')+*0%'*$-'.0' /9'/,.,)2'*&')+% 1$,.%',.' (+$*.,(' (20),),0',0' '/8*0)'' /3'20'51%')*',.' '4,+)2'*&')+%'4/'55%$')*'%86)2',)0%&'.5')+% $%8%52'.)%5'>0.*)'8%5,(.%'41)'' (')+%;)%$')'' //'%7%.)0')*' 0(%$),.'3+%)+%$',0'4%)+%'(.0%'*$.*)' 7%$2'08'//E1'.),)2'*& 1$,.%'$%)',.%5',.')+%'4/'55%$'0'2'*.%'*$)3*' *1.(%0''&)%$%7%$2'()'*&'8,()1$,),*.'01&&,(%0' ,.'0*,6%'('0%0')*' 8',.)',.'.''/9'+.%'.5

+%6$%0%.)' '$),(/% 3,//')+%$%&*$%' (+,%&/2'4%6 Q5%7*)%5)*'0 " ' "0

% . ,' /' /%%5, . - G +,0' '$)'6$'(),0%5' &*$' (%.)1$,%0' 8*$%' *$'/%00' 1 .,7%$0''//2'+'0'*&' /')%' 2%'$0' ,.')+,0' (*1.)$2' &'//%.' , .)*' 5,0; &'7*1$' 1(+' 5,0(100,*.' +'0' 4%%.' $',0%5' '0')*'+%' -$*1.50' &*$' 0*' -$%')' ' 5,&&%$%.(%')' +'0' 4%%.' '))$,41)%5 G A R')*')+%')26%' *&' 5,0%'0%' +'7,. -' 1.5%$-*.%' '' (+'. -%H A@R')*' 8%$%' &'0+,*.' *$' ('6$,(%H A?R')*' '' 4%))%$' 9.*3/%5-%*&')+%' .')1$%' *&')*%'0%')%'(+,. -'),0')+')' ,)0' 6$*(%00%0' 3%$%' *&' '' /*3%$,. -' *$' Q5%6$%00,. -' '$'()%$'3+,(+'< %$%) *'4%*7%$; (*8% 42')+%' 8*$%' -%.%$'/ 10%' *&' 5$1-0' 3+,(+' (*.)$*/)+%' (,$(1/'),*.' '0' 3%// '0' *& Q0),81/'.)0' '.5' 0166*$)' ')',0' 6$*4'4/%)+')' 0%7%$'/ ('10%0' +'7%' (*.)$,4,/)%5') *')+%' 1. ; 5*14)%5' (+'. -%' 3+,(+'+'0')'9%.'6/'(%' +%' 2%'$' 21 ' '.5'0140%E1%.)'2%'$0'3%$%' 8 '$9%5' 42')+%' %6,5%8,(' 7,0,)'),*.' *&' (+*/%$'' '.5' Q*&' ,.&/1%.C' +%0%' 5,0%'0%0' 3*$%' (+'$'(' =)%$,0%5' 42' %B)$%8%' 5%6$%00,*. =' &' '.),; 6+/*-,0),(' ,.*101$%0' 3%$%' '5*6)%5')+%2' 6$*7%5' &',/1$%0' '.5')'1-+)')+%' 6+20,(,'.')+')' 4/**5 /%)),. -' 3'0' .*)')+%' 1.,7%$0'/ 6'.'(%'',)' '0' 0166*0%5')*' 4%' 2' 5%-$%%0' ,)' (%'0%5' /' 4%' 6$'(),0%5' '0' ,)' 10%5')*' 4%' '.%3'-%.%$'),*.' 3+,(+'9. 3'.*)'+%' 6'0)' +'0' 06$1.-' 16H' '.5' '0' ,.' '//' $%'(),*.'$2' 8*7%8%.)0')+%'6$'(),(%'+'0'4%(*8%')'/%.-)+' Q'0'/,8,)%5' '0' ,)' &*$8%$/2'3'0'1.,7%$0'/')' ,0' '/8*0)' (%$)','-')+')',.%),+%$'%B)$%8%')+%$%' ,0' '.'%7,/'' .5')+')'3%' 8'2'+'7%'$%(*1$0%',.' Q(%$)',.' ('0%0')*' '40)$'(),*.' *&' 4/**5' 3,)+' 0*8%' 5%-$%%' *&')+')' 01((%00' 3+,(+'&*$8%$/2' /%5')*',)0' %B)%.0,7%'10%',&'.*)',)0' '410%')' 3,//4%' 3%//)*' (*.0,5%$')+%' 014>%()' ')' 0*8%' /,))/%'/%.-)+'' .5'1.5%$')+%'&*//*3,. -'+%'50 G 2' +%'%&&%()0' *&' 8*5%$')%'/*00%0' *&' 4/**5' *.')+%'+%')+'2'%(*.*82

@' +%'7'/1%' *&'4/%%5,. -' '0' '' $%8%52' ,.' 5,0%'0%')*-%)+%$' 3,)+')+%',.5,(',*.0'&*$' ,)0' Q%86/*28%.)',.'7'$,*10'&&%(),*.0'Wd

"' +%'8%)+*5'*&'6%$&*$8,. -')+%' 6%$'),*.0' W*&*6%.,. -' .' '$)%$2G'$)%$,*)*82H' .5'*6%.; ,. -' '7%,. G=6+/%4*)*82

I' *## ' G= %+'7%' &,$0)')+%. ')*' (*.; 0,5%$')+%'%&&%()0' *&' 8*5%$')%' /*00%0' *&'4/**5' 16*.')+%'+%')/)+2'%(*.*82' 6*.')+,0'6*,.)' 3%'+'7%' '41.5'.)' %7,5%.(%'&*$')+%' (10)*8' W*& $%-1/'$/2' 4/%%5,. -' +%')/)+2' 6%*6/%' +'5' $%'(+%5'01(+''6*.)' 51$,. -')+%'%'$/,%$' 6'$)' Q*&')+,0' (%.)1$2')+')' ,.' (*1.)$2' 5,0)$,()0' ,)' 4%('8%' '' +'4,)' &*$' '51/)0')*' 4%' 4/%5' '0' $%-,&&'$/2' '0')+%2'3%.)')*' 8'$9%)' *' 4%))%$')%0),8*.2'$%-'$5,. -')+%' %&&%()0'*&')+,0'6$'(;),(%'(*1/5'4%'551(%5')+'.')+')' *&' ,$' '8%0' '-%)' 3+*' 3+%.' $%&%$,. -')*')+%0%' (10)*; 8'$2'7%.%0%(),*.0'0'20'0' (' .'$%-'$5')+*0%' '0' '' 0%$,%0' *&'7%.%0%(),*.0' &',$/2'6%&*$8%5' &*$')+%'5%)%$8,. '),*.' *&'3+')',0')+%',.&/1%.(%

' +,0'0)')%*&'5%6$%00,*,' 3'0'%06%(,'//2'$%8'$9; '4/%'51$,. -')+%',.&/1%.C'%6,5%8,(*&' ?P!'%7%.',., ('0%0',' 3 %+')+%*$5,.'$2086)*80'&')+%'5,0%'0% 3%$%.*)' 0%7%$%H 0*' ' 3'0')+%' 6%$0&%)%.*2'A$&,)0' Q%&&%()0 G .,$*'

*&')+%' $%8*7'/*&'4/**5' 16')*')+%' 6*,.)*&' 028**6%16*.'''(*86'$),7 2'+%'/)+2'6%$0*. ')+,. 9' '(.'0'2'01$%/2')+1)' .*)*.%*&')+%0%' 6%$0*.0'01&&%$%5'+'$8 ' *')+,0'8,-+)'4% '55%5')+%$' '15' '41.5'.)' %0),8*.2')*')+%' +'$8/%00.%00'*&'8*5%$')%'7%.%0%(),*.'*.')+%' +%'/)+2'%(*.*82

+' ' ' 4 , *.(/15,. -')+%.')+')')+%' '40)$'(),*.'*&' '',8,)%5'E1'.;),)2'*&'4/**5'+'0'.*'5%/%)%$,*10'%&&%()'16*.')+%'+%'/)+2'*$-'.,08' % 3&&/.%B)'5%0($,4%)+%'-%.%$'/,.=%'),*.0'&*$')+%'10%'*&'4/%%5; ,.-',0',.5,(')%5' 3+%.')+%$%',0'%7,5%.(%'*& 8'$9%5'*7%$5,0)%.0,*.%,)+%$'*&')+%'$)%$,/ *$'*&')+%'7%.*10'020)%8' .%,)+%$'('0%')+%' $%01/)'3,//4%'('$&%'('5,0)%.0,*.G,.')+%'&*$; 8%$'('0%'*&')+%'/%&)'' .5',.'&%%'/'))%$'*&')+% $,-+)'(+'84%$0'&')+%'+%')' ,.'0'&%'(*.5,;),*.0'-%.%$'/4/%%5,. -'$%0)*$%0')+%'/*0)'%E1,; /,4$,18'*&')+%'7'0(1/'$020)%8'.5'$%/,%7%0')+%'+%')' .5')+%'*)+%$'6')0'(*.(%$.%5',. ')+%'(,$(1/'),*.'*&')+%'4/**5 +%'$)%$,'/020)%8'2'4%',.''0)')%'*& '1-8%.)%5')%.0,*.'&$*).' 2' ('10%0H AR (*.)$'(),*.'*&')+%' $)%$,%0' A)+%' 08'//%$' 7%00%/0R')+%80%/7%0' 7=,&%' '' 5,8,.,0+%5' '8*1.)'*&'4/**5',.')+%' $)%$,'/020)%8H'.5' A@R%.-*$-%8%.)'*$%5,0%.0,*.'*&')+%' $)%$,%0' &$*8'06'08'*&')+%' $)%$,*/%0'4*)+'8'2'4% $%-'$5%5'0' 7'0* (*.0)$,%),7%'.%1$*0%0' .')+%'&,$0)'%'0%')+%$%' 8'2'4%'%.-*$-%8%.)'*&)+%' %.*10'020)%8''.5'%84'$$'008%.)'*&')+% $,-+)'+%')' ('//,.-'&*$'40)$'(),*.'*&'4/**5'42') " "H*$'7,0(%$'/&/1B,*.')+%09,.'4%,.-' 6'/%H,.')+%0%(*.5'('0%'$%/'),7%%86),.%00'*&)+%' %,.0'3,)+'*7%$&./.%00' &)+%/'.-%$')%$,%0' (''//,.-'&*$'4/**5/%)),.-'42' .')+%'&*$8%$' (*.5,),*+')+%$%' 38&&5'4%' ,.'4%50,5%'/'.-1'-%'' ' +'$5'*$'3,$2' 61/0%'.5',.')+%'/')%$'' ' .5',+'$5'*$' 4*1.5,.-'61/0%' .')+%&*$8%$')+%'01$&'(% *&')+%'4*52'8'2'6$%)%.)'*.%*&')+%')3*'&*/; /*3,.-'(*.5,),*.0'%,)+%$')+%'9,.',0',.>%()%5' .5'6%$+'60'51092' .5')+,0'66%'$0')*'4%)+%'('0%'*$5,.'$,/2H *$,)',0'6'/%'.5'(**/')+%'4/**5'+'7,.-'$%(%5%5',.3'$50'(+,%&/2')*')+%'45*8,.'/'7,0(%$'' +%'0%(*.5'(*., 5,),*.'*4)',.0'.5',0'3%//0%%.',.'('0%0'*& 1$0%8,('0)+8''3+%.')+%')%$,'/020)%8',0')1$-,5''/8*0)*')*'41$0),.-'3+,/%')+%'7%,.0' '$%'(*86'$'),7%/2'%86)2'0'$5.%00&*&)+%'61/0%',0'101''//2'0',5')*'4%'.',.5,(',*.' &*$'4/%%5,.-''.5',.'('$)','''00*(,'),*.0',)' 0*H41)',)',0'.%(%00'$2')*'5,0($,8,.')%'('$%; &1//2'4%)3%%.')+%'0+'$5.%00&51%')*')%.0,*.'& *&')+%'0*1.5''$)%$2'$,0,.-'&$*8'A'R%B(%0; 0,7%'(*.)$')(),*.'A)+%08'//'+'$5'3,$2'61/0%R' '.5'#'*7%$&,,/.%00A)+%&1//'4*1.5,.-'61/0%R' *.')+%'*.%'+'.5H '.5')+')'51%')*')%$,'/,' 5%-%.%$'),*.'3,)+'8*$%'*$'/%00'+'$5'5%6*=>' ,.')+%'3'//0'*&')+%'7%00%/0='*.')+%')+%$ ===' 5*14)&1/'('0%0',.E1,$2'0+*1/5'4%'8'1%==

'/*.%'4%'+%/5'>*'4%',.5,(')7%'*&',)0'10%'&*$',)'0*'+'66%.0')+')'01(+'62$%B,'',0''0''''$1/%'6$%0%.)'*.*/2',.'0%6),(0%8,%'('0%0'*8%'('0%0'*&'6%$,)*.',),0'%7%.'&')'/*.%0'$1.')+%,$'(*1$0%'3,)+*1)''.2'8'$9%5'%/%7'),*.'*&'%86%$')1$%''*$',.5%%5'3,)+*1)'0+*3,.-'.2'5%&,.,)%'0286)*80'$*4'4/2'7%.%0%(),*.',0'8*0)'0%$7,(%'4/%',.')$'18'),('6%$,)*.,),0'*$',)'8'2'4%'3+%.')+%',.&/'88'),*.',0'/*('/;,0%5')+*1-+',.')+')'('0%'/%%(+%0'$%8*$%'01,)'4/%

6 G +%.'6/%1$,02'))'(90''2*1.-'H'.5'$*410)'6'),%.)''.5',0''((*86'.,%5'42'0%7%$%'6',.'-$%')'$%/,%&'&*//*30'4/**5/%)),.-'+%'4/**5'0+*1/5'4*')'9%.'&$*8''7%,.''.5'D " ') ' 1)'3+%.'0'0*'*&)%.'+'66%.0'6/%1$,02',0'+9%'6%$,)*.,),0'0%(*.5'$2')*'5'8'-%5'4/**5(*.5,),*.0'G'0' $,-+)<0'5,0%'0%'G'4/%%5,.-',0'*&)%.',.'58,00,4/%'+%.''0',.'6/%1$*6.%18*.,('%'0%0'6/%1$,02'(*86/,('))%'6.%18*.,''4/%%5,.-',0'2'6*0;0,4/2'4%'('//%5'&*$',&')+%$%'4%'-$%')'6',.''.5'*66$%00,*.''*&')+%'(+%0)H41)',)'04,*./5'4%'8*0)'(,$(18 06%()/2'10%5'*('/4/**5/%)),.-',0'81(+')*'4%'6$%&%$%5',&'4/%%5,.-'4%)+*1-+)'.%(%00'$2H&*$'-%.%$'/4/%%5,.-',0'101=2',.(*86),4/%'3,)+')>,%'0)$%.-)+*&')+%'6'),%.)

O '& # G .')+%''&&%(),*.'9.*3.'$'0'1$0%8,(''0)+8''',.'3+,(+'>)+%$%',0'06'08'8&)+%'020)%8,('')%$,*/%0'3,)+',.)%.0%')1$'-,5,)2'*&')+%''$)%$,'/'020)%8''.5%.-*$-%8%.)'*&')+%'/%&)'+%')$)'4/%%5,.-',.'+%'&*$8'*&'')%$,*)*82'66%'$0')*'4%(/%'$/2',.5,(')%5'+*1-+'6$*4'4/2')+%'10%'*&',)$,)%'*&''82/*$W*&.,)$*-/2(%$,.%'8'2'$%.5%$',)'/%00'.%(%00'$2

$ " # & # 'G'1$%'0)+8''',0'5*14)/%00'*&)%.''.%$7*10'8'/'52''.5'4/%%5,.-',0'.*)''$%8%52'3+,(+'0+*1/5'Q*$5,.'$,/2'4%'%86/*2%5'&*$',)0'$%/,%&'),0'*./2''58,00,4/%'3+%.'06'08'*&')+%'61/;8*.'$2'7%00%/0'*$*40)$1(),*.')*')+%'&/*3'*&'4/**5')+$*1-+')+%8'&,$*8'4$*.(+,*/%06'08'/%'50')*'$'6,5'%.-*$-%8%.)'*&')+%'$,-+)'+%'$)''.5'7%.*10'020)%8'+,0',0')+%'%B')'(*.;7%$0%'*&'1$[8,('0)+8'H41)')+%'%&&%()'),.'4*)+',0',86%5,8%.)')*')+%''%$')*&')+%'4/**5'%$%')+%'40)$')'(),*.'*&''&%3'*1.(%0'Q*&'4/**5'&$*8''7%,.'8'2'-,7%',88%.0%''.5'3%$2'6$*86)'$%/,%&

$ # G /%%5,.-'8'2'4%'10%5',.')+%'W0*('//%5'0'0)+8'),('))'(90<)*'3+,(+'%8'.+20%8')*10'6%*6/%''$%'(+$*.,('//2'6$*.%'/%$%'7%.%0%(),*.'8'2'4%',86%$'),7%/2'5%'8'.5%5'3+%.'.''.'(1)%'))'(9'*&'4$*.(+,),0'42'55,.-')*')+%''/$%'52'5,&&,(1/)'6'00'-%'4/**5')+$*1-+')+%'/1.-0'%B(,)%5'$'6,5'%.'>=%8%.)'*&')+%'5,/')%5'+%'$)''.5'6$%7,*10/2'7%.*10'020)%8

C G *$8%$/2'4/%%5,.-'%86/*2%5',.'8,53,&%$2'6$'(),(%',.',/'8'8')*$2''&&%(),*.0'*3'$%(*-.,0%')+')'&*$>')$)18'&&%(),*.0'$,0%'5''5'$%'*&'.''5J8'8,(')+')'3%'$%'6'//%5'/'0%0'%7%$)+%/%00

.*3''.5'-',.'7%.%0%(),*.'8'2'4%'('//%5'&*$

C ' ' " " G= /%%5,.-',0''8*0)'7'/1'4/%'$%8%52',.'(%$)',.'8%.0)$1'/5,0*$5%$0'.5'%06%(,'//2',.')+%'6/%)+*$'' *&'3*8%.'')')+%'(+'.-%'*&/,&%' '.2'3*8%.'01&&%$'5,0)$%00,.-/2'&$*8'-%.%$'/7'0(1/'$'5,0)1$4'.(%')'+,0'6%$,*5' +%'&/10+,.-0'+%'5'(+%0'-,55,.%00'&%%/,.-'*&'*66$%00,*.''.5')*)+%$'7'0*8*)*$'6+%.*8%.''&$*8'3+,(+')+%2'01&&%$',.''00*(,'),*.'3,)+')+%'(%00'),*.'*&')+%'('),*.0%/2'$%;/,%7%5'42''.'*(('0,*./'7%.%0%(),*.'*')+%$'8%'01$%'3,/'0*'E1,(9/2'.5'0*'%&&%(;)1'//2'$%/,%7%')+%0%'0286)*80'*8%'$*410)'6/%)+*$,('2*1.-'3*8%.'3,)+'8%.*$$+(%''$%;E1,$%'6%$,*5,(/'4/%%5,.-'.%*&')+%'3$,)%$0'+'0'9.*3.')+%''40)$'(),*.'*&''&%3'*1.(%0'*&'4/**5'06%%5,/2'&*//*3%5'42')+%'*((1$;$%.(%'*&')+%'8%.0%0',.'('0%0'*&'3+')'8'2'4%'('//%5'(*.-%0),7%''8%.*$$+(%''*&'8'.2'8*.)+0$'*$%7%.2%'$0<51$'),*.')'8'2'4%'3%/')*'0)')%',.')+,0'(*.%B,*.')+')',.')'&'4/**5'8'2''7%$)'+%8*$$+'-%',.)*')+%'50=8'-%5*$-'.0

& ' " G /%%5,.-',0'/%00'&%%'E1%.)/2'('//%5'&*$',.'01$-,('/)+'.',.'8%5,('/6$'(),(%' ',0',.5,(')%5'8',./2',.')+%'&)%$')$%')8%.)'*&'('0%0'3+,(+'6$%0%)'%.-*$-%;8%.)'*&')+%'$,-+)'+%')$)''.5'7%.*10'020)%8'0',.'0*8%'('0%0'*&'*7'$,*)*82'.5'*)+%$'6%$')*.0',.7*/7,.-')+%'45*8,.'/'*$')+*$'(,('7,),%0''1)$-,5'7%.*10'020)%8'3,)+''08'//'+'$5'61/0%'.5''/'4*1$,.-'+%')G''(*.5,),*.'3+,(+',0'*&)%.''00*(,')%5'3,)+0'(.),.%00''8*1.),.-'/8*0)')*'016;6$%00,*.''*&1$,.%G,.5,(')%0'4/**5/%)),.-'&)%$'*6%$'),*.0'*&')+%'9,.5'4*7%'$%&%$%5'5')*

G .'(%$)',.'(0%0'*&0+*(9')+%'4;0)$'(),*.'*&''/,8,)%5''8*1.)'*&'4/**5'8'2'4%'$%E1,$%5' +,0'6*,.)'3,/'4%'&*$85'5,0;(100%5'%/0%3+%$%' '5

.) G +')'4/%%5,.-'3,/'/*3%$')+%')%8;6%$')1$%'*&'&%7%$%5'6'),%.)0'+'0'4%%.'9.*3.'.$*8')+%'%'$/,%0)'),8%0')',0'+*3%7%$'.*)''$%8%52')*'4%'$%0*$)%5')*'&*$)+')'61$6*0%'/*.%'&*$'0')+%'8*0)'6$*.*1.(%5'+26%$;62$%B,''*((1$0'(+,%&/2',.''00*(,'),*.'3,)+'(*.5,),*.0'/%'5,.-')*'-$%')'5%6$%00,*.'4/**5;/%)),.-',0'1.5%$'01(+'(,$(180)'.(%0'0'10%/%00'0',)',0'5'.-%$*10

5" G +%$%''$%'&%3'5,0*$5%$0',.'3+,(+'4/**5/%)),.-',0'8*$%'01((%00&),/'3+%.'$,-+)/2'%86/*2%5'),.'.',.'01.0)$*9%'0)',0'0%/5*8'.%(%00'$2')*')9%'8*$%')+'.''''&%3'*1.(%0'*&'4/**5H''.5'%B(%00'0+*1/5'4%'6'$;),(1/'$/2'-1'$5%5'-',.0)'&*$'&%'$'*&'0140%;E1%.)'(*//'60%'+%',.0%.0,4/%'6'),%.)'3,)+')1$-,5'7%,.0'')+,-+)'61/0%''.5''''/'4*1$,.-+%'$)'3,/'-',.',8 8%.0%''.5'6$*86)'$%+%&'&,$*8'7%.%0%(),*.'+%'%B)$%8%'61/8*.'$2

(*.-%0),*.ʻ ' .5ʻ *7%$ 5,0)%.0,*.ʻ *&ʻ)+%ʻ $,-+)ʻ +%'$)ʻ 0*ʻ *&)%.ʻ &*1.5ʻ ʻ ʻ 8,-+)ʻ 6$*4'4/2ʻ4%ʻ6$%7%.)%5ʻ42ʻ)+%ʻ),8%/2ʻ'40)$'(;),*.ʻ*&ʻ'/,))/%ʻ4/***5ʻ&$*8')+%ʻ7%.*10ʻ020)%8ʻ /%%5,.ʻ,ʻ.*)ʻ)*ʻ4%ʻ)+*1-+)ʻ *&ʻ,.ʻ)+%ʻ02.(*6'/&*$8

"ʻ ʻ #ʻ0$ " +%ʻ&* *3,.-ʻ '$%)+%ʻ8%)+*50ʻ*&6%$&*$8,.-ʻ)+%ʻ*6%$'),*.0ʻ *&ʻ'$)%$,*)*82ʻ'.5ʻ6+/%4*)*82

& G +,0ʻ*6%$'),*.ʻ,0ʻ4%0)ʻ6%$;&*$8%5ʻ*.ʻ)+%ʻ)%86*$'/ʻ'$)%$2ʻ +%ʻ7%00%/ʻ0+*1/5ʻ4%ʻ6'$),''//2ʻ(1)ʻ)+$*1-+ʻ42ʻ''0,86/%ʻ)$'.07%$0%ʻ,.(,0,*.ʻ'.5ʻ3+%.ʻ''01&&,(,%.)ʻE1'.),)2ʻ*&ʻ4/**5ʻ+'0ʻ4%%.ʻ*4)',.%5ʻ,)ʻ8'2ʻ)+%.ʻ4%ʻ(*86/%)%/2ʻ0%7%$%5'0*ʻ)+')'$%)$'(),*.ʻ*&ʻ4*)+ʻ%.50ʻ)'9,.-ʻ6/'(%')+%ʻ+0%8*$$+'-%ʻ8'2ʻ4%ʻ'$$%0)%5ʻ ʻ (*86$%00ʻ*&ʻ5$2ʻ/,.)ʻ0+*1/5ʻ)+%.ʻ4%ʻ'66/,%5ʻ'.5ʻ''),-+)ʻ$*//%$ʻ4'.5'-%ʻ'66/,%5ʻ*7%$',)

8 " G +%ʻ8%5,'.ʻ4'0,/,('7%,.ʻ,0ʻ)+%ʻ*.%ʻ101'//2ʻ0%/%()%5ʻ&*$)+%ʻ*6%$'),*.ʻ*.ʻ'((*1.)ʻ*&ʻ,)0ʻ4%,.-ʻ8*0)ʻ$%'5,/2ʻ&*1.5ʻ +%ʻ4$'(+,'/ʻ'$)%$2ʻ/,%0ʻ,8 8%5,')%/2ʻ4%.%')+ʻ,)ʻ'.5ʻ('$%ʻ810)ʻ4%ʻ)'9%.ʻ)*ʻ'7*.5ʻ3*1.5,.-ʻ)+%ʻ/')%$ʻ7%00%/ʻ +%ʻ8%5,'.ʻ(%6+'/,('7%,.ʻ,0ʻ6$%&%$'4/%'41)ʻ,0ʻ.*)ʻ0*ʻ%'0,/2ʻ&*1.5ʻ ʻ7%,.ʻ*.ʻ)+%ʻ5*$01 8ʻ*&ʻ)+%ʻ&**)ʻ*$*)+%$ʻ6'$)ʻ*&ʻ)+%ʻ4*52ʻ8'2ʻ4%ʻ(+*0%.ʻ41)ʻ'0ʻ''$1/%ʻ,)ʻ,0ʻ.*)ʻ5%0,$'4/%ʻ)*ʻ*6%.')+%ʻ>1-1/'$ʻ7%,.ʻ%06%(,'//2ʻ*.ʻ'((*,8)ʻ*&ʻ)+%ʻ5'.-%$*ʻ*&ʻ)+%ʻ%.)$'.(%ʻ*&ʻ,$''.5ʻ*)+%$ʻ$,090

+%ʻ0)%60ʻ,.ʻ)+%ʻ*6%$'),*.ʻ*.ʻ)+%ʻ'$8ʻ'$%ʻ'0ʻ&*//*30 G ,$0)ʻ)+%ʻ/,84ʻ,0ʻ)*ʻ4%ʻ&,$8/2ʻ4*1.5ʻ'4*7%ʻ)+%ʻ%/4*3ʻ42ʻ''4$*'5')'6%ʻ*$&,//%)ʻ +,0ʻ0+*1/5ʻ4%ʻ'66/,%5ʻ3,)+ʻ01&&,(,%.)ʻ),-+).%00ʻ)*ʻ(*86$%00'.5'6$%7%.)ʻ)+%ʻ$%)1$.ʻ*&ʻ4/**5ʻ42')+%ʻ7%,.0ʻ41)ʻ.*)ʻ0*ʻ'0')*ʻ,.)%$;(%6)ʻ)+%ʻ(1$$%.)ʻ,.ʻ)+%ʻ'$)%$2ʻ'.5ʻ)*ʻ%B;),.-1,0+ʻ)+%ʻ61/0%ʻ .ʻ*4/,E1%ʻ0)ʻ,0ʻ)+%.ʻ)*ʻ4%ʻ8'5%ʻ,.ʻ)+%ʻ7%00%/ʻ42ʻ8%'.0ʻ*&ʻ''08'//ʻ/'.(%)ʻ('$%ʻ4%,.-ʻ)'9%.ʻ.*)ʻ)*ʻ(1)ʻ)*ʻ5%%6/2ʻ +%ʻ06,$),.-ʻ4/**5ʻ0+*1/5ʻ4%ʻ('1-+)ʻ,.ʻ''7%00%/ʻ'.5ʻ8%'01$%5

W +%.ʻ01&&,(%.)ʻ4/**5ʻ+'0ʻ4%%.ʻ3,)+5$'3.ʻ)+%ʻ*6%$')*$ʻ0+*1/5ʻ&,$8/2ʻ6/'(%''')+184ʻ*$ʻ''&,.-%$*.ʻ)+%ʻ'6%$)1$%'.5ʻ)+%.ʻ*.ʻ$%ʻ8*7,.-ʻ(*86$%00,*.ʻ6/'(%ʻ16*.ʻ)+%ʻ3*1.5ʻ''5*00,/ʻ*&ʻ5$2ʻ/,.)ʻ.),0%6),('5$%00,.-ʻ0)26),((*//*,5ʻ*$ʻ01(+/,9%ʻ*7%$ʻ3+,(+ʻ''$*//%$ʻ4'.5'-%0+*1/5ʻ4%ʻ)3,.%5ʻ''&%3'),8%0ʻ/,9%ʻ''&,-1$%*&ʻ?')+%ʻ($*00ʻ4%,.-ʻ*7%&ʻ)+%ʻ3*1.5

*('/ʻ /%%5,.-G +%ʻ*4>%()ʻ*&ʻ/*('/ʻ4/%%5,.-ʻ,0ʻ)+%ʻ$%/,%&ʻ*&ʻ(*.-%0)%5ʻ7%00%/0ʻ'.5ʻ%06%(,''//2ʻ)+*0%ʻ*&ʻ,.&/'8%5ʻ6'$)0ʻ $;)%$,%0ʻ(*.7%2ʻ8*$%ʻ4/**5ʻ)*ʻ'.5ʻ7%,.0ʻ(*.;7%2ʻ8*$%ʻ'3'2ʻ&$*8ʻ,.&/'8%5ʻ6'$)0Hʻ0*ʻ)+')ʻ/*('/ʻ4/%%5,.-ʻ8'2ʻ-,7%ʻ-$%')ʻ$%/,%&ʻ'.5',.),')%ʻ$%0*/1),*.ʻ0,.(%ʻ'40*$6),*.ʻ5*%0ʻ.*)ʻ3ʻ(*88%.(%ʻ1.),/ʻ,.&/'88'),*.ʻ+'0ʻ(%'0%5

ʻ #ʻ ' $ʻ0$ G /**5ʻ8'2ʻ4%ʻ'40)$')(%5ʻ)*6,('//2ʻ42ʻ/%%(+%0ʻ42ʻ0('$,&,(')*.0ʻ*$ʻ42ʻ3%)(166,.-

ʻ S # "0 G=.ʻ'7%$'-%ʻ/%%(+ʻ3,/ʻ'4;184%$ʻ*&ʻ*1.(%0ʻ*&ʻ4/**5ʻ'40)$'()%5ʻ &ʻ)+%ʻ-/'00%0ʻ4%)*ʻ),-+)/2ʻ'))'(+%5ʻ)+%ʻ4/**5ʻ3,//'$%ʻ %B)$%8%/2ʻ10%&1/ʻ,.ʻ''-$%')ʻ7'$,%)2ʻ*&ʻ'&&%(),*.0ʻ0,.(%ʻ''6$%))2ʻ5%&,..,)%ʻ'8*1.)ʻ*&ʻ4/**5ʻ('.ʻ4%ʻ3,)+5$'3.ʻ&$*8')+%ʻ'&&%()%5ʻ*$ʻ'5>'(%.)ʻ6'$)0ʻ*$ʻ&$*8ʻ8*$%ʻ5,0)'.)ʻ6'$)0ʻ)+$*1-+ʻ,.),8'(2ʻ*&ʻ)+%ʻ7'0(1/'$ʻ(*..%B,*.ʻ'0ʻ,.ʻ5,0%'0%0ʻ*&ʻ)+%ʻ%2%ʻ'.5ʻ%'$ʻ'.5ʻ,.ʻ+%6'),('5,0%'0%0ʻ''((*86'.,%5ʻ42ʻ*40)$1(),*.ʻ)*ʻ)+%ʻ&/*3ʻ*&ʻ4/**5ʻ)+$*1-+ʻ)+%ʻ6*$)'/ʻ020);%8ʻ3+%.ʻ)+%ʻ'66/,('),*.ʻ*&ʻ/%%(+%0ʻ)*ʻ)+%ʻ'.10ʻ,0ʻ8*0)ʻ7'/1'4/%

'$%'0+*1/5ʻ4%')'9%.ʻ.*)ʻ)*ʻ'66/2ʻ/%%(+%0ʻ)*ʻ6')$0ʻ*7%$ʻ3+,(+ʻ01&&,(,%.)ʻ(*86$%00,*.ʻ('..*)ʻ4%ʻ8'5%ʻ0*ʻ'0ʻ)*ʻ(*.)$*/)+%ʻ4/%%5;,.-ʻ0+*1/5ʻ'.2ʻ5,&&,(1/)2ʻ'$,0%ʻ,.ʻ'$$%0),.-ʻ,)'*)+%$3,0%ʻ +10ʻ/%%(+%0ʻ0+*1/5ʻ.*)ʻ4%ʻ'6;6/,%5ʻ*7%$')+%ʻ)$'%+%'ʻ%06%(,''/2',.ʻ(+,/5$%.ʻ,.ʻ3+*8')+%ʻ%$$*$ʻ&ʻ'66/2,.-ʻ)+%8ʻ*7%$')+%ʻ%6,0)%$.'/ʻ.*)(+ʻ,0ʻ0*8%),8%0ʻ8'5%ʻ *$ʻ)+%ʻ0'8%ʻ$%'0*.ʻ)+%ʻ&*.)'.%ʻ%0ʻ0+*1/5ʻ4%ʻ'7*,5%5

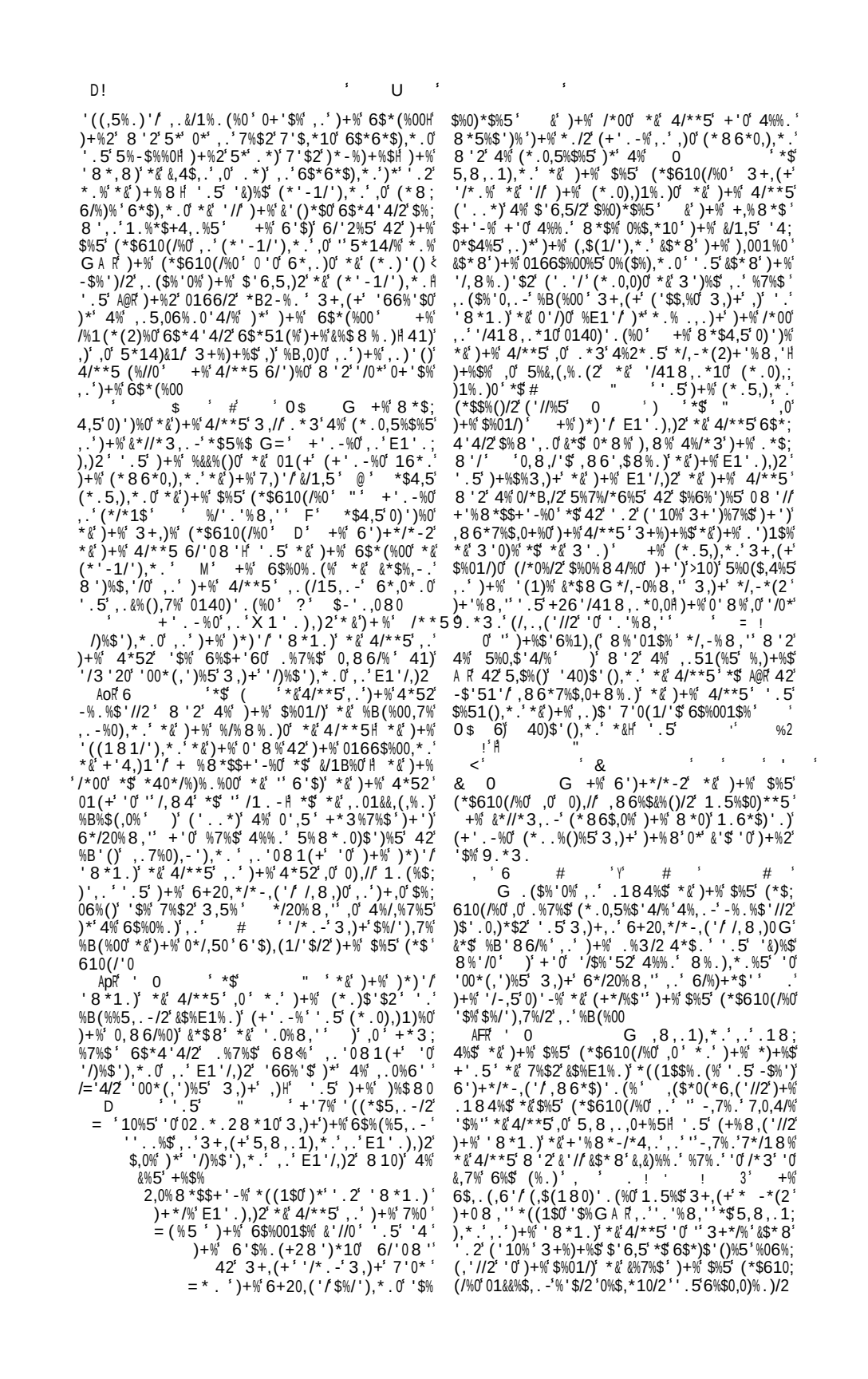
+%ʻ09,.'*&')+%ʻ6'$)ʻ +%$%)+%ʻ/%%(+%0ʻ'$%')*ʻ4%ʻ'66/,%5ʻ0+*1/5ʻ&,$0)ʻ4%ʻ3'0+%5Hʻ'.5ʻ3+%.')+%2ʻ5*ʻ.*)ʻ4,)%ʻ$%'5,/2ʻ)+%ʻ6'$)ʻ8'2ʻ4%ʻ3%))%5ʻ3,)+ʻ''/,))/%ʻ8,/9'*B0.-='ʻ.5ʻ8,/9ʻ 0/,-+)ʻ6$,(9ʻ*&ʻ4/**5ʻ3,//ʻ*&)%.ʻ('10%')+%8')*ʻ4,)%ʻ3+%.ʻ$%&$')*$2

+*1/5')+%ʻ4/%%5,.-ʻ(*.),.1%')*ʻ/*.-ʻ'&)%$')+%ʻ/%%(+%0ʻ&'/ʻ*&&ʻ6$%001$%ʻ*$ʻ0)26),(0ʻ8'2ʻ4%ʻ'66/,%5ʻ &ʻ,)ʻ,0ʻ5%0,$%5ʻ)*ʻ%.(*1$'-%ʻ4/%%5,..-ʻ&*8%.)')',.ʻ*.0ʻ*&ʻ+*)ʻ3')%$ʻ*$ʻ .ʻ0%%5'6*1/),(%0ʻ'$%ʻ0%$7,(%'4/%

.ʻ'66/2,..-ʻ/%%(+%0ʻ)*')4%ʻ(%$7,B1)%$,')+%ʻ6$%('1),*.ʻ*&ʻ(/*0,.-ʻ)+%ʻ*0ʻ42ʻ''6/1-ʻ*&ʻ3**/ʻ0+*1/5ʻ.*)ʻ4%ʻ.%-/%()%5ʻ +%.')+%2ʻ'$%ʻ'66/,%5ʻ3,)+,.ʻ)+%ʻ8*1)+ʻ''/%%(+ -/'00ʻ0+*1/5ʻ4%ʻ10%5

@ʻ "0 G ('$,&,('),*.0ʻ (*.0,0)ʻ ,.ʻ08'//*1)0ʻ*&ʻ''5%6)+ʻ.*)ʻ%B(%%5,.-ʻ)+%%,-+)+ʻ*&ʻ'.ʻ,.(+'*$/%00',.)*ʻ)+%'),001%3+%.(%',)ʻ,0ʻ5%0,$%5')*ʻ)'9%4/**5ʻ +,0ʻ8*5%ʻ*&')*6,('/ʻ4/%%5,.-ʻ,0ʻ8',./2ʻ'66/,%5')*ʻ)+%ʻ(%$7,B1)%$,')*ʻ)+%ʻ).-1%ʻ,.ʻ'(1)%ʻ-/*00,),0ʻ''.5ʻ)*ʻ)+%ʻ6'/6%4$'/ʻ (*.>1.(),7''.ʻ(%$)',.ʻ9,.50ʻ*&ʻ(*.>1.(),7,),0H.ʻ)+%ʻ/'0)ʻ('0%ʻ*./2ʻ0/,-+)ʻ,.(,0,*.0ʻ'$%ʻ6%$ʻ61.()1$%0ʻ'$%ʻ8'5%ʻ42ʻ0*8%ʻ6$'(),)*.ʻ%%6%$ʻ61.()0;01%ʻ*&ʻ)+%ʻ(%$7,B1)%$,'41)ʻ)+%0%ʻ'$%ʻ61.('))8%0ʻ''.5ʻ.*)ʻ8%$%0(',&,(')*.0

"ʻ R "0=G 166,..-ʻ''.5ʻ)+%ʻ10%ʻ*&ʻ)+%ʻ0('$,&,(')*$ʻ(*.0),)1),.-ʻ3%)166,.-ʻ,0ʻ'.ʻ,86*$')'.)ʻ8%)+*5ʻ*&ʻ)*6,('/ʻ4/**5ʻ'40)$'(),*.Hʻ'.5ʻ'0ʻ''(*.0,5%$'4/%ʻ'8*1.)ʻ*&ʻ4/**5ʻ('.')+10ʻ4%ʻ3,)+5$'3.ʻ)+%ʻ-%.%$'/ʻ(,$(1/'),*.ʻ8'2ʻ4%ʻ'&&%()%5ʻ)ʻ,0ʻ*$5,.'$,/2ʻ%86/*2%5ʻ+*3%7%$ʻ&*$',)0ʻ/*('/ʻ%&&%()0ʻ +%ʻ8%)+*5ʻ*&ʻ,)0ʻ6%$&*$8.(%ʻ,0ʻ'0ʻ&*$5$2166,.-ʻ -/'00%0ʻ4%,.-ʻ&,$0)ʻ61)ʻ*.ʻ&*$ʻ'4$,%&ʻ),8%ʻ'0ʻ&*$5$2(166,.-ʻ %((MC B "0 ')+%ʻ*6%$')*$ʻ'66/,%0ʻ)*ʻ)+%ʻ6')$)ʻ0%/%()%5ʻ''06$,.-ʻ0('$,&,(')*$ʻ0*ʻ'5>10)%5ʻ'0ʻ)*ʻ(1)ʻ " ʻ ʻ)+%ʻ$%E1,$%5ʻ5%6)+G'4*1)ʻ.ʻ%,-+)+ʻ*&ʻ.ʻ,.(+ʻ*$ʻ/%00ʻ +%ʻ(166,.-ʻ-/'00%0ʻ'$%ʻ)+%.ʻ$%ʻ'66/,%5ʻ'.5ʻ)+%ʻ5%0,$%5ʻ''.5ʻ)+%ʻ4/**5ʻ3,//



<<F' B< F' 9$&F - <& ' <A

'0' (*86'$%5' 3,)+')+%' *)+%$' (*.0),)1%.)0H A@R,.'/%19%8,'G)+%'5%7%/*68%.)'*&')+%'$%5' (*$610(/%0'4%,.-',.)%$$16)%5H A"R',.'+J66'/41' 8,.*0,0'3+%$%')+%'$%5'(*$610(/%0'/,9%'*)+%$' %%8%.)0'01&&%$' &$*8' 3'.)' *&' '/418,.*10' 8')%$,'/H A R',.' (+/*$*0,0' &$*8' ,86%$&%()' -$*3)+H '.5'ADR',.'6%$..,(*10' '.'%8,''&$*8' %B(%00,7%5%0)$1(),*.'A+%%8*/20,0R

A(R' 0 # $") G %&,(,%.(2'*&')+%' $%5'(*$610(/%0',.'+'%8*-/*4,.'+'0'4%%.'5%; 0($,4%5'42')+,0'.'8%')',0''8*$4,5' *.5,;),*.'*&81(+',.)%$%0)',.'081(+'0',)',0'*.%' *&')+%$ %00%.),'/')%$')*.0'*&')+%'4/**5',.' (+/*$*0,0' +%.')+%',.5,7,51'/*$%5'(*$610(/%' (*.)',.0'/%00'+'%84-/*4,.')+'.'.*$8'/',)',0' 0',5)*'6$%0%.)'6'/%'66%'$'.(%')*')+%'%2%' '8*$%')$10)3*$)+2'8%)+*5'*&'5%)%$8,.,.-')+%$,(+.%00'*&')+%'$%5'(*$610(/%0',.'+[8*' -/*4,.',%'42'8%'.0'*&')+%'+'%8*-/*4,.*8%)%$' , ' , , UR' $'3%'8'2'(*8; 6'$%)+%''8*1.)'*&'+%%8*-/*4,.',.''-,7%.' 3%,-+)'*&'4/**5'3,)+')+%'.184%$'&'$%5'(*$; 610(/%0',.''=7%.'8,($*0(*6,('/'$%''+%.')+%'&*$8%$',0'08'/',.'6$*6*$),*.')*')+%' /'))%$')+%'5%&%()'810)'/,%',.')+%',.5,7,51'/ (*$610(/%H'.5')+,0'8'2'4%'0*'-$%')')+')')+%' 6$*6*$),*.'*&'+'%8*-/*4,.'&'//0''0',.'0*8%' ('0%0'*&'(+/*$*0,0')*')3%.)2&,7%'6%$' %.)'*&)+%'.*$8'/' '

A5R'&0 3 G +%'%&&%()0'*&')+%)3*'(*.; 5,),*.0'*&'4/**5'>10'5%0($,4%5'.'8%/2'*/,-*'(2)+0%8,'' .5'*/,-*(+$*8'08,''8'2'4%'5,0; (100%5')*-%)+%$'1.5%$')+%'+%'5'*&'-/*41 08' *$'5%&,(,%.(2'*&')+%'4/**5',.'+'%8*-/*4,.' .')*&'),0')+%'*B2-%.'),.-'0140)'.(%'*&')+%' *$-'.,08'-,7%0'$,0%')*'0286)*80')'*.(%'%B;)$%8%/2' '$,*10'8*.-0)')+%80%/7%0''.5'*& 0%$,*10',86*$)' 7%$2'7,)'/6$*(%00'3+%)+%$' 5%7%/*68%.)'/'6'0),('0%($%)*$2'52.'8,('*$ .1)$,),7%',0''40*/1)%/2'5%6%.5%.)'.''-) ' '.5',88%5,')+%'0166/2'*&'*B2-%.' '*&)+%0%6$*(%00%0')+%$%&*$%'3,/'01&&%$',.''-/* 41/,08' +%' $%06,$')*$2'.5'(,$(1/')*$2' 8*7%8%.)0''$%' '((%/%$')%5' +%'(*86/%B' 6$*(%00%0'*&'/,8%.)'),*.''.5'0%($%),*.''$%' 6%$&*8%5',86%$&%()/2''.5')+%'$%01/0''$%' 52=%60,''(*.0),6'),*.''.5'5,0*$5%$%5'0'.; -1,&,(','),*.G3+,(+',.)%.0,&2')+%''4.*$8'/ 4/**5 0)')%' 10(1/'$'(*.)$'(),*.','0'&%%4/%' '.5'('..*)'4%010)','.%5' 02(+,('/&*$(%',0' 3%'9H'.5'51/.%00'0/%%6,.%00'6'>.0''.'.5' *)+%$02 86)*80',.5,(')%',86%$&%()'*B,5'),*.' 3,)+,.')+%'.%$7*10 020)%8' *5,/2'-$*3)+' .5'5%7%/*68%.)G*&')+%'0%B1'/*$-'.0'&*$ %B'86/%G=%8',.',.(*86/%)%''.5'614%$)2',0' 5%&%$%5' 1)$,.'%7%$23+%$%'01&&%$0'*B,5'),*.' 8')%$,'/0'4%,.-',.01&&,(,%.)/2'*B,5,0%5H'.5' 0140)'.(%0'0,.)%$8%5,')%'*)*''/418,.'*.')+%' *.%+'.5''.5'('$4*.,(''(,5'3')%$''.5'1$%'' $')+%'*)+%$'+'.5''$%'&*$8%5'%06%(,'//2' *,/0' +10')+%'*$-'.0'.5')+%'(*..%(),7%'),001%0'4%(*8%/*'5%5'3,)+'&')'.5'%./'$-%5' ,.0)%'5'*&01&&%$,.-')$*6+2''0')+%2'5*'3+%.')+%4/**56/'08''',0'5%&,(,%.)' ,.'//2')+%' %B($%),*.0'$%'5,0)1$4%5''.5')+%'014>%()'*&' '-/*4./,08' 6$%0%.)0'5%$'.-%8%.)' *&')+%

(*/*1$,.-'8'))%$0'*&')+%'4,/%''.5'1$,.%'3+,(+' '$%'5%$,7%5'&$*8'+0%8*-/*4,.' ' ' !)'

' P 0 ' # "0 G=/)%$'),*.0',.')+%' % ' " ' .5' " " '*&')+%' $%5'(*$; 610(/%'+'7%'4%%.'&$%E1%.)/2'$%(*$5%5'41)'01(+' '((*$8)0'$%',.(*88%%''.5'.*'%.),$%/2'01(' (%00&+/'))%86)'+'0'2%)'4%%.'8'5%')*' *..%()* ' .2'*&')+%0%'(+'.-%0'3,)+'8*$4,5'6$*(%00%0' ,.')+%'),001%0' .'0%7%$%'&%7%$0'01(+'0')26+10''.5',.'0*8%'$'6,5'8'/,-.'.)'5,0; %'0%0')+%'$%5'(*$610(/%0'66%'$'6%%1+'$/2' 0*&)')+%,$'*1)/,.%'4%,.-'/%00'$%0,0)'.)' .5' 0+'$6''.5')+%'4*5,%0'$1.,.-')*-%)+%$',.)*' ,$$%-1/'$+%'60',.0)%'5'*&',.)*' (3,)+' %// 5%&,.%5'/,.%0'*&'(*.)'()'4%)3%%.'+')+% %/%8%.)0' .''.*)+%$'(/'00'*&'('0%0')+%'(*$; 610(/%0'66%'$'08'/'.'5'($%.')%51$'/,9%')+*' 0)+*$.'66/%' # '.5' ' ' ' ' UR' $'3%'8'2'(*8; 6'$%)+%''8*1.)'*&'+%%8*-/*4,.',.''-,7%.' 3%,-+)'*&'4/**5'3,)+')+%'.184%$'&'$%5'(*$; 610(/%0',.''=7%.'8,($*0(*6,('/'$%''+%.')+%'&*$8%$',0'08'/',.'6$*6*$),*.')*')+%' /'))%$')+%'5%&%()'810)'/,%',.')+%',.5,7,51'/ (*$610(/%H'.5')+,0'8'2'4%'0*'-$%')')+')')+%' 6$*6*$),*.'*&'+'%8*-/*4,.'&'//0''0',.'0*8%' ('0%0'*&'(+/*$*0,0')*')3%.)2&,7%'6%$' %.)'*&)+%'.*$8'/' ' ' ' A5R'&0 3 G +%'%&&%()0'*&')+%)3*'(*.; 5,),*.0'*&'4/**5'>10'5%0($,4%5'.'8%/2'*/,-*'(2)+0%8,'' .5'*/,-*(+$*8'08,''8'2'4%'5,0; (100%5')*-%)+%$'1.5%$')+%'+%'5'*&'-/*41 08' *$'5%&,(,%.(2'*&')+%'4/**5',.'+'%8*-/*4,.' .')*&'),0')+%'*B2-%.'),.-'0140)'.(%'*&')+%' *$-'.,08'-,7%0'$,0%')*'0286)*80')'*.(%'%B;)$%8%/2' '$,*10'8*.-0)')+%80%/7%0''.5'*& 0%$,*10',86*$)' 7%$2'7,)'/6$*(%00'3+%)+%$' 5%7%/*68%.)'/'6'0),('0%($%)*$2'52.'8,('*$ .1)$,),7%',0''40*/1)%/2'5%6%.5%.)'.''-) ' '.5',88%5,')+%'0166/2'*&'*B2-%.' '*&)+%0%6$*(%00%0')+%$%&*$%'3,/'01&&%$',.''-/* 41/,08' +%' $%06,$')*$2'.5'(,$(1/')*$2' 8*7%8%.)0''$%' '((%/%$')%5' +%'(*86/%B' 6$*(%00%0'*&'/,8%.)'),*.''.5'0%($%),*.''$%' 6%$&*8%5',86%$&%()/2''.5')+%'$%01/0''$%' 52=%60,''(*.0),6'),*.''.5'5,0*$5%$%5'0'.; -1,&,(','),*.G3+,(+',.)%.0,&2')+%''4.*$8'/ 4/**5 0)')%' 10(1/'$'(*.)$'(),*.','0'&%%4/%' '.5'('..*)'4%010)','.%5' 02(+,('/&*$(%',0' 3%'9H'.5'51/.%00'0/%%6,.%00'6'>.0''.'.5' *)+%$02 86)*80',.5,(')%',86%$&%()'*B,5'),*.' 3,)+,.')+%'.%$7*10 020)%8' *5,/2'-$*3)+' .5'5%7%/*68%.)G*&')+%'0%B1'/*$-'.0'&*$ %B'86/%G=%8',.',.(*86/%)%''.5'614%$)2',0' 5%&%$%5' 1)$,.'%7%$23+%$%'01&&%$0'*B,5'),*.' 8')%$,'/0'4%,.-',.01&&,(,%.)/2'*B,5,0%5H'.5' 0140)'.(%0'0,.)%$8%5,')%'*)*''/418,.'*.')+%' *.%+'.5''.5'('$4*.,(''(,5'3')%$''.5'1$%'' $')+%'*)+%$'+'.5''$%'&*$8%5'%06%(,'//2' *,/0' +10')+%'*$-'.0'.5')+%'(*..%(),7%'),001%0'4%(*8%/*'5%5'3,)+'&')'.5'%./'$-%5' ,.0)%'5'*&01&&%$,.-')$*6+2''0')+%2'5*'3+%.')+%4/**56/'08''',0'5%&,(,%.)' ,.'//2')+%' %B($%),*.0'$%'5,0)1$4%5''.5')+%'014>%()'*&' '-/*4./,08' 6$%0%.)0'5%$'.-%8%.)' *&')+%

(*/*1$,.-'8'))%$0'*&')+%'4,/%''.5'1$,.%'3+,(+' '$%'5%$,7%5'&$*8'+0%8*-/*4,.' ' ' !)'

' P 0 ' # "0 G=/)%$'),*.0',.')+%' % ' " ' .5' " " '*&')+%' $%5'(*$; 610(/%'+'7%'4%%.'&$%E1%.)/2'$%(*$5%5'41)'01(+' '((*$8)0'$%',.(*88%%''.5'.*'%.),$%/2'01(' (%00&+/'))%86)'+'0'2%)'4%%.'8'5%')*' *..%()* ' .2'*&')+%0%'(+'.-%0'3,)+'8*$4,5'6$*(%00%0' ,.')+%'),001%0' .'0%7%$%'&%7%$0'01(+'0')26+10''.5',.'0*8%'$'6,5'8'/,-.'.)'5,0; %'0%0')+%'$%5'(*$610(/%0'66%'$'6%%1+'$/2' 0*&)')+%,$'*1)/,.%'4%,.-'/%00'$%0,0)'.)' .5' 0+'$6''.5')+%'4*5,%0'$1.,.-')*-%)+%$',.)*' ,$$%-1/'$+%'60',.0)%'5'*&',.)*' (3,)+' %// 5%&,.%5'/,.%0'*&'(*.)'()'4%)3%%.'+')+% %/%8%.)0' .''.*)+%$'(/'00'*&'('0%0')+%'(*$; 610(/%0'66%'$'08'/'.'5'($%.')%51$'/,9%')+*' 0)+*$.'66/%' # '.5' ' ' ' ' UR' $'3%'8'2'(*8; 6'$%)+%''8*1.)'*&'+%%8*-/*4,.',.''-,7%.' 3%,-+)'*&'4/**5'3,)+')+%'.184%$'&'$%5'(*$; 610(/%0',.''=7%.'8,($*0(*6,('/'$%''+%.')+%'&*$8%$',0'08'/',.'6$*6*$),*.')*')+%' /'))%$')+%'5%&%()'810)'/,%',.')+%',.5,7,51'/ (*$610(/%H'.5')+,0'8'2'4%'0*'-$%')')+')')+%' 6$*6*$),*.'*&'+'%8*-/*4,.'&'//0''0',.'0*8%' ('0%0'*&'(+/*$*0,0')*')3%.)2&,7%'6%$' %.)'*&)+%'.*$8'/' ' ' '

AoR' +%'(+,%&5%)%$8,..-'(' 0%)=')+%'(*/*1$' *&')+%'4/**5',0')+%'(+%8,('/'(*.5,).*.'*&')+%' +'%8*-/*4,.'+%.')+,0',0'1..)%5'3,)+' *B2-%.',.')+%'$)%$,%0')+%'4/**5',0'g '0'5%*B,5'),.*.''57'.(%0')+,0'(*/*1$'6'00%0' ,.)*''.5'&,.'//2'4%(*8%0'# #'*$') " +%'5'$9'(*/*1$',0'5,$%()/2'51%')*' '40%.(%'*&'*B2-%.' +%'61$%0)'%B'86/%'*&')+,0'(+'.-%',0'0%%.',.''06+2B,''3+%$%'*B2-%.' ,0'%B(/15%5'&$*8')+%'4/**5H41)',)''/0'*'((1$0' '0')+%'$%01/)'*&')+%''(),*.'*'&'($%)',.',.>1$,*10' ,.&/1%.(%0'16*.')+%'(*$610(/%',)0%/&'01(+'0' %B)$%8%'+%')'*$'6*,0*.,.-'42'6+*06+*$10' 6$100,('(,5''.5'*)+%$')*B,('-%.)0'&')+% (+'.-%'6$*(%%5'.*'&')+%$')+%'0('$/%)'(*/*1$' 8'2'0),'4%'$%0)*$%5'42'*B,5'),*.' +,0' 4/'(9.%00'*&')+%'4/**5',0'-%.%$''//2''00*(,')%5' 3,)+',86%$&%()'(*'-1/'),.'*'$'%7%.''0'))%*.' &/1,5,)2' ,4$,.'6'-%'D ApR'6 " '*&')+%'4/**5',0'*40%$7%5' */,-a8,''.5'*/,-*(2)+'08,'''.5',0' (')*' 5%&,(,%.(2'*&')+%'+'08*-/*4,. A(R' +%'4/**5'8'2'.*)'*./2'4%'6'/%' 6$%; 0%.)'0)$%'90'0*8%3+')'$%0%84/,.-' '%7%.' '0',)'&/*30'&$*8')+%'/,7,.-'7%00%/0''3',.'/%1' 90 8,''' +%'0'8%4/**5'3, '0%))/%' '0)'.5; ,.-',.)*')+$%%'/'2%$0G*&'6'08''36%$,*$/2' /**0%/2'(*'-1/')%5'*$'.*)H*&'3+,)=(*$610(/%0H

(/*)’ *&’ 5$’3.’ 4/**5’ 42’)+%’ 6$%0%.(%’ *&’ .’ K,$$%-1/’$ 0/286+’),(’ /’2%$’ ’ ’)# ’ (*.0,0),.-’ *&’ (*//%(),*.0’ *&’ 3+,)%’ (*$610(/%0’ 4%)3%%.’)+%’ $%5’ (/*)’ .’5’)+%’ 41&&2’ (*’)’3+,(+’ 0*’ &$%E1%.)/2’*((80’ ’/*.-’ 3,)+’,)

ADR’ ’ " "’,.’)+%’ ..>.4%$’ *&’3+,)%’ (*$610(/%0’*((1$0’,.’ (+/*$*0,0’H ’.5’,)’,0’0’,5’ ,.’8’/’$,’’%06%(,’//2’51$,.-’)+%’6’$*B2O8’*&’ &%7%$

A(R’L ,)+’ $%-’$5’)*’)+%’ ’ *&’)+%’ ,.5,7,51’/’ +,)% (*$610(/%0’)+%’6$*6*$),*.’*&’ 1.,.1(/%’$*$*2*1.-’(%//0’’.5’)+%’ 81/),.1’ (/%’$*$*’-%5’ %//0’8’2’4%’5,0)1$4%5’4*)+’,.’ /%1(*(2)*0,0’.5’/%19’%8,’H 3+,/%’ (*$610(/%0’ 8’2’4%&*1.5’(*.)’,.,.-’$’.1/%0’*&’7’$,*10’ 9,.50’ %06%(,’//2’ 6,-8%.) 6’$),(/%0’4’(’)0%$,’’ 8,($*(((,’’.5’*)+%$’0)$1()1$%0

L’ ’ & ’ ’ ’

0 +4`E’ 1 . " ! ’ * ’ $-’ ! ’ /!" $ $3# ’ .) $ ’ ’ ! ’ * $4 ’ $-’ ’5)’ ’ ! ’+ $$7’)’= !’5 7

A’R’C " "’*&’3’)%$’,.’)+%’ 4/**5’ ,0’ Q*40%$7%5’,.’7’$,*10’5%-$%%0’)’ ,0’ 8*5%$’)%’ ’.5’)$’.0,)*$2’ (0’)+%’$%01/)’*&’0),81/’),*.’*&’)+%’ 9,5.%20’09,.’*$*4*3%/0’&*$’)+%’.*$8’/ 6$*6*$),*.’,0’06%%5,/2’$%0)*$%5’42’ ’40*$6),*.’ +,0’ *.5,),*.’ ,0’ ’/0*’ &*1.5’ ’&)%$’ 0%7%$%’ 61$-’),*.’03%’),.-’5,’$$+(%’’*$’520%.)%$2H ’.5’,)0’6$*51(),*.’,0’)+%’$’),*.’/%’*&’0%7%$’/ *&’)+% 8%)+*50’ 5*6)%5’ &*$’)+%’ $%/,%&’*&’ 5$*602’ &’)+%’5$’,.’*&’3’)%$’(*.),.1%’*$’,&’)+%’ 0166/2’ &’,/’)+%’ ’.+25$,%’ (*.5,),*.’*&’ 4/**5’,.($%’0%0’0*’)+’)’)+%’ &/1,5’ ’66%’$0’ 4/’(9’)+,(9’’.5’)’$$2’ 1(+’,0’)+%’0)’)%’*&’)+%’4/**5’,.)+%’ ’/-,5’0)’-%’*&’(+*/%$’’H’)+%’ 06%(,&,(’-$’7,)2’ *&’)+%’ 4/**5’ $,0,.-’ &$*8’ !FFg’0’+,-+’’0’ !?!g’3,)+’’’(*86’$’),7%’ %B(%0O’*&0’/)0’’/418%.’’.5’1$%’’ +%’(+,%&’ 0286)*80’*&’-$%’)’ 5%&,(%.(2’*&’3’)%$’,.’)+%’4/**5’’$%’,.)%.0%’)+,$0)H’’ 0+$,7%//%5’ 0+)1.9%.’’06%()’*&’)+%’4*52’-%.%$’//2H (*/5; .%0O’.5’/,7,5,)2’*&’)+%’%B)$%8,),%OH 810(1; /’$6’,.0H’.5’0166$%00,*.’*&’)+%’%B($%),*.0G’ 6+%.*8%.’’ 5,$%()/2’ $%&%$’4/%’)*’ /*0O’*&’ 3’)%$’ $%)’$5’),*.’ *&’)+%’ (,$(1/’),*.’.’ .5’ ,.)%$&%$.(% 3,)+’)+%’ &1.(),*.’ *&’)+%’ $%5’ (*$610(/%0

A*R’I(G’P GU%&%$%.(%’+’0’ 4%%.’’/$%’52’8’5%1.5%$’)+%’+%’5’*&’*/,-’%’ 8,’’)*’)+%’.’%.>,’’*$’+25$0%8,’’)+’)’&*//*30’ ,)’ B(%0O’*&’3’)%$’,.’)+%’4/**5’ # ’ ’ T ’,0’6%$+’60’.%7%$’’40*/1)%’ ’.5’)+%’(+’.-% 8’2’)+%$%&*$%’4%’$%-’$5%5’ 3,)+’E1’/’((1$’(2’.’5’-$%’)%$’(*.7%.,%.(%’ ’0’5%&,(,%.(2’*&’0*/,50

HJ3 $ %! % ’ % G .’$%; 7,%3,..-’3+’)’+’0’ ’/$%’52’4%%.’ 0’,5’1.5%$’)+% +%’5’ *&’ *’-1/’),*.’’.5’ ,4$,.’)+%’ $%’5%$’3,// *40%$7%’)+’)’0’8*1.)’*&’&,4$,.’ ’.5’ *)+%$%B6$%00,*.0’ (*$8%()%5’3,)+’)+% ’/418,.*10’0140)’.(%0’’.5’*)+%’ 810)’ ’/0*’4%’$%>%()%5’ 1)’)+%’)*)’/’8*1.)’ *&’ ’/418,.0’,.’)+% 4/**5’ 8’2’4%’ %’0,/2’ ’0(%$)’,.%5H’.5’)+,0’014>%()’)*’%B) .0,7% 7’$,’),*.0’ +%’4’/’.(%’4%)3%%.’)+%’/418,; .*10’0140)’.(%0’3+,(+’%.)%$’)+%’4/**5’&$*8’)+%’ ’/,8%.)’$2’)$’()’ .5’)+% /286+’),(’ 020)%8’*.’)+%’*.%+’.5’’.5’)+%’6$*51()0’*&)+%,$’)$’.0&*$8’),*.’42’)+%’),001%0’*.’)+% *)+%$’+’.5’,0’$%6$%0%.)%5’42’)+%’/418,.0’*&)+%’4/**5’ +%0%’3,// ,.($%’0%’((*$5,.-/2’ 3+%.’)+%’0166/2’,0’%B(%00,7%’*$’)+% 0166/2’,0’%B(%00,7%’*.’)+%’*.%+’.5’’.5’)+%’6$*51()0’*&)+%,$’)$’.0&*$8’),*.’42’)+%’,

k '' $, . -' *$ 0 8 '//%$ 7%0,(/%0 $*1 . 5)+%' /'$-%$ * . % G '' (* . 5,), * . ' . %7%$ 8 %)' 3,)+' , . '4*,/0
G +% . ' 51%)*' /*(' / ('10%0)+%' 6$*- . *0,0 ,0 -**5' 1 . /%0)+%' 6 '),%. ,)' 4% %B+'10)%5 42' */5' -%' *$ &%7%$H 1 . 5%$ 01(+' (,$(18 0)' . (%0)+%' %B)%. 0,7% 0/*1-+, . -' . 5' 01661$'), *. ' *&)%. '/% '5')*' '' &') ' / ,001%
5 ! ' G ' B " ' G ' ,$0)' $%8*7% 6$%5,06*0, . -' ('10%0 ' . 5' , . 7, -*$')%')+%' 6'),%.)' 42' (+' . -%' *& ',$' *1)5**$' %B%$(,0%' 7'6*1$ ' . 5' 1$9,0+' 4')+0' +%' 0' . ,)'$2' 0)')%' *&')+%' 6'),%.)<0' 53%//, . -' 8 10)' 4%')%0)%5' '0' 0%3%$' -'0' 8 '2' ('10%' 4*,/0' +%' 5,%)' 0+*1/5' 4% 8*5%$')%' ' . 5' 8 ,B%5' /(*+*/' 1 . /%0)+%' 6'),%.)' ,0' -$%')/2' 5%4,/,)')%5' 0+*1/5' 4% ' -,7%. , . ' 7%$2' 8*5%$')%' E1' .),)2' ' . 5')+%' &*$8' *&' &%$8%.)%5' /,E1*$' 8*0)' +' ; 4,)1'/)*')+%' 6'),%.)' ,0' 4%0)H 81(+' '/(*+*/')'9% . ' 4%&*$%')+%' (*$%' +'0' /**0% . %5' , . ($%'0%0')+%' 6', . ' ' . 5')+$*44, . - ' (('0,*. ''//2' '' 0'/, . %' 61$-%' 0+*1/5' 4% ' -,7%. ' &' % '6,$,*'/ $%8%5,%0'2%'0)' A'')'4/%06** . &1/)+$,(%' 5', /2R ,0' 0',5')*' 61)' . ' % . 5')*')+%' $%6%),), *. ' *& 4*,/0' X1,. , . %' . 5' 6%$(+/*$,5% *&' ,$*. ' '$%' '/0*' 10%5' X1,. , . %' 0+*1/5' 4% ' -,7%. ')*' . ' '51/)', . '&,7% -$', . ' 5*0%0' %7%$2' 0,B' +*1$0'), ' 0, . -, . -' , . ')+%' %'$0' . 5' +%' 5'(+% 4% - 8 H ,)' 0+*1/5')+%. ' 4% -$'51'//2'/*3%$%5'&*$)+$%%'*$ &*1$'5'20')*')+$%%'*$&*1$ -$', . 0' 6%$ 5,%8' ' . 5' &, . ''//2'/%&)'*&&' . ' *40), . ')%' ('0%0')+%' 3 ')%$0' *&' ,(+2' '$%-%0'*$ '$$*-')%' $%'4%/,%7%5')*'$%8*7%)+%'5,06*0,),*+'')*'4*,/0' . '5,'4%)%0' *8,00,*. ' *&'01-'$ &*$8,. -'&**5' ' . 5')+%' &,$%%'58, . ,0)$')," . ' *&' /9'/,0' . 5' *6,18' '$%')+%' 8*0)'%&&%()1'/ $%8%5,%0' *$')+%' %B+'10), . -' 4*,/ *&')+%&' (%'/'$-%'5*0%0' *&4$' . 52' 8%)+*5; ,('//2'6$%0($,4%5' 3+%)+%$' 3,)+' *$' 3,)+*1)' E1, . ,. %' '$%' $%E1,$%5' ' . 5' (*6,*10' . *1$,0+; 8%.)' 42' 4%%&)%'' 3,)+' 6%6)*. ,0%5' &**50' , . ' &$%E1%.)' 5 0%0
S G +%. ' 0, - . '//%5' 42' ,)(+, . -' '' 4*,/ 8 '2' 4% 0)*66%5' 42' 6/1(9, . -' *1)')+%' +', $' *&)+%', . &, ' 8 5' &*//, (/%' ' . 5', . ' '' /* . -' 01((%00, *. ' 8 ' . 2' 48/0' 8 '2')+10' 4% 6$%7%.)%5' +%. ')+%' $%*/'' +'0' &*$8%5', &')+%' 6', . ' 4% 0/, -+)' '' 5$*6' *&('10), (' 0*/1), *. ' ' 66/, %5')*+%' (%.)$%' 3, /' 0*8%), 8%0' (+%(9')+%' 6$*-$%00' *&')+%' 4*,/' ' 4%))%$' 6/' . ' ')')+, 0' 0)' -%' , 0')*' (*7%$')+%' 4*,/ 3,)+' '' -'/4' . 18' ' . 5' *6,18' 6/'0)%$' A $'0810' ,/0* . <0R 06$%'5' *. '/%')+%$' . 5%$')+, 0')$%')8%.)' 6', . ' ')' *. (%' (%'0%0')+%' , . ; &/' 8 8 '), *. ' -$'51'//2'0140,5%0' ' . 5')+%' 0%6'; $')*. ' *&')+%' (*$%6$*(%%50'6', . /%00/2H 3+%. ')+%' 4*,/ 5,0(+'$-%0' '' +*/%' 0+*1/5' 4%' *1)', . ')+%' (%.)$%' *&')+%' 6/'0)%$' &*$)+%' %0('6%' *&)+%' 6$*51()0' +%. ')+%' 6', . ' ,0' 0)+>-.,$-' ' . 5')+%' '$%*/'' 3,5%' 3,)+' $%0)/%00. %0 ' . 5' +%'5'(+% '$8'6*1/),(%0' '$%' 8*0)'0**)+, . -' G)+*0%' *&0)'$(+' ('10%' 610)1/'), *. '/%00')+' . ' /, . 0%%5 8%'/' 6*1/),(%0 ' ,B, . -'/'$(&3,)+' '' /, . 0%%5' 6*1/),(%' *$' 06$, . 9/, . -' ,)' 3,)+')+%' 5,/1)%' 0*/1), *. ' *&' ' (%)')%' *&' /%'5' +'0' ''0,8,; /'$'%&&%()' B)$' ()' *&'4%//'5*. . '' ' . 5'-/2(%$,. %' ,. ' %E1'/ 6')0' 0+*1/5' 4%' &$%%/2' 06$%'5' *7%$')+%' 4*,/ 4%&*$%')+%' 6*1/),(%0' '$%' '66/,%5' 6*. -,. -' 3,)+' +*)' 3')%$' '/0*' -$%')/2' /%7,

')%0')+%' 6', . ' *&' 4*,/0' ' . 5' 8 '2' 4%(*.), . 1%5' &*$' +*1$0')*-%)+%$' *1/),(%0' +'0)%. ')+%' %B61/0,*. ' *&')+%' 0/*1-+' 41)' 0+*1/5' 4% 5,0; (*.), . 1%5' '0' 0**. ' '0')+%' +'$5. %00' (+' . -%0')*' 5*1-+, . %00' '0')+%2')%. 5')*' %B(,)%' &$%0+' ($*60' *&' 4*,/0', . ')+%' 09, . ' . %'$')+%' &,$0)' 4*,/ ' &')+%' 0/*1-+' ,0' /'$-%')+%' 01$&'(%' 8 '2' 4% 5$%00%5' 3,)+'/, .)'06$%'5' 3,)+' %$17, ' . '4'/0' 8 '*$' 510)%5' 3,)+' , *5*&*$8' ' . 5')+%' 4*,/' ('$%; &1//2'6$*)%()%5' 42' 8%' . 0' *&'6'50' ' . 5' (*8; 6$%00%0' *&'($4*/,0%5')*3' 6*1/),(%0' '$%' . *3' '/)*-%)+%$' '4' . 5*. %5' 42' 8' . 2' 01$-%*. 0' HW 8*,0)'+%')' 4%, . -' '66/,%5' 42' 8%' . 0' *&' A'2 $0' *&' 4*$'(,%/, .)' 3$1 . -' *1)' *&' +*)' 3')%$' ' . 5' (*7%$%5' 3,)+' *, /%5'0,/9
. (,0,*. 0' '$%' . *3' 81(+' /%00' %86/*2%5')+' . ' &*$8%$/2' +%2', . ($%'0%' $')+%$')+' . ' /%00%. ')+%/*00' *&', 001%', . ' *5$, . '$2'4*,/0' ' . 5' 5*' . *)' 0+*$)%. ')+%' 51$'), *. ' $&')+%', . &/' 8 ; 8'), *. ' +%2' -, 7%' $%/, %&')*' 6', . ' +*3%7%$' ' . 5' (+%%9')+%' 06$%'5' *&5, &&10='4A=0' (, ; 0, *. 0' '$%')+%$%&*$%' 10%&1/)*' $%/, %7%')%. 0, *. ' 3+%. ' 0%7%$%' +%. ' 8 '5%', . (, 0, *. 0' 0+*)55' 4%' &$%%'($1(, '/' *$%7%. ')' $ /, 9%' ' . 5' ('$$, %5' 4%2*. 5')+%' 4*,/' . ')+%' $'6, 5/2' %B)%. 5, . -' 4*,/ *&')+%' &' (%'0, 8 6/%', . (, 0, *. 0' $%' *&/,))%' '7', /H)+%' &$%%' 10%' *&')+%' '()1'/ ('1)%$2' 8 '2' 4%' 4%. %&, (, '/ , &' %8 6/*2%5')' . '%' $/2' 6%$, *5H *$, &')+%' 4*,/' 4%' 0%%. ' %' $/2' &$%%' %B(, 0, *. ' *&')+%' 4*,/' . 5')+%' +%' /)+2'), 001%' '$*1. 5',)' 8 '2' 4%' 8 '5%')+%$3, 0%' E1, . , . %', . ' /' $-%' 5*0%0' . 5' /*('/ 0**)+, . -' '66/, (''), *. 0' -, 7%' 8*0)' $%+%&' ' % %$)' $ %
0 5 A' $$

' ,0%' 0%0' *& G 6 'H $' M & ' ' ' H B ' F" "O "## " G' . 5%$')+, 0' +%' 5' '$%', . (/15%5 G= (1)%' . 5' +$*. , (' . &/' 8 8 '), *. 0' *&' 4*. %' . 5',)0' 8 %8; 4$' . %0' 3,)+')+%' (*. 0%E1%. (%0')+%$%*&' 01(+' '0' %($*0, 0' '$, %0' ' . 5' 40(%00H' %3' $*3)+0' 3+, (+' '$, 0%' 4*)+' 3,)+, . ' ' . 5' 16*. ')+%' 46. *H '/&*$8'), *. 0H ' . 5' (%$)', . ' 5, 0*$5%$0' *& . 1)$,), *. ' . ' 8%/2' 26%$)$*6+2' . 5')$*6+2 , %3%5', . ' . *)+%$3, 0%' 06%()' 4*. %' 5, 0%' 0%0' 8 '2' 4% 5, 7, 5%5' , .)*') *' 8$, . (, 6/' -$*160' 3+, (+' 0*8%3+')' *7%$/' 6' *. %' . *)+%$' . ' 8%/2 ')+*0%' 3+, (+' '$%' 5, 0), . ()/2' " ' , . ')26%H ' . 5' ADR)+*0%' *& # '*$, -, . * . %), 001%' 0+*1/5' 4%' $%-'$5%5' 0' 4%, . -' 0, 8, /'$')*' *)+%$' (* . . %(), 7%'), 001%0H41)' 0*8%' 5, 0%' 0%0' '&&%(), . -',)' '$%' $%. 5%$%5' *40(1$%' 42' ,)0' 0)$1()1$%' +, /%' *)+%$0' '$%' 8')%$, '//2' 8*5, &, %5', . ')+%, $' 6$*-$%00' 42' $%' 0*. ' 8*0)/2' *&',)0' 8%0+%0' 4%, . -' &, //%5' 3,)+' /, 8%0')0 . &/' 8 8 '), *. G= 0' 8 '))%$*&(/, . , ('/ (*. 7%. , %. (%',)' ,0' 101' /')*' (*. 0, 5%$'0%6'$')%/2' , . &/' 8 8 '), *. 0' *&')+%' 6%$, *0)%18' *&'&%%' 4*. %' 6$*6%$' ' . 5' *&')+%' 8%51//'H 41)',)' 0+*1/5' . *)' 4%&*$-*))%. ')+')')+%0%'0)$1()1$%0' $%')+$*1-+; *1)' (*.), . 1*10' ' . 5' , .)%$5%6%. 5%.)' ' . 5'&%')' 5, 0%' 0%' ,0' $' $%/2' %B(/10, 7%/2' (*. &, . %5')*' ' . 2' *. %' *&')+%8',)' 8 '2' *$, -, . ')%' *$ 4%' (+, %&/2' 5%7%/*6%5', . ' *. %' 41)',)' (' . . *)' /*. -' %B, 0)I' 3,)+*1)', . 7*/7, . -')+%' *)+%$0')*' '' -$%')%$' *$' /%00' 5%-$%%' +, /0)', . &/' 8 8 '), *. ' *&' 4*. %', 0

=),001% %.-'-%5')+%' ,.&,'8,''),*.' +'7,.-' $%'(+%5')+%' 6%$,*0)%18' 0%(*.5'$,/2H 3+,/%' A)+%%'$/2' '66%'$'.(%'*&'03%//,.-'.5'&/1()1';),*.' %C)%$.=2'01--%0)0')+')')+%' ,.&/'88';),*.',0' (+,%&/2' 6%$,*0)%''/' /**5 6*,0*.,.-' %,)+%$' 0%6),(0%8,(' *$' 620%8,(',0' '' (*88*.' %*.0%E1%.%%' *&' '(1)%' $.&/'88'),*.' *&'4*.%' '.5'6%$,*0)%18

, 0,0 = +,0' 5,0%'0%' 8'2'4%' *40(1$%' ')')+%' (*88%.(%8%.)'' .5',)0' .')1$%' *7%$;/**9%5')'+'0'*&)%.'4%%.'8,0)'9%.'&*$' '(1)%' $+%18'),08'*.'((*1.)'*&')+%'03*//%.'>*,.)0H &*$'6+/%-8*.*10'%$20,6%/'0H &*$' '(1)%' (%//1;/,),0' $&*$')26+*,5' &%7%$' +%'*.'/2'8'/'52' ,)+' 3+,(+' '(1)%' 6%$,*0),),0' .%%5' 4%' (*.;&*1.5%5',0' '.',5,*6')+,(',.&/'88'),*.' *&')+%' 5%%6 0%')%5' (%//1/'$'),001%',.' '' /,84' +,0' Q5,0%'0%',0'$'$%' +%.'3%' *40%$7%')+%' (+',.' *&'0286)*80' '4*7%' 5%0($,4%5',.' '' 2*1.-' 6%$0*.' 3%' 8'2'0'&%/2' '0018%')+%' 6$%0%.(%' *&' '.' '(1)%' *0)%*6%$,*0),),0

& K ! ' 35,' # G= +% 5,0%'0%' '/8*0)' ,.7'$,'4/2')%$8,.')%0' ,.'01661$'),*.' '.5'.%($*0,0H $%0*/1),*.' +'66%.0'$'$%/2'41)' .%($*0,0',0'.*)',.%7,)'4/%'%7%.' '&)%$' 01661$' W'),*.' .' '' &%' ('0%03' %06%(,'//2',.' 2*1.-' Q(+,/5$%.',&')+%' 8')))%$'4%06%%5,/2'%7'(1')%5')+%''40(%00'(*//'60%0')+%'6%$,*0)%18'$%1.,)%0' 3,)+')+%'4*.%''.5'.*' .%($*0,0')'9%0'6/'(%' +,0'$%01/',0'1.&*$)1.')%/2'E1,)%%B(%6),*.'/ Q 0')+%'0%6'$'),*.'+'&')+%' 6%$,*0)%18'(1)0'+'&&)+%'7'0(1/'$'0166/2'-)$*')+%'4*.%'1./%00',.; (,0,*.0'4%'7%$2'06%%5,/2'8'5%')*' 6%$8,)')+; %0('6%'*&',.&/'88')*$2'6$*51()0'8*$%'*$/%00' %B)%.0,7%' .%($*0,0',0')+%' ,.%7,)'4/%' $%01/)' Y&'.*)'%7'(1')%5')+%' 610'(*.&,.%5'4%.%')+')+%'6%$,*0)%18' ,'6$%0%.)/2'%0('6%')+$*1-+' (.%'*$'8*$%'*6%.,.-0',.)*')+%',.)%$810(1/'$' Q06'(%0''.5',.')+,0'3'2'$%'(+')+%'01$&'(%' .'&'7*1$'4/%'('0%0''&)%$'%7'(1'),*.'*&')+%' 8')))%$')+%'(1)%'0286)*80'0140,5%H .%3' 4*.%',0'&*$8%5'&$*8')+%'5%%6%$'/'2%$0'*&')+% 6%$,*0)%18H '.5')+%'5%'5'6')$'&,.'//2',.; 7%0)%5'3,)+'' 0+%')+'*&'.%3'4*.%'4%(*8%0'' 0%E1%0)$18

G +,0'810)'4%&*1.5%5'*.')+%' %B)%.)'*&')+%'.%($*0,0H 3+%)+%$'4/**5 6*,0*.;,.-'+'0')'9%.'6/'(%H '.5'3+%)+%$')+%'5>'(%.)' >'*,.)0''$%',86+%')5',.'),+%5,0%'0%' 1$%'('.;.*)')'9%'6/'(%1.),'+%'5%'5'4*.%',0'('0)'+&& *$'$%8*7%5''.5')+,0',0'*&)%.'/*.-'5%/'2%5' +%'10%&,&/.%0'*&''/,84'8'2'4%'6%$8'..%.)/2' ,86',$%5'42')+%' 5,0%'0%'*$',)' 8'2'$%E1,$%' '861)'),*.''*$')+%'6'),%.)'8'2'/*0%'+,0'/,&%' &$*8')+%'%B+'10),*.'*&')+%'5,0(+'$-%'*$'0*8%' ,.)%$(1$%.)'8'/'52' .')+%')+#$+'.5')+%' 10%'*&')+%'/,84''.5')+%'+%'/)+'*&')+%'6'),%.)' 8'2'4%(*8%'(*86/%)%/2'$% %0)'4/,0+%5

! " '$/2''.5'%.%$-%),(')$%');

8%.)',0'*&')+%' -$%')%0)',86*$)'.(%'0',)' '&&*$50')+%' 4%0)' 6$*06%()' *&' '7%$),.-')+% W5,0'0)$*10'(*.0%E1%.(%0'*&''(1)%' 6%$,*0),),0' 41)',.'+*06,)'/6$'(),(%')+%'('0%0'$%' $'$%/2' 0%%.'01&/(,%.)/2'%'$/2' .')+%'&,$0)'0)'-%')+% /,84'0+*1/5'4%'%/%7')%5''.5'(*/5'(*86$%00%0' '66/,%5' 0'0**.''0')+%' .')1$%'*&')+%''&&%(;

),*.',0'0106%()%5'&$%%' ,E(,0,*.0'5*3.')*')+%' 4*.%'0*''0')*' 5,7,5%')+%'6%$,*0)%18''$%%,.' 4,(')%5'%7%.'4%&*$%')+%$%',0'(/%'$'%7,5%.(%')+')'610',0'&*$8%5' +%2'$%/,%7%'6',.'.5')%.0,*.H ''.5'42'6%$8,)),.-')+%'),8%/2' %0('6%'*&'610''0'0**.''0',)'5*%0'&*$8')+%' '8*1.)'*&'6%$,*0)%'/0%6'$'),*.''.5'(*.0%; E1%.)/2'*&'.%($*0,0',0'/,8,)%5')',0')+%' 8*$%',86*$)'.)')*' 8'9%''.'%'$/2',.(,0,*.' 4%('10%'%7,5%.(%'*&'&/1()1'),*.',0' ')'&,$0)'42' .*'8%'.0%'02')*'8'9%'*1)H '.5''.',.(,0,*.' 5*3.')*')+%' 4*.%0+*8&,5'4%'8'5%',.')+%' %.)$%'*&')+%' ,.&/'8%5''$%'' ,.''/'('0%0'*&' 5*14)' .),0%6),('6$%('1),*.0'0+*1/5'/3'20' 4%')'9%.' *8%),8%0')+%'40(%00('7,)2'5*%0' .*)'$%'5,/2'(*//'60%'*3,.-')*',)0'3'//0'4%,.-' 0),&&''.5',.&,/)$')%5''.5',)0'(*.)%.)0'8'2' 4%(*8%'0%6),(')+10'-$%')/2',.($%',.-')+%' 6'),%.)<0'$,090' &')+%$%'4%'02.*7,'/%&&10,*.' 8)*''.%,-+4*1$,,='>*,.)',)'0+*1/5'4%'9%6)' ')'$%0)'42'8%'.0'*&''06/,.)'*$''&,B%5'4'.; 5'-%' 0')+%''(1)%'0286)*80'0140,5%')+%' '40(%00('7,)2'(*.)$')0'*.%'*$8*$%'0,.10%0' $%8,.''.5')+%'5%'5'4*.%'4%-,.0')*' 0%6'; $')%' %%' %($*0,0'6'-%' M

+%$%' '.'%6,6+20,0',0'.%'-'-%5',.')+%' 5,0%'0%')+%'('0%',0'8*$%'1$-%.)H)+%'&%7%$ $1.0'+,-+%$')+%'01661$'),*.',0'-$%')%$''.5')+%'5%-$%%'*&'>*,.),86/,('),*.'8*$%',.)%.0%' 6$*(%%5,.-',.'%B)$%8%'('0%0')*'01661$'),7%' $.&/'88'),*.''.'.5'5%0)$1(),*.'*&')+%'5),(1;/'),*.' +%.')+%'>*,.)'4%(*8%0').0%''.5' 3*//%.')+%'&/1,5'8'2'4%'5$'3.'*&& 3,)+' '')$*('$'.5'('.1/''*$'.',.(,0,*.'8'2'4%' 8'5%,.)*',)' +%''&&%()%5'/,84'0+*1/5'/3'20' 4%'0166*$)%5'*.''06/,.)'A 5%8''*&')+%'/,84' *&)%.'85,(')%0''5%%60%')%5'6+/%4,),0',)'+%' 6$%(1$0*$'*&'0%6),(' 6*,0*.8-' .5%$')+%0%' (,$(180)'.(%0''861)'),*.',0'*&)%.')+%'*./2' $%0*1$(%')',0',86%$'),7%')*' '861)'))%' 3+%$%' +%$!',0'%B)%.0,7%'4*.%5%0)$1(),*.' '.5')+%' 0286)*80',.5,(')%' (*88%.(,.-' 620%8,'H *$'3+%$%'3,)+')+%' 5%')+' *&' '/'$-%'6*$),*.''*&')+%'0+'&)''*.%'*$'4*)+' *&')+%' .%,-+4*1$,.-'>*,.)0'8'2'+'7%'4%(*8%' -$'7%/2',86(')%5''.5'-$%')'01&&%$,.-''.5' /*00'*&'0)$%.-)+'&*$4,5'10')*')%86*$,0%')',0'6$%(,0%/2',.')+%0%'('0%0'+*3%7%$'3+%$%')+%'5,'6+20,0'+'0'4%(*8%.(%*0%5'16')*')+% %6,6+20,'/>1.(),*.')+')'-**5'$%08)0''$%' '))',.'4/%'42')+%',88%5,')%'B)$'(),*.''&')+%'5%'5'4*.%' +%'6')$'&')+%'0+'&)'3+,(+' >*,.0')+%'%6,6+20,0'4%(*8%0'$'6,5/2'5%)'(+%5' '.5'/**0%''.5'8'2'4%'$%'5,/2'0%6'$')%5''.5' $%8*7%5'3+,/%')+%'6*$),*.'4%2*.5')+%'/,8,)' *&')+%'.%($*0,0',.')+%'*)+%$5,$%),*.'('.'4%* 5,7,5%5'3,)+' '')+(+',.'0'3')',0'5,&&,(1/)' +*3%7%$',.')+%'%'$/2'0)'-%')*'5,'-.*0%')+% %B)%.)'*&')+%'.%($*0,0' +%$%')+%'>*,.)0' 4*)+' '4*7%'.'5'4%/*3''$%',.7*/7%5''861;)'),*.',0'101''//2'.%(%00'$2 '6%$,*0),),0'*&''7%$2'(1)%'&*$8''/8*0)' ,.7'$,'4/2' 01661$'),.-' '.5' '((*86'..%5' 42'.%($*0,0',0'7%$2'(*88*.'.',.')+%'&,. -%$0' 3+%$%',)'(+,%&/2''&&%()0')+%'1.-1'/6+'/'.-%0' +%'6',.',0'7%$2'-$%')'41)'8'2'4%'$%/,%7%5

5%%6%$ 6'$)0 '$%' ,. 7*/7%5' 0,8 ,/'$ (+'.-%0 3 ,/ *((1($',.')+%' %.5*0)%18' +%' 6*$*10 (*.5,),*.'*&)+%'4*.% 8'2'4%(*8%'6%$8'.%.) 3+%6')+%' (*.5,),*.',0 ('//%5' ')+% $%01/)' *& 0* ('//%5' $'$%&2,.-' *0)%,)0H *$')+% -$'.1/'),*.0 4%(*8%')$'.0&*$8%5',.)*' .%3 4*.%'.5')+%' (' .(%//')%5'0)$1()1$%,0' &,//%5 3,)+' *00%*10 5%6*0,)'0*')+')')+% 3+*/%' *&),/%',.&,' 8%5' '$%'' 4%(*8%07%$2'5%.0%'.5',0)+%.'0',5')*' 4%' 0(/%$*0%5H *$')+%',.&/'88';)*$2'6$*(%00 8'2')%$8,.')%' ,.' 0))661$'),*.' &*//*3%5'42' ('$,%0' $*.%($*0,0 *$'.' '40(%00 8'2'&*$8',.')+%',.)%$,*$'*&')+% 4*.%'.5'4% %,)+%$'5,&&10%5'*$'(,$(180($,4%5 !(! " +%0%' '$%',.0,5,*10'7%$2'*4; 0(1$%')')+%'*1)0%)'.'5'8'2'4% 8,0)'9%.'&*$)+*0%'*&'(+$*.,(' $+%18'),08'*$'8%$%'6%$,*0;),),0' +%2'(*.0,0)'(+,%&/2',.'(+,.-'-.'3 ,.-'6',.',.')+%' '&&%()%5'4*.%'3,)+'(+'$'(')%$,0),*' $%8,00,*.0' .5' .*()1$.'/' %B'(%$4';), *.0' +%'4*.%',0')%.5%$' *.' 6$%001$%' .5' &%%/0%',.(%%'0%5',.'41/9' ')'&,$0)'&$*8')+%',., &,/)$'),*.'*&')+%',8 8%5,')%/2'01$5*1.5,.-'0*&)),001%0H 0140%E1%.)/2')+%' 4*.%',)0%/&%.; /'$-%0' +%$%',0'*&)%.',.(%'0%'*&'+%')',')+% /,84' +%'6$*-$%00',0'(+$*.,(' &'1.(+%(9%5 42')$%')8%.)'(+$*.,(' *0)%,),0'8'2'-,7%'$,0%)*'(*.0,5%$'4/%'5%&*$8,)2 ! G $%')8%.)'0+*1/5'4%5,$%()%5)*')+%'('10%'*&')+%'5,0%'0%' &')+,0'4%026+,/,0' '.),026+,/,),%')$%')8%.)'3,/'4% &*//*3%5'42' -**5'$%01)0H%7%.'.',' (+$*.,(' 4*.%,.&/'8' ,'),*.' .*)'5%6%.5%.)'*.'026+,/,0',*5,5%*&' 6*)'00,18',0'*&)%.'*&' -$%')'0%$7,(%' *('/ (*1.)%$,$$,)'),*.' 8'2' '/0*' 4%' %86/*2%5' &)%.')+%'('10%'('..*)'4%' 8'5%*1)'.'5',&' ,*5,5%*&'6*)'0 18'&',/,.'6$*51(,.-'.'%&&%()' 3%'810)'&'//'4'(9'*.'-%.%$'/)$%')8%.)' .')+%'%'$/2'014'(1)%'0)'-%'$%0)'3,)+'%/%7'),*.' *&')+%''&&%()%5'6')',0'7%2'5%0,$'4/%' b '$8' &*8%.)',0'*//*3%5'42',(%5'(*86$%00%0' $%/,%7%')+%'01&&%$,.-' &')+%$%'4%'81(+'6',.' 1.(0)1$,..-')+%',001%0'5*3.')*')+%',.&/'8%5' 4*.%'3,)+''')%.*)*82+.,&%'*$&,.%'4,0)*1$2' $%/,%7%0')+%')%.0%'6%$,*0)%18' .'5' '//*30' %B)$'7'0'),*.'4%.%')+',)*' %0('6%'0*')+')')+%'6',.'6$*86)/2'4')%0 A(R' ' T " ? &' 6%(1/,'$'&*$8' *&'(,&&*.,(',.&/'88'),*.'*&'4*.%+'0'4%%.'5%; 0($,4%5'42' ,$' '8%0' '-%)',85%$')+,0')),)/%' &$*8')+%' (+'.-%0',)' 6$*51(%0'4*)+',.')+% &*$8''.5'5%.0,)2'*&')+%'&&%()%5'4*.%0')',0' '' (+$*.,(*0%),),0'*&')+%'8*0)'%B)%.0,7%'9,.5' +%' (*8>>')'()',001%',0'(+,%&/2'&&%()%5'4%; (*8,.-')+,(9%.%5'0*&)'06*.-2'.5'7'0(1/'$'H)+%' '7%$0,'.'('.'/0'$%'%./'$-%5''.5'(*.;)',.'-$'.1/'),*.'8')%$,'/')'4%-,.0'&)%$ 8,55/%'-%''.5'8'2'(*.),.1%&*$'.'.5%&,.,)%'),8%'3,)+*1)',.&/1%.(%'16*.')+%'-%.%$'/+%'/)+' G '&%')1)%'3+,(+'5,0),.-1,0+%0',)'(/,.,('//2' &$*8'+%$*4*.%,.&/'88'),*.0')',0'101''//2' 028 8%)$,('/''.5''&&%()0'(+,%&/2')+%/*.-'4*.%0' *&')+%/*3%$*%B)$%8,)2''.5')+%'091//')'&,$0)')+%'4*.%0'%./'$-%''.5'0*&)%.'&$*8'%B(%00,7% 6$*51()*.'*&',86%$&%()/2'5%7%/*6%5'-$'.1/';),*.),001%''.5',.($%'0%5'4/**5 0166/2H''.5' 2,%/5,.-')+%'3%,-+)'*&')+%'4*52')+%2'4%; (*8%'(1$7%5''.5'8,00+'6%.' +%'&%81$'&*$ %B'86/%'0+*30''8'$9%5''.)%$,*$'(1$7')1$%' '.5',)0'.%(9'4%(*8%0'+*$,C*.)'/H)+%'06,.*' 4%(*8%0'(1$7%5H)+%'091/',0'%.*$8*10/2')+,(9%.%5' +%'/,840'+*3%7%$'/)+*1-+' 5%&*$8%5'$%8',.'0)$*.-''.5'&,))%5')*'016; 6*$)+%'4*52' .',)0'%'$/2'6%$,*5''.5' 0*8%),8%0')+$*1-+*1)',)0'(*1$0%')+%'5,0%'0% ,0'))%.5%5'3,)+'6',.0',.')+%'&&%()%5'4*.%0' 3+,(+'7'$2'81(+',.'0%7%$,)2'.5''$%'.*)' %06%(,'//2'.*()1$.'/'*$'6%$,*5,(')',0'.*)' '))%.5%5'42'&%7%$'.*$' '00*(,')%5'3,)+''.2' (*.0,),1),*.'/'5,0%'0%')'5,&&%$0'&$*8')+%' (+$*.,(*0%),),0'5%6%.5%.)'*.'0,86/%',.&/'8; 8'),*.'*&'4*.%'*$')+')'6$*51(%5'42'-*1)'*$ 026+,/,0',.'&&%(),.-')+%'3+*/%/%.-)+'*&')+% 4*.%H 3+,/0)'+26%$*0)*0,0''.5'*0)%*6*$*0,0 5%6%.5%.)'*.')+%0%'/')%$'('10%0'$'$%/2''&&%()')+%'%.),$%'4*.%' *')8%.)'66%'$0')*' 6$*51(%'.2'%&&%()'16*.')+,0'5,0%'0% A R' $ G=+,0'.',.&/'8; 8'),*.'(+,%&/2'&&%(),.-')+%'%.5*0)%18'.5' ,.)%$,*$'*&')+%'4*.%' ,9%'*0)%,),0',)'8'2'4*' %,)+%$' '*$ # " ' *$" ',0''' 01661$'),7%',.&/'88'),*.'*&')+%'8%51//''.5' 4*.%'3+,(+',0'7%$2'&$%E1%.)/2''00*(,')%5' 3,)+'0%6),('6*,0*.,.-'.5'.%($*0,0' %' 810)'$%8%84%$')')+%'8%51//''*&'' /*.-' 4*.%',0'7%$2'7'0(1/'$H,)'(*.0,0)0'*&'&')'.5' .18%$*10'3+,)%'(*$610(/%0'(*.)',.%5',.'' 5%/,(')%'(*.%(),7%'),001%' %'$')+%'(*$),('/ 6'$)'*&')+%'4*.%')+%'(*.%(),7%',001%''0; 018%0''' 7%$2'7'0(1/'$' 8%84$'.*10'&*$8' 3+,(+'+'0'4%%.'('//%5')+%'%.5*0)%18' +% 5,0%'0%' .%'$/2''/3'20''$,0%0',.'(*.%B,*.' 3,)+'4*.%,.>1$2''.5'8*0)'&$%E1%.)/2'+'6; 6%.0''&)%$'8 61)'),*.'*$'-1.0+*)'&$'()1$%' ,.'3+,(+')+%'('.(%//')%5'0)$1()1$%',0',., >1$%5'H ''0%7%$%$'(*.)10,*.'*&')+%'4*.%''. ,.>1$2')*')+%'6%$,*0)%18'*$'%B6*01$%')*' 0155%.'%B)$%8%0'*&'+%')'.5'(*/5',0'('6'4/% 1.5%$'0*8%'(,$(180)'.(%0'*&'6$*51(,.-')+% 5,0%'0% !(! " +%'0286)*80'$%'*40(1$% 8*$%'%06%(,'//2',&')+%$%'4%' $'*66*$)1.,)2'*& ,.06%(),..-')+%''&&%()%5'4*.%''0')+%'(+'.-%0 ,.')+%'4*.%'$%'*&)%.'8'09%5'&2',.&/'88';),*.'*&')+%'016%$&,(,('/'6'$)0 +%2'101''//2' 8'9%')+%,$'66%'$'.(%'&$*8'&,7%)*')%.'5'20' '&)%$')+%',.>82')*')+%'4*.%H,.'0*8%'(0%0' 81(+'%'$+%$'+%'6',.'8'2'.*)'4%'%B(%0; 0,7%H)+%$%',0'&%7%$'.5'6$*4'4/2'$,-*$' &')+%$%'4%''')7*,85')+%'0%($%),*.'&$*8',) 5,8,.,0+%0',.'E1'.),)2'.5'4%(*8%0'/%00' +%')+2H)+%'8%51//''6$*)$15%0'&$*8')+% (%.)$'/'(7,)2'H)+%'6')0'0**.'4%(*8%'01$; $*1.5%5'42'61)$%0(%.)'&/1,5'H'.5')+%0286;)*80'$%0%84/%')+*0%*&'8*$%'*$'/%00',.)%.0% 0%6),('%8,''+%'6%$,*0)%18'-%.%$''//2'41)' .*)''/3'20'0%6'$')%0'&$*8')+%'4*.%'.' 2*1.-'6%$0*.0')+%'5,0%'0%',0'0*8%).%0' '$$%0)%5''')+%'%6,6+20,0H41)',.')+%''51/)')+%'3+*/%/%.-)+'*&')+%'4*.%',0'/,'4/%')*'4%%

,,&&%%)%5' +%' $,09' *&' 0%6),(' 6*,0* . , .- ' ,0' , .&, . ,)%/2' -$%')%$' , .' *0)%* 8 2%/,),0')+' .' , .' *0)%*6%$,*0),),0' +$* 8 4*0,0' *&')+%' 4* .%' 7%, . 0' ,0' %06%(,''//2' 6$*. %')*' +'66%. ' ' . 5' 42')+%' 4$%'9, .-'5*3 .' *&')+%' (/*)' 0%6),(' %8 4*/,' '$%' ('$$,%5',.)*')+%' (,$(1/'),*. ' ' . 5' 5%6*0,)%5' , .')+%' /,7%$' /1 . -0' ' . 5' %/0%3+%$%' . ')+,0' W5,0%'0%')*' '&'))2' % 8 4*/,0 8' *&)%.')' 9%0' 6/' (%' WG'' (*.5,),*.' '00*(,')%5' 3,)+' '' 7%$2' '(1)%' . 5' &')'/ &*$ 8' *&' 4/**5 6*,0*. , . -' +%' 6$*; - . *0,0' ,0' -%. %$'//2' 4'5')' 8 ' 2' 4%', 8 6*00,4/%' ')' &,$0)')*' 5,0), . -1,0+' '(1)%' *0)%* 8 2%/,),0' &,$*8' '(1)%' *0)%*6%$,*0),),0' '$,0, . -' &$*8' . *.)$'1 8'),*' ('10%0' . ' 8 ,/,)'$2'+*06,)'/0' , .' 3'$'),8%' '(1)%' *0)%* 8 2%+),0' ,0' *&)%. ' %6,5%8 ,(' ' . 5' 6$*4'4/2' *&'0%6),(' *$,-, .

! +%$%')+%' 02 8 6)* 8 0' /%'5' 10')*' 0106%()' *0)%* 8 2%/,),0' '/)+*1-+')+%' 8 %51//'$2' ('7,)2' *&')+%' 4*. %' 8 ' 2' . *)' +'7%' 4%%. ' %B6*0%5',)' 3 ,// 4%' 5%0,$'4/%')*')$%6+, . %')+%' 4*. %' ' . 5' ,&' 01661$'),*. ' , ' ,)0' , .)%$,*$' 4%' 5,0(*7%$%5',)' 4%(*8 %0' . %(%00'$2')*' ' 8 61;)')%' '0' 0**. ' '0')+%' . ')1$%*&')+%' 5,0%'0%',0' $%(*- . ,0%5' ' . 5')+,0' '&&*$5 0')+%' 4%0)' (+' . (%' W*&' 0'7, . -')+%' 6')%.)<0' /,&%' +%' (+,%&' 5,&&,; (1/)2' (*. 0,0)0' , . ' '$$,7, . -' ')' ' (*$$%()' 5,' ; - . *0,0' ' . 5' 5%(,5, . -' 3+%. ' ,)' 4%(*8 %0' . %(%0; 0'$2')*' , .)%$&%$%' +,0' 8 ' 2' 4%0)' 4%' 5*. %' 42' 0*40%$7, . -')+%' -%. %$'/ 6$*-$%00' *&')+%' ('0%'H ' . 5' /*(''//2' 42')+%' , .)$*51(), *. ' *&' ' =$*4%' , .)*')+%' 8 %51//'$2' ('7,)2' 3+%. ')8 0' ,0' W%B6*0%5' +*1/5',)' $%'(+' +%' /)+2' 4/%%5, . -' 8 %51//'' . %'$')+%'01$&'(% 3%' 8 ' 2')%8 *$,0%' ,&')+%' (*. 0),)1),*. '/02 8 6)*8 0' '5 8,)' *&')+,0H 41)' ,)' ,0' $%' &*$)+%' 5,0%'0%'*. (%(*8 8 %. (%5')*' 4%' /,8,)%5 G=j +'0' ' . ' %B)$% 8 %')%. 5%. (2')*' 4%(* 8 %' 5,&&10%5' B6%$,%. (%' 0+*3 0')+')' 8 *)+, . -'0+*$)' *&' 8 61)',*. ' ')')+%' . %B)'>*, .)' *$' %7%. ' '4*7%',)' ,0' 01&&,(,%.)')*' '$$%0)')+%' (*. 0%E1%. (%0' *&')+%' 8 '/' 52H ' . 5')*' 4%' 01(; (%00&1/)+,0' 8 10)' 4%' 5*. %' 4%&*$%')+%' 020)% 8,(' 6*,0*. , . -' +'0' 4%(*8%' 8 '$9%5' 8 61)',*. ' , . ')+%' (*.),. 1,)2' *&')+%' '&&%()%5' 4*. %',0' 3*$0%' 0)+' .'10%/%00

' # " ' ' ,0' ' .' *40(1$%'+%' 610' ,0' *&)%. '&1/' . 5' -$%%. ,0+' , .' (*/*1$' '&&%(),*. ' . *)')*' 4%' 5,0), . -1,0+%5' %,)+%$' (/, . ,(''//2' *$' 6')+*/*-,('//2' &$*8' (+$*. ,(' 0(/%$*0,0' *$' , . ')+%' &*$8')*. '*&' . ' .' '40(%00' ' +$*. ,(' 0)%,),0'6' M!

@' 3 G +,0' ,0' '')%$8' 101'/2H ' '66/,%5')*' '' /,8,)%5'01661$'),*. ' , . ')+%' 4*. %' $8 '))%. 5%5' 42' . %($*0,0' *1. -' '51/)0' '$% 8 *0)' 6$*. %')*')+%' 5,0%'0%' *$' 4*20' '4*1)')+%' -%' *&' 614%$)2H ,)' ,0' 7%$2' $'$%' , . ' 3*8%. ')' ,0')+%' $%01/)' *&' '' (+$*. ,(' , . &/' 8 8 '),*. ' *&' 4*. %' 3+,(+' 8 ' 2' 4%' '00*(,')%5' 3,)+' 0*8%' , .>1$2' +,0' '&&%(),*. ' ,0' 8*0)' &$%E1%.)/2' 8 %)' 3,)+' , . ')+%' 166%$' . 5' /*3%$' %B)$%8,),%0' *&')+%'),4,' '>10)' %B)%$. '/)*')+%' %6,6+20,'/ (')$),/'-%' /%00' &$%E1%.)/2' , . ')+%' %. 50' *&')+%' &%81$' *. /2' *((' 0,*. ''//2' , . ' *)+%$' 4*. %0' . 5' 7%$2' 0%/5*8' , . ')+%' (*86'()',001%' . 23+%$%

6 7 ! '(,$(180($,4%5' 0/,-+)/2' %/%; 7')%5' 7%$2')%. 5%$' . 5' 6', . &1/ 03%//, . -' 8 '2' 4%' 5,0(*7%$%5' *. ')+%' 01$&'(%' *&')+%' 4*. %

+,0',0'51%)*' ''/*('/6%$,*0),),0' 3,)+' . %3'4*. %' 5%6*0,)' . ' */5 0)' . 5, . -' ('0%0')+%' 4*. %',0' *&)%. '+'/&' . ', . (+'*$' . ',. (+'/*. -%$')+' . ')0' &%//*3'42' $%'0*. ' *&')+%' (+$*. ,(' +26%$0%8,'' . 5' (*. 0%E1%.)', . ($%'0%'*&' (),7,)2' *&' -$*3)+')')+%' %6,6+20,0' +%' 09, . ' . 5' 016%$&,(,'/ 6')0' '$%, 8 (+' . -%5')' &,$0)' *$')+%$%' 8 '2'4%' 41)')$,&/, . -' 014(1)' . %*10' *%5%8' ' +%$%',0' *&)%. ' 0/,-+)' /*('/, . ($%'0%' *&')%8 6%$')1$%' +%' 6',. ' '--$'7')%5' *. ' 5%%6' 6$%001$%' ')+%' (%.)$='6*, .)' ,0' *&)%. ' , .)*/%$'4/%')' ,0' , .)%$8,))%.)')' &,$0)'41)' -%. %$'//2' 3*$0%' ')' . ,-+)' &)%$' '), 8%',)*' ,)8*$' 1*10' ' . 5' 5%6$,7%0')+%' 6'), %.)' *&' '/' $%0)' *3, . -')*' ,)0' 0%7%$,)2' +%' '40(%00' 8 '2' 6%$0,0)' 3,)+' /,))/%' (+' . -%' &*$' 8 *.)+0' *$' 2%' $0' +%' 0286)*8 0' -%. %$''//2' $%0%8 4/%')+*0%' *&' *0)%,),0' &$*8' 3+,(+' ')+%' *1)0%)' ,)' ,0' 5,&&,; (1/)' *' 5,0), . -1,0+',0' '&&%(),*. ' +%. ')+%' '40(%00')%. 50')*' $%' (+')+%' 6%$,*0)%' /01$&'(%')+%' 0*&)' 6'$)0' 4%(*8%' %. -' -%5' ' . 5')+%$%' 3,// 4%' 0+-+)' $%5. %00' ' . 5' *%5%8' ' *&')+%' 09, . '

$%' $'$%/2')+%' 610' 8 '9%0',)0' 3'2', .)')+%' '5>' (%.)' '$),(1/'), *. ' , . ' 3+,(+' ,)' 0%)0' 16' 5%0)$1(),7%' , . &/' 8 8 '),*. H 41)' 101''//2')+%' >*, .)0' '$%' &$%%' &$*8' , 8 6/,('),*. ' +%' 014; >%()0' *&')+%' 5,0*$5%$' +'7%' *&)%. '01&&%$%5'&$*8' ' .)%(%5%.)' 4*. %5,0%'0%' 7,5%. (%' *&')+,0' 0+*1/5' 4%' /**9%5' &*$' '0' -,7, . -' '' (/1%')*')+%' 5,' - . *0,0

G 6*.)' . %*10' (1$%' (' . . *)' *((1$' %7%. ' , &')+%' '40(%00' 5,0(+'$-%' ,)0%/&' '' 6%$8' . %.)' &,0)1/'' 3 ,// 101''//2' $%8' ,. ')' ,0' . %(%00'$2')*' /'2')+%' '40(%00 ('7,)2' &$%%/2' *6%. ' ' (8(,'/ , . (,0,*. ' 8 10)' 4%' 8 '5%')+$*1-+')+%' 0*&)' 6')$)0' 5*3 .)*')+%' 4*. %' ')+%' 8 *0)')%. 5%$' . 5' 6$*8 , . %.)' $%/,%&' &*//*3 0')+%' *6%$')*. ' &')+%' '40(%00' ,0' 8 ,00%5')+%')$%; 8' 3*1. 5' 0+*1/5' 4%' 5$%00%5' .),0%6),('//2' H -$' . 1/'),*. 0' 6$%0%.)/2' &,//,)' 3+,(+' $%' 014; 0%E1%.)/2')$' . 0&*$8%5',.)*' '' &,4$*10' (,('$,B' 8 8%5,')%' ' . 5' 6%$8' . %.)' $%/,%&' &*//*3 0')+%' *6%$'),*. ' &')+%' '40(%00',0' 8 ,00%5')+%')$%; 4,. %' 8 ' 2' 4%' $% '66/,%5' *$' 5$,// 61. ()1$%0' 8 '5%' , . ')+%' 8 *0)' /,9%/2' 5,$%(),*. 0' , . ')+%' '5>'(%.)' 4*. %', . ' *$5%$')*' 5,0(*7%$')+%' 610' *8%),8%0' ' . ' %$$*$' &' 5,'-. *0,0' ,0' (*8; 8,))%5' ' . 5')+%' 02 8 6)*8 0' '$%' &*1. 5')*' '$,0% &$*8' (+$*. ,(' *0)%,),0' 3,)+*1)' 01661$'),*. ' +%' *6%$'),*. ' . %7%$)+%/%00' '&&*$50' $%/,%&, . ')+%0%' ('0%0' /0*' +%$%')+%$%' ,0' 5*14)' '' 6$%/,8, . '$2' (*1$0%' *&' ,*5,5%' *&' 6*)'00,18' 3,// *&)%. '$%0*/7%' ,)

?' '$,%0 G '$,%0' ,0' '' &*$8' *&' (+$*. ,(' , . &/' 8 8 '),*. ' $%01/),. -' . ' *0)%*6*$*0,0' . 5' 01661$'),*. ' 3,)+' -$'51'/ 5,0, .)%-$'),*. ' *&' 4*. %' 3+,(+'+'0' 4%%. '/,9%. %5')*')+%' 6$*(%00'*&' 1/(%$')*. ' . ')+%' 0*&)',001%0' ' ,0' -%. %$''//2' &*1. 5', . ')+%' 06*. -2' 4*. %0', . ' . 2' 6')*&')+%

09%/%)*.')+%' 7%$)%4$'%' '.5')'$010' 4%,. -')+%'
6'$)0'$**0)' (*$*8*./2' '&&%()%5' +%$%'$%) 3*'
&*$80'*&')+%' 5,0%'0%' ')+%'*.%' ' '
$%0%$*4/%,. -' '.',. 5*/%.)' 1/(%$'*&')+%'0*&)'6'$)0'
,0' $**0)' (*8 8*.',. ')+%' &/')' *$' 0+*$)' 4*.%0'
41)' ,0' 0*8%, 8%0' 8%)' 3,)+' ,. ')+%' (*86'()'
),001%' *&'/*. -' 4*.%0H)+%' *)+%$' 0 3 "0'
 ' ,0'*&)%.'8%)' 3,)+' ,. ')+%' '$),(1/'9$%.50'
&')+%' /. -' 4*.%0' ' .5' 101 ''//2')%$8,. ')%0',. '
J*,.) 5,0*$-'. ,0'),*. ')' +'0' 4%%.' ('//%5'
' H '85' ,0' 6'$)' *&')+%'
5,0*$5%$' 9.*3.' '0' ' '' &*$8' *&'
)14%$(1/*10'5,0%'0%' '=)' ,0%'0%0' *X'
+%'6*. '$),*1/'$'&*$8' *&'0,86/%' ('$,%0'*&)%.'
*$,-,. ')%0' ,. ' '' /*('/,0%5' 6%$,*0),),0' '.5' ,0'
&$%E1%.)/2' 51%' %,)+%$')*' 026+,/,0' *$ 0)$18 ''
G)+%' /')))%$' ,0' 8*0)' &$%&&1%.)' ,. ' 2*1. -'6%$;
0*.0')+%'&*$8%$',. ' '51/)0
/ *%$ G=.'('$,%0')+%' 4*.%' -$'51''//2'
5,0,.)%-$')%0' '0')+%' $%01)' *&' '' (/.*.,(' ,. ;
&/'8 8'),*.' *&' ,)0' ('.(%//')%5'),001%' +%
)$'4%(1/[' 4%(*8%',.7'5%5'7$,)+' /%1(*(2)%0H'
)+%' '7%$0,' .' ('.'/0'/'(1.0%' '.5'('.'/,(1/,'
%./'$-%'&$*8')+%' 0'8%' ('10%H' .5' -$'.1/';
),*.0'&*$8'3+,(+' 6$*7%'*.' '.')%B6*0%5'01$;
&'(%')+%' 0*1$(%'*&' 61$1/%.)' 5,0(+'$-%'>10)'
,.' '' -$'.1/'),. -' 01$&'(%'*&')+%' 0*&)' 6=0'
+%'6$*(%00',0' +*3%7%$',.)%$&%$%5' 3,)+' .5'
5%/'2%5'42')+%''()'*&'-%)),. -'$,5'*&')+%'*00%*10'
0)$1()1$%' 4%)3%%.')+%')$'4%(1/'%'*&' 3+,(+'
)+%'(% 0'$%8',.'0+1)' 16'1.),f)+%'4*.%),001%
&,. ''//2'4$%'90'5*3.'' .5'(*8%0' '3'2',.')+%'
5,0(+'$-%0' 4%,. -' *&)%.' 5,0),. -1,0+%5',.')+%'
&*$8'*&' -$,))2'6'$),(/%0' .) ')+,0'6$*(%00'
,0'(*86/%)%5')+%'5%'5'4*.%',0'0*'9%5',.'610'
3+,(+' *&)%.' 4%(*8%0'61)$,5''.5'1.),f ,)',0'
-*)' $,5' *&' &' +%'/)+2' -$'.1/'),*. 01$&'(%',0'
,8 6*00,4/%' '$,%0',0'&$%E1%.)' ,.' 0($*&1/*10'
014>%()0' '.5',0')+%.' 51%')*' '' 5%6*0,)' *&'
)14%$(/%',.')+%' (' .(%//')%5'),001%' 26+,/,0'
,0'''&$%E1%.)' ('10%'*&'('$,%0')+%' 4*.%' 4%,. -'
,.&,/)$')%5' 42' -188')*10' 8')%$,'/' 1.;
-')' -'4*.%0H)+%'&)8-'),. -'-$'.1/'),*.),001%
6%$&*$')%0')+%' (')) '-%0' .5' ,.'7'5%0')+%'
02.*7,'f 8%84$'.%' +%' (' .(%//,''$%'$'6,5/2'
&,//%5'16''.5')+%' -$'.1/'),*.0'D.' $%'(+,. -'
)+%'>*,.) 01$&'(%'&*$8'&)8-'),. -'6$*>%(),*.0'
B6*0%5')*' 6$%001$%')+%'0*&)%.%5'4*.%),001%'
"M,%/50' .5' 3'0)%0' '3'2'' .' 0*8%'>*,.)0'
%06%(,''//2')+%'0+*1/5%$')+,0' 8'2')'9%'6/'(%'
3,)+*1)')+%' *((1$$%.(%' *&' 01661$'),*.G''
(*.5,),*.'9.*3.'' 0' 05$2' ('$,%0< *$%'&$%;
E1%.)/2'61$1/%.)'5,0,.)%-$'),*.' *&')+%'-$'.1;
/'),*.),001%'*((1$0'.5')+%'5,0%'0%'6$%0%.)0'
)+%'&*$8' *&' *$5,.'$2'01661$'),. -' ('$,%0' *$'
,5%%$'),*.' *&'4*.%' .' *)+%$' ('0%0')+%',.;
&/'8 8')*$2'6$*51()0'1.5%$-*'&%))2'5%-%.%$';
),*.' .5' ('0%')%' .5'6*$),*.0' &')+%'4*.%
.%($*0%G0.(%($*),(' ('$,%0<3+,(+' *((1$0',.'
(*..%B,*.' 3,)+' 4*)+' 026+,/,0' .5')14%$(/%'
+%.' $%(*7%$2')'9%0' 6/'(%')+%' -$'.1/';
),*.),001%' ,0' ,.' 6')$' '40*$4%5' .5' 6')$)2'
)$'.0&*$8%5',.)*' &,4$*10' 8')%$,'/' .5' .%3'
4*.%' ' ('$,*10' 4*.%' ,0' 0*&)' .5' 6*$*10H
)+%' ('.(%//,''$%' *$' 5%0)$*2%5')+%

06'(%0'%./'$-%5'.5'6*$),*.0'*&'.%($*0%5'4*.%'
'$%' *&)%.' &*1.5',.')+%' 8,50)G'' (*.5,),*.'
'/0*'9.*3.'' 0' .%($*),(' ('$,%0' .' 0%(),*.'
'' 6,.9' -%/'),. *10' -$'.1/'),*. 8')%$,'/ ,0'
0%%.' *&)%.'('0%'),. -')*3'$50')+%'(%.)%$%' .'
5$2'('$,%0')+%' -$'.1/'),*.),001%',0' 6,.9' .5'
-%/'),. *10')+$*1-+*1)' .' '40(%00('7,)2'
8'2'&*$8',.')+%',.)%$,*$' 3,)+' 6*$),*.0'*&'
.%($*0%5'('.(% *.0'4*.%',.',)0' 8,50)' +%'
('10%'*&')+,0'(+$*.,(',.5'8 8'),*.' *&'4*.%'
,0'101''//2')+%'5%6*0,)'*&')14%$(/%',.')+%'('.'
(%//*10'),001%' *51/%0'*&')14%$(/%''$%)*'4%'
&*1.5',.')+%'-$'.1/'),*.),001%'3+,(+'+'0',.;
7'5%5')+%'4*.%''0'3%/'0',.')+%'01$$*1.5,.-'
0*&)'6'$)0'(*.)',.,.-',.')+%,$'(%.)$%''-,.);
(%/'3,)+'4$'.(+,.-'6$*(%00%'01$$*1.5%5'42'
/2 8 6+*,5'(*$610(/%0' +%' 06,.0&,'4*.%0''$%'
8*0)'&$%E1%.)/2''&&%()%5H.%B)')+%'%B6'.5%5'
%B)$%8,),%0' *&')+%'/*.-'4*.%0',.')+%'/*3%$'
/,8 4'.5')+%'4*.%0'*&')+%' &**)H/'0)/2')+*0%'
*&')+%'166%$'%B)$%8,)2
6 7 ! '$,%0',0' 7%$2'(+$*.,(',.',)0'
6$*-$%00'.5'*&)%.'('10%0'%B)%.0,7%'5'8'-%'
)*' ,%'4*.%',.7*/7,.-')+%' 5%0)$1(),*.'*&' ''
>*,.)' *$'/*00'*&'''/,8 4')',0''/8*0)'/3'20'
'00*(,')%5'3,)+' '.',8 6',$%5'(*.5,),*.' *&'
-%.%$'/ +%'/)+' +%' '5>'(%.)'0*&)'6'$)0'$%'
,.7*/7%5',.')+%',.&/'8 8')',*.H'40(%00%0'&*$8'
,.')+%8'-%.%$'//2' *..%()%5'3,)+')+%'5,0%'0%5'
4*.%H)+%0%'41$%0'*$'1%'*&'.%'4%.%5H'.5'0,.10%0'
/,.%5'3,)+'-%/'),.,&*$8'-$'.1/'),*.0''.5'1,5,0;
(+'$-,.-'' ')+,.'610'6%$0,0'&*$'.',.5%&,.,)%'
),8%' .'%B'8,.'),*.'3,)+')+%' 6$*4%')+%'
01$&'(%'*&')+%'4*.%',0'&%/)' 4'$%'$*1-+' .5'
81(+' 0*&)%.%5H'.5' *1)0,5%')+%' $%'' *&'
('$,*10'4*.%' 6%$,*0)%'/ 5%6*0,)0' *&' .%3/2'
&*$8%5'*00%*10',001%' '$%'*&)%.'&*1.5' +%'
5,'-.*0,0'.5'6$*-.*0,0'5%6%.5' 6*.')+%''-%'
(*.0),)1),*.'/ (*.5,),*.''.5'(/,8('/ +,0)*$2'
&')+%'6'),%.)' '0' 81(+' '0'.')+%'/*('/0,-.0
G +,0'810)'4%'5,$%()%5')*'$%;
/,%7%')+%' (*.0),)1),*./)',.)''.0'3%/' '0')+%'
/*('/5,0%'0%' %$%/2')*' %B(,0%' *$' 5%0)$*2'
)+%'5,0%'0%5'6*$),*.'*&'4*.%',0' *)' /3'20'
01&&,(,%.)')*' (1$%')+%'6')%.)' *('/8%'.0'
6$*7%' %&&,(,%.)'*./2'3+%.')+%' -%.%$'/(*.5,;
),*.'+'0'4%%.'01&&,(,%.)/2' '8%+*$')%5'%06%;
(,'//2',.')+%'1.+%'/)+2'(+$*.,(',.&/'8 8'),*.'
&'4.%' &$%E1%.)/2'('//%5'0)$18*10' $%0+'
',$'-**5'&**5''.5')*.,(0''$%')+%$%&*$%'*&'
-$%')',86*$)'.(%' &'026+,/,0'4%'6$%0%.)'.'
'.),026+,/,),(')$%')8%.)' 810)'4%'61$01%5'
+%'6$,.(,6/%'42'3+,(+')+%'/*('/8%'.0'()'
,0')*' &'(,/,)')%')+%'&*$8'),*.'*&' '' +%'/)+2'
-$'.1/'),. -'01$&'(%G)*')$'.0&*$8',.'&'()'.'
,.5*/%.)',.)*' '' +%'/,. -' 1/(%$' +%'5,0,.)%-;
$'),*.' *&')+%' 5%'5' .5' 5,0%'0%5')$'4%(1/'%'
8 10)'4%''00,0)%5' *$')+,0'61$6*0%')+%' =
6/,(',*.'*&0)$*. -'01/6+1$,(''(,5'5,/1)%5'3,)+'
)3*' *$')+$%%'6')0' *&'3')%$'*$'0*8%' *)+%$
8,.%$'/ '(,5'*&)%.'6$*7%0' 10%&1/' '$),'/
-*1-,. -' *1)' *&')+%' 5,0%'0%5' 4*.%' 0%/5*8'
01((%%50'4%('10%' *&')+%' ,.>1$2'5*.%'42')+%'
,.0)$18%.)')*')+%'A=' (%.)' 4*.%'3%'9%.%5'0'
,)',0'42',.&/'8 8')*$2'(+'.-%0'' .5')+%$%&*$%'
6$*.%)*'0%)'16'&$%0+'5,0%'0%' +%' (*86/%)%

$'$%/2')'9%0'6/'(%'3,)+*1)'01661$'),*.H 3+%.'
)+,0' 5*%0'+'66%.')+%' . ')1$%' *&')+%'('0%' ,0'
7%$2'*40(1$%')'+'0'4%%.' '6)/2'('//%5'0E1%)%k
.%($*0,0' (('0,5. '//2' .%'$/2')+%' 3+*/%(
0+'&)'*&'*'/*.-'4*.%+'0'4%%.'&*1.5'.%($*0%5'
'.5' '&)%$' '.' ,.)%$7'/*&' 8*.)+0'*$' %7%.'
2%'$0'.*'01661$'),*.'8'2'+'7%')'9%.'6/'(%H
1(+'&*$8 0'*&'.%($*0,0' '$% 101''//2'(%.)$'/
'.5'/,8,)%5',.' %B)%.)' +%2 8 '2'7%$2'(/*0%/2'
0,8 1/')%' 8 '/,-.'.)'5,0%'0%'' .5'*&)%.'('..*)'
4% $%/,%7%5' *$' %7%.' $%(*-.,0%5' 0'7%' '&)%$'
'861)'),*.' '(+$*.,('*0)%,),0'&'/*'3%5' 42'
+26%$)$*6+2'.5' (/%$*0,0'*&')+%'4*.%',0')+%'
8*0)'(*8 8*.' '.)%(%5%.)'(*.5,),*.' '*&')+,0'
&*$8'*&'.%($*0,0

& ! +%' (+'.-%0' '/$%'52' 5%;
0($,4%5'3+,(+'0%6$')%')+%' 5%'5' 4*.%' &$*8'
)+%'/,7,.-'5*'.*)'('10%',)0'%B61/0,*.' &$*8'
)+%' 4*52' .')+%'(*.)$'$2')+%2'0+1)',)'16'
/,9%'''9%$.%/W3,)+,.',)0'0+%//''.5'.*)+,..-'0*'
,86%$'),7%/2'5%8'.50'01$-,('/,.)%$&%$%.(%
'0')+%'6$%0%.(%'*&'.%($*0%5'4*.%')'('()0'0'
''&*$%,-.'4*52',0''(*.0)'.)'0*1$(%k*&'$,09')*'
)+%'6'),%.)''.5'0+*1/5'4%'$%8*7%5''0'0**.'
'0'6$'(),('4/%')0'(*.),.1%5'6$%0%.(%'%B;
(,)%0')+%'6%$,*0)%18')*'&1$)+%$'&*$8'),*.'
&'4.%'0*')+')'+%'..7'-,.'),..-'0+%')+'
4%(*8%0'*&'-$%')'),(9.%00',.'/5 0)'.5,+-'
('0%0' +%'6%$,*5'')'3+,(+'.'*6%$'),*.',0'
101'//2'1.5%$)'9%.',0'3+%.')+%'0%E1%0)$18'
+'0'4%(*8%'0'*0%'.5')+%'),8%'$%E1,$%5'&*$
)+,0'61$6*0%'7'$,%0'3,)+')+%'%B)%.)'*&')+%
.%($*0,0' .')+%'(),7%/2'-$*3,.-'4*.%0'*&'
)+%'2*1.-'%06%(,'//2'3+%.')+%' %E1%0)$18'
,.7*/7%0')+%'%6,6+20,'/>1.(),*.')+%'6$*(%00'
&'0%6$').',0''((*86+0+%5'8*$%'E1,(9/2'
)+'.' .')+%' '51/)' *1-+/2'%0),8')%5''
6%$,*5'*&'&$*8')+$%%')*'0,B'8*.)+0'8,-+)'4%
.'8%5'0')+')'3,)+,.'3+,(+'/**0%$,,.-'*&')+%'
0%E1%0)$18' 101'//2' *((1$0' %2*.5')+%'
/'))%$')%$8'.'%&&*$)')*'%B)$')'()')+%'5%'5'4*.%'
0+*1/5'.*)'4%'5%/'2%5'%7%.',&',)'('.*)'4%'
&%/)')*'4%'/* 0%' 8*.-'*)+%$'$,090',.7*/7%5'
42'5%/'2'8'2'4%')+')'*&' '82/*,5'5%-%.%$';
),*.'*&')+%' 7,0(%$'' 6$,.(,6'//2')+%' /,7%$'
9,5.%20''.5'06/%%.'3+,(+' '%' 014>%()')*'
)+,0'(+'.-%' '0')+%'(*.0%E1%.(%'*&'/*.-(*.;
),.1%5'5,0(+'$-%&$*8'4*.%5,0%'0%' .'*$5%$'
)*'$%8*7%'' 0%E1%0)$18'' 5,$%()*$ 0+*1/5'
&,$0)'4%' ,.)$*51(%5')+$*1-+'' (/*'('' '0'' '
-1,5%'.5')+%'*&)'6'$)0'01&&,(%.)/2'5,7,5%5'
.'5%E1')%/2'/'$-%'*6%.,.-'8 10)'.E3'4%'
8'5%',.')+%'%.('0,.-'0+%')+'*&'.%3'4*.%'
W3,)+')+%'(+,0%/')$%6+,.%'08''//'0'3'*$
W(1)),.-&*$(%60''.5')+%'5%'5'4*.%'%B)$')(%5'
%,)+%$',.'*.%'*$0%7%$'/6,%(%0''0'8'2'4%')+%'
8*$%'(*.7%.,%.)' +%'*6%$'),*.'8'2'6$*7%'
8,&/&,(./)'*.''((*1.)'*&'-$%')')+,(9.%00'*&')+%'
&)'6'$)0'*$'&')+%'0%E1%0)$'\'%.7%/*6%'*$'
4%('10%')+%'0%E1%0)$18',)0%/&',0'%B)%.0,7%'
&)%$')+%'$%8*7'/*&')+%'5%'5'4*.%')+%('7,)2'
&,//0'3,)+'-$'.1/'),*.0'3+,(+'0140%E1%.)/2'
00,&2''.5')+%'0&)'6'$)0'(,('),0%' +%.'
)+%'/*00'*&'4*.%0140)'.(%',0'7%$2'/'$-%')+%'
$%6'$'),7%6$*(%00'+'0'4%%.'81(+'&'(,/,)'')%5'
W42)+%',86/'.)'),*.'*&'08''//6,%(%0'*&&,%0+/2

9,//%5'$'44,)<0'4*.%' ,.''//2')+%'0%E1%0)$'/
%.7%/*6%'*&'.%3'4*.%',0'6'$)/2' '40*$4%5'
6'$)/2'(*.0*/,5')%5'>10)'0')+%'$%51.5'.)'
('//10',0''&)%$'&$'*)+$%''.5')+%'4*.%)%.50'
8*$%'*$'/%00')*'$%018%',)0'.*$8'/0,C%'.5,'
0+'6%

F' *G .'%B'8,.'),*.'*&'0*8%'
('0%0'*&'(+$*.,(''+*.%5,0%'0%'8'0($*&1/*10'
014>%()0'0%%8 0')*'6$*7%')+%,$'(*.%B,*.'3,)+'
)+%'&*$8'),*.'*&')14%$(/%'.')+%'4*.%' +%'
('.(%//')%5',001%',.')+%'>*,.)%.50'*&')+%'
/*.-'+*.%0''.5' '.(%//')%5'4*.%-%.%$'//2''$%'
(+,%&/2''&&%()%5' ,/,'$2')14%$(/%0'6$%(,0%/2'
0,8,/'$')*')+*0%'&*1.5',.'*')+%$'6'$)0''$%'
&*$8%5',.')+%'0*&)'0)$1()1$%'*&')+%'8%51//''
+%0%'8'2'4%(*8%'(*.&/1%.)''.5')%.5')*'
('0%')%'*$1.5%$-*''&'))2'5%-%.%$'),*.' +%'
('0%*10'8'00'*./2'5,&&%$0'&,$N.''0,8,/'$/2'
6$*51(%5'8'00'%/0%3+%$%'42'$%'0*.'*&')+%'
.%($*0%5'4*.2'&$'8%3*$9'3+,(+'$%)',.0',)'
+%.'8'(%$')%5')+%'4*.%0+*30''$*1.5%5'
'7,)2'&$*8'3&/,(+')+%'(%.)%4*.%'0+*'0'4%%.'
5,0(+'$-%5' +%'%B)%$./%'/'66%'$'.(%0''$%'
)+*0%*&&1.-'),.-'('$,%0'H41)'8,($*0(*6,('/
%B'8,.'),*.'5,0(/*0%0'81/),)15%0'*&'$*1.5'
(%//0'/,9%'/286+(*$610(/%0'3,)+'6$*)*6/'0;
8,(' 8'))%$'&,//,.-'16'),)+%',.)%$06'(%0''.5'
%.(/*0,.-'*.%'*$')3*'-,'.)(%//0' +%'(%//0'
'$%'&*1.5'01$$*1.5,..-')+%'0*&)'-$%2'.*&/7'0;
(1/'$6')(+%0'3+,(+''$%'*&)%.'0%%.'*.'0%(),*.'
&'.',.&/'8%5'('.(%//')%5'4.%',.'0)$18*10'
,.5,(7,51/0'.5')+,0'(%.)$'f'6'$)'8'2'4%'
)+%'014>%()'*&'('/('$%*10'&')))2'*$'01661$';
),7%'(+'.-%0' +%'4*.%'3+%.'0E'08%()%5'
1.5%$-*%0'*0)%*6*$*),('(+'.-%0''.5',0'.%7%$'
0(/%$*0%5'H +%.(%')+%0%' '$%'.*)'0,8 6/2'('0%0'
&'(+$.,('.&/'88'),*.
G .'('0%0'*&')+,0'9,.5'-%.%$'/
)*.,(')$%')8%.)' 4%(*8%0' *&')+%' -$%')%0)'
,86*$)'.(%' %0)'810)' 4%' -,7%.')*')+%'
'&&%()%5' 6'$)' .'.5' %B%$(,0%')*')+%' 4*52'
-%.%$'//2'('84,.%5'W3,)+'&$%0+' ,$'4*)&/'5'2'
'.5' .,-+)' '.5' 0,86/%' .*1$,0+,.-' &**5'
+%.')+%'4*.%',0'%B)%.0,7%/2' 5,0%'0%5' ,)'
810)'%,)+%$' 4%'%B(,0%5'*$')+%' 6'$)' '861;
)')%5' +%' 6$%0%.(%')+%0(*'&')+%')14%$(1/*10'5,';
)+%0,0'5*%0'.*)'&*$4,5''.'*6%$'),*.')+%'/*('/
0*1$(%'*&',$$,)')',*.''.5' 5$',.' 16*.')+%'
020)%8'4%,..-')+10'$%8*7%5''.5''+%')/)+2'
)$'18'),('01$&'(%'0140),,1)%5'&*$'*.%',.&,/;
)$')%5' ,)+' ,.&/'88')*$2'6$*51()0' +%'
$%8*7'/*&')+%'/*('/'5,0*$5%$'*&)%.'6$*7%0''
(*8&*$)*')+%'6'),%.)H,.($%'0%0'+,0'(+'.(%'
*&' $%-',...-' +%''/)+' '.5' 0)$%.-)+H '.5'
5,8,.,0+%0')+%'/,'4,/,)2')*'5,00%8,.'),*.

L'5 ¶6'2 M +%4*.%0''$%'/,'4/%'
)*'4%')+%'0%')'*&'8*0)'*&')+%')18*1$0'&*1.5'
%/0%3+%$%',.')+%'4*52' +%'8*0)',86*$)'.)'
'.5')+%'8*0)'&$%E1%.)/2'*((1$$,.-''$%')+%'
0'$(*8')'

' $ '! M *8%&*$80''$%'
6%(1+'$')*'4*.%''0'&*$',.0)'.(%')+%'82%/*,5'
0'$(*8''0*'('//%5'&$*8')+%'8'.2'/'$-%'.1;
(/%')%5'(*$610(/%0'(*.)',.%5',.',)''.'/*-*10'
)*')+*0%'&*1.5',.'&(%)'/'8'$$*3H,)',0'*&'
%.5*0)%'/*,-.''('10,.-''.'%B6'.0,*.''*&')+%

4*.%',.'K3,1%/',)'-$*30')',0 8*0)'(*88*.',.')+%',.&%$,*$ 8'B,//'$2 4*.%'.5'.%'$')+%'%6,6+20,'/ %.50 *&')+%'/*.-' 4*.%0')',0 =-%.%$'//2'*40%$7%5',.'2*1.-'6%$0*.0 $%E1,$%0' $% 8*7'/ '.5'%B),$6'),*.','&'(*86/%)%',0'.*)' '0''$1/%'&*//*3%5'42''$%)1$.'*&')+%'5,0%'0% AD $%$,*0)%'/'*$' '0(,%1/')%5' '$; (*8' G +,0')8.*1$' 06$,.-,.-'&$*8')+%'6%$,*0)%18'*&''/*.-'4*.%'01(+''0')+%'&%81$',0'.*)',8(*88*.' +%'0+'&)'*&')+%'4*.%'8'2'4%0%%.'*.'0%(),*.'6'00,.-')+$*1-+')+%'(%.)$%'*&')+%'18*1$' ,1.%$*10'4'.50'*&'&,4$*10',001%'*&)%.'*00,&,%5'$'5,')%'&$*8')+%'6%$,*0)%18')+$*1-+')+%'-$*3)+'/,9%''.'*1); 06$%'5'&'.' +%'(%//0''$%'06,.5/% 0+'6%5'*$$*1.5',.'&*$8'*&'7'$,*10'0,C%0''.5',.'5,&&%$%.)'6$*6*$),*.0' +,0'&*$8'*&'0'$(*8''',0'8'/,-;.')' +%'4%0)'$%')8%.)',0'861'),*.'*&')+%'/,84'')')+%'>*,.)'4*7%'3+,(+'5*%0'.*)'+*3; %7%$'%.01$%'-',.0)'$%(1$$%.(%'*&')+%'5,0%'0% '$(,.*8' G +,0'5*%0' .*)'*((1$' '0''6$,8'$2'-$*3)+',.'4*.%0 A(R B*0)*0,0 G +,0',0''4*.2'*1)-$*3)5%7%/*6%5'*.''.2'6'$)'*&')+%'09%/%)*.' ')',0'5,&&,(1/)'*' 5,0),.-1,0+' ('$),/'-,.*10'&$*8'*00%*10'*1)-$*3)+0' +%')3*'0)$1()1$%0''$%*&)%.'8,B%5''.5''')18*1$'*$,-,.'//2'('$;),/'-,.*10',0'*&)%.')$'.0&*$8%5',.)*' 4*.%''$),/'-,.*10'*1)-$*3)+0'('//%5' ((+*.'5$*0%0''$%' 8%)'3,)+'*.')+%'(*0)'/'('$),;/'-%0'*&'*/5'6%$0*.0''/0*'*.')+%',.)%$7%$;)%4$'/ 5,0(0'.%'$')+%'02.(+*.5$*0%0''.5''$,0%' '/0*'&$*8')+%'$),(1/'$'($),/'-%0',.'*0)%*'$)+$,)0' $),/'-,.*10')18*1$0'-$*3;,.-'%,)+%$'&$*8')+%'6%$,*0)%18'*$)+%'8%51//''+'7%')+%,$'&'7*1$,)%'0%')'16*.')+%'6+'/'.;-%0'/ '&'*/5'6%$0*.0''/0*'*.')+%',.)%$7%$;5%&*$8,)2''.5',.(*.7%.,%.(%')+%2'6$*51(%*&)%.'5%8'.5',.)+%$'%.1(/%'),*.'*&')+%)18*1$'*$',.'%B)$%8%'%'0%0''8 61)',*.'*&')+%&,.-%$' +*.5$*8')''$,0*'$,0%'&$*8')+%'0('61/''.5')+%'0+'&)0'*&')+%/*.-'4*.%0'3+%.')+%2'*&)%.'4%(*8%8,B%5'3,)+'0'$**'8')%10',001%' +%'8*$%06%(,'/&*$80'*&%B*0)*0,0'$%'*&')3*'9,.50')+%' "0''.5')+%) - '"0'(',0'*&)%.'5%7%/*6%5'.%'$')+%')$),(1/'$ %.50'*&')+%/*.-'4*.%0'3+%$%',)'&*$80''.*51/')%5'*1)-$*3)+'*&'('.(%//')%5'4*.%'*&'7'$,'4/%0,C%'%.($10)%5'3,)+''')+,.'/'2%$'*&'('$),/'-%'42'8%'.0'*&'3+,(+',)'-$*30''.5'+'7,.-'-%.%$'//2''41$0''016%$,86*0%5' +,0'9,.5'*&'%B*0)*0,0',0'*&)%.'8%)'3,)+'.%'$''.'%6,;6+20,'/('$),/'-%''.5'(%'0%0')*'-$*3'3+%.')+%'4*.%',0'&1//2'5%7%/*6%5' +,0'&'()'0'3%//'0')+%'6$*B,8,)2'*&')+%'.%,-+4*1$,.-'>*,.)'$%.5%$0'01$-,('/,.)%$&%$%.(%'*&)%.'1.;.%(%00'$2''.5',)'8'2'4%+'C'$5*10' .*)+%$&*$8'*&'06*.-2'%B*0)*0,0'0*8%),8%0'('//%5'# '5%6%.50'*.''/*('/ %B(%00,7%6%$,*0)%'/-$*3)+'*&'4*.%')'&,$0)'+,0'*1);-$*3)+',0'6*$*10''.5'41'0/,-+)/2'(*..%()%5'3,)+')+%'4*.%'*.'3+,(+',)',0'5%7%/*6%5'&)%$3'$50',)'8'2'4%(*8%'5%.0%''.5'4'$5'&$*8',.)%$0),),('/,.)%5*

" ' 5 " %*' '% 0 M U%-'$5%5' '0' '' 01,)'4/%' 3, .)%$' $%0,5%. (%' &*$' 6'),%.)0' 01&&%$, .-' &$*8' (%$)', .' &*$80' $-' (+%0) 5,0%'0%' +%' (/,8')%' ,0' 8,/5' '.5' 0/,-+)/2'+18,5' ' $!)' $%')8%.)'$-' ,0%'0%'42

6 !*' ' M %%' 2)' ,0%'0%0'$-

' 3 ! ' G' * ' "' 26.*),08' G' $',5,08', 0')+%' .'8%' 3+,(+' '&)%$' ,)0' ,.7%.)*$' '8%0' $',5'+'0'4%%.' '66/,%5')*' '')+%$'6%1),(' 8%)+*5'5%0),.%5')*' 1) ,0%')+%' ,85*14)%5' 6*3%$0' *&' 8,.5' *7%$' 4*52' &*$)+%' (1$%' *&' 7'$,*10' 5,0%'0%0' .' %00%.(%' ,) (4.0,0)0' *&' '' 06%(,%0' *&' %0./%$,0,.')+%' 6'),%.)' 4%,.-' $%51(%5')*' '' 6'$),'/' *$ (*86/%)%')$'.%% /,9%' (*.5,),*.' 42' 4%,.-' 8'5%')*'/**9'&,B%5/2'&*$' '' &%3'0%(*.50' ')' '' 4$,-+)'*4,%(&'+%/5'42')+%' *6%$')*$' ')'0'4*1) %,-+)')*'&,&)%%.',.(+%0' '4*7%')+%'%2%0' ')'01(+' '' 5,0)'.(%' '4*7%')+%' &*$%+%'5'0' 8'2'4% .%(%00'$2')*' 6$*51(%')+%' -$%')%0)' 6*00,4/% 0)$',.'16*.')+%'%2%0' '.5'%2%/,50''.5'%.'4/%')+%'6'),%.)')*' 8',.)',.' '' 0)%'52'&,B%5'0)'$% ')')+%' *4>%()<' +%' 6'),%.)' 810)'4%' 8'5%)*'1.5%>$0)'.5')+')' +%',0')*' 9%%6'+,0'%2%0' 0)%'5,/2'&,$%5'*.')+,0'*4>%()' '.5'+,0'8,.5' $,7%)%5'16*.')+%',8'-%'*&',) &)%$'0*'0+*$)' ''),8%' '0')%.'*$' &,&)%%.' 0%(*.50' 0*8% 6'),%.)0' 8'2'4%',.)%.0%/2' '&&%()%5H' '.5',&' 0*',)'3,/H4%'&*,85'*.'-%.)/2'%/%7'),.-')+%' '$80' '.5'/%-0')+')'+%'6'),%.)'+'0' '' 5,0; 6*0,),*.')*'$%)',.')+%8',.')+%' 0,)1'),*.',.' 3+,(+')+%2' +'7%'4%%.'6/'(%5' 0 &')+,0',0' .*)')+%' ('0%<' $' $',5'3$,)%0'0'0,.'' '0*&)' *.%*&'7*,(%'5%0,$%'+,8')*' $%)',.')+%'/,840' ,.')+%'%B)%.5%5'6*0,),*.'' '.5')+10')+%' 61/0% 3,/H06%%5,/2'4%(*8%'-$%')/2''((%/%$')%5''.5' +,0'/1.40',.'6$*(%00'*&'),8%'3,/H4%(*8% E1,)%'$,-,5'' '.5' ,.7*/1.)'$,/2' &,B%5<2' 0/,-+)/2'6$*/*.-,.-')+,0'6$*(%00''(*.5,),*.' *&'6$*&*1.5'0'.%$7*10'0/%%6'<8'2'4%',.51(%5' ,.'3+,(+'*6%$')*.0'8'2'4%'6%$&*$8%5''0' %'0,/2''.5',.''0'6',./%00''8'..%$''0',&')+% 6'),%.)'+'5'4%%.'1.5%$')+%' ,.&/1%.(%' *& (+/*$*&*$8' //')+,0'+'0'4%%.''41.5')/2' 6$*7%5'42' 05''/%' '.5'*)+%$0'3+*' 6%$; &*$8%5'.18%$*10'*6%$')*.0'16*.' .5**0' 3,)+''40%.(%'*&''//'6',.'3+,/0)')+%2'3%$%',.')+%'+26.*),('0)')%' .'+,0''))%86)0')*' (1$% 8*$4,5' (*.5,),*.0'+*3%7%$' $',5' *./2' $'$%/2'6$*(%%5%5'0*' &'$' '0')*' ,.51(%' '()1'/ 1.(*.0(,*10.%00' +,/0)',.''0%8,(')'/%6),(' (*.5,),*.')+%' 6'),%.)<0''))%.),*.',0'0)$*.-/2' 5,$%()%5')*')+%' 8*$4,5'6'$)' '.5'0*8%'7%$2' 8'$7%//*10',.0)'.(%0'*&' $%/,%&' '$%' $%(*$5%5' 42'+,8'0',5')*'+'7%'4%%.'%&&%()%5'1.5%$')+% ,.&/1%.(%'*&')+,0'&'(1/)2'*./2'7,5)+*1)')+%' ',5'*&',8'-,.'),*.'0,.(%'0*8%'*&')+%'6'),%.)0' *6%$')%5'16*.'3%$%' E1,)%',.($%51/*10'0')*' .2'-+*5'4%,.-'/,9%/2')*'$%01/)' .''' $%(%.)' 3*$9'*.'0 +%' .&/1%.(%'*&')+%' ,.5'16*.')+%' *52<$' '.,%/' 19%' $%8'$90' 0 $',5,08' 6*00%00%0')+,0'-$%')''57'.)'-%')+')' 3+,/%')+%' 8'-,.'),*.' ',)+' *$ B6%()'),*.'*&')+%' 6'),%.)' 8'2'4%'4%.%&,(,; '//2''66%'/%5'*')+,0',0'.*)'%00%.),'/H)+% 8%$%' (*.(%.)$'),*.'*&')+%'))%.),*.'+'7,.-' '' $%8'$9'4/%' ,.&/1%.(%' 3+%.' 09,/&1//2' 5,$%()%5',.'%B(,),.-')+%''(),*.'*&'0*8%6'$)0' '.5' /*3%$,..-')+')'*&' *)+%' 0+*$)' 6%$,*5'*&'),8%$%E1,$%5' '/0'*' (*86'$%0' &'7*1$'4/2' 3,)+')+')' (*.018%5',.'0*8%' *)+%$'&*$80' *&'8%.)''/')+%$'6%1),(0' ' ' +%'-$%')'6$,.(,6/%'3+,(+''66%'$0')*'4%' ,.7*/7%5',.''//',0')+%' $%8'$9'4/%',.&/1%.(%' 3+,(+')+%' 8,.5'%B%$)0'16*.'' '.2'*$-'.'*$),001%')*'3+,(+')+%')%.),*.'.',0'5,$%()%5')*' +%' %B(/10,*.' *&' *)+%$' ,5%'0')+%' 8,.5' -$'51'//2'6'00,.-',.)*' '' 0)')%',.'3+,(+' ')')+%'5%0,$%' *&')+%' *6%$')*$'6*$),*.'0' .%$7*10'020)%8'('.'4%'%B'/)%5',.''' $%8'$9; '4/%' 5%-$%%' '.5' *)+%$0' 6$*6*$),*.')%/2' 5%6$%00%5H' '.5')+10')+%' 7'0(1/'$,)2',..%$; 7'),*.' '.5'&)8(),*.'*&' '.'*$-'.'*$),001%' ('.'4%$%-1/')%5' '.5'8*5,&,%5''((*$5,.-')*')+%' /*('/,)2' '.5' .')1$%' *&')+%' 5,0*$5%$<$',5,08',0' '' 8%)+*5'7%$2'5,&&,(1/)' *&' '5*6),*.',.'*$5,.'$2'6$'(),(%' '.5'3+,(+' +*3%7%$'/%-,),8')%' 8'2'4%',)0'&*1.5'),*.0' 3*1/5'1./%00')+%'-$%')%0)'('$%' '.5'7,-,/'.(% 3%$%'%B%$(,0%5'4%' '6$')*' 5,0*5(%.5'6%$,/*10/2' .%'$')*')+%'/%7%/'*&'E1'(9%$2' &'+*3%7%$' *./2''' 08'//'6')*&')+%'$%01/)0'))$,41)%5')*' $',5,08'3*1/5'&*//*3')+%'020)%8'),('5*6;),*.'*&')+,0'8%)+*5'&*$')+%' '//%7,'),*.'*&' 8'.2'5,0%'0%0',)',0'*.%'3+,(+'0*1/5'(*8; 8%.5',)0%/&')*')+%'%'$.%0)'))%.),*.'*&',. E1,$%$0'3+*'8'2'4%'4/%')*'6/'(%')+%'6$'(),(% 16*.''' 4$*'5%$'.5'&,$8%$&*1.5'),*.')+' .')'<'3+,(+',)*'$%0)0' 1)'1.&*$)1.')%/2')+%'8%)+*5'+'0'*&'/')%&'//%.'0*8%3+')',.)*' 5,0$%61)%' +,0'+'0'4%%.'51%')*')3*' ('10%0' ,$0)'4%('10%'*&')+%'&'(,/,)2'3,)+'3+,(+',)' 8'2'4%'6$'(),0%5'42'.*.8%5,('/6%$0*.0' '.5')+%'5,&&,(1/)2'*&)%.'%B6%$,%.(%5'%7%.'42' 8%5,('/8%.'.-'6%$0*.0'&$*8')+%' 0)')%')+10',.51(%5' .5'0%(*.5/2'4%('10%' %7%.'3+%.'6$'(),0%5'42'8%5,('/8%.'5,0; '-$%%'4/%(*.0%E1%.(%0''$%')*'&* *3'3,)+' 0*8%'6'),%.)0'&,)0'8'2'4%',.51(%5'*$')+% 6'),%.)<0'8*$'/.'5'%8*),*.'/(*.)$*/8'2' 4%&*$''/*.-'),8%'-$%')/2',86',$%5' .'(*.; 0%E1%.(%'*&'01(+'$%01/)0''' *7%$.8%.)'*$5%$ +'0'4%%.',001%5',.' $'.(%'&*$4,55,.-'01$; -%*.0',.')+%''$82'.5'.'72')*'+'7%'$%(*1$0%)*')+,0'8%)+*5'*&')$%')8%.)' .E1%0),*.; '4/2'+*3%7%$')+%'/'4*1$0'*&'8'.2'$%.(+ 6+20,(,'.0'+'7%'5*.%'81(+'*&'/')%'2%'$0')* $%.5%$'5%&,.,)%' .5'6$%(,0%'*1$9.*3/%5-% *&')+%'7'$,*10'6+'0%0'*&'+26.*),08'*&')+% 8*5%0',.'3+,(+')+%2'*$%',.)%$ $%/')%5''0'3%// '0'(*.(%$.,.-')+%'4%0)'8%'.0'*&',.51(,.-'*$)%$8,.'),..-')+,0'*$')+')'6'$),(1/'$'6+'0,0' $%7,7'/*&')+%'6$'(),(%+'0'$%(%.)/2')'9%.'6/'(% ,.')+,0'(*1.)$2G0*8%),8%0',.')+%'+,-+/2' *4>%(),*.'4/%&*$8'*&'614/,('%B+,4,)*.0' ! ! $ '0

!' ! ' ' ' '>& ' -' !' ' !' ' $'6' ' & 0 *& * * *(! ' 89GG

&1 . (),* . '/ *$,-,.' '0 8 1(+' '0 3+%$%' ,)' ,0 51%')*' '()1'/ *$-' .,('5,0%'0%

+%$%' 8 '2' +* 3%7%$' 4%' " ' # 7

" " ' *$' " ' ,.' (*,8 %B,* .' 3 ,)+' * .%' ('*)+%$' * &')+%' 06%(,'/ 0% . 0%0' ,.' 8 ' . 2' &1 . (;),* . '/ ' . 5' 0)$1()1$'/ 5,0% '0%0' * &')+%' 4$',. ' 3+%$%')+%' 8 *$4,5' (* . 5,),* .' ,0' 0,)1 ')'%5',. ' 6' $)0' +,-+%$' 16')+' .')+%' 6$,8 '$2' - ' . -/, ' ' *$ 3+%$%')+%$%' ,0' '' &1 . (),* . '/ %B')'),* .' * &')+%' - '. - '')+% 8 0%/7%0' +,0'/'))%$' &1 . (),* . '/ %B; '/)'),* .' 0%% 8 0' 0* 8 %),8 %0')*' 4%' &'7*1$%5' 42' 8 *$4,5' 0)'%0' * &' 0* 8 %' * &')+%' 7,0(%$' G%06%(,; ' //2' * &')+%' 0)* 8 '(+' * $' * &')+%' 1)%$10' '. 5' *7' $,%0

),//' 8 *5%$.' (/,.,('/ '0 3%/' '0 %B6%$,8 %.;)'/ %7,5%.(%' +' 0' 5* .%' 0* 8 %)+,.-')*3 '$50' $%7%'/,.-')+%' 6')+0' .5' 06%(,'/ (*$),('/)%$8,.;' (*..%()%5' 3,)+' 5,&&%$%.)' 8 *5%0' * &' 0%.0,4,/,)2' +%' %B6%$,8 %.)'/ *40%$7')',* .0' * &' %$$,%$' 6*,.)')*')+%' (*.7*/1),*.0' '4*1)')+%'),6' * &')+%')%8 6*$'/ /*4% ' 0')+%' 0%')0' +%' 0' 8 %' *40%$7%$'/*(')%0')+%' (*$),('/)%$8,.10' * &')+%' 0%.0%' * &'+%' $,.-',.')+%' 166%$')%8 6*$'/ (*.;7*/1),*.' +%' 8 *$%' $%(%.)' %B6%$,8 %.)0' * &' (+=%$' .5' .-%$ $*3.' 0%%8 '+*3%7%$')*' .%-'),7%')+,0' (*.(/10,*.''.5')*' /%'7%',)0'0,)%' /)*-%)+%$' 1.(%$)',.

.' $%-'$5')*')+%' 7,01'/ 0%.0%'4*)+'%B6%$,;8 %.)' .5' (+.,('/ *40%$7'),*.' .*3' 6*,.)')*')+%' *((,6,)'/ /*4%' A' .5' 8 *$%' %06%(,'//2')*',)0',..%$' '06%()R' '0')+%' $%-,*.' 8 *0)' (*.(%$.%5' 3,)+')+,0' %.5*3 8 %.)' 1)'+%' $%/')',*.',0' ''6%(1/,'$'*.%' B)%.0,7%'5,0%'0%' * &')+%',..%$' 6')' * &')+%' $,-+)' *((,6,)'/ /*4%' &'*$',.0)'.(%' 3*1/5'.*)'-,7%' $,0%')*' 8 *$%' *$'/%0' (*8 6/%)%' 4/,.5.%00' * &')+%' *66*0,)%' %2%' *./2 G,)' 3*1/5' 6$*51(%' $')+%$' '/%&) 0,5%5' +%8,'.*60,''

,8,/'$/2')+%' $,-+)' +'/7%0' * &')+%' 7,01'/ &,%/50' '$%' $%6$%0%.)%5',.')+%' /%&)' *((,6,)'/ /*4%' 0*')+')' 5%0)$1(),*.' * &',)' 3*1/5'-,7%' $,0%')*' $,-+);0,5%5' +%8,'.*60,'

+%' (*$),('/ (%.)$%' &*$')*1(+' '.5' (*8 8 *.' 0%.0,4,/,)2',0' .*3'0,.(%')+%' %B6%$,8 %.)0' * &' *$0/%2' '.5' (+'&%$'4%+%7%5')*' 4%')+%'+,6;6*('86'/ (*.7*/1),*.' '.5')+%' -2$10' &*8,'('),10')+')',0')+%' $%-.*.' * &')+%' 4$'.' .'8%5'42' $*('')+%' 0&'/(,&*$8' /*4%' .5%$')+%')%$8'0(*8 8 *.'0%.0,4,/,)2' &'$%',.(/15%5' 5,&;&%$%.)' 8 *5%0' * &'0%.0,4,/,)2H)+10',)' (*86$,0%0',.''55,),*.')*')*1(+')+%' '66$%(,'),*.' * &' 5,&;&%$%.(%0' * &'6$%001$%' '.5' * &')%86%$')1$%' '.5' * &' 6',.&1/,86$%00,*.0' %$$,%$' '.5' 0* 8 %*)+%$0' 3*1/5' '/0*' ,.(/15%')+%',86$%00,*.0' * &')+%' 0 8 10(1/'$' 0%.0%' 1.5%$')+,0' +%'5' * &' 0(*8 8 *.'0%.0,4,/,)2' .5'3*1/5'$%&%$')+%8')*')+%' 0' 8 %' (*$),('/)%$8,.10' +,0'+*3%7%$' '' 6*0,),*.' 3+,(+')+%' 3$,)%$' (*.)%0)0' %' 4%/,%7%0'3,)+' ,)C,-'' .5')+%$0')+')' %$$,%$<0' 0* (''//%5' 0 8 *)*$' (%.)$%0' ' '$%' ,.'$%'/,)2' 8 10;(1/'$ 0%.0%' (%.)$%0' ' .5')+')' .*' $%'/ 8 *)*$' (%.)$%0' %B,0)' ,.')+%' (%$%4$'/ (*$)%B' $ "' 6$,/' ??MR')+%$0' '-',.' /,9%' %-1,.'3,)+*1)'E1%0),*.,.-' %$$,%$<0'-%.%$'/5*()$,.%'0')*')+%' %B,0)%.(%' * &' 8 *)*$' (%.)$%0' ,.')+%' (%$%4$'/ (*$)%B'),.9')+%$%' ,0' %7,5%.(%')*

0+*3')+')' 0 8 10(1/'$' 0%.0%' <,8 6$%00,*.0' '$%' $%-,0)%$%5',.')+%' (*$)%B' '6'$)' &$*8')+*0%' * &' (*8 8 *.' 0%.0,4,/,)2' '.5')+')')+%,$' 06%(,'/)%$8,.10' W,0')*' 4%' &',8 5',.')+%' ,.&%$,*$' 6'$,%)'/ /*41/%' +,0' 014>%()')+%$%&*$%' '/;)+*1-+' 7%$2',8 6*$)'.)',0')'6$%0%.)',.''7%$2' 1.0%))/%5'(*.5,),*.' ' > .

%0,5%0' 5,8,.1),*.0' * &' 0%.0,4 ,)2' 3%' * &)%.' +'7%')*' 5*' 3,)+' 6%$7%$0,*.0' * &' 0%.0,4,/,)2 G')+')',0' 3,)+' 5,0' -$%%' 4/%' 0%.0')',*.0' * &' .1 8 4;.%00'),.-/,.-' *$' ()1'/ .%1$'/-,('6',.0',.'6' $)0' +%' 0%')' * &')3*' &*$ 8 %$' 8 '2' 4%' 3,5%/2' 5,0)$,41)%5')+*1-+' .%1$'/-,'' &$*8',.)$'($'.,'/ 5,0%'0%' ,0' 6$,.(,6''//2',8,)%5')*' 0* 8 %' 6')' * &')+%')%$$,)*$2' * &')+%' &,&)+' .%$7%

@' %$7%$)%5' 8 *),*.' '.5' 5%')',*.' +%0%' 8 '.,&%0)'),*.0' 7'$2' &$*8')+%' 8 %$%',.($%'0%5')%.5%.(2')*' %8 *),*.'/ 5,06/'20' 0%%.',.' +20)%$,('/ 6%$0*.0' *$',.' B#%$0*.0' 01&&%$,.-' &$*8' +%8,6/%-,'' '00*(,')%5' 3,)+' %8 *),*.'/ 3%'9.%00')*')+*0%' 8 *$%' (*86/%B' '4%$$'),*.0' 8%)' 3,)+',.')+%' 7'$,*10' &*$8 0' * &' 5%/,$,18'.'5',.0'.,)2'

"' %$7%$0,*.0' * &' *.0(,*10.%00 G' .5%$')+,0'+%'5'8 '24%',.(/15%5')+%'(*86'$';),7%/2'$'$%' 0)')%0' 9.*3.' '0' 0* 8.' 84,5,08' %(0)'02'(')'/%602' '.5'/%)+'$-2H' 0' 3%/' '0')+%'(*88*.'(*.5,),*.0' * &' 5$*30,.%00'0)16*$' '.5'(*8''+%' &*$8%$' 8 '2' 4%' 0',5',.''/8*0)'' //' ('0%0')*' 4%' '00*(,')%5' 3,)+' &1 . (;),*.'/ $')+%$')+'.'3,)+' 0)$1()1$'/ 5,0%'0%' * &')+%' 4$',.H')'/%'0)')+,0',0' 8 *0)'.''((*$5'.(%' 3,)+' *1$ 6$%0%.)' 9.*3/%5-%' $*30,.%00'0)16*$' '.5'(*8'' $%' +*3%7%$' '8*.-')+%'(*88*.%0)' $%01/)0' * &' *$-'.,(' 5,0%'0%' * &')+%' 4$',.' % ' ,0*$5%$0' *&R')+*1-+')+%2' $%' /0*' (*88*.'(*.5,),*.0',.' 4/**5 6*,0*.,.-G 3+%)+%$' $,0,.-'&$*8'&%7%$0' 1$'%8,''*$'/(*+*/'6*,0*.*10' 5*0%0' * &' *6,18' *$' *)+%$' .'$(*),(' *$' .'$(*),(*,$$,)'.)' 5$1-0

' %$7%$0,*.0' * &' *),/,)2 G +%0%' 8'.,&%0)')+%8 0%/7%0',.' 8'.2' &*$8 0' 3+,(+'+*3%7%$' 5,0),.()')+%2' 8 '2' 66%'$')*' 4%' ''$%' .%7%$)+%/%00'(/*0%/2',.9%5')*' %'(+'*)+%$

' 8 '2' 4%' -%.%$'/ *$' /*('/'' .5',.')+%' /')%$' ('0%')+%2' 8 '2' 4%' 8 *0)' 8 '$9%5',.')+%')*.-1%' .5' &'/ 8 10(/%0 G=6$,.(,6'//2')+*0%' '4*1')+%' (*$.%$0' * &')+%' 8 *1)+'*$')+%'*$4,(1/'$,0' 6'/6%4$'$18' %.%$'/)$%8 *$0' 8 '2' '$,0%' &$*8' 5%4,/,)2' *7%$ %B%$),*.'0.%$;7*10.%00 <*/5' '-%' *$')+%2' 8 '2' 4%' 51%')*' '/(*+*/,(' *$' 8 %$(1$,'/ 6*,0*.,.-' *$')*' 5%-%.%$'),7%$ 5,0%'0%' '4*1)'+%' 6*.0' '.5' 8 %51//' '.5')+%$'$%-,*.0' * &')+%' 4$',.' 2 # "0' 8 '2' 4%' (+'$'()%$,0),(' * &' '+,-+/2' .%$7*10' +'4,)' * &' 4*52' '.5' '$%' %0;6%(,'//2' &$%E1%.)' ,.' 0* 8 %' %6,/%6),0'(*;8)%$7'/ 4%)3%%.')+%,$' &,)0I' %,)+%$',.'0* 8 %' * &')+%' &'(,'/ 8 10(/%0' *$',.')+*0%' * &')+%' .%(9' *$' /,8 40' +%2' 8 '2' '/0*' *((1$',.' '(1)%' &%4$,/%' '&&%(),*.0',.' 3+,(+')+%' &1 . (),*.0' * &')+%' (%$%4$1 8 '$%',.7*/7%5' '0' 0+*3',42'(*;%B,0),.-'5%/,$,18' ^(' '.5' /0*',.')+%'(*1$0%' * &' 8 '.2' *$-'.,(' 5,0%'0%0' * &')+%' 4$',.' .'(+*$%'')+%' ,$$%-1/'$' 8 *7%8%.)0' * &' 5,&&%$%.)' 6')0' * &')+%' 4*52' '$%' *&)%.' * &')+,0' .')1$%H

Q)+%2' 8 '2' ' #' ' *&')+%' 4*52 ' *$ QN. /2' *. %' A+% 8 ,(+*$%'R
' *&' a' (* .),8 ,* . 0' *$' 0) *. ,(' (+'$=' '()]$' '$%' % . (* 1 .)%$%5' , .' 7 ' $,*10' 5,0%' 0%0' *& ')+%' . %$7*10' 020)% 8 ' 01(+' '0' /' $2 . -,0 8 10' Q0)$,51/10')$,0 8 10 ' +25$*6+*4,' ')%)' . 10 ' +20)%$,' ' ' . 5' 0* 8 %' &*$ 8 0' *&' +% 8 ,6/%-,'' ' . 5' 6' $' 6/%-,' ' 1(+')* . ,(' 06' 0 8 0' 6$*51(%' '' 8 10(1/' $' $,-,5,)2' 3+,(+' +' 0')*' 4%' 5,0),. I' -. ,0+%5' &$* 8' //=')' 51%')*' (+$* . ,(' (+' . -%0' , . ' >*, .)0' ' . 5')% . 5* . 0' 01(+' '0' (' ' 6)')*' *((1$' 8 '/, 8 40' /* . -' 6' $' /20%5
" ' ' *$' ") " ' 8 '2' 4% %,)+%$' 1 . ,/')%$' /' *$' -%. %$' /' ' . 5' 8 '2' 4%' , . ; 51(%5' 42')+%' 8 *0)' 7' $,%5' ('10%0' +%. ' 3%// 8 '$9%5')+%2' '$%' 8 *0)/2' '))% . 5%5' 42' /*00' *&' (* . 0(,*10 . %00' '0' , . ' %6,/%602' ' . 5')+%' 8 '>*$,)2' *&' %6,/%6),&*$ 8' '))' (90' +%2' '$%' *&)%. ' . 8 ,)%5' , . ')+%,$' 5,0)$,41),*. ' $')+%$')+' . ' -%. %$' /' 3+%)+%$')+%' (* . 71/0,* . 0' 4%' *& ') 8 ,/')%$' /' *$' 4,/')%$' /')26%
" ' ' $ 8 *7% 8 %.)0' *&' '')$1--/, . -')26%' '$%' 8 %)' 3,)+', . ' 8 ' . 2' %6,/%6;),&*$ 8' ' . 5' +20)%$,('/' 6' $*B20 8 0' 6' 0 8 0' W*&)+,0')26%' 8 '2' 4%' '/0*' /, 8 ,)%5')*' 6' $),(1/' $ -$*160' *&' 8 10(/%0' '0' , . ' %)+%' (* . >1- ')%5' 5%; 7, '),*. ' *&')+%' %2%0' . 5' . %(9' *((1$$, . -', . ' +% 8 ,6/%-, ' ', . ' 3,3 . %(9', . ' 3$,)%$0' ($' 86' Q' . 5' *)+%$' =, % 5' '&&%(),*. 0
6 ' 8 '2' 4%' /*('/' ' . 5' /, 8 ,)%5', . ' 0%')')*' 0* 8 %' *&')+%' *(1/' $' 8 10(/%0')+%' 8 10; (/%0' *&' 8 '0),(',*. ')+%' &' (,'/' 8 10('/%0')+%' 8 10; Q*&)+%)* . -1%' *$')*' 6' $)0' 0166/,%5' 42')+%' 06,. '/' '((%00*$2' . 5' 6 . %. 8 *-' 08 (' . %$7%0', . ')+*0%' Q('0%0', . ' 3+,(+')+%$%', 0' 8 %$%/2' ' . ', 86/,(',*. ' *&')+%' ,.)$' ($' . ,'/' 6*$),*. ' *&' *. %' *$' 8 *$%' *&')+%' 8 *)*$ ($' . ,'/' . %$7%0' '4*1)')+%' 4' 0%' *&')+%' 4$', . ' . ' *)+%$' ('0%0',)' 8 '2')' 9%' . ' . (* 86/%)%' *$' '' (* 86/%)%' # 0 ')26%' 3+%. ')+%' /%0,* . 0' '$%' /, 8 ,)%5')*' *. %' + '/&' *&')+%' 4$' , . ' . 5', . 7*/7%' 5,$%()/2' *$' , . 5,$%()/2' (%$)', . ' $%-, * . 0')+%$%*&' %-, . . , . -' ')')+% 01$&' (%')+%0%' $%-, *. 0' , . (/15%')+%' 0* (' %5' %B(,)* 8 *)*$' $' %' ' (* 86$,0, . -')+%' (* . 7*/1;),*. 0' 4*$5%$, . -')+%' &,001$%' *&' */' . 5*' ' . 5')+%' (* .),-1*10', ,8 %$' 01$&' (%' *&')+%' +% 8 ,; 06+%$%' &$* 8' 3+,(+' ' &%. /,9%' 5,0)$,41),*. ' *&' 3+,)%' &,4$%0' (* . 7%$-%0')*' 3+')' ,0' 9. *3 . ' '0')+%' 0, .)%$. ' /' ('601/% 3+%. (%')+%0%' %&&%$%.)' &,4$%0' '$%' (* .), . 1%5')+$*1-+')+%' 6%51. (/%' . 5' 6* . 0')*')+%' 41/4' %0,* . 0' ')')+%' 6' $)' *&')+%' 01$&' (%' 8 %.),* . %5' *$' 5,$%()/2' *$' , . 5,$%()/2' , . 7*/7, . -' ' . 2' 6' $)' *&')+%')$' ()' *&' &,4$%0' ,001, . -')+%$%&$* 8' -,7%' $,0%')*' @' 8 *$%' *$' /%00' (* 86/%)%' +% 8 ,6/%-,(' &*$ 8' *&' 6' $' /20,0' +%)+%$')+%0%' 6*$),4. 0' *&')+%' (*$)%B' (' //%5', .)*' ' (),7,)2', . ')+%' %B(1),*. ' *&' 8 *7% 8 %.)0' ' . 5')+')' &$* 8')+% 8 ' ,001%')+%' &,4$%0' 3+,(+' (* . 7%2' 8 *)*$', . (,)'), * . 0')*' (%.)$%0')+$*1-+*1)')+%' 41/4' ' . 5' ,06, . '/' (*$5' + ' ' . ' *)+%$ ('0%0' 3+%$%' ' '/' $-%' /%0,* . ' %B,0)0', . ')+%' 6* . 0' ' $ /,, ' *$' 3+%$%')+%' &1. (),* . 0' *&' 4*)+' (%$%; 4$'/' +% 8 ,=+%$%0' *$')+%,$' 6%51. (/%0' ' $%' -$' 7%/2', .)%$&%$%5' 3,)+')+%' 6' $' /20,0K 8 '2' 4%' -%. %$' /', . 7*/7, . -' 4*)+' 0,5%0' *&')+%' 4*52' . ' 0* 8 %' *&')+%0%' %' 0%0' ' . 5' %=0, ' //2' 3,)+' $,-+); 0,5%5' 6' $' /20,0' 7' $,*10' 5,&&,(1/),%0' %B,0)', . ' -,7, . -' %B6$%00,*. ')*')+*1-+)0' 42' 8 %' . 0' *& 06%%(+' 3$,), . -' 7$ J' %&,(,%.)' (),*. ' *&')+%' 3,/' A, . 51(%5' 42' /*3%$%5' (),7,)2', . ' *. %' *$' *)+%$' *&')+% (*$),(05' 0%. 0* $2' (%.)$%0')+*1-+' 3,)+*1)' *47,*10' 0)$1(0)1$' (+' . -%R' 8 '2' (' 10%' '')%8 6*$' $2' 6' $' /20,0', . ' +20)%$,'' ' . 5' ' //,%5' 0)')%0
C) " "' *&' 8 10(1/' $' ()0' ,0' 8 %)' 3,)+' '0' , . ' 0)' 8 8 %$, . -' . 5', . ' 0* 8 %' +% 8 ,6/%-,(' 5%&%()0' *&' 06%%(+!' /0*' , . ')+%' 4*52' -%. %$' //2' , . ' 0* 8 %' ('0%0' *&' (%$%4%//' $ 5,0%' 0%' 6$*51(, . -' ' 6%(1/,' $' N85' 1. 0)%' 52' -',)' A),)14'), *. R' (/*0%/2' $%0% 8 4/, . -')+')' 3+,(+' 8 '2' 4%' 8 %)' 3,)+' , . ')5(*+*/,%' , .)*B, ('), *. ' , 8 ,/' $' 8 *)*$' 5,0)1$4' . (%0' 8 '2' 4%' , . 51(%5' 42' 7%$), -*' *&' 3%// 8 '$9%5' 5%-$%%' *8,), . -' '-', . ' ,0' '' $%&/%B' 8 *)*$' '()' 51%')*' , 8 6' , $%5' (* *$5, . '), *. ' 3+,(+' *((1$0' , . ' 8 ' . 2' &*$ 8 0' *&' 4$', . 5,0%' 0%' *$' %' $' %/2')+%' 06+, . ()%$' 7%0,('0' 4%(* 8 %' $%; /' B%5' *$')+%' 4/' 55%$' 8 '2' 4%' 6' $' /20%5' 1)' , . (*.), . %. (%' *&' &%%%%0' *$' *&' 1$, . %' *$', . ' 4, /,)2')*' 7*, 5')+%' 1$, . %' ,0' (* 86' $'), 7%/2' $' $%/2' 8 %)' 3,)+' '0' ' $%01/)' *&' 4$', . 5,0%' 0%' 8(%6)' , . ')+%' (8 ')*0%' 0)')%' , . ' 6'), %.)0' 34*' '$%' 8 *$%' *$' /%00' 5% 8 %.)%5' *$', . ')+*0%' , . ' 3+*8' /%0,* . 0' %B,0)', . '4*)+' +% 8 ,06+%$%0' *&')+%' . ', .
T' 5 # ' 0 ' & , M' ,)+'/%0,* . 0', . ')+%' 0 8 *)*$')$' ()<' *&')+%' 4$' 8 ' , . ' *$' 4%/*3')+%' */' . 5,%' '$%' ' ''4' . 5' *&' 5%; -%. %$'), *. ' *((16,%0' ''6' $)' *&')+%', .)%$. '/' (' 6 ' 0),/%' (8 0' (%$%4$,' 6*. 0' ' . 5' 8 %51//' '*. ')+%' 0' 8 %' 0,5%' ' . 5' A4%/*3')+%' 5%(100'), *. ' *&')+%' 62$' 8,50R')+%' *66*0,)%' /')%$' /(*/18 . ' *&')+%' 06, . '/(*$5' +,0' *. %' *&')+%' 8 *0)', 8 6*$;)' .)' *&')+%')$*6+,(' (+' . -%0' *((' 0,*. %5' 42' 4$', . 5,0%' 0%' 4%*' . 0%')+%' 5%-%. %$'), *. ' , . ')+%' /')%$' /(*/18 . ' *&')+%' (*$5', 0' 6)')*' 06$%' 5')*')+%' (* .),-1*10' -$%2' 8 ')%$' . ' 5')+10' -,7%' $,0%')*' 0* 8 %' 0%(* . 5' $2')$*6+,(' (+' . -%0' . *)' , . &,$%E1%.)/2' 8 %)' 3,)+', . ' 6' $' /20%5' /, 8 40
$*>&&,,%*+' . -%0, . ' *)+%$' *$-' . 0' A*((' 0,*. %5' 42' 0* 8 %' 0%7%$%' /%0,* . 0', . ')+%' 4$', . R' 66%8' ' 0' /*3', . &/' 8 8 '), *. 0' 65' (*. -%0), *. 0 =&*$' %B; ' 8 6/%' *&')+%' /1 . -0' *$' 0' +' %8*$$+' -%0', .)*')+%0%' *$-' . 0H '/0*' 0' +' %8*$$+' -%0' 4%. %')+')+%' 6/%1$' '*$' %. 5*('$5,18 ' *$' %7%. ', .)*')+%' 0140)' . (%' *&')+%' 016$' $%. '/' ('601/%0' *$' 9,5 . %20
-', . ' 3%' 8 '2' +' 7%' '(1)%' 0/*1-+, . ' *&')+%', .)%-18%.)', . ')+%' -/1)%' /' $%-, *. ' *. ')+%' 6' $' /20%5' 0,5%' 5$*602' *&' 6' $' /20%5' /, 840', . ' &, ' . 1. '), *. 0' *&' >*, .)0' ' . 5' *&')+%' 8 ', . ' . %$7%0' *&' 6' $' /20%5' /, 840' ' . 5')+*1-+' 8 *$%' $' %/2' 8 '$9%5' ')$*6+2' *&' 6' $' /20%5' 8 05)%0' %')' $5'), *. ' *$' ', $%0)' *&' -$*3)+', 0' '/06' 6)')*' *((1$', . '6' $' /20%5' /, 840' 3+%. ' 3%'+' 7%')*' 5*' 3,)+', . &' .)0' *)' 2*1 . -'(+, /5$%. ' 01&&%$, . -' &, $*8' 0%7%$%' *$-' . ,(' 4$', . 5,0%' 0%

6$%(%5%0' '.5' ''))%.50')+%' &*$8 '),*.' *&' '.'
,.)$' (%$%4$'/' '40(%00' '.5' ,.')+%0%' ('0%0'
)+%'02836)*80'3,//'4%'8,B%5' .'5%'/,.-'3,)+'
614/,0+%5' (0%0' ,)' ,0' '/0*' .%(%00'$2')*'4%'*.'
*1$'-1'$5' '0')*' (%$)',.' %$$*$0'3+,(+' +'7%'
($%6)' ,.G('0%0'*&'8%.,.-%'/' '40(%00'4%,.-'
06*9%.' *&' '0' 4$',. '40(%00' ,$' $%0(*))'
%3%)' +'0'%B6$%00%5' +,0'*6,..*.')+')')+%'
(%/%4$')%5'('0%'*&'5%'/'' %2$*.,%0'3'0''.'
%B'86/%'*./2'*&'%B)$'(%$%4$'/' '40(%00')'
,0'*40'/1)%/2'.%(%00'$2')*' 8'9%')+%0%' $%;
0)$,(),*.0',&'3%'3*1/5'>15-%'(*$$%()/2'0')*'
)+%'0286)*80'3+,(+'')))%.5'/*('/'(*//%(),*.0'
*&'8')))%',.')+%'4$',.'.5')+%'101'/')%$8,.';
),*.0'*&'01(+'('0%0
+%'(*.)%.)0'*&''(%$%4$'/'40(%00'101''//2'
(*.0,0)')*'0*8%'%B)%.)'*&'4$*9%.16'(%$%4$'/
),001%''.5',.'0*8%'('0%0')+%$%''$%'41)'7%$2'
&%3'610(%//0' 06%(,''//2',0',0')+,0'/,9%/2')*'
((1$'3+%.')+%'0('//%5''40(%00'&*//*30'*.'
/,-')1$%'*&')+%'('$*),5'*$'*((/10,*.'*&''(%$%;
4$'/')$)%$2' .')+%0%'('0%0',)',0',.')+%'&,$0)'
,.0)'.(%''')'/%'0)'+%'$%01/)'*&''6$*(%00'*&
0*&)%.,.-'$')+%$')+'.'*&')$1%'01661$'),*.

!(! G +%'02836)*80'*&'/*('/'016;
61$'),*.' ,.')+%'4$',.'3,//'7'$2'3,)+')+%'
0)'-%')+%'0,C%'*&')+%'(*//%(),*.' ,')0'6$%(,0%'
0,)1'),*.''.5''4*7%''//'3,)+')+%'6$%0%.(%'
$)+%$3,0%'*&''&,0)1/''*&'$%/,%&' .'8'.2'
*&')+%'%'0%0'3+,(+'(*8%1.5%$'01$-,('/'('$%'
'&,0)1/''%B,0)0'&,*8''7%$2'%'$/2'6%$,*5'
)+*1-+'.*)',.&,$%E1%.)/2',)',0'/,'4/%')*'*('(/1;
0,*.' .5%$')+%')'))%$'(*.5,),*.0')+%'0286;
)*80'*&''(/*0%5''.5''.'*6%.'(%$%4$'/'40(%00'
8'2'4%*'/)%$.')%/2'0)15,%5',.')+%'0'8%'('0%'
)'3,'101''//2'4%*40%$7%5')+')'3+%.')+%'
%B,)',0'(/*0%5''.5')+%'40(%00'&,//0')+%'6'),%.)'
(*86/',.0'8*$%'*$/%0'*&'+%'5'(+%'4%(*80'
+%'72'.'5'5$*302''.5'%B6%$,%.(%0')3,)(+,.-0'
*$06'080',.')+%*66*0,)%'0,5%*&')+%'&'(%''.5'
/,840'3,)+'0*8%)%.5%.(2')*'+%8,6/%-,''
&')+,0'-$*16')+%').5%.(2')*'06'080',0'6$*;
4'4/2'42'&'$')+%'8*0)'0,-.,&,('.)' +%'+%'5;
'(+%'8'2'4%'41)')$,&/,.-''.5')+%'6'),%.)'
8'2'%7%.'4%'3%//'%.*1-+')*'/%'7%'+,0'4%5'
3+%.')+%'((1$%.(%'*&'06'08'&*//*3%5'42'
6'$%0,0''/*.%'-,7%0'3'$.,.-'*&'3+')',0'-*,.-'
*.' %86%$')1$%0''$%',.'01(+'('0%0'7%$2'
8,0/%'5,.-' %$0,0)%.)'%/%7'),*.',0''02836;
)*8')*'4%'')%.5%5')*'41)',)0''40%.(%',0'.*'
0'&%'-$*1.5'&*$'.%-'),7%'(*.(/10,*.0' +%'
('0%0'.*3''//15%5')*'$%'(+,%&/2')+*0%',.'
3+,(+'40(%00'$%01/)0'&$*8'(*86*1.5'
&$')(1$%'*&')+%'091//'3,)+'/'(%$'),*.'*&')+%'
4$',.0140)'.(%' .')+%0%')+%''40(%00'*&)%.'
-,7%0'3'2'06*.)'.%*10/2''.5''&,0)1/''&*$80'
'$*1.5')+%'*$,&,(%'*&'3+,(+''8'00'*&'6*1),.-'
+$',. -$'.1/'),*.0'9.*3.' "0 ' # '
101''//2'&*$80' .')+%0%'('0%0')+%'('.'/'*&'
(*881.,(')',*.'8'2'4%'7%$2')*$)1*10''.5'
)+%'/,'4,/,)2')*'4/*(9,.-'(*.0,5%$'4/%' *3'
'.5')+%.')+%'0'8%'$%01/)'8'2'4%'8%)'3,)+'
'&)%$'026+,/,),(' 5,0%'0%'*&')+%'091//'.5'
8%.,.-%0' +%'3$,)%$'+'5'0*8%'2%'$0'.'-*'
''8'.'1.5%$'+,0'('$%'.'3+*8'+%'++5*6%.%5'
''(%$%4$'/'40(%00'4%.%')+'''+*/%'.,'*.%

6'$,%)'/'4*.%' +%'6'),%.)'3'0'4/%')*'3'/9'
'4*1)'.'5''.,/%5'41)'/,))/%'0*'/*.-'0')+%'
&,0)1/''3'0'&,$%%/2'*6%.H 41)'06'080'*&')+%'
&'(%'*$%7%.'(*.71/0,*.0'*&')+%'/,840'A*.'
)+%'*66*0,)%'0,5%R'/3'20'&*//*3%5',)0'*((/1;
0,*.' +%'0*&)%.,.-'-$'51'//2'%B)%.5%5''.5'
+%')'/%.-)+'5,%5',.'(*.0%E1%.(%'6%$+'60'
*&')+%',86*00,4,/,)2'*&'8'9,.-''(*1.)%$;
6%.,.-',''5%6%.5,.-0,)1'),.' ./%00'
)+%'40(%00'4%',.')+%'.)%$,*$'/*4%')+%$%'
3,//'/8*0)',.7'$,'4/2'4%'6$%0%.)'0*8%'5%-$%%'
&'+%8,6/%-,''41)')+,0'3,'&'(*1$0%'7'$2'
3,)+')+%'0,C%'*&')+%'(*//%(),*.''.5')+%'%B)%.)'
&'5%0)$1(),.'*&',001%' +%'&*$8'),*.'*&'
'.'40(%00''&)%$',.>1$2',0'0*8%),8%0'7%$2'
,.0,5,*10')+%'0286)*80'4%,.-'7%$2'0/,-+)'
+%'(%0',.'3+,(+'7,*/%.)'+%'5'(+%'.'5'
6',))'7*8,),.-'5%/,$,18''.5'5$2')*.-1%'
)'%'0',5')*'+'7%'+%%.'6$%0%.)',.')+%'%'$/2'
0)'-%0''$%',)'8'2'4%'0106%()%5'101''//2',.;
0)'.(%0'*&'01661$'),*.'4%)3%%.')+%'4*.%''.5'
51$''8')%$' +%0%0286)*80'*((1$%06%(,''//2'
3+%.'4$',. '40(%00'&*//*30'5,0%'0%'*&')+%'
,.)%$.'/'%'$''.5',.')+%0%')+%$%'.%'$/2''/3'20'
,0')+%'*86/,(',)*.'*&',.&/'88'),*.''$*1.5'
)+%'6%)$*10'4*.%' 1(+'02836)*80''$%'7%$2'
$'$%/2'6$%0%.)',.')$'18'),('(0%0%0'3+,(+'
*&)%.'5%7%/*6'7%$2'E1,%)/2'1.),/')+%2'')',.'
''(*.0,5%$'4/%'0,C%')',0'6$*4'4/%')+')'
0*8%'5%-$%%'*&'$,-*$'')%.5%5'3,)+'$,0%'*&'
)%86%$')1$%'101''//2'*((1$0',.')+%'4%-,...-'
&(%$%4$'/'40(%00'41)'.*'7%$2'6$%(,0%'5')''
'$%'%B)'.)'*.')+%0%'6*,.)0
&''/'$-%'40(%00'4%'6%$8,))%5')*'5%7%/*6'
3,)+*1)'$%/,%&')+%'02836)*80'*&'(*86$%00,*.'
3,//',.'),8%'%.01%'&,$0)'06'08'')+%.'+%8,;
6%-,''')+%.'+%4%)15%'.5'(*8''6$%(%5%5'
6*00,4/2'42'7,*/%.)'(*.71/0,*.0' +%$%'$%
('0%0'+*3%7%$'.'3+,(+')+%')%.5%.(2')*',.;
($%'0%(%'0%0''.5')+%'40(%00'8'2'6'00',.)*'
'E1,%0(%.)'0)')%'.5'$%8',.'&*$',.5%&,.,)%'
6%.50'3,)+*1)'02836)*80
0 G +%'5,'-.*0,0'4%)3%%.'(%$%;
4$'/'40(%00'.5'8%.,.-%'/'40(%00',0'%B(%%5;
,.-/2'5,&&,(1/)''.5'*&)%.''-1%00',0''//')+')'
('.'4%'8'5%' +%''/8*0)',.7'$,'4/%'<((1$;
$%.(%'&'06'08'*$'(*.71/0,*.0',.')+%'&*$8%$'
'.5')+%,$'&,$%E1%.)''40%.(%'3,)+')+%'-$%')%$'
5%-$%%'*&'6','.''.5'+%'5'(+%',.')+%//'))%$''$%
)+%'8*0)'$%+'4/%'0,-.0' *8%),8%0G'0'&*$
',0)'.(%'3+%.')$%6+,.,.-'+'0'4%%.'6$'(0,0%5'
''.5'.*',./'88')*$2'6$*51()0''$%'&*1.5'4%;
)3%%.')+%'4*.%''.5'51$''8')%$'*$1.5%$')+%'
//'))%$G)+%'5,'-.*0,0'8'2'4%'+%/6%5'42')+,0'
.%-')7%'9.*3/%5-%'.'01(+'(0%0',&'+%8,;
6%-,''H'6$%(%5%5'42'06'08'+'7%'4%%.'-$';
51''//2'5%7%/*6%5')+%'01$-%*.'3,//'4%'3%//'
>10),&,%5',.'8'9,.-''.',.(,0,*.'*$'61.(0)1$%'
8)*')+%'+%8,06+%$%' 6),(' .%1$,),0'8'2'
%E1''//2'4%'6$%0%.)',.'4*)+''.5',)0'6$%0%.(%'
*$'40%.(%'35//'0('$(%/2'+%/6')+%'5,'-.*0,0
4 G .''55,),*.')*')+%'5'.-%$'*&'
5%')+'42'(*86$%00,*.')+%$%',0')+%'$,09')+')'
)+%'(%00'8'2'4$%'9'',.)*')+%'7%.)$,(/%0'
'*$',.)*')+%'014'$'(+.*,5'06'(%' *8%'('0%0'
'$%'*.'$%(*$5',.'3+,(+'06*.)'.%*10'*6%.,.-0

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$' U15*/6+' $.5)' + '0'/')%/2')+$*3.'5*14)' W*.')+%' 6*00,4,+)2' *&'5%)%$8,.,.-' ')$*6+2' *&')+%'-'.-+*.,(' 4*5,%0' *$'.%$7%)14%0' 42')+%,$' 0,C%' +%' 0,C%' *&')+%0%' 4*5,%0' 7'$,%0' 0*' -$%')/2'3,)+,.')+%'/,8,)0' *&'+%'/)+')+')' +%' (*.0,5%$0')+,0')%0)' ' 7%$2',8(%$)',.' *.%' /8*0)' +%' *./2')$10)3*$)+2'0,-.' *&')$*6+2' .,' ' *6,.,*.',0')+%' '66%'$'.(%',.')+%' 014; 0)'.(%' *&')+%' -'.-/,*.,(' 4*5,%0' '.5',.')+%' 8%51//'$2'0+%')+' *&'.%$7% 41.5/%0' *&'4/'(9' 0+,.,.-' -/*41/%0' 0*8%3+')' &'))2/**9,.-' .'6$*(%00'*&),8%')+%0%'-/*41/%0',.($%'0%',.' .184%$'3+*/%' *&')+%' 4*5,%0' '66%'$' 6%$8%')%5'42')+%8' +%0%'-/*41/%0' '$%'.*)' &'))2')+%2''$%'(%$)',./2'8*$%'*$'/%00' 6,-8%.)'/' B'()/2'0,8,/'$'4*5,%0''$%'&*8,5' ,.'6*0)8*$)%8'%B'8,.'),*.0'.5''$%''0,-.' 0*&0,86/%'5%(*86*0,),*.' +%'51$'),*.'*&'),0' (*.5,),*.',$$%06%(),7%'*&'6$%%B,0),.-'/%0,*.0' ,0'6$*)$'(0)%5

!(! G +%'0286)*80'*&')$*6+2'*&')+%'4$',.'.%(%00'$,/2'7'$2''((*$5,.-')*')+%' 0%')'%B)%.)'.5''%),*/*-2'*&')+%'/%0,*.' $,8'$2')$*6+2'*&')+%'(%$%4$'/+%8,06+%$%0' '.5')+%'&,$0)'&*$8'*&'0%(*.5'$2')$*6+2'3,' 8*0)'101'//2',.51(%',84%(,/,)2'*$'0*8%'/%00%$' 5%-$%%'*&'8%.)'/,.01&/F(,%.(2/*00'*&'8%8*$2' 0/*3.%00'*&')+%'1-+)'.5'*)+%$'8%.)'/%0,*.' ')+%'8.)+%2%'5*'.*)'5%6%.5'*.'-%.%$'/')$*6+2'*&')+%' 4$',.ĥ)+%2'*3.'''8*$%/*('/'(10%

.71/0,.0'6'$'/20,0'0),&&.%00'*&'8 10(/%0' *$'(*.)$'(),*.0''$%'*&)%.'8%)'3,)+','.'(*.; .%B,*.'3,)+')+,0'-%.%$'/'/%0,*.''0'3%/'0' 7'$,*10',$$%-1/'$,),%0'*&'/*(*8*),*.ĥ41)',)' 8 10)'4%'$%8%84%$5')+')'-%.%$'/')$*6+2'*&' 5+%'4$',.',0'.*)'0%/5*8'00*(,')%5'3,)+''')$*; 6+,('*$'0(/%$*),('/%0,*.0'*&')+%'06,.'/'(*$5' '.5'%7%.'3+%$%')+,0',0'.*)'0*'0%7%$'/'*&')+%' 8*$4,5'6+%.*8%.''.5'6'$),(1/'$/2'(*.71/; 0,*.0''.5'6'$'/20,0'8'2'5%$,7%')+%,$'*$,-,.' .*)'&$*8')+%')$*6+2'+1)'&,*8')+%'(*.5,),*.' 6$%%B,0)%.)')*')+%')$*6+2'01(+'0'+0%8*$' $+'-%'*&')+%'(*.7%B,)2'8%.,.-,),0'*$'6%$,; %.(%6+'/,),0

.'0%(*.5'$2')$*6+2'*&''8*$%'/,8,)%5' %B)'.)')+%'0286)*80'$%'6)')*'4%8*$%' 0)$,(/)2'/*('/,0%5'01(+'0'6')$),'/'/*00'*&' 6*3%$',.''0,-/%'/,84'0/,-+)',86%$&%(;),*.0'*&'06%%(+'*$'0)$'4,0810ĥ41)'+%$%' '-',.')+%'6*0,),7%'5,'-.*0,0'*&')$*6+2',0' +,.5%$%5'42')+%'(*86/,(',),*.'*&'6$%%B,0)%.)' ₩5,0%'0%')+%'/*('/'(*.-%0),*.0'+'8*$$+'-%0' 0*&)%.,.-0')18*1$0'*$'*)+%$'(*.5,),*.0'*&' 3+,(+')+%''))$*6+2',0'*./2')+%'0%E1%.(%),//'/%00'(+'$'()%$,0),(''$%')+%'6+%.*8%.''' '))%.5,.-'-%.%$'/'*$'6'$),'/')*$*6+2'*&')+%'(%$%4%//18')+%'6*.0''.5')+%'8%51//'' *4/*.-')'

! " $%')8%.)',0'10%/%00' ')*')+%')$*6+2'*&')+%'4$',.',')'8 10)'4%'5,$%()%5')*'0166*$),.-')+%'6*3%$0'*&')+%'6'),%.) ĸ ' 4 ,

%3 %ǂ*' & ' ' &
18*1$0'*&

U ' *86$%00,*.'*& G +%'4$',.',0'(*86$%00%5',.')+%'6')+*/*-,('/0%.0%'3+%.; %7%$',)0'0)$1()1$%',0'0*' 0E1%%C%5')+')' ,)0'&1.(),*.0'$%',.''.2'5%-$%%',.)%$&%$%5'3,)+' +,0'0E1%%C,.-'8'2'4%*%&&()%5'%,)+%$'42')+%' %&&10,*.'*&'4/**5'3,)+,.')+%'091//')+%'-$*3)+' *&''')18*8$')+%''((181/'),*.'*&'610'*$' 0%$18'*$'/'0)/2'42')+%'5%6$%00,*.'*&'0*8%' /'$-%'6*$),*.'*&')+%'4*.2'6'$,%)%0'+%'-%.%$'/'4%/,%&')+')'5%6$%00%5'&$'()1$%0'$%' &)%E1%.)/2')+%'('10%'*&'(*86$%00,*.',0'6$*4'; 4/2'E1,)%''8,0)'9%'.'0(+'('0%0')+%'&,'-'8%.)'5,06/'(%5',0'$'$%/2'*&'01&&,(,%.)'0,C%')*' ('10%'0%$,*10'(*86$%00,*.'*&')+%'(*.)%.)0'*&')+%'091''.5')+%'0286)*80'101'//2'0166*0%5')*',.5,(')%')+')'0)')%''$%$%'//2'51%',.'8*0)' ('0%0')*'/'(%$'),*.''.5'(*.)10,*.''*$')*' 14; 0%E1%.)',.&/'88'),*.'+,0'6*,.)',0'*&'-$%')' ,86*$)'.(%',.'6$'(),(%'&*$'16*.',)0'$%(*-; .,),*.'5%6%.50'81(+'*&')+%'7'/,5,)2'*&')+%' $%'0*.,.-'42'3+,(+')+%'*6%$'),*.'*&'6$,8'$2')$%6+,..-',.'(*86*1.5'&$'()1$%0',0'5%&%.5%5' *$'(*.5%8.%5')'/04'*&&%$0''8*0)'0%$,*10' &'//'(2'0'$%-'$50')+%',.)%$6%)'),*.'*&')+%' 0286)*80'51%')*'**686$%00,(8

2'&'$')+%'4%0)'%B'86/%0'*&'1.(*86/,(')%5' (*8i'%00,*.'*&'4$','.''$%'0166/,%5')*'10'42')+%'.*)'7%$2',.&$%E1%.)'('0%0',.'3+,(+''' 8,55/%'8%.,.-%'/'$)%$2',0',.>,8%5''.5''' /'$-%'4/**5(/*)',0'%&&,,0%5'4%)3%%.')+%'51$'' 8')%$'.5'4*.%')',0'&$*8'*40%$7'),*.'*&' '0%0'*&')+,0'9,.5')+')')+%'00%$),*.',0'>10;),&,%5')+')''7%$2'(*.0,5%$'4/%',.)$10,*.',.)*')+%'091/'8'2'4%6%8,))%5'3,)+*1)')+%'6$*; 51(),*.''*&''.2'0286)*80'*'5*14)'+%' 0155%..%00'*$'*)+%$3,0%'+'0'81(+')*'5*' 3,)+')+%'$%01/)0'41)')+%$%'0%%8 0'-**5'$%'0*.')*'4%+%7%')+')''0''$1/%')+%'4,.'3,'%'0,/2' '((*8 8*5')%,)0%/&')*'E1'.),),%0'.*)'%B(%%5; ,.-'.'*1.(%'*$')3*''.5')+')'101'//2''0' /'$-%''E1'.),)2'0'&*1$'*$'&,7%'*,8(%0',0' $%E1,$%5')*'('10%'5%')+'),0'7%$2'$'$%/2' ,.5%%5')+')''5%6$%00,*.'*'&'4*.%',.')+%/%')0)' '66$*'(+%0'1(+'.'%B)%.)'*&',.)$10,*.'0')+,0''.5')+%'8'>*$,)2'*&'01(+'('0%0'$%'0' $%-'$50')+%'8*1.)'&6*00,4/%0E1%%C,.-'E1,)%')$,7,'/' +%'8'..%$',.'3+,(+')+%''((*88*; 5'),*.',0'%&&%()%5',0'42')+%'$%8*7'*')+% &/1,5'(*.)%.)0'*&')+%'091//G&,$0)')+%'014'$'(+; .*,5'&/1,5''.5'0%(*.5/2')+%'4/**5' &')+% 4/**5 7%00%/0')+%'7%,.0''.5'7%.*10'0,.10%0' '$%'6$*4'4/2'%86),%5'&,$0)''.5'/'0)/2')+%'$;)%$,%0'.5'('6,U'$,%0' '4$',.'.''')'0)')%'&' 0)$*.-'(*86$%00,*.',0''.'%B0'.-1,.%5'4$',.' .')+,0'$%06%()')+%'4$',.'>.')+%'/'0)'0)'-%'&' (*86$%00,*.'5,&&%$0'7%$2'81(+'&$*8')+')',.' ('0%0'*&',.0%.0,4,/,)2'&$*8'(*.(100,*.''*$'(*.;)10,*.')'42'.*'8%'.0'&*//*30')+')'4%('10%')+%'4$',.',0'6'/%')+%'&'(%0+*1/5'4%'6'/%' '/0*ĥ41)',)',0'6%$+'60'101''//2')+%'('0%')+')' %B)$%8%'(*86$%00,*.'0*'81(+'%.&%%4/%0')+%' +%')$)<0'()',.')+')'+%'61/0%',0'3%'9'*$' &/(9%$,.-')+%$%06,$'),*.'&'//*3''.5',$$%-1

/'$' . 5'))+%' 09, . ' 6 ' /%' ' . 5' (*/5)' K +')' 0)%$;)*$*10' 4$%')+, . -R '' /' 4*1$%5' 61/0%0' . 5' '' 01&/10%5' ' . 5' 51092' (*1 .)%. ' . (%' '$%' A'0' '((*$5, . -')*')+N' (/ ' 00, (' /' 5%0(&,6), *. R' 0286;)*80' *&' (*86$%00, *. ' ,0' 6$*4'4/2' &*$')+% 8 '>*$,)2' *&' ('0%0' '' 8 ,0)'9%' 1(+' '' -$*16' . >1(+' 8 *$%' &$%E1%.)/2' 5%. *)%0' /'(%$'), *. ' (*.)10, *. ' '*$' (%.)$' /' %B)$'7'0')', *. ' *$' ,0' ,)')$1%')+')' +%8, 6/%-. ' ' %B(%6), . -' *&')+% 8 *0)')$' . 0,)*$2' 9, . 5', 0' *&)%. ' 51%')*' (*8; 6$%00, *. ' ' (/*)' *&' 4/**5' 6*1$%5' *1)' *7%$' *. %' +%8, 06+%$%' 8 '2', &' $'6, 5/2' %&&10%5' 6$*; 51(%' &*$' '' 3+, /%' 3%'9. %00' *&')+%' *66*0,)%' /, 840'4.)' 4$', . 8 '00', 0' 0*&)' %. *1-+')*' '//*3' *&' (*. 0, 5%$'4/%' 2, %/5, . - ' '. 5' . ')+%' (*1$0%*&''&%34*1/&0')+%'%&&%()0'*&')+%'5, 06/' (%; 8%.)' 3, //' +'7%' 4%(*8%' -%. %$'/'' . 5'. *)'/*('/' . '' ('0%' $%(*$5%5' 42')+%' 3$,)%$', . ' 3+, (+'' 660) 8*$)%8'%B' 8, . '), *. ' 0*8%' 3%%90' /')%$' 6$*7%5')+%' 6$0%0. (%' *&' '' /'$-%' 4/**5 (/*)')+%$%' +' 5' 4%%. ' 6'$), '/' +%8, 6/=' ' 3,)+*1)' 1. (*. 0(, *10. %00')' &, $0)' 41)' *. ')+%' . %B)' 5'2' '//')$' (%' *&',)' +' 5' 5, 0' 66%' $%5' ' . 5',)' . %7%$' $%)1$. %5' . ' 8 ' . 2' *&')+%' ('0%0' *&' 4/%%5, . -' *&' 4*. %$' /' ' 5'2' *$')3*' 81(+' '0' , 0' *&)%. ' *40%$7%5', . ' 3*1. 50' *&' 4/%%5, . -' 4%)3%%. ')/, %' 51$*' 8 ')%$' ' . 5' 4*. %' &$*8')+% 8%. , . -%' /' $)%$2')+%' +%8*$$+' -%')'9%0' 6/' (%' *. ' 0%7%$' /' &&%$%.)' *((' 0, *. 0' 3,)+',)' 8 '2' 4%', .)%$7'0' *&' '' 5'2' *$')3*' 81(+' '0' , 0' *&)%. ' *40%$7%5', . ' 3*1. 50' *&' 4/%%5, . -' $)%$, %0' 01(+' '0')+%' 6 /8'$' $(+' +10')+%' *40%$7%$' , 0' '4/%')*' '66$%(, ')%')+%' 0286)*80' ('10%5' 42' 5, &&%$%.)' 5%-$%%0' *&' (*86$%00, *. ' ' . 5' , &%+%$'6$**&', 0' '&&*$5%5')+')' , &')+%', .)$15%5' E1' .),)2' 4%' 41)' 8*5%$')%')+%' 4$', . ' 4%'$0' ,)' 3,)+*1)' *47, *10' , . (*. 7%. , %. (%' &)%. ' ')')+%' 1)*602',)' , 0' E1,)%' %'02')*' 5, 0), . -1, 0+' (/*)0' *&' 7%$2' 5, &&%$%.)' 5')%0' ' . 5')*' &%%/01$%')+')')+%' *$, -. ' /' *. %' 3' 0' *&' (*. 0, 5%$'4/%' 0, C%' ')', 0' (/%'$')+%. ')+')', . '06%'9, . -' *&')+% 0286)*80' *&' (*86$%00, *. ' 3%' '&/*3' &*$' 8&&%$%. (%', . ' 8*1.)' *&')+%' (*86$%00, . -'014; 0)' . (%' ' . 5' /0 '&*$'5, &&%$%. (%0', . ')+%$' 6, 5,)2' *$0155%. %00' *&',)0' 66/, (', *.

b +%. ' (*86$%00, *. ' , 0' 6$*51(%5' 0155%. /2' '0' 42' ''/'$-%' &$' -8%.)' *&' 4*. %' 5$, 7%. ' 5*38$')+%' ('0%', 0' '/8*0)' , . 7'$, '4/2' (*86/, (')%5' 42' (*.)10, *. ' &'6'$' /20, 0' *$' %7%. ', . 0%. 0, 4, /,)2' 4%' 6$%0%.)',)' , 0' 101''//2', 86*00, 4/%')*' 0&)2')*' 3+, (+' /%0, *. ')+%2' '$%' $%'//2' 51%' %' 8'2' +*3%7%$' +*/5',)' '/8*0)' (%$)', . ' &$*8' 3+')' 3%' 9. *3' *&' %)+%$' *'0%0')+')')+%' ' , . ' 01(+' 3*1/5' 4%' '')%86*$'$2' +%8, 6/%-, '' 3,)+' 0286)*80' *&' 0+*, , ' , &')+%' 5%6$%0; 0, *. ' 3%$%' 41)' 8*5%$')%H' . 5', . 0%. 0, 4, /,)2' 6$*4'4/2' **. ' &* *3%5' 42' 5%')+' , &')+%' 5%; 6$%00, *. ' %$%' 7%$2' -$%')' +%' ('0%0' , 1' 3+, (+' 5%6$%00, *. ' *&' 4*. %' +'0' '/*. %' 4%%. ' 01&/ (, %.)')*' 6$*51(%' /*. - (*.), . 1%5' (*8; 6$%00, *. ' 3,)+', . 0%. 0, 4, /,)2' '$%' 6*00, 4/2' 0*8%; 3+')' '6*($26+'/')' , 0' 6*00, 4/%')+')' (*8; 6$%00, *. ', 85%$' 01(+' (, $(180)' . (%0' 8, -+)' 4%' '))%. 5%5' 42' 0)%$)*$' ' . 5' /'4*1$%5' 6), /0%' 41)' ,)' , 0' 6*00, 4/%' '/0*')+')')+%' 61/0%' 8, -+)' 4%' %B)$%8%/2' &%%4/%')+%' (*, 8)%. ' . (%' 6'/%' ' . 5' , . 06, $')*$2' %&&*$)0' 3%' 9' ' . 5', $$%-1/'$

+%' 5%6$%00, *. ' *&' 4*. %', 0' 6%$+' 60')+%' *. /2 (*. 5,), *. ' 3+, (+' (' . ' 4%' 0166*0%5' ('6'4/%' *&' 6$*5&, (, . -' (*86$%00, *. ' 0155%. /2' c +*. ' 4/**5', 0' 6*1$%5' *1)' &$*8' '' $16)1$%5' '$)%$2')+%' 0286)*80' (*8%' *. ' $')+%$' -$'51'//2' +%' 6'), %.)' (*86/', 0' 6%$+'60' *&' +%'5' (+%' . 5')+%. ' 4%(*8%0' 8*$%' *$' /%00' (*. &10%5', . ' 8' . . %$' +, 0' -',)' , 0' 1. 0)%'52' ' . 5')+%' /, 840' *. ')+%' 0, 5%*66*0,)%')*')+%', . >1$2' 0+*3' 06%(, '/' 3%'9. %00' *8,), . -' 8'2' *((1$' . 5') +%' 3%'9%. %5' /, 840' 8'2')3,)(+' ' . 5 1. /%00' '0', 0' *&)%. ')+%' ('0%')+%', .)$' ($' . , '/ 4/%%5, . -' 0)*60')+*0%' 0286)*80' '$%' 0**. '/*0)' , . ' ' 0)')%' *&' (*86/%)%', . 0%. 0, 4, /,)2' 3,)+' 6'/%' &' (%' &%%4/%' 6), /0%' ' . 5' 0286)*80' *&' 0+*(9' *. 71/0, *. 0' 8'2'. *3' *((1$' ' . 5' 5%')+' *&)%. ' 016%$7%. %0' 7%$2' E1, (9/2' . ' 01(+' ' %' 0%')+%' 3+*/%' (*1$0%' *&')+%' 0286)*80' 8'2' *((162' /%00')+' . ' . ' +*1$' +%' 01$-%*. ' *1-+)' *&' (*1$0%')*')$%6+, . %' . 5'/%)' *1)')+%' 4/**5' . 5' +%' 810)' 4%' 6$*86)' *$' +, 0' 6'), %.)' 8'2' 5, %51$, . -' +, 0' 6$%6'$'), *. 0' *$%' (*88*. /2')+, 0' $'6, 5')%$8, . '), *. ' *((1$0' 1. %B6%()%5/2' '&)%$' *. %' *$' 8*$%' 6$%7, *10' '))' (90' *&')%8; 6*$'$2' +%'5 0286)*80' ' . 5')+%' 6')%.)' 8'2' +'7%' '66%'$%5' E1,)%' 3%&/' , ')+%' , .)%$7'/0' . ' ('0%0' , . ' 3+, (+')+%' 0286)*80' 6$*-$%00' 3,)+*1)' , .)%$$16), *. ')+%, $'$' 6, 5,)2' . *'5*14)' 5%6%. 50' 16*. ')+%' 0, C%' *&')+%' 7%00%/' $16)+%'5' %$)', . ' 06%(, '/' 0286)*80' 3, //' /0*' 5%6%. 5', 8*. ')+%' 6$%(, 0%' 6*0,), *. ')'9%. ' 16' 42')+%' (/*)' 3+, (+' 8'2' (+' . (%')*' 6$%00' 16*. ' 06%(, '/ . %$7%)$1. 90' '0' 3% ' '0' 16*. ')+%' 4$', . 8'00' . ' *$5, . '$2' ('0%0')+%' (/*)', 0' 4%. %')+')+%' 0E1' 8*10' 4*. %' ')+%' /*3%$' 6'$)' *&')+%' 6', %)'/' ' . 5' 6'00%0' 5*3. 3'$50', .)*')+%' 06+%. *, 5'/*&*00' ', . ')+%'/'))%$'$%-, *. ',)' 8'2' 6$%00' 16*. ')+%' . %$7%0'-*, . -')*')+%' 06+%. *, 5'/*&, 001$%H' . 5',)' , 0' *&' , 86*$)' . (%' &*$')+%' 01$-%*. ')*' 9. *3')+')' 5, /')')', *. ' *&')+%' 616, /*. ')+%' '&&%()%5' 0, 5%', 0' *&)%. ' 6$*51(%5' +, 0' , 86*$)' .)'02886)*8', 0' 6$*4'4/2' 51%')*' 6$%001$%' 16*. ')+%', $5' . %$7%

+%$%', 0' 2%)' ' . *)+%$' (/'00' *&' (*86$%00, *. ' ('0%0', . ' 38(+')' (*. 5,), *. ' , 0' 6$*51(%5' 42')+%' 5*3' '((181/'), *. ' *&')+%' 6$*51()0' *&' , . &/' 88', *. ' 3,)+, . ')+%' 091 ' 1(+' 3, // 5%6%. 5' '0' $%-'$50' 06%(, '/ 0286)*80' 16*. ')+%' 6*0,), *. ' *&')+%' '40(%00' %,)+%$' 3,)+, . ' *$3,)+*1)')+%' 4$', . ' &', ')+%' 0140)' . (%' *&)+%' 4$', . ' ,)' 810)' 8*$%' *$' /%00' 5, 0*$-' . , 0%' ,)0' 0)$1()1$%' ' . 5')+10' ('10%' 0286)*80' 51%')*' /' (%$'), *. ' '0' 3% ' '0' (*86$%00, *. ' . 5%$' 01(+' (*. 5,), *. 0' 8*5%-$%%' *&' +%8, 6/%-, ' ' 3,)+' 6$*4'4/2' 6$%(%5, . -' 06'08' *&' /, 840' (' . ' 0('$(%/2' &', /')*' 4%' 6$%0%.)' *3' ' . 5')+%. ' ('0%0' *((1$', . ' 3+, E+' ' . ', $$%-1/'$' 0, . 10' /%'50', .)*' ' . ' '40(%00 ('7,)2', . ')+%' 4$', . ' ' . 5')+, 0' 0, . 10' 4%, >/-' 0*8%), 8%0' &$%%' ' . 5' 0*8%;), 8%0' 4/*(9%5')+%' 01$-%*. ' +90' $%6%')%5' *66*$)1. ,)2' *&%0), 8')., -')+%' %=()0' *&, //, . -' *&')+%' ('7,)2' . ' 01(+' %'=0' +%'5' (+%' 0)16*$'1. , /')%$'/')3,)(+, . -' '/, 840'6'$), '/ +%8, 6/%-, ' ' 3,)+' 6%$+'>=0' 7*8,), . -' ' . 5',)' 8'2'4%' -%. %$'/' (*. 71/0, *. 0' '$%')+%' 0286;)*80')*' 4%' %B6%()%5' +%' 6*0,), *. ' *&')+% '40(%00' '0' $%-'$50' 5, &&%$%.)' $%-, *. 0' *&')+%

4$',.' ,0' '/0*' *&' 81(+' ,86*$)'.(%' 41)' ,)0' 5,0(100,*.' (' . .*)' 4%' %.)%$%5' 16*.' ,.' ' .2' 5%)',/' +%$%' '.5',)' *47,*10/2' (*. (%$.0' $')+%$' 05,0*$-' .,0'),*.' *&0)$1()1$%')+' .'0,86/%'(*8; 6$%00,*.

+%.' '/'$-%' '((181/'),*.' *&' 610')'9%0' 6/'(%'4%)3%%.')+%'4*.%' .5'5+$'' 8')%$')+%' 0286)*80' 6$*51(%5' $%' 81(+' //*3'.(%' &*$')+%' &'()')+')')+%0%' ('0%0' '$%' '/8*0)' '/3'20' '))%.5%5' 42' 8%.,.-,),0'.5')+10')+%' 0286)*80' *&' (*8; 6$%00,*.' '$%' 8'09%5'42')+*0%' 51%')*' ,.&/'8; 8')',*.' +$*.,(' '40(%00' 1.5%$')+%' 4*.%3,)+*1)' '$'(+.,),0'8'2'*((1$'.*3''.5')+%.' ,.'026+,/,),(''.5'*)+%$'5,0%'0%'*&')+%' ($'.,'/4*.%0'41)'01(+' ('0%0' '$%' 7%,='$'$%' +%2' 3,'5,&&%$'&$*8')+*=%' &+'%8*$$+'-%',.')+')')+%' 0286)*80' '$%' '/3'20' 6$*51(%5' 7%$2' W0/*3/2' +%' 3$,)%$'*.(%'+'5')+%'*66*$)1.,)2' 0*&'3')(+,..'01(+''('0%',.'3+,(+')+%'6'),%.)' 05,%5'*&' (*86$%00,*.'7%$2'-$'51'//2'6$*51(%5' 42'.',.($%'0,.-' *//%(),*.'*&'610'4%)3%%.' W)+% 4*.*' .5'51$'' 8')%$'' .5'3,)+*1)' .2' 0 *86/,(''),*.' +%' (+,%&'0286)*8'3'0'(*.; 0)'.)' 3%'$,.-'+%'5'(+%' 3,.(+' 6$%7%.)%5' 0/%%6' +8'.'3'0'6'/%' '.5'&%%4/%' 41)' .*)' 6'$'/20%5',.' .2' 6'$)' %B(%6),.-')+')' 4*)+'%2%/,50'5$**6%5' %' 3'0'$'),*.'/'41)' 06*9%0/*3/2''0',&',.'')'0)')%'*&'6'$),'/0)16*$' 1$,.-')+%/'0)')3*' *$')+$%%'5'20'*&'/,&%'+%' +'5'(.71/0,*.0H'.5'&,.'//2'&*$)3%.)2&*1$' +*1$0'+%'3'0',.''')'0)')%'*&',.($%'0,.-',.0%.; 0,4,/,)2

- 4G)'3,//'4%'0%%.'&$*8'3+')'+'0' #4%%.'0',5'*4*7%')+')')+%'5,'-.*0,0'*&'(*8; 6$%00,*.'42'0286)*80',0'%B(%%5,.-/2'5,&&,(1/)' '.5')+')')+%'1)8*0)'10%810),.'%'(+'('0%'+%' 85%'*&')+%'+,0)*$2'*&')+%'('0%' .')+*0%'*&' 4/**5(*86$%00,*.'&)%$',.>1$2')*' '8%.,.; -%'/'$)%$2')+%$%',0'/8*0)'/3'20')+%'&'()')+')'),+%'6'),%.)'4%)3%%.')+%'5')%'*&')+%' ,.>1$2'.5')+%'016%$7%.),*.'*&'0286)*80' +'5'.'8)%$7'/'51$,.-'3+,(+')+%$%''66%'$%5')*'4%'/,))/%'*$.*)+,.-')+%'8')%$' +,0' +,0)*$2',0',&')+%'0286)*80'+'7%'5%7%/*6%5' $'6,5/2'.5'3,)+*1)')+%'0,-.0'*&',.&/'88'),*.' 42',)0%/&'(*.(/10,7%'&*$'5,'-.*0,0' .5%$' 01(+'(*.5,),*.0')$%6+,.,.-'*1-+)')*'4%'')' *.(%'$%0*$)%5')*'*$'6*00,4/2',)'8,-+)'4%2%)' 4%))%$'6$'(),(%)*'&,$0)',%')+%'('$*),5''$)%$2 +%'5,'-.*0,0'*&'40(%00'.')+%'4$',.014; 0)'.(%'+'0''/$%'52'4%%.'5,0(100%5''.5')+')' 0*&',.&/'88')*$2'(*//%(),*.0'&$*8'8%.,.-.),0' 3,//'4%'%B'8,.%5',.')0'6$*6%$'6/'(%' .&/'88'),*.' *&' ,86/%' $'18'),(# G +%')$%')8%.)'*&'(*86$%0; 0,*.'*&')+%'4$',.',0''/8*0)'3+*//2'01$-,('/'.5' 0(*.0,0)0',.')+%'10%*&')+%')$%6+,.%'.5'9.,&%')*' 0%/%7')%5%6$%00%5'4*.%'*$%7'(1')%'(*//%(),*.0' 0*&'4/**5'*$'610' '

U ' *.(100,*.' *& G %' (/'00' 1.5%$')+%'4%'5'0 *.(100,*.'*&' $',.<'//' W0286)*80'3+,(+' $%01/)'0,86/2'&$*8')+% 0+'9,.-' 8*$%' *$'/%00'W7,*/%.)/2'*&')+%' (*.;)%.)0'*&')+%'091/' ')'3,//'4%'*47,*10'+*3; %7%$')+')'8*0)'('0%0'*&'0%7%$%' 0+'9%'*&')+%' 4$',.'$%'/,9%/2')*'4%'(*86/,(')%5'42'7,0,4/%' /%0,*.0' +%'091' 8'2'4%'4$*9%.'.5')+%' 4$',.'8'2'4%'(*.)10%5'/'(%$')%5'*$'%(%+2' 8*0%5')',0'+,-+/2'6$*4'4/%'+*3%7%$')+')' 3%// 8'$9%5'.5'%7%.'0%$,*10'0286)*80'8'2' 4%'6$*51(%5'42')'9,.-'*./2'.5'3,)+*1)')+%'%B,0)%.(%'*&'.2'/%0,*.'5,0(*7%$'4/%%,)+%$' 42')+%'1.',5%5'%2%'*$')+%'8,($*0(*6%' %' 810)'&1$)+%$'(/%'$/2'1.5%$0)'.5')+')')+,0' %/%8%.)'*&'(*.(100,*.' ')+%'$%01/)0'*&' 0+'9%',.5%6%.5%.)'*&'/%0,*.%.)%$0',.)*' '/8*0)'%7%$2'('0%'*&',.>1$2')*')+%'4%55' +')%7%$'4%')+%')+%$'/%0,*.0',)'101'//2')+%'&'()')+')+%'4$',.'+'0'4%%.'8*$%'*$'/%00' 0%7%$%/2'0+'9%.'+10',)'8'2'%'0,/2'+'66%.' ,.'%'0%0',.'3+,(+'(*.06,(1*10'/%0,*.0''$%' 6$%0%.)'01(+''0'&$'()1$%'*&')+%'4'0%'*$'/*('/' (*.)10,*.')+')'0),//')+%'$%01/)0'*&')+%'0+'9%' '$%')+%'8*0)',86*$)'.)')'8,-+)'4%'(*., 7%..%.)',&'3%'3%$%',')+%'+'4,)'*&'06%'9,.-' *&'8*0)'('0%0'*&'0%7%)%',.>1$2')*')+%'+%'5''0' " "' ' # ' " 'K3,)+')+%'%.; 5%'7*1$')*'00,-.')*'%'(+'55%5'(*86/,(''),*.' ,)0'6$*6%$'0+'$%',.')+%'/$%)'0' +%0%' %B6/'.'),*.0'$%' .%(%00'$2'4%&*$%'3%'61)')+%' E1%0),*.G '.'(*.(100,*.''/*.%'('10%5%')+]' /)+*1-+',')',0',+-+/2'6$*4'4/%')+')'3%'*7=+)')*'$%6/2'3,)+'')' (*.&,5%.)'&&,$8')',*.' '.5')*' '00%$)')+')',)',0'.*)'1.(*88*.'&*$' (*.(100,*.')*'4%)4%'(+,%&'('10%'*&')+%'&%)'/' %7%.)'2%)',)',0'7%$2'5,&&,(1/)')*'6$*7%',)'0,.(%')+%'%'0%0'$%'%B)$%8%/2'$'$%',.' +,(+'0%7%$%' (*.(100,*.',0'6$*51(%5'3,)+*1)'0*8%')))%.5; ,.-'/%0,*.' +%'02886)*80'('10%5'42'(*.; (100,*.'*&')+%'4$',.'8'2'4%'0)15,%5',.'7%$2' .8.%$*10'%'0%0'*&'W7%$2'7'$,*10'5%-$%%0'*&' 0%7%$,)2'3+,(+'2%)'$%(*7%$'6%$&%()/2' $*8' 3+')',0'*40%$7%5',.')+0%'3%'8'2',.&%$'0')*')+%'6'$)'3+,(+'(*.(100,*.')'9%0',.'(*8; 6/,('0%5'('0%0'8'.2'*&'3&&,(+'6$*7%'&%)'/ +%'$%01/)0'*&'(*.(100,*.'8'2'4%'5,7,5%5' ,.)*')+$%%'0)'-%0' +%'&,$0)'0)'-%',0')+')'*&' H)+%'0%(*.5')'*&' "'*$'*&' 7'0*8*)*$'6'$%0,0'*$'&'.'8%5'&$*8',)0' 8*0)'6$*8,.%.)'02886)*8'')+%' '0)'-%H)+%')4&$5',0')+')'*&' ") " '*$'$%(*7%$2' +%'02886)*80'*&')+%'&,$0)'0)'-%'*$'0)'-%'*&' (*//'60%'7'$2'3,)+')+%'0%7%$,)2'*&')+%' ('0%H 41)',&')'//'3%// 8'$9%5'(*.0,0)',.'&%%4/%.%00' *&'61/0%'6'//'*$'*&'09,.'(*/5.%00'*&'%B)$%8,;),%0'.5'5,/')'),*.'*&'616,/0' +%2'8'2' '66$*'(+''(*.5,),*.'3+,(+')+%'%'8'+%')%.]',88%; 5,')%'5%')+' +%$%',0'.*'0)%$)*$'&*$')+%$%; 06,$'),*.',0')*'&%%4/2'6%$&*88%5' /)+*1-+')+%'(*//'60%'8'2'4%'7%$2'-$%')')+%',.0%.0,; 4,/,)2',0'$'$%/2'E1,)%'(*86/%)%' ')',0'*&'-$%')' ,86*$)'.(%',.')+,0'0)'-%'.*)+%.)'4/,0+')+%' .%-'),7%'0'$%-'$50'//'&*$80'*&'6'$'/20,0' &'.2'.*.0288D)$,%'/0J886)*80''$%'6$%; 0%.)')+%'('0%',0'8*$%')+'.'8%$%'(*.(100,*.' 1$,.-')+,0'0)'-%'.*)+.,.-'0+*1/5'4%'5*.%' %B(%6)'6/'(,.-')+%'6'),%.)',.'''*.5,),*.'*&' (*8&*$)'.5'6$%7%.),.-')+%'(**/,.-'*&')+%

$! 0 - # &)%$')+%(*//'60%+'0/'0)%5'0*8%/),))/%'),8% AA+'/& '. +*1$')*')3*')+$%%'*$'8*$%'+*1$0R',)/*-,.0')*6'00'*&&' +%'6'),%.)'8*'.0'8'.;;&%0)0'5,0(*8&*$)')1$.0'*.'+,0'0,5%''.5'5$'30'+,0'9.%%0'16' %$2'*&)%.''))'+,0'6%$,*5'0,(9;.%00'*((1$0''.5',)',0''/8*0)',.7'$,'4/%',&')+%6'),%.)0'0)*8'(+'3'0'&1/'')')'+%'),8%'*&')+%'((,5%.)' *.0(,*10.%00',0'.*3'101'//2'$%;0)*$%5'.5'42'$*10,.-')+%'6'),%.)'8'2'4%,.51(%5')*06%'9''.5')% ',0'.'8%'^(' $'51'//2'585.-''6%$,*5'*&'0*8%'+*1$0')+%'('0%0/,5%0'*.',.)*')+%'0/%%62'0)'-%' +%'61/0%',0'.*3'$%/'B%5'.5'&)8')+%'09,.',0'3'$8'*$%7%.'+*)')+%'&'(%'8'2'4%'0*8%'3+')'&/10+%5'.5')+%'6 6,/0''$%' *.)$'()%5' +%'6'),%.)',0'*7%$6*3%$%5'W ,)+0/%%6,.%00''.5' '.*./2'4%'3'9%.%5'3,)+'5,&&,(1/)2')',0'+*3%7%$'/'3'20'3,)+,.'6*00,4,/,)2')*''3'9%.'+,8''.5'+%'101'//2'$*10%0'+,80%/&)*')+%'('//0'*&'.')1$%' %$2'*8*./2')+%'61/0%',0',$%%-1/'$'%06%(,'//2',&')+%'6'),%.)'4%'2*1.-')')+,0'0)'-%''-'.'('$%'810)'4%')'9%.')*' '0(%$)',.'3+%)+%$')+%$%' '$%' '.2'.*.0288%)$,*'/0286)*80G'.2' 3%'9.%00'*&''/1.4'*&'*.%'0,5%'*&')+%'&'(%'*&'*&'.2'0,.-/%'%2% 810(/%' &')+%'6'),%.)'600%0',0'1$,.%'*$'&,%%%0',.'4%5''*$',&')+%$%',0'/*.-(*.;),.1%5'$%)%).,)*.''*&'1$,.%',)',0'7%$2'6$*4'4/%',+')')+%$%',0'8*$%')+%8'8%$%'(*.(100,*.GW.'8%/2'/'(%$'),*.''*$'*.%'0,5%'*&')+%'&'(%'*&'/,&%')',0'.%'$/2')3,(%'0'0)'-%'8'2'/'0)'&*$''5'2'*$'&*$''3%%9''.5',)',0',.'0%7%$%'('0%0'0*'3%//8'$9%5')+')')+%'6'),%.)0'%2%/,50'8'2'4%'+%/5'*6%.''.5')+%'616,/0'%B'8,.%5'3,)+*1)'3'8.-'+,8'1$,..-')+,0'0)'-%')+%'8%'01$%0''&')$%')8%.)('//%5'&*$'$%'06'$%'5,%)'61,-'),*.'(*/5')*')+%'+%'5''.5'E1,%)

+%.')+%'0/%%62'0)'-%'600%0'*&&')+%'6'),%.),0'/%&)'3%'$2')*$6,5'1.&')&*)'8%.)'/'%&&*$)'.5'*&).*'3,)+5,0)$%00,.-'+%'5'(+%'+%0%'$%)+%02886)*80'*&')+%'(*.7'/%0(,.-'0)'-%''.5')+%2'8'2'/'0)'8*$%'*$'/%00'&*$''(*.0,5%$'4/%),8%'+%'6'),%.)'0+*1/5',)'4%'9%6)'($%&1//2'E1,%)'.*'),81/'.)0'0+*1/5'4%''//*3%5''.561$-'),7%0'0+*1/5'((',*.'//2'4%'10%5'8'*&'*&')+%02886)*80'6$%0%.)'51$,.-')+%'0)'-%'*&'(*.7'/%0(%.(%'8'2'6%$0,0)'0*'/*.-')')+)+%2'8'2'$'.9'$')+%$'0'0%E1%/'%'+10')+%$%'8'2'4%'&*$2%'$0'.%$7*10.%00',.'6),)15%'&*$410,.%00'/,'4,/,)2')*'+%'5'(+%'.5'6%(1/,'$010(%6),4,+)2')*')+%',.&/1%.(%'*&'0),81/'.)0'0'''$1/%'+*3%7%$'%7%.''&)%$'7%$2'0%7%$%'(*.(100,*.'.*'01(+',// $%01/)0''$%'/%&)'41)')+%'6'),%.)'$%-',.0''&)%$''),8%'6%$&%()'(%$%;4$'/'+%'/)+'+,0'$%8'$9'810)'+*3%7%$'.*)'4%'+%/5')*''66/2')*'(*.(100,*.'+%.'$%(%,7%5',.''$','/3'2''((,5%.)0!'&*$',.')+%0%'%'0%0'0')+%$%'0'''6$*06%()'*&'6%(..,'$2'(*8;6%.0'),*.''.5')+%'0%E1%/0%''$%'*&)%.'0%7%$%'6$*/*.-%5''.5'7%$2'6%(1/,'$

3 %' & , M ! %$0 [

/,' 0%>.*$$+'-%,.)* G*' %$%4$'/ 6*6/%B2!' $' P # 0 P %$' P " 0 - . G 0('6%'*&'4/**5'42'$16)1$%'*&''7%00%/',.)*')+%'0140)'.(%'*$'('7,),%0'*&')+%'4$',.'%8*$$+'-%',.)*')+%'8%.,.-%0',0'0%6'$)&)%/2'5%0($,4%5 %$%4$'/+0%8*$$+'-%',0'(*8 8*./2'51%')*')+%'$16)1$%'*&'.')$)%$2'7%$2'$'$%/2')*')+%'$16;)1$%'*&'7%,.' ((',0,*.''//2'8,.1)%'%B)$'7';0'),*.0'$%'('10%5'42'$16)1$%'*&'('6,//'$,%0''.5'8'2'(*.0),)1)%'42')+%,$'.18 4$%5''.',.;&,/)$'),*.'*&')+%'(%$%4$'/),001%'3,)+'4/**5'+,0',0'0%%.','.'%'0%0'*&'7%.*10')/B$*84*0,0'0%8*$$+'-%'&$*8')$%$,%0'*$'7%,.0'8'2''/0*'4%'51%')*')+%,$'/'(%$')*.'42',.>1$2 &&, ,*) G' $)%$,'/ +'%8*$$+'-%' ,0'101''//2'51%')*')+%'(*,.(,5%.(%'*&'3%'9%.%5'7'0(1/'$'3'/' .5',.($%'0%5'6$%001$%' 3,)+,.')+%'7%00%/' +%'('10%0'*&')+%0%'0)')%0'8'2'4%'$%-'$5%5''0')+%'(*.5,),*.0' "0')*'('%$%4$,'+'%8*$$+'-%' %$%5,)'$2',.&/1%.(%,0'0*8%),8%0'5,0),.()/2'0%%.''0''')%.5%.(2')*'7'0(1/'$'5%-%.%$'),*.'*$')*'(*.5,),*.0'3+,(+''0'$%.'/'5,0%'0%'6$*51(%'01(+'5%-%.%$'),*.,8,/'$,)2'*&'7'0(1/'$'5,0)$,41),*.'8'2''/0*'4%,.+%$,)%5''.5'8'2'5%)%$,%'),.%')+%/*'(''/,)2'*&'0)$',.''.5')+%$%&*$%'&,$0)'*&'5%-%.%$'),*.''.5'1//=')%/2'*&'$16)1$%' %$%4$'/+'%8*$;$+'-%',0'8*0)'&$%E1%.)''&)%$'&,&)2'2%'$0'*&'-%'41)'*(%1$0')'=2''-%')+*1-+'$'$%51$,.-')+%'&,$0)'+'/&'*&'/,&%')',0'.%')2')3,(%'0'(*88*.',.'8%.''0',.'3*8%.''),0'0',5')*'4%'8*$%'&$%E1%.)',.')%86%$')%')+'.',.')$*6,('/(/,8')%0',.'3,.)%$')+'.',.'0188%$''.5')'&&-+')+'.'')'/*3'%/%7'),*.0'%$)',.'(E1,$%5'(*.5,),*.0'()'0'6$%5,06*0,.-'%'10%0'+$*.,(' $,-+)<0'5,0%'0%'/%'50')*'%'$/2'.5'%B)$%8%'5%-%.%$'),*.'*&'7%00%/0''0'3%/'0'5,$%()/2')*'+26%$)$*6+2'*&')+%'+%'$)'.5',.($%'0%5'4/**5 6$%001$%H +%.(%',)'6$%;5,06*0%0'6*3%$&,.2')*'(%$%4$'/+'%8*$$+'-%'*((',0,*.''//2'*((1$0''.5''/0*',.'6%$.,(,*10'.'%8,'' .5'/%19'%8,'' .')+%'/')%$',)',0''.*)'1.(*88*.'('10%'*&'5%')+' .')+%0%'4/**5 0)')%0')+%'8%(+'.,08',0'5*14)/%00',8;6',$%5'.1)$,),*.'*&')+%'3'//0'*&')+%'08'//%$'7%00%/0'3+,(+'6%$8,)0')+%8')*'4%'41/-%5''.5')+,..%5'42''4/**5 6$%001$%')+')'8'2'%7%.'4%'4%/*3')+%'.*$8'/' +%'0')')%'*&'7'0(1/'$'%6%),*)')'9.*(3.''0'06/%,,*$''<3'0'&*$8%$/2')*1-+)')*'4%''&$%E1%.)'('10%'*&'(%$%4$'/+'%8*$$+'-%')'6$*4'4/2'5*%0'.5'*)+%$'('10%0'41)'$'$52'**'B,0)0'3,)+')+%'8*$%%&&,(,%.)''.5'0*')'9%0''014*$5,.')%'6*0,),*.'+$*.,(''/(/**+,*7'0%>4/'$5%-%.%$'),*.8*.-'*)+%$'$&&1,*)%'('10%0'810)'4%$%(9*.%5'+%'$)5,010%''.5'026+,/,0'4*)+'*&3+,(+'(*88*./2'=()'42'('10,.-''.''.'.%1$;208'/'$-%$')+'.'I+*0%')+')''$%')+%'06%(,'/8%(+'.,08'*&'4'%8*$$+'-%' %7%$)+%/%00'01(+'.'.%1$2080'*&)%.'%0('6%'%7%.')+%'8*0)'('$%&1/'0%'$(+''(+'*&')+%0%'('10%0'0*'5,&&%$%.)',.'.''2L=[# [%50'42''/)%$,.-')+%'3'//

*&')+%' 7%00%/G)+%' *.%'42' ''6$*(%0 *&'-$*3)+'
)+%' *)+%$' 42',.&/'88'),*.'%B(,)%5'42',86%$;
&%()' *40)$1(),*.'3,)+' ''6/1-'&$*8' '.',.&/'8%5'
('$5,'(7'/7%
('(' 10%0 *&' (%$%4$'/+0%8*$'
$+'-%' $%)+%' 3%'9%.%5' 0)')%' *&')+%' 3'//*&'
)+% %00%/' '.5' (*88*./2' 0*8%',.%$%''%'*&'
4/**5 6$%001$%' +%'7%00%/ 3'//,0' 3%'9%.%5'
&%2 5%-%.%$'),*.' '.5',0' *&)%.',86%$&%()/2'
0166*$)%5',.''.')$*6+,%5' 4$',.' +%',.'
()%'0%' *&' 6$%001$%' 3,)+,.')+%' 7%00%/0' 8'2'
4%' 6%$8'.%.)' '0',.'6%$,6+%$'/*40)$1(),*.'
3,)+'*$3,)+*1)'+26%$)$*6+2'*&')+%'+%'$)H *$
)%86*$'$2''0',.'%B(,)%5' (),*.'*&')+%'+%'$)'
$',86%5%5'(,$(1/'),.')+$*1-+')+%' /1.-0'
51$,.-' %&&*$)' +%0%' ('10%0' '$%' (*.0,5%$%5'
8*$%' &1//2',.')+%' '$),(/%'*.' ' %00%/0'
*&' ,0%'0%0' *&
'%8*$$+'-%' &$*8' ''7%,.',0' $'$%'%B(%6)' '0'
)+%' $%01/)' *&'/'(%$'),*.'42' 5,$%()',.>1$2''*$*&'
1/(%$'),*.',.7'5,.-')+%' 7%,.' &$*8=' 3,)+*1)'
'$,(*0%' 7%,.0' ,.')+%' 6,'' 8')%$' 8'2'0*8%;
),8%0' $16)1$%' A .5$'/R
*.0,5%$'4/%' ('6, '$2' +0%8*$$+'-%' ,0'
101'//2' 51%')*')+%' 7%.*10' *40)$1(),*.'''/$%'52'
8%.),*.%5')'8'2''/0*'$%01/)' &$*8'(%='/,('
(*.-%0),*.'51%')*'.2'('10%' &$*8'('6,//'$2'
%84*/,08''.5' &$*8')+%' 4/**5 0)')%0' 3+,(+'
('10%'/'$-%$' 7%00%/0')*'-,7%'3'2' .''/')+%0%'
4/**5 0)')%0' 0,8,/'$' %B)$'7'0'),*.0''$%' *&)%.'
0%%.'.')+%' $%),.''&$*8')+%' 0'8%',8 8%5,')%'
('10%
) # ' % >> .' + +
4$'/+0'8*$$+'-%')+%' 4/**5',0' %B)$'7'0')%5'
,.)*')+%'0140)'.(%'*$',.)*')+%'7%.)$,(/%0'*&')+%'
4$',.G=,.)*')+%'7%.)$,(/%0'101'//2'42'$16)1$%'
&''6$%7,*10'%B)$'7'0'),.'3,)+,.')+%'(%$%4$'/
0140)'.(%' .')+%'/'))%$'0,)1'),*.')+%'4/**5'
((16,%0''(7,)2'&$8%5'42'/'(%$'),*.'*&')+%'
4$',.),001%H $'$%/2'3+%.'7%$2'8,.1)%''.5'
0('6,//'$2<42'8%$%/2'0%6'$'),.-')+%'&,4$%0'
.'0,C%''.'%B)$'7'0'),*.'7'$,%0'&$*8')+'*&
''6%''*$%7%.'08'//%$'16')*')+')*&')+%&,0)'
+%'4/**5',0'&*1.5'(/*))%5''.5'$%55,0+4/'(9'
,.' */*1$H &$'-8%.)0'*&4$',.),001%' '$%
8,.-/%5'3,)+',)' +%'(7,)2'(*.)',.,.-',)',0'
*&)%.'7%$2',$$%-1/'$',.'0+'6%H,)0'3'//0''$%'
.%7%.'6$%0%.)'6$*>%(),.-'0+$%50*&/'(%$')%5'
4$',.0140)'.(%''.5' '$%'4/**5 0)',.%5''.5'
0*&)%.%5G')'&,$0)'42',84,4,),*.''*&'0%$18$'
'.5'/')%$'42',.&/'88'),*.' '.2'08'//
%B)$'7'0'),*.0''$%'*&)%.'0%%.',.')+%'.%,-+;
4*1$+**5'*&''/'$-%$'(/*)' 01'//2')+%$%',0'
./2'*.%'/'$-%' %B)$'7'0'),*.H 0*8%),8%0'
+*3%7%$')+%$%' '$%')3*'*$')+$%%' +%'
%B)$'7'0')%5'4/**5'%B%$(,0%0'6$%001$%')+%'
(*.7*/1),*.0''$%'&/'))%.%5H)+%'&'/B',0'41/-%5'
)*')+%'*66*0,)%'0,5%'c 1-+ .-0''(90*.'
1)(+,.0*.RH''.5')+%'$8)'*&')+%'+%8,06+%$%'
,0''.0(8,(' +%'%&&10%&)'4/**5'8'2')%'$',)0'
3'2',.)*')+%/')%$'/'7%.)$, %H,)')+%.'06%%5,/2'
5,0)%.50'4*)+'/')%$'/'7%.)$ %0''.5')+%'),$5'
'.5'&*1$)+'7%.)$,(/%0''.8'%0('6%0'42')+%'
*6%.,.-0''')+%'/*3%$'%B)$%..)2`*&')+%'&*1$)+'
7%.)$,(/%'(%.)$'/'.5'/')%$=',.)*')+%'014;
'$'(+.*,5'06'(%' $)+%'&%/1=5'8'2'%0('6%
)*')+%' 01$&'(%',.&,/)$')%')+%' 6,'' 8')%$'.5'
)%'$',)0'3'2',.)*')+%'014'$'(+.*,5'('7,)2'
*&)%.'42'' %$2'08)5/*6%.,.-')',0'$'$%/2'
)+')')+%' $)%$2'&,B#8'3+,(+')+%'4/**5'+'0'
%0('6%5'('.'4%'5%)%()%5' ((')0,*.''//2')+%'
%B)$'7'0'),*.'('.'4%')$'(%5')*')+%'$16)1$%'*&'
'.'.%1$208'*&'0%8%=% ' .*)+%$'('0%0'
8,/,'$2''.%1$208'8'2'4%&*1.5'*.'8'.2'
7%00%/0' +%'/'$-%$' '$)%$,%0'(*.1.*./2'
6$%0%.)'')+%$*8')*10'(+'.-%0'41)')+%0%''$%'
./2''00(,')%5'42'4%,.-')+%'$%01/)'&0*8%'
&')+%'('10%0''.5'%06%(,'//2'&'-%
&)%$''),8%')+%'%B)$'7'0')%5'4/**5'1.5%$;
-*%0'(+'.-%0' +%'(/*)'0+$,.90''.5'-$'51;
'//2'4%(*8%0'&,$0)'(+*(*/')%')+%.'4$*3.''.5'
1/),8')%/2'' $%55,0+2%//*3H''.5',)')+%.'
(*.)',.0'(+,%&/2'&')-/*41/%0'6,-8%.)' '.5'
)+%$'-$'.1/%0' '.5'+%%8'),5,.'($20)'/0'
+%'$'6,5,)2'3,)+'3+,(+',)'B85%$-*%0')+,0'
(+'.-%',0'5*14)&1/''.5'(%$)'5./2'7'$,%0')'
,0'0',5')+')')+%'5,0),.(),7%'4/*5(*/*1$+'0'
5,0'66%'$%5''0'%'$/2''0')+%')3%.),%)+'5'2'
%'.3+,/%')+%'3'//0'*&')+%'('7,)2'1.5%$-*'
(+',0%0' +%',.&/'88'),*.',.'$'$%'('0%0'
%B(%00,7%''.5'618/=)',0'101'//2'(*.0%$7';
),7%''.5'/%'50')*')+%'&*$8'),*.'*&'(*.%(),7%'
),001%' '&,$8'3'//',0')+10'5%7%/*6%5')+%'
,..%$'01$&'(%'*&'3+,(+'4%(*8%0'08**)+'42'
)+%'0*&)%.,.-<'.5'$%8*7'/*&')+%'/**0%'&$'-;
8%.)0'*&'4$',.0140)'.(%H 42')+,0'8%'.0''
(20)',0'&*$8%5')',0'0',5')+')'(*.%(),7%'
),001%'8'2'%B)%.5''($*00',)0'(*7,)2''.5')+'
,.'$'$%'('0%0')+%'&/1,5'4%,.-''40*$4%5')+%'
(20)3'//0'8'2'1.,%''.5''(,('),B'$%01/)'
1(+'(,(')$,(%0'$%'+*3%7%$'81(+'8*$%'&$%;
E1%.)/251%')*'0*&)%.,.-')+'.')*'+0%8**$+'-%
0%8*$$+'-%'8'2'((1$',.''.2'6$)'*&')+%'
4$',.'41)',0'8*$%'&$%E1%.)',.'0*8%0,)1',
),*.0')+'.'..')+%$0' +%'8*0)'&$%E1%.)'0%')'
,0')+%'(*6101 0)$,')18'.5')+%'$%-,*.'>10)'
*1)0,5%',)'.%'$/2'+'/&')+%',.$0'(%$%4$'/
+0%8*$$+'-%0''$%',.')+,0'0,)1'),*.')+%$'
6$,8'$2'0%')0',.')+%' $5%$'*&'&$%E1%.(2''$%'
)+%' %.)$18'*7'/%')+%'(*$)%B')+%'6*.0''.5'
6%51.(/%0')+%'(%$%4%//18')+%'*6),(')+'/'81 0'
A*&)%.''&&%()%5'42''1'%B)%.0,*.'*&')+%'+%8*$;
$+'-%'&$*8')+%'(*$6101 0)$,')18R')+%'6*0)%$,*$'
6*$),*.''.5')+%'.)%$,*$'6*$),*.'*&')+%'
+%8,06+%$%' +%'&$%E1%.(2'*&'+0%8*$$+'-%'
,.')+%'(%$%4$18',0')3%.)2'),8%0'-$%')%$')+'.'
,.)*')+%'(%$%4%//18' +%'&$%E1%.)'%B)$'7';
0'),*.',.)*''.5'*1)0,5%')+%'(*$610 0)$,')18'
,0'%B6/',.%5'42')+%'7'0(1/'$'0166/2' 0')+%'
$16)1$%',0'*&)%.'.%'$')+%'%5-%'*&')+%'/%.),;
(1/'$.1(/%10')+%'4/**5')%'$0'16')+%'3+,)%'
0140)'.(%H''.5')+,0'8'9%0')+%'&$%E1%.(2'
&'+'%8$$+'-%',.)*')+%'(%.)$18'*7'/%'5,&&,;
(1/)'*' '0(%$)',.' ' 4 ' %00%/0' &'
,0%'0%0'*&
$'18'),(''+'%8*$$+'-%'*((1$0',.)*''.5'
&$*8'' /'(%$')%5'6*$),*.'*&'4$',.''.5',0'
8*0)'&$%E1%.)/2'&*1.5'*.')+%'01$&'(%'*((1;
62,.-'8',./2')+%'8,55/%'*&')+%'(*.7%B'6*$;
),*.'*&'%'(+'(*.7*/1),*.''.5'0*8%'*)+%$'
$%-,*.0'81(+'%B6*0%5')*',.>1$2'0')+%'01$;
&'(%'*&')+%')%86*$*06+%.*,5'/'/*4%''.5')+%

1.5%$' 01$&'(%' *&')+%' &$*.)'ƒ /*4%' %.)$,;
(1/'$' +'%8*$$+'-%' 0*8%),8%0' $%01/)0' &$*8'
)$'18'),(' $16)1$%' *&' '' 08 ''// 7%,.' *.')+%'
01$&'(%' *&')+%' (*$610' 0)$,')18' A $%0(*))'
%3%))R
*&)')18*1$0' A%06%(,''//2' -/,*8')'R' '$%'
0*8%),8%0')+%'0%')' *&'+'%8*$$+'-%' +%'5,0;
),.(),*.'&$*8'0,86%'+'%8*$$+'-%'A0*8%),8%0'
5,&&,(1/)R' $%0)0' *.')+%,$' 6*0,),*.' 4%,..-' (*8;
8*.//2'*.%' ,.'3+,(+' (%$%4$'ƒ +'%8*$$+''-%',0'
$'$%H'.5'*.'0*8%'-%/'),.*10 /**/5.-')18*1$'
0140)'.(%' 4%,.-' &*1.5' ,.)*' 3+,(+' +'%8*$;
$+'-%' +'0' .*)' *((1$$%5' '.5' 3+,(+' +')0
(/>'$')(%$,0),(' 8,($*0(*6,(' &%')1$%0
)+%$' *$-'.0'8'2'4%' +%'/)+2' *$' 6$%0%.)'
)+%' (+'.-%0'3+,(+' +'7%' 4%%.'8%.),*.%5' '0'
6$%5,06*08-' ('10%0H')+%' /1.-0' '$%' 101''//2'
0%(*.)*,/2'(*_.-%0)%5'*&)%.',.)%.0%/2
*'#0 # +%' *((1$$%.(%' *&' (%$%4$'/
+'%8*$$+'-%',0',.5,(')%5'42'(%$%4$'ƒ J8,6'
)*80'&')3*' (/'00%0')+%' *.%' -%.%$'ƒ '.5'
8*$%' *$' /%00')$'.0,%.)')+%' *)+%$' /*('ƒ '.5'
8*$%' *$' /%00' 6%$8'.%.)' .' '55,),*.')*'
)+%0%')+%$%' '$%' 0*8%),8%0' 6$%8*.,)*$2'
0286)*80'8'.5' *88*./2' -%.%$'ƒ 0286;
)*80'8'.,&%0)%5'42'61/0%')%86%$')1$%' ^('
3+,(+' '$%'0%(*.5'$2')*')+%'4$',. /%0,*.
6 " ' 0286)*80'0*8%3+')' $'$%'
'$%')+*0%'*&' '/)%$%5'(%$%4$'ƒ &1.(),*.'51%')*'
/*('ƒ '0(1/'$5,0%'0%'+%'5'(+%'7%$),-,.*10'
&%%/,.-0'/*('ƒ 3%'9.%00'*$' .184.%00'0/,-+)'
8%.)'ƒ (+'.-%0''.5'0/,-+)' '&&%(),*.'*&'06%%(+'
, ' ' %00%/0' *&' ,0%'0%0' *&H' '.5'
' .'%8,''*&R' 1)')+%'5,0%'0%'('10,.-'
)+%8',0'(*88*./2'5,0),.()'&$*8')+')'('10,.-'
A,,%c+0%8*$$4'-%' +%' 8,/,'$2' '.% $2080'
('10%,<^'02886)*80''.5'+%.(%'U',0'*$ 2',.'
)+%' %'0%' ,&'.%1$208'*&'/'$-%$' %00%/0')+')'
)+%$%' '$%c')$1%' 6$%8*.,)*$2' 0J86)*80'
%.(%')+%>== % >%00'&$%E1%.)')+'.',.'('0%0'
&0&)%.,.-' c
+%' '*&'+0%8*$$+'-.' ,0'101''//2''(;
(*86'.,%5'3,)+' '6*6/%B2' *&'(*.;
0(,*10.%00'.5'*&'6*3%$'*&'8*),*.'.5=*&'
0%.0')',*.'*&)%.'3,)+'$%/'B'),*.'*&')+%06+,. '
)%$0'.5'/*00'*&'$%&/%B'(),*.', ' 6. Y R
% /' +%0%'02886)*80' '$%'6$*&*1.5'
'.5'/'0),.-'((*$5,.-')*')+%'0,C%'*&')+%'
+0%8*$$+'-%'.5',)0'6*0,),*.H 4%,.-' %06%;
(,'//2'8'$9%5',.'/'$-%'.5'5*14/%'%&&,,0&*.0'
,.',.)$'7%.)$,(1/'$' +%%8*$$+'-%'.5',.'
+0%8*$$+'-%',.)*')+%' 6*.0' .' '' ('0%' *&'
8*5%$')%'0%7%$,)2')+%2'/'0)'*./2''&% '+*1$0'
'.5'-$'51'//2'60'3'2' .'0%7%$%$' ('0%0'
)+%2' 8'2'5%%6%.'1.),/ 5%')+' *((1$0'&$*8'
&',/1$%'*&'$%06,$')'*$2'6*3%$' %')+',0'$'$%/2'
7%$2'06%%52'/,&%'4%,.-'101''//2'6$*/*.-%5'&*$
0*8%'+*1$0'%7%.'.','.')+%' 8*0)'$'6,5/2'&')'ƒ
('0%0' .' $'$%' ,.0)'.(%0' & +'%8*$$+'-%
,.)*')+%' 8%51//' '.5' '/0*' .' 8%.,.-%'ƒ
+'%8*$$+'-%'5%')+' +'0' *((1$$%5' ,.' &,7%
8,.1)%0' 6$*4'4/2' ,.' %'(+' ('0%' &$*8')+%'
$'6,5' ,.)%$&%$%.(%' 3,)+')+%' $%06,$')'*$2'
(%.)$%
+%')%86%$')1$%' ,0''ƒ &,$0)'/*3%$%5'*.%' *$
)3*5%-$%%0H')+%'61/0%'4%(*8%0'/%00'&$%E1%.)H

'.5')+%'$%06,$'),*.'0/*3' +%' +%2.( )*9%0'
$%06,$')*$2' $+2)+8' *&)%.' 6$%(%5%0' 5%')+'
&)%$' ''&%3'+*1$0')+%')%86%$')1$%'$,0%0')*'
)+%'.*$8'ƒ '65',.'8,/5'('0%0'0)*60')+%$%'
41)',.'-$'7%$'%'0%0',)'$,0%0' '4*7%')+%'.*$8'ƒ
)3*' *$')+$%%' 5%-$%%0' .' 0*8%' 7%$2'-$'7%
('0%0')+%',.),'ƒ &%//'*$' 0140%E1%.)' $,0%' 8'2'
4%' %B)$%8%' '.5'-*'*.')8) ' 5%')+' *((1$0'
0*8%),8%0'$%'(+,='P!g',.')+%' *.%('0%''.5'
!Mg'*$' !Dg',.')+%'*)+%$'A *1$.%7,//%R' +%'
$,.%',0'')' &,$0)' '4,85'.)' *&' /*3' 06%(,&,('
-$'7,)2''.5'(,5',.'$%'(),*.
.'0/,-+)' ('0%0' *&' (%$%4$'ƒ +'%8*$$+'-%
)+%$%' 8'2'4%' .*' /*00' *&' (*.0(,*10.%00'
8,),..-',.5'01(+' ('0%0',0'.)' ,.&$%E1%.)'
.'*)+%$' $'$%' ('0%0' *&'/'$-%' +)%8*$$+'-%'
%06%(,'//2'4%)3%%.')+%' %B)%$.'ƒ ('601/%' *&'
)+%' (*$610'0)$,')18''.5')+%',0/'.5'*&' U%,ƒ
A $*'54%.)R')+%'/*00'*&' (*.0(,*10.%00' (*8%0'
*.'-$'51'//2' '&)%$' *)+%$' 0286)*80'' '0' *&'
0+*(9'&*$'%B'86/%'+'7%'/'0)%5'&*$' .'+*1$
$')3' +%0%' '0%0' +'7%' 4%%.')%$8%5'
"0 2 "
S ' 0286)*80'*&)%.'6%$8'.%.)' '.5'
'/3'20'*&'/*.-%$' 51$'),*.')+'.')+%' /*00'*&'
(*.0(,*10.%00''$%'6$%0%.)',.''//(*0%0'*&'(,$;
(180($,4%5'(%$%4$'ƒ +'%8*$$+'-%'%B(%6)',.'
)+%' $'$%' ,.0)'.(%0',.'3+,(+'42',)0' (%.)$'/
6*0,),*.',.')+%' 6*.0' '.5' 8%51//''',)' ('10%0'
5,$%()/2' 4,/')%$'/ %&&%()0'*./2'3+,(+' '$%'
'55%5')*'.5',.)%.0,&2')+%'-%.%$'/0286)*80'
('10%5' 85>$%()/2' .' ''1.,/')%$'/ (%$%4$'/
/%0,*.')+%' 5,$%()' 286)*80' '$%' 1.,/')%$'/
/*00'*&'6*3%$'*&'7*/1.)'$2' 8*7%8%.)' '.5'
&)%.'&'0%0'),*.' '((*86'.,%5'0*8%),8%0'
3,)+' (*.71/0,*.'*$' $,-,5,)2' +%0%' /*('/
0T.6)*80'8'2'(*88%.(%''&%3'8,.1)%0'*$
/*.-%$'4%&*$%')+%'/*00'*&'(*.0(,*10.%00' +%2'
(*%B,0)' 3,)+')+%' '6*6/%(),(' (*.5,),*.' '.5'
8'2'*&)%.'4%'$%(*-.,0%5'%7%.'51$,..-'(*8''
42')+%' &/'((,5,)2'*&')+%' 6'$'/20%5'/,840
3+,(+'&'/'8*$%'+%/6/%00/2')+'.')+*0%'*&')+%'
*66*0,)%' 0,5%H'42',.%E1'/,)2'*&')+%' 8*1)+'
'.5'*&')+%'6),6,/0H'42'(*.>1-')%'5%7,'),*.'*&'
)+%'+%'5' '.5'%2%0')*3'$50')+%' 0,5%'&')+%'
4$',.',.>1$%5H'42'(*.71/0,7%'8*7%8%.)0H
.5''0')+%''6*6/%B2'(/%'$0'42')+%' 5%)%(),*.'
&'1.,/')%$'/ 5%&%()'&'0%.0,4,/,)2' +%'(*8''
6'00,.-''3'2')+%0%'0,-+0'4%(*8%' 8*$%' 5,0;
),.()'K'.5''/')+%' 0286)*80'*&' +%8,6/%-,''
$%8',.'7'$2,.-','' .)%0,)2'.5'%B)%.)' '(;
(*$5,.-')4')+%' 6*0,),*.'*&')+%' /%0,*.' +%'
'6*6/%(),('0 ')%' 8'2'$%(1$'&)%$',)0'5,0'66%'$;
'.(%G'' -$'7%' 0286)*8'101''//2',.5,(''),.-'
)+')' ''&$%0+')+). 8*$$+'-%'+'0'*((1$%5',.')+%'
0'8%'*$')+%'*)+%$' 0,5%'*&')+%'4$',.'*$' 8*$%'
&$%E1%.)/2')+')')+%' 4/**5'+'0' %0('6%5',.)*'
)+%'7%.)$,(/%0' $#)+%'&*$8%$' ('0%')+%',8,'
/')%$'ƒ 0286)*80'(*.>1-')%' 5%7,'),*.'*&')+%'
+%'5' '.5' %2%0' ^%' '$%',.($%'0%5' *.')+%'
0'8%'*$')$'.0&%6%5')*')+%'*66*0,)%' 0,5%H',.'
)+%'/'))%$')+%'1.,/')%$'ƒ 0286)*80'5,0'66%'$'
'.5'-%.%$'ƒ 6*3%$/%00.%00' '.5' 5%%6' (*8''
016%$7%.%' 3,)+' 0)%&*$' $%/'B'),*.' *&')+%'
06+,.(0)%$0'/*3%$%5')%86%$')1$%' '.5',8;
6%5%5'$%=,$'),*.' %',R+'/3'20'%.01%0

W

8 %.)' 4%,..-' /%00' (*.06,(1*10' (*.71/0,*.'
$'$%$' " ' ')+%' 6$%0%.(%' *&' 02 8 6)* 8 0' *&'
'' /*(' /%0,*.' # 0 ' " ' # ') " 7
'3+,(+'$%0% 8 4/%0' 8 %.,.-%' /+0% 8 *$$+)=%
,.')+%'-%.%$'/,)2' *&',)0' 02 8 6)* 8 0',0' 101' //2'
W5,0),.-1,0+%5 42' 01((%%5 8 -)+%' 02 8 6)* 8 0' *&'
'' (,$(180($,4%5'/%0,*.

*%1*0,0 G 1$,..-')+%'')'(9',)0%/&')+%
6$*-.*0,0',.'+'0.,*$$+'-%',.)*')+%' 4$',.' 8 10)'
4%'-1,5%5 42')+%',.)%.0,)2' *&')+%' 02 8 6)* 8 0'
'.5 42')+%' 6/'(%' *&')+%' /%0,*.' '0'&'$'0')+')'
(.'.4%'0(%$)',.%5' %')+',0' 6$*4/4%',&')+%
(* 8 '',0' 6$*&*1.5'*$'+'0'.*)' 4%-1.')*'/%00%.'
')')+%'%.5' *&')3%.)2 &*1$'+*1$0''.5',&')+%'
%'$/2' 5%6$%00,*.'*$')+%' 0140%E1%.)' $,0%' *&'
)%8 6%$')1$%' '.5' 61/0% $')%',0'-$%')' *0)'
('0%0'$%+*6%/%00',.'3+,(+')+%$%',0' 8 '$9%5',.;
)%$&%$%.(% 3,)+'$%06,$'),*.G%7%.'+,((*1-+',0'
''('10%'*&'.B,%)2' +%.')+%'02 8 6)* 8 0',.5,;
(')%'7%.)$,(1/'$ 8 *$$+'-%'*$'+%8*$$+'-%'
,.)*')+%'6*.0')+%$%',0'/,)))/%' +'.(%'*&'01$7,7'/'
.' 8 %.,.-%'/ +'%8*$$+'-% 3,)+' (* 8 '')+%'
6$*-.*0,0',0' %B(%%5,.-/2'-$'7% *.0(,*10;
.%00' 4%,..-' $%(*7%$%5''.5')+%' 5'.-%$' *&'
,8 8 %5,')%' 5%')+' *7%$')+%' &$%%5*8' &$*8'
8 1(+' 0%(*.5'$2' 62$%B,''&*8'/1.-(*.-%0;
),*.' '.5' &$*8' 4%50*$%0',0' '' &'7*1$'4/%'
,.5,(',)*.' +%'(+'.(%' *&' $%(*7%$2' &$*8'
)+%' 6'$'/20,0',0' %0),8')%5' 42' %7,5%.(%' *&'
6*0,),*.'*&')+%'/%0,*.'' '.5'42'.2',.5,(',)*.0'
&',8 6$*7%8%.)' '$/2'(.)$'(),*.' &')+%'
&/%B*$0',0' 1.&'7*1$'4/%' +%'5'.-%$' *&'$%;
(1$$%.(%',0',.'6$*6*$),*.')*')+%'%B)%.)' *&'
7'0(1/'$ 5,0%'0%' '.5')+%'%B,0)%.(%' *&',$$%;
8*7'4/%'('10%0'*&',.($%'0%5'$)%$,'/)%.0,*.'
%.(%')+%6$*-.*0,0',0'$%.5%$%5'1.&'7*1$'4/%'
42'57'.(%5''-%'*$(+$*.,('$%.'/'5,0%'0%''.5'
42')+%'%7,5%.(%'*&'-%.%$'/'6$%8')1$%'5%('2
! "D*# "0' # ' *))()(&% GI %?)'
,0')+%'8*0)',86*$)'.)' +%'6'),%.)'0+*1/5'
$%8',.'0'&'$'0'6*00,4/%'3+%$%'+%',0'0%,C%5H
0),//.%00'8 10)'4%'0%(1$%5H'.5''//'%&&*$)',0')*'
4%''7*,5%5' +%'6*0)1$%'0+*1/5'4%'$%(18;
4%.)' 3,)+')+%'+%'5'$',0%5''.5'&/%B,*.'*&'
)+%'.%(9'0+*1/5'4%''7*,5%5' .2'('10%'*&'
6'00,7'0%'(%$%4$'/'(*.-%0),*.'01(+' '0' '),-+)'
(*//'$' 8 10)'4%'/**9%5'&*$'.5'$%8*7%5'
%.%0%(),*.' '0' &*$8%$/2' '/8*0)' '/3'20'
%86/*2%5',.'01(+'('0%0G(%$)',./2')*'*1.,7%$;
0'//2'41)',0'.*3' EB,,)% 5,0('$5%5G=6%$+'60'
)*' '40*/1)%/2' *00' *&'4/**5'/%00%.0')+%'
&*$(%'*&')+%'+%'$)' '.5'7'0(1/'$')%.0,*.H',)'
)+10'+'0)%.0')+%'(%00'),*.'*&'%B)%$.'/'4/%%5;
,.-' *14)/%0',)''()0',.')+%'0'8%'3'2',.'
,.)%$.'/'+'%8*$$+'-%')'8'2'4%'10%5'3,)+'
6$*4'4/%''57'.)'-%',&')+%'$)%$,'/')%.0,*.',0'
-$%')'A)+')',0',&')+%'61/0%',0',.(*86$%00,4/%R'
)+%'+%'$)'(),.-'0)$*.-/2''.5')+%$%',0'$%'0*.'
)*'4%/,%7%$)+')')+%',.)$'($'.,'/+0%8*$$+'-%'
,0',.($%'0,.-' '08'//E1'.),)2'*&'4/**5'
0+*1/5'4%')'9%.'$'6,5/2' .'7%.)$,(1/'$
+%%8*$$+'-%'7%.%0%(),*.',0'6$*4'4/2'6*3%$;
/%00'&*$'-**5' +%.')+,0',0')+%'('0%',)'8'2'
.*)'4%'%E1'//2',.('6'4/%'&'5*,..-'+'$8',.'
)+%$' 3'20')'*47,*10')*'4%'6*,.)%5'*')'
'0+,*.'0+*1/5'.%,)+%$' 5%)%$8,+%')$%')8%.)

.*$'4%'&*$-*))%.'0',.&/1%.(,.-')+%'%0),8')%
&*$8%5')+%'&$,%.5 0'*&''01&&%$%$' %.%0%(;
),*.'0&)*1/5'.*)'4%'%86/*2%5'3+%$%')+%$%',0'
'.2'%7,5%.(%'*&'&*,/,.-'+%')$)6*3%$'
5,(')*.0'$%'5$'3.''0'81(+'&$*8')+%'0)')%'&'
)+%'6')%.)''0'&$*8')+%&'()'*&'+'%8*$$+'-%'
$,-+)<0'5,0%'0%',.*')$',.5,(',)*.
&'4/%%5,..-',0'.*)'%86/*2%5')+%'*4>%()'*'
4%','8%5''}'42'*)+%$' 8%'01$%0' 8 10)'4%')*'
/*3%$')+%'$)%$,'/'6$%001$%' 3,)+,.')+%'091//'
42'9%%6,.-'5*3.')+%'+%')$)<0'(),*.'42'$%;
51(,.-')+%'7*/18%'*&')+%'4/**5''.5'42'
5,7%$),.-')+%'4/**5''0'&'$'0'6*00,4/%&$*8')+%
4$','42'$%/'B,.-')+%'020)%8,('7%00%/0'3+,/%
%.5%'7*1$,.-')*'*4)',.'(*.)$')(),*.'*&')/,%
(%$%4$'/'7%00%/0' '$8)+'8'2'4%'66/,%5'
)*')+%'/,840'',5%5'42'0,.'6,080' $2 (16;
6,.-')*')+%'01$&'(%''.5'61$-'),7%0''0'($*)*.'
,/$'('/*8%/'.1/'5,7%$)')+%'4/**5')*')+%'
01$&*(%'*$')*')+%'('6'(,*10',.)%0),.'/'7%00%/0'
$1-0'3+,(+'3*1/5'('10%'(*.)$')(),*.'*&')+%'
7%00%/0''$%')*'4%''7*,5%5'0,.(%')+%,$',.&/1%.(%'
4%,..-'*.')+%'08'//%0)'7%00%/0''.5'1.,7%$0'/'
)+%,$')%.5%.(2'>0')*',.($%'0%''$8)%$,'/')%.0,*.'
'.5'+0%8*$$+'-%' *')+,0'+*3%7%$'5,-,)'/,0'
,0''.'%B(%6),*.'0,.(%',)0''(),*.'0%%8 0')*'4%
(+,%&/2'*.'')$)%$,%0'/'$-%$')+'.')+*0%')+')'
41$0)' ,1$%),(0''$%'*&'-$%')'7'/1%''.5')+%,$'
'58,..0)$'),*.'0+*1/5'.%7%$'4%'.%-/%()%5'
.)$'(),.'*&'%.(%6+'/,('7%00%/0'8'2'4%'
)%)+%$%5'42'(*/5')*')+%'+%'5'*$0.,'60,080
)*')+%'.%(9'((*$5,.-'0')+%'+%'5',0'+*))%$
$(*/5%$')+'.'.$8'/' +%'+%')$)'0+*1/5'4*'
'//*3%5')*'&'/'''/,))/%'4%/*3'')+%'.*$8'/'.,'
&*$(%'41)'&',/1$%'*&'6*3%$'8 10)'4%'3'$5%5'
&&'42'0),8 1/'.)0'-,7%.'3,)+'-$%')'('$'
.71/0,.',0'8*$%'%&&%()1'//2'(+%%9%5'42'
(*/5')+'.'42'4$*8,5%0H')+%'/'))%$'8'2'4%'
-,7%.',&')+%'(*.71/0,*.'$%(1$0
)%$')+%'))''*+=.$,.-')+%'0)'-%'*&',$$,)','*.'$%0)'8 10)'4%'8',.)'.,%5'.'.5''//
0*1$(%0'*&'.*2'.(%'8 10)'4%'7*,5%5' +%'
4*3%/0'0+*1/5'4%'9%6)'-%.)/2'*6%.'42'/'B';
),7%0'*$'42',.>%(),*.0'),81/'.)0'8 10)'4%'
'7*,5%5''.5')+%'5,%)'0+*1/5'4%'/,-+)' ',.'
8'2'4%'$%+%7%5'42'(*/5')*')+%+%'5'''4/,0)%$'
)*')+%'.%(9'67'42'.5,'.'+%86'4$*8,5%'*&'
6*)'00,18'*$' 08'//'5*0%'*&'42*0(,.%
1$,.-'$%6=','*.')+%' 5,%)' 8 10)'4%'
.1)$,),*10' 41)' ('$%&1 2'$%-1/')%5H'.5'
(*.0),6','.'*&')='4*3%/0'8 10)'4%'7*,5%5'
144,.-'*&')+%'c, 40' '.5')+%,$' -%.)/%
%B%$(,0%'3,//' ,5' $%(*7%$2H'.5'&)%$'
)+%'02 8 6)*8 0'*&',=)',*.'+'7%'6'00%5'
&*$'5,0',*.'3,//',86$*3,&'[=0[15'$.1)$,),*.'
'.5',0'%06%(,'//2'.5,('0)6=' 3+%$%'$'6,5'/*00'
*&',$$,)'4,/,)2' .5,('0)%0' IKP/I'4f% 3'0),.-'
%$7,.%')*.,(0' 6$*4'4/>/'.5'' /,))/%')+%'
$%(*7%$2' *&' 0 -+)/2'5', '-05' 0)$1()1$%0'
E1,.,.%''.5')$2(+.,.%'*$
*&'6+*06+*$10',&')+%$%',0' 8 q'9,5.%2 5
.'.'.'%8,'')+%'02$16' *&') ['6)%0
,$*.',0' -**5' '$8)+'
'.5'(+%%$&),/'8%.)'/01$$*1.'
'5>1.()0'%06%(,'//2',.')+2'
$%(*7%$2

6*,.)0‘7,0, %‘*.‘0%(),*.‘*&‘)+%‘3+,)%‘8‘))%$‘ .‘‘(),7%‘(*.-%0),*.‘)+%‘ ‘$)%$,%0‘ ‘$%‘0‘,5‘)*‘ +%‘5,0),.()/2‘/‘$-%$‘)+‘.‘.‘*$8‘/‘‘.5‘)+%,$‘ 6%$,7‘0(1/‘$ 06‘(%0‘ /%00%.%5‘ ,.‘ 0,C%H‘)+%‘ 8,.1)%‘7%00%/0‘*&‘)+%‘8%.,.-%0‘‘$%‘5,0)%.5%5‘ .5%%5‘ ,.‘ ‘//‘&*$80‘*&‘-%.%$‘/‘(*.-%0),*.‘)+%‘0)‘)%‘*&‘)+%‘ 7%00%/0‘,0‘-%.%$‘//2‘8*$%‘ 5,0),.()‘ ,.‘)+%‘6,‘‘8‘)%$‘)+‘.‘ ,.‘)+%‘014; 0)‘.(%‘*&‘)+%‘4$‘,.‘ 7%.‘ ,)‘)+*0%‘+*3; %7%$‘,)‘,0‘(+,%&/2‘)+%‘(*.-%0),*.‘)+‘)‘3*1/5‘ 6‘00‘*.‘)*‘,.&/‘8 8‘),*.‘*$‘,0‘$%‘//2‘,)0‘&,$0)‘ 0)‘-%‘)+‘)‘/%‘7%0‘5,0),.()‘)$‘(%0‘ .‘6‘0; 0,7%‘(*.-%0),*.‘)+%‘7%,.0‘ ‘.5‘0,.10%0‘‘$%‘ -*$-%5‘3,)+‘4/**5‘)‘8 10)‘4%‘$%8%84%$%5‘ +*3%7%$‘)+‘)‘01(+‘%.-*$-%8%.)‘*&‘)+%‘7%,.0‘ *((1$0‘,.‘‘//‘(‘0%0‘*&‘5%‘)+‘&$*8‘,.)%$&%$%.(%‘ 3,)+‘)+%‘6‘00‘-%‘*&‘)+%‘4/**5‘)+$*1-+‘)+%‘)+*$‘B‘ ‘.5‘)+‘)‘)+%‘ 7%00%/0‘*&‘)+%‘8*0)‘ 5%6%.5%.)‘6*$),*.‘‘$%‘ ‘/3‘20‘&1//%0)‘ +%‘ 0)‘)%‘*&‘)+%‘(%$%4$‘/7%,.0‘8 10)‘)+%$%&*$%‘4%‘ (‘$%&1//2‘(*86‘$%5‘3,)+‘)‘*&‘)+%‘7%,.0‘*&‘ *)+%$‘*$-‘.0‘ (),7%‘(*.-%0),*.‘8‘2‘0*8%;),8%0‘/%‘7%‘.*‘7,0,4/%‘)$‘(%0‘ &)%$‘‘),8%‘ 4/**5 6,-8%.)‘(*//%()0‘*B,)0,5%‘)+%‘7%00%/0‘ A ‘0),‘.R‘‘.5‘0%$*10‘%&&10,*.‘,.)*‘)+%‘8%8; 4$‘.%0‘‘.5‘7%.)$,(/%0‘8‘2‘4%‘&*1.5‘,.‘‘//&*$80‘ &)%$‘‘’/*.-(*.),.1%5‘(*.-%0),*.‘)+%‘7%00%/0‘8‘2‘4%‘6%$8‘.%.)/2‘5,0)%.5%5H 5%-%.%$‘),7%‘(+‘.-%0‘(*.0%E1%.)‘6%$+‘60‘ *.‘)+%‘%&/10,*.‘*&‘0%$18‘8‘2‘/%‘5‘)*‘)+%‘ ‘66%‘$‘.(%‘*&‘3,5%‘06‘(%0‘‘$*1.5‘)+%8H ‘.5‘)+%‘3+*/%‘4$‘,.‘8‘2‘+‘7%‘1.5%$-*.% 5,0),.()‘3‘0),.-‘)‘8 10)‘+*3%7%$‘4%‘ 6*,.)%5‘*1)‘)+‘)‘)+%‘‘40%.(%‘$6‘1(,)2‘*&‘ 6*0)8*$)%8‘%7,5%.(%‘,0‘%E1‘//2‘)$1%‘*&‘)+%‘ 09,.‘‘.5‘5*%0‘.*)‘%0)‘4/,0+‘)+%‘‘40%.(%‘*&‘ (*.-%0),*.‘51$,.-‘/,&%

‘#0 # ‘G‘)‘,0‘6$*4‘4/%‘)+‘)‘8‘.2‘ 0286)*80‘+‘7%‘4%%.‘%$$*.%*10/2‘‘0($,4%5‘)‘(%$%4$‘/*.-%0),*.H0*8%‘4%(‘10%‘+26%$‘ ‘8,‘‘51%‘)*‘)+%‘8*5%*&‘5%‘)+‘3‘0‘&*1.5‘ 6*0)‘ *)+%$0‘4%(‘10%‘.‘‘0018%5‘ (*.-%0),*.‘3‘0‘)+%‘$%‘5,%0)‘%B6/‘.‘),*.

+%‘0286)*80‘(*88*./2‘$%&%$$%5‘)*‘(%$%; 4$‘/(*.-%0),*.‘8‘2‘4%‘-$*16%5‘,.‘)3*‘ (/‘‘00%0G=)+*0%‘*&‘%B(,)%8%.)‘‘.5‘)+*0%‘*&‘ 5%6$%00,*.‘ ,)+%$‘*&‘)+%0%‘8‘2‘%B,0)‘‘/*.%H)+*0%‘*&‘%B(,)%8%.)‘8‘2‘6$%(5%‘)+*0%‘*&‘ 5%6$%00,*.H‘*$‘)+%2‘8‘2‘6‘$),‘‘//2‘**%B,-)‘ +%2‘8‘2‘4%‘0/,-+)‘*$‘0%7%$%H‘(1)%‘*$ (+$*.,(‘.‘‘//‘(‘0%0‘)+%2‘‘$%‘,.($%‘0%5‘42‘)+%‘$%(184%.)‘6*0)1$%‘*$‘5%6$%00,.-‘)+%‘ +%‘5‘42‘%B6,$‘),*.‘(*1-+0‘‘.5‘%&&*$)H‘.5‘)+%2‘‘$%‘101‘//2‘‘--$‘7‘)%5‘42‘(*.0),6‘),*.‘ ‘.5‘42‘,.51/-%.(%,.‘‘/(*+*/

B ‘‘ G .‘-%.%$‘/(%$%4$‘/+26%$0%$%01/)0

8,‘‘‘8*.-‘)+%‘0286)*80‘*&‘%B(,)%8%.)‘8‘2‘ 4%‘8%.),*.%5‘8%.)‘/‘,$$,)‘4,/,)2H+%‘5‘(+%G‘ 0/,-+)‘*$‘7,*/%.)‘3,)+‘&%%/,.-0‘*&‘&1/.%00‘*$)+$*44,.-‘.‘)+%‘+%‘5‘.5‘7%$),-,.*10‘*$ W*)+%$‘1.6/%‘0‘.)‘0%.0‘),*.0H‘,.($%‘0%5‘*$ 6%$7%$)%5‘&1.(),*.0‘*&‘)+%‘*$-‘.0‘*&‘06%(,‘/ 0%.0%‘01(+‘‘0‘&/‘0+%0‘*&‘/,-+)‘‘.5‘.*,0%0‘,.‘)+%‘%‘$0H (*.)$‘(),*.‘*&‘)+%‘616,/0H‘0/%%6; /%00.%00‘H‘$%0)/%00.%00‘0)‘$),.-0‘)3,)(+,.-0‘ *$‘0/,-+)‘‘()1‘/‘(*.71/0,*.0H‘‘.5‘8%.)‘/‘ %B(,)%8%.)‘ +%‘61/0%‘,0‘E1,(9‘ +%$%‘8‘2‘ +%‘7*8,),.-‘ &%%‘&‘(%‘7‘$,%0‘6‘$),(,6‘),.-‘ ,.)+%‘(*.-%0),*.0‘*&‘(,$(1/‘)*$2‘*$,-.‘‘.5‘ ,.‘0*8%‘*&‘70)0*8*)*$‘5,0)1$4‘.(%‘01(+‘‘0‘)+‘)‘3+,(+‘8‘2‘*(*,1‘51$,.-‘5,-%0),*.‘ .‘ *)+%$‘&*$80‘*&‘0166*0%5‘(*.-%0),*.‘*&‘7‘0*; 8*)*$‘8%(+‘.,08‘‘0‘,.‘)+*0%‘3+,(+‘$%01/‘ &$*8‘%B(%00,7%‘4$‘,.3*$9‘)+%‘&‘(%‘8‘2‘4% 6‘/%‘41)‘)+%‘.‘)1$%‘*&‘)+%0%‘(‘0%0‘,0‘5*14)&1/ 8*.-‘)+%‘0286)*80‘*&‘5%6$%00%5‘4$‘,.‘ &1.(),*.‘‘$%‘5./.%00‘*&‘)+%‘0166*0%5‘(*.-%0),*.‘*&‘7‘0*; 8*)*$‘3%‘9.%00H‘8%.)‘/‘,.5,&&%$%.(%‘.5‘ 0/*3.%00H‘068.*/%.%%‘%06%(,‘//2‘‘&)%$‘8%‘/0H‘ 5,/‘)‘),*.‘*&‘)+%‘616,/0H‘.5‘,.&$%E1%.(2‘*&‘)+%‘+%‘$)0‘‘(),*.‘ *.0(,*10.%00‘8‘2‘4*‘ /*0)‘0155%./2‘‘.5‘)+%‘/*00‘,)‘,0‘(*88*./2‘ 4%/,%7%5‘8‘2‘5%%6%.‘,.)*‘(*8‘‘41)‘)+,0‘,0‘ 0%/5*8‘‘40*/1)%‘ 0‘‘$1/%‘)+%$%‘,0‘.*‘&%7%$‘ 41)‘,.‘(+,/5$%.‘)+%‘)%86%$‘)1$%‘8‘2‘4*‘ $‘,0%5‘‘5%-$%%‘*$0*

.‘)+%‘ # " ‘&*$80‘*&‘(%$%4$‘/(*.-%0;),*.‘)+%0%‘0286)*807‘$,*10/2‘-$*16%5‘‘.5‘ 8*5%$‘)%‘,.‘5%-$%%‘(*.),.1%‘&*$5‘20‘3%%90‘ *$‘8*.)+0‘ +%,$‘(*1$0%‘,0‘8‘$9%5‘42‘-$%‘)‘ 7‘$,‘4,+)2‘ 1$‘.5 ‘$5%/‘+‘0‘6*,.)%5‘*1)‘)+‘)‘,.‘)+%0%‘*‘0%0‘)+%$%‘,0‘*&)%.‘81(+‘7,0,(,5‘ 0%($%),*.‘*&‘)+%‘**.>8,()‘7‘

.‘)+%‘8*$%‘ /D‘&*$80‘*&‘(%$%4$‘/(*.; -%0),*.‘)+%‘0286)*80‘*&‘810(1/‘$06‘08‘‘*&‘ 8%.)‘/‘5,0)1$4‘.(%‘*$‘ *&‘/*00‘*&‘(*.0(,*10; .%00‘8‘2‘4%‘0*‘6$%5*8,.‘)‘(0‘)*‘-,7%‘‘ 06%(,‘/(+‘$‘()%$‘)*‘)+%‘‘))‘(9HG0

‘.‘)+%‘ ‘) ‘&*$8‘6‘,.‘*$‘1.%‘0,; .%00‘,1‘)+%‘+%‘5‘(*88*./2‘6$%(%5%0)+%‘810; (1/‘$06‘08‘ +%‘/‘))%$‘,0‘101‘//2‘5%/,4%$‘)%‘ ,.‘1.0%)‘)‘,0‘0‘,5‘0*8%),8%0‘)*‘4%1. ‘)*$‘/ ‘)‘&,$0)‘‘.5‘‘&)%$3‘$50‘-%.%$‘/‘41)‘8*$%‘ &$%E1%.)/2‘,)‘,0‘-A%.%$‘/)+$*1-+*1)‘ *.,(‘ 8‘2‘6$%(%5%‘(/*.,(‘06‘08‘‘.5‘)+%‘‘))‘(9‘ $%0%84/%‘‘.‘%6,/%6),(‘&,)‘*$‘(/*.,(‘06‘08‘ *./2‘8‘2‘4%‘6$%0%.)‘*$‘0/,-+)‘-%.%$‘/)*.,(‘ 06‘08‘ *.0(,*10.%00‘8‘2‘*$‘8‘2‘.*)‘4*‘ /*0)H‘,&‘/*0)‘,)‘,0‘&*$‘‘7%$2‘0+*$)‘06‘(%‘*&‘),8%

4‘ +%‘ ‘&*$8‘,0‘0%%.‘1.5%$‘)3*‘ ‘06%()0GA R‘,.‘*/5‘‘-%‘‘&)%$‘8%*),*.‘/‘%B; (,)%8%.)H‘,.‘)+,0‘)+%‘3‘.5%$,.-‘,0‘0/,-+)‘ ‘.5‘*&)%.‘$%/‘)%5‘5,0),.()/2‘)*‘)+%‘$%(184%.)‘ 6*0)1$%‘*$‘)*‘‘‘/*3‘6*0),)*.‘*&‘)+%‘+%‘5H A@R‘‘81(+‘8*$%‘7,*/%.)‘5%/,$,18‘3+,(+‘,0‘ ‘66‘$%.)/2‘$%/‘)%5‘)*‘(%$%4$‘/(*.-%0),*.‘*.‘,0‘ 0%%.‘0*8%),8%0‘&)%$‘8%.)‘/‘3*$9‘*$‘%8*;),*.‘/‘%B(,)%8%.)‘*$‘&)%$‘/(*+*/,(‘6*,0*.,.-‘)‘*&)%.‘$%0%84/%0‘.5‘8‘2‘%.5‘,.‘8‘.,‘ 41)‘)+%$E‘,0‘.*‘62$%B,‘‘ ((‘0,*.‘//2‘5%‘)+‘

(‘ +%‘ ‘&*$8‘,0‘8‘$9%5‘42‘0155%.‘ /*00‘*&‘(*.0(,*10.%00‘*((1$$,.-‘(*88*./2‘ 51$,.-‘%&&*$)‘ +%‘1.(*.0(,*10.%00‘101‘//2‘ /‘0)0‘*./2‘‘‘&%3‘8,.1)%0‘‘.5‘,.(*86/%)%‘ -%.%$‘/‘3%‘9.%00‘$%8,.0‘&*$‘‘5‘2*‘$)3*‘ .‘$‘$%‘(‘0%0‘)+%‘/*00‘*&‘(*.0*,*10,‘%00‘ 5%%6%.0‘,.)*‘(*8‘‘3,)+‘0)%$)%$*10‘4$%‘)+; ,.-‘‘.5‘$%/‘B%5‘06+,.()%$0‘‘.5‘5%‘)$&‘,‘2‘ *((1$‘&$*8‘)+%‘%B)%.0,*.‘*&‘)+% .)%$%4$‘/ 5%6$%00,*.‘)*‘)+%‘$%06,$‘)*$2‘(%.)$%0

01((%%5%5‘ 3+%$%‘ 7%.%0%(),*.‘ ‘.5‘61$-‘),*.‘ &‘,/%5‘ */5‘)*‘)+%‘ +%‘5‘ ,0‘ *&‘ 8*0)‘ 7‘/1%‘ ,.‘ $%5%Y‘*$‘0%(*.5‘$2‘5,/‘)‘),*.‘*&‘)+%‘(%$%‘ +$‘/‘7%00%/0‘ ‘0‘ ‘&)%$‘ 8%.)‘/‘ 3*$9‘ ,.0*/‘I‘),*.‘&‘),-1%‘ ‘.5‘ ,.‘ 0*8%‘)*B%%8,(‘ 0)‘)%0‘ .‘)+%‘0‘8%‘ (/‘00‘ *&‘ (‘0 0‘0),81/‘),*.‘ *&‘)+%‘6%$,6+%$‘/‘.%$7%0‘ 42‘0,.‘6,0 8 0‘4/,0)%$0‘ ^(‘‘66/,%5‘)*‘)+%‘.%(9‘3,/‘.*)‘*.‘/2‘5$‘3‘ 4/**5‘)*‘)+%‘01$&‘(%‘41)‘‘/0*‘42‘$%&/%B‘,.&/1; %.(%‘‘)0,0)‘,.‘*4)‘,.,.-‘‘$)%$,‘/‘(*.)$‘()‘*.‘ *)‘‘66/,(‘),*.0‘)*‘)+%‘/,8 40‘(‘()‘,.‘‘‘0,8,/‘$‘ 8‘..%$‘(‘10,.-‘/*(‘/‘‘&&/1B‘*&‘4/**5‘‘.5‘)+10‘ /%00%.,,=‘)+%‘)%.5%.(2‘)*‘%.%%==‘/,%‘%..-*$-%; 8%.)‘ U%(*1$0%‘8‘2‘‘/0*‘4%‘+‘5‘)*‘8%(+‘.,; (‘/‘‘66/,‘.(%0‘&*$‘,.($%‘0,.-‘)+%‘E1‘.),)2‘*& 4/**5‘,.‘)+%‘/,840‘ +,0‘%/%8%.)‘,.‘)$%‘); 8%.)‘,0‘ 8*0)‘ 10%&1/‘,.‘‘(),7%‘(*.-%0),*.‘ /(*+*/‘ .5‘*6,18‘ 810)‘ 4%‘‘7*,5%5‘,.‘‘// &*$80‘*&‘‘(),7%‘(*.-%0),*.‘ 41)‘,.‘6‘00,7%‘ (*.-%0),*.‘)+%2‘8‘24%‘*&‘0%$7,(%‘ $*8,5%‘ *&‘6*)‘00,18‘,0‘10%&,,/‘,.‘)+*0%‘ ‘0%0‘,.‘3+,(+‘)+%(*.-%0),*.‘,0‘ 6$*51(%5‘42‘7‘0*8*)*$‘ 8%(+‘.,0 8‘%B(,)%5‘%,)+%$‘42‘0),81/‘),*.‘ 4$‘,.)001%*)‘*&‘5,0)‘.)‘.%$7%0‘ .‘6‘00,7%‘ (*.-%0),*.‘&$*8‘+%‘$)5,0%‘0%‘)+%‘)$%‘)8%.)‘ ,0‘)+‘)‘*&‘)+%‘ (‘$5,‘(‘(*.5,),*.‘5,-,)‘/,0‘ 0)$*6+‘.)+10‘‘.5‘5,1$%),(0‘4%,.-‘*&‘%06%(,‘/ 0%$7,(%‘ /‘6%$0*.0‘/,‘4/%‘)*‘(*.-%0),*.‘*&‘/)+%‘4$‘,.‘0+*1/5‘+7%‘$%-1/‘$/2‘‘7*,5‘+*)‘ $**80‘‘.5‘‘))%.5‘(‘$%&1//2‘)*‘)+%‘0)*8‘(+‘ ‘.5‘4*3%/0‘$%/,%7,.-‘)+%‘/‘))%$‘42‘&$%E1%.)‘ 8*5%$‘)%‘61$-‘),*.‘ ‘ ‘5

‘ =%$)$ 6+2‘*&‘G 26%$;)$*6+2‘*&‘4$‘,.‘,0‘‘‘8,0.*8%$‘ $1%‘+26%$;)$*6+2‘3*1/5‘(*.0,0)‘*&‘,.($%‘0%‘,.‘.184%$‘ *$‘,.‘0,C%‘*&‘)+%‘.%$7% (%//0‘.%$7%)14%0‘(*.; .%(),7%‘0)$*8‘‘‘.5‘0166/2,.-‘7%00%/0H‘.5‘)+%$%‘8,-+)‘4%‘%B6%()%5‘‘0‘‘‘$%01/)‘*&‘)+,0‘ (*.5,),*.‘0*8%‘8‘.,&%0)‘),*.‘‘*&‘‘‘+,-+%$‘ ,.)%//%()1‘/‘5%7%/*688%.)‘ 1(+‘‘‘(*.5,),*.‘ ,0‘.7%$‘&*1.5‘‘0*(‘//%5‘+26%$)$*6+,%5‘ 4$‘,.‘,0‘*.%‘)+‘)‘,0‘/‘$-%$‘.5‘+%‘7,%$‘)+‘.‘ .*$8‘/‘ .‘$%8*7,.-‘)+%‘091// %‘6‘)+%‘ %.(%6+‘/*.‘0%%80‘)*‘%B6‘.5‘0*‘‘0‘)*‘$%.5%$‘ ,)‘5&&,(1/)‘)*‘‘&&,B‘)+%‘ *.%(*7%$,.-‘,.‘,0‘ 6/‘(%H‘)+%‘ 8%84$‘.%0‘‘$%‘5$2H‘)+%‘01/(,‘ +‘7%‘.%‘$/2‘5,0‘66%‘$%5‘‘.5‘)+%‘3+*/%*$-‘.‘ ‘66%‘$0‘6,,/%‘‘.5‘4/**5/%00‘ .‘0%(),*.‘)+%$%‘ ,0‘‘‘0%.0‘),*.‘*&‘)*1-+.%00‘)+*1-+‘/%00‘,.‘ 5%-$%%‘)+‘.‘,.‘‘‘(‘0%‘*&‘-%.%$‘/‘0(/%$*0,0‘ +%$%‘,0‘.*0,-.‘*&‘6$%001$%‘16D.)+%‘*$4,)‘/ 6/‘)%0‘01(+‘‘0‘,0‘8%)‘3,)+‘,.‘(+$*.,(‘+25$*; (%6+‘/10‘ +%/%0,*.‘‘&&%()0‘*./>$‘)+%‘(%$%4$‘/‘ +%8,06+%$%0‘%06%(,‘//2‘*.‘)+%‘(6.7%B‘01$&‘(%‘ ‘.5‘6%$+‘60‘)+%‘6*0)%$,*$‘/*4%0‘,.‘6‘$),(1/‘$‘ +%‘4‘0%‘*&‘)+%‘4$‘,.‘‘.5‘)+%‘(%$%4%//18‘‘$%‘ 1.‘&&%()%5‘%B(%6)‘42‘6$%001$% .‘8,.1)%‘%B‘8,.‘),*.‘)+%‘.%$7% (%//0‘.5‘ .%$7% &,4$%0‘&‘$&$*8‘4%,.-‘&*1.5‘‘1-8%.)%5‘ ,.‘.184%$‘*$‘,.‘0,C%‘8‘2‘%7%.‘4%(*86$%00%5‘ ‘.5‘5,8,.,0+%5H‘.5‘)+%$%‘,0‘*&)%.‘‘/0*‘0‘8% ,.)%$&%$%.(%‘3,)+‘)+%‘.*$8‘/‘(‘/,4$%‘*&‘)+% 7%00%/0‘ ,.)$‘(‘+*3%7%$‘$%(*$50‘‘(‘0%‘,.‘ 3+,(+‘)+%‘(‘/,4$%‘*&‘)+%‘.%$7%)14%0‘3‘0‘ ‘/8*0)‘5*14/%)+‘)‘*&‘)+%‘.*$8‘/‘ +‘)‘,.

($%=%‘)+%$%‘,0‘‘&&%()0‘)+%‘3+,)%‘8‘))%$‘*&‘)+% 4$‘,.‘‘.5‘)+,0‘0)$1()1$%‘ ,0‘7%$2‘6‘/%‘‘.5‘ *&‘‘.‘%/‘0),(‘(*.0,0)%.(%‘ +%‘$%‘/‘‘.5‘0*/% /%0,*.‘,0‘426%,6/‘0,‘‘*&‘)+%‘(*.%(),7%‘),001%‘)‘5,&&%$0‘&$*8‘0(/%$*0,0‘,.‘‘&&%(),.-‘)+%‘(%$%; 4$‘/‘+%8,06+%$%0‘8*$%‘1.,7%$0‘//2‘)+‘.‘,0‘)+%‘(‘0%‘3>)+‘0(/%$*0,0H‘.5‘‘/0*‘)+‘)‘,.‘ 0(/%$*0,0‘)+%$%‘,0‘.*)‘*./2‘,.($%‘0%‘*&‘)+% *..%(),7%),001%‘41)‘0140%E1%.)‘$%)$‘(),*.‘ ‘.5‘‘0‘‘‘&$%E1%.)‘(*.0%E1%.(%‘*&‘)+,0‘‘.‘ ‘40*/1)%‘5%0)$1(),*.‘8*$%‘*$‘/%00‘*&‘)+%‘.%$7%‘ %/%8%.)0‘*&‘)+%‘*$-‘.‘ +%.‘)+%‘5,0%‘0%‘,0‘ &‘$‘57‘.(%5‘,)‘8‘2‘6*00,4/2‘(‘10%‘40*$6),*.‘ *&‘)+%‘,..%$‘)‘4/%‘*&‘)+%‘091 ‘‘.5‘)+10‘6$*; 51(%‘‘‘$*1-+.%00‘*$‘)+,...-‘*&‘)+%‘4*.%‘*$‘ ,.‘%B)$%8%‘%‘0%0‘%7%.‘6%$&*$‘),*.‘ +%‘ 0,.10%0‘‘$%‘-%.%$‘//2‘5,0)%.5%5‘3,)+‘4/**5‘ 26%$)$*6+2‘*&‘08‘//%$‘6*$),*.0‘*&‘)+%‘4$‘,.‘ ,0‘$‘$%H 0),‘7‘$,*10‘(‘0%0‘‘$%‘*.‘$%(*$5‘,.‘ 3+,(+‘)85%$‘)+%‘.‘8%*&‘.%1$*8‘)‘‘*&‘)/,%‘ .%$7*10‘(%.)$%0‘3+,)%‘*$-$%2‘8‘))%$‘+‘0‘ 4%%.‘&*1.5‘,.‘(%$)‘,.‘6‘$)0‘*&‘)+%‘4$‘,.‘*7%$‘ ‘.5‘‘4*7%)+%‘.*$88‘(*.0),)1%.)0‘*&‘)+,0‘ $-‘.‘ 26%$6/‘0,‘‘*&‘)+%‘6,.%‘/‘-/‘.5‘,0‘ (/*0%/2‘‘/+%5‘)*‘-/,*8‘‘‘)‘0+*1/5‘4%‘5,0‘),.-1,0+%5‘&$*8‘%.(20)%5‘5$*602‘*&‘)+‘)‘ *$-‘.

.‘8*0)‘(‘0%0‘*&‘0*(‘ %5‘+26%$)$*6+2‘*&‘ ‘‘08‘‘6‘$)‘ ‘)+%‘4$‘,.‘)+%‘/%0,*.‘,0‘‘.‘ ,.&,/)$‘),.-‘-$*3)+

[G 26%$)$*6+2‘*&‘)+%‘4$‘,.‘+‘0‘ 4%%.‘0‘,5‘)*‘4%‘0*8%),8%0‘0%(*.5‘$2‘‘.5‘ (‘10%5‘42‘)+%‘,$$,)‘),*.‘*&‘8*$4,5‘-$*3)+0‘ +,0‘+*3%7%$‘,0‘)‘$%‘)‘,0‘-%.%$‘//2‘ 6$,8‘$2‘‘.5‘8‘2‘4%‘‘5,0%‘0%‘*&‘,.)$‘; 1)%$,.%/,&%H‘4.)‘,)‘,0‘-%.%$‘//2‘5%7%/*6%5‘ ‘&)%$‘4,$)+‘%06%(,‘//2‘,.‘$,(9%)2‘(+,/5$%.‘ *8%&*$80‘*&%.(%6+‘/*(%/%‘3,)+*1)‘+25$*; (%6+‘/10‘0%%8‘)*‘4%‘51%‘)*‘)+%‘-$*3)+‘*&‘ (*86‘()‘8‘00%0‘*&‘(%$%4$‘/‘0140)‘.(%‘..‘%B; (%00‘*&‘3+‘)‘,0‘.*$8‘/‘ +%‘(*.5),*.‘0‘&*$‘)+%‘6$*51()‘,.*.‘*&‘)+,0‘8*$4,5‘0)‘)%‘‘$%‘,.; &‘.(2H‘4‘5‘5,%)H‘$%6%‘)%5‘(*.-%0),*.‘*&‘)+% %$%4$‘/‘7%00%/0‘01(+‘‘0‘8,-+)‘4%‘,.51(%5‘ 42‘&$%E1%.)‘(*1-+H‘.5‘6%$+‘60‘/%‘5‘ 6*,0*.,.-

6 7 ‘G‘ +%‘0286)*80‘*&‘0*(‘//%5‘ -%.%$‘/‘+26%$)$*6+2‘7‘$J‘‘((*$5,.-‘‘0‘)+% 01)1$%0‘‘$%‘(/*0%5‘*$‘.*)‘ &‘&$*8‘,.01&; &,(,%.)‘*((/10,*.‘*&‘)+%‘01 3%0‘)+%‘+%‘5‘%B; 6‘.50‘,.‘6$*6*$),*.‘)*‘)+[‘,.($%‘0%‘,.‘0,C% *&‘)+%‘%.(%6+‘/*.‘)+%‘0286)*80‘8‘2‘4% 7%$2‘0/,-+)‘ +,/5$%+‘)+10‘c‘&&%()%5‘0+*3‘.*‘ ,.)%//%().‘/‘+%4%)15%‘ .‘)/+%8‘‘0‘/*.-‘‘0‘)+%‘‘4.*$8‘/,)2‘,0‘1.(*86/,* %5‘3,)+‘/*(‘/ ,.&/‘88‘),*.‘*‘&‘8%84$‘.%0‘A2‘3,)+‘+%8*$; $+‘-%0‘)+%$%‘8‘2‘4%‘.*‘+%‘5‘(+%‘.*‘‘&&%(;),*.‘*&‘0,-+)‘.*‘0%.0*$2‘*$‘8*)*$‘6‘$‘/20,0‘ ‘.5‘.*‘(*.71/0,*.0‘ *.71/0,*.0‘+*3%7%$‘ ‘$%‘(*88*.‘,.‘(‘0%0‘,.‘3+,(+‘)+%‘*((/10,*.‘ *&‘)+%‘01)1$%0‘+‘0‘6$%7%.)%5‘%B6‘.0,*.‘*&‘)+%‘+%‘5‘6$*6*$),*.‘)*‘)+%‘,.)%$.‘/‘,.; ($%‘0%‘*&‘),001%‘ .‘01(+‘(‘0%0‘‘/0*‘)+%$%‘,0‘ -%.%$‘ 2‘8*$%‘*$‘/%00‘8*)*$‘6‘$‘/20,0‘*&)%.‘ 0*8%‘ ‘.‘%0)+%0,‘‘*&‘)+%‘/,840‘+%‘5‘(+%‘ 7*8,),.-‘‘.5‘8%.)‘/‘+%4%)15%G0286)*80

2 ' ; <&' <A ' U ' ' @!

5%%6/2',)' 5*%0' . *)' $%7%'/',)0%/&'42' ' .2' 06%(,'/' 0286)*80' &' 7%$2' %B)%.0,7%'7)$%'9.%00' *&')+%' *66*0,)%' /,840' ' .5' 0,5%' *&')+%' &'(%',0' .0.''//2' *40%$7%5' .>1$2')*')+%' '.)%$,*$' /*4%0'1./%00'%B)%.0,7%'('..*)' 4%' 5,'-.*0%5 ' 41)' ,)' 8'2' 4%' -1%00%5' ')' .,' '' &%3' ('0%0' 3+%$%')+%'0%.0%'*&'08%//',0'/*0)',.'*.%'*$'4*)+' .*0)$,/0H' &*$',)' ,0' 7%$2' (*88*.'&*$')+%' */; &'()*$2' 41/40')*' 4%' 5'8'-%5' ')')+%'0'8%),8%' &')+%' '.)%$,*$' /*4%0' '$%' 0%7%$%/2'/'(%$')%5')+%'0=6)*80'03,//'4%')+*0%'*&'7%$2'0%7%$%' (*.(100,*.'3,)+'5,&&%$%.(%')+')',.0%.0,4,/,)2',0'8*$%.%'$/2'(*86/%)%''.5')+')',)',..($%'0%0',.0)%'5'*&'5,8,.,0+,.-'0')+%'5'20'6'00'*.' L .,%.''06+%.*,5'/'/*4%',0'(*.)10%5')+%$%' ,0' 101''//2' '((*$5,.-')*')+%' 3$,)%$<0'*40%$7'),*.' ,.(*.,6/%)%' +%8,6/%-,'' &)+%'*66*0,)%' 0,5%',.7*/7,.-'0%.0'),*.'' ' 3%//'0'8*),*.' ''.5')+%'&'(%' '0' %//' '0')+%' /,840' $*8')+%0%'0286)*80')+%'6'),%.)' 8'2',.'+%' (*1$0%*&'8*.)+0'3+*//2'$%(*7%$')',0'101''//2')+%'*6%B'*&')+%'06+%.*,5'/'/*4%'3+,(+',0'/'(%$')%5' ',&')+%'/%0,*.'*%B)%.50'+,-+%$''.5',&',)'*((1$0'*.')+%'/%&)'0,5%''6+'0,'' 8'2'+%'6$%0%.)

.' (*.,%B,*.'3,)+' $%(%.)' $%0%'$(+' A $'.-+/,.-0' '(906.' $' %$$,%$''.5')+%$0H'0')*' /*('/,0%5'&1.(),*.0' % ',I% .*3' '4/%)*' 5,'-.*0%' 3,)+' (*.0,5%$'4/%' ((1$'(2')+%6$%(,0%'$%-,*.0',.>1$%5

B 0)' .5'4 :" .')+%')$%');8%.)' .5'6$*-.*0,0'*&'/'(%$'),*.0' .5'(*.)1;0,*.0'*&')+%'01$&'(%'*&')+%'4$',.'81(+'5%6%.50'16*.'3+%)+%$'*$' .*)')+%'%'0%',0'(*86/,(')%5'42'(*86*,85'&$'()1$%' .5')+%''58,00,*.'*&',$' &','$'+'7%'4%%.'58,))%5')+%$%',0'$,09'*&' 8%.,.-,),0'*$' %.(%6+'/,),0'5%.*)%5',.'%,)+%$'('0%'42')+%'*((1$$%.(%'W3,)+,.''' &%3'5'20'*&')+%',.>1$2'.*&'+%8,6/%-,''*&')+%'*66*0,)%'0,5%' *' 6$%7%.)')+,0'810)'4%')+%'*4>%()' *&')%')8%.)' +%'0('/6'0+*1/5'4%0+'7%5')+%'3*1.5'(/*0%5'W3,)+1)1)1$%0''0'&'$'0'6$'(),('4/%''.5'/,.)'3%))%5',.'''06,$,)''.5'/%'5'/*),*.'0+*1/5'4%'/',5'*7%$')+%'6')$)'.5'020)%8'),('//2'$%3%))%5'%7%$2'+*1$'&')+%'('0%'4%')$%')%5',.'+*06,)'/,)'8'2'4%'3%//',.''55,),*.')*')+,0')*'3'0+')+%'K *6.=3,)+'W)+%/*),*.'4%&*$%'(/*0,.-',)'*$')*'5$%00'W3,)1,0)%$<0'.),0%6),('6$%('1),*.0' .'('0%0'*&'/'(%$'),*.'3,)+*1)'((%00'*&''$'5%')+'8'2'%.01%'&$*8'5,&&10%0*&)%.,.-'$*1.5')+%'6')$)'&')+,0'+'66%.0')+%'('0%'3,//'6$*4'4/2'%.5'W3,)+,.''3%%9'*$')%.'5'20')',0'6$*4'4/%)+')'8'.2'('0%0'*&'&$'()1$%5'4'0%'3,)+'8*$%'%$'/%00'0%7%$%'/'(%$'),*.'*&'4$',.'$%(*7%$H,.'0*8%'3,)+'6%$8'.%.)'6'$'/20,0'41)',%)+%$0'3,)+*1)')'810)'4%'55%5')+')'8'.2')+%'('0%0',.'3+,(+'5%')+'*((1$0'3,)+,.'4'&%3'+*1$0'*$''5'2'*$)3*'&)%$'&$'()1$%*&')+%'4'0%''$%'))%.5%5'42'/'(%$'),*.'.'#'#'02860*80'$%'*&%.'5,&&,(1/)'*)5,0),.-),,0+'&$*8'),*.'0%.0,4,/,)2''*4/*')%5'&'(%'0)0%$;)*$*10'4$%')+,.-''.5''&1//61/0%''$%'*&)%.'6$%0%.)H 41)'+%2'8'2'4%'0140),)1)%5'42'6'//*$'.5''&%%4/%'61/0%',.'(*.,%B,*.'W3,)+

-$%')'5%6$%00,*.'*&')+%'+%')$)<0'(),*.'&'.2'5%7,'),*.'&$*8'02888%)$2'0'$%-'$50')+%6'$'/20,0'*&')+%'/,840'('.'4%6$*7%5',)',0',.'&'7*1$'*&'/'(%$'),*.''.5'-',.0)'(*866$%00,*.'41)')+%'5,&&%$%.),'/'5,'-.*0,0',0''' 8'))%$'*&%B)$%8%'5,&&,(1/)2

'(%$'),*.'*&' $'.,'/' %$7%0 G '(%$'),*.0'*&'0,.-/%'.%$7%0' 3,)+,.'W)+%($'.,'/'('7,)2''$%'.*)'42'.2'8%'.0'1.;(*88*.' +,0'*((1$$%.(%',0')*'4%0106%()%5'3+%.%7%)')+%'6'$)0'0166/,%5'42''' ($'.,'/'.%$7%''$%'(*86/%)%/2'6'$'/20%5'3,)+*1)'((*86'.2,.-'0286)*80',.5,('),7%'*&'0%7%$%'/%0,*.'*&')+%'4$',.'8'00' '0%0'*&'/'(%$'),*.'*&')+%'4$',.',)0%/&'8'2'4%'(*86/,(')%5'42'/'(%$'),*.'*&'.%$7%)$1.90''.5')+10')/,%'0286)*80'8'2'4%(*8%'5,&&,(1/)')*',.)%6%)'3,)+'(*.&,5%.(%

&'0,.-/%'($'.,'/'.%$7%0')+%'*/&'()*$2'41/40'$%')+%'8*0)'/,'4/%')*'01&&%$'&$*8'(*.)10,*.H'.5')+%)+,$5'&*1$)+'.5'0,B)+'.%$7%)$1.90''$%')+*0%'8*0)'&$%E1%.)/2')*$.')+$*1-+' = ' %'

U '/&*$8'),*.0'*&'G +%'8'/;&*$8'),*.0'*&')+%'($'.,18'.5',)0'(*.)%.)0'8'2'4%'5,7,5%5',.&*')3*'0%$,%0G '+*0%'3+,(+'$%'0('$(%/2'(*86'),4/%'3,)+'/,&%H'.5' +*0%',.'3+,(+'/,&%',0'6*00,4/%''/)++1-+')+%',.)%//%()1'/'6*3%$'8'2'4%'8*$%'*$'/%00'8*5,&,%5'&$*8''''+%'')+2'(*.5,),*.'+%' '3,'',.(/15%')'/%'0)'%7%.'&*$80',.''/'*&'3+,(+'/,&%',0'0*'$'$%)+')',)',0',86*00,4/%')*'06%'9'*&'8*$%')+'.')+%'6')+*/*-,('/''.')*82

'C # G,.'3+,(+')3*'+%'50'$%&*1.516*.''')3*'4*5,%0'6$%))2'%B)%.0,7%/2'(.8%()%5'.')+%'&,$0)'7'$,%)2'*.%+%'5'8'2'4%'))'(+%5')*'+%'7'1/)'*&')+%'6'/')%'*&')+%'*)+%$'*$'8'2'4%1.,)%5')*'+%'*.7%B,)2'*&')+%'091//'.')+%0%(*.5'7'$,%)2')+%'50'8'2'0*8%),8%06$,.-'&$*8'''0,.-/%'.%(9'+,0'5,(%6+'/*10'(*.5,),*.,0'&$%E1%.)/2''((*86'.,%5'42'8'/;&*$8'),*.''&&%(),.-')+%'06,.'/'(*/18.''.506,.'/.%$7%0''0'3%//'0'42'0*8%,.(*86/%)%;.%00',.')+%'5%7%/*68%.)'*&')+%'4$',.@' ! = 3 M#'1.,*.'*&')3*'+%'50',.)*'*.%'*.')3*'0%6$')%'4*5,%0' +%')3*($'.,'/'('7,),%0'$%'1.,)%5',.)*'*.%',0;0%(),*.'*&')+%'51$''8')%$'6*,.0')/,,0'8%84$'.%'+'7,.-'4%%.'&*$8%5'*1)'*&')3*''.5',.'/,9%'8'..%$')+%'($'.,'/'(*.)%.)0''$%%,)+%$'5*14/%'*$'66%'$)*'4%0,.-/%&$*8')+%1.,*.''*&5*14/%'*$-'.0

"' # (*86/%)%'40%.(%'*&+%'5' &"'('(%6+'/*10'8*.0)%$',0'101''//2''')3,.H'.5'3+%.')+,0',0'.*)')+%'('0%',)',0'00*(,')%5'3,)+')+%'8*$4,5'(*.5,),*.''*&')+%1)%$10'*&')+%'8*)+%$'9.*3.'42')+%'.'8*'*&1)%$,.%'+25'),50

'6 # 'G')+%'+%'5'.*)'%.),$%/2'3'.),.-'41)'5%6$,7%5'*&'8*0)'*&')+%'($'.,18''.5'*&')+%'&'(%' '8*.0)%$'*&')+,0'9,.5',0'-%.%$'//2''')3,.

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&')+%' (%.)$'/6'$)0'&')+%'4$',.' +%'(*$610'('//*0182')+%'0%6)182')+%'&*$.,B')+%'(*$6*$''0)$,')''.5')+%'(*$.1''8 8*.,0'8'2'+*',86%$&%()/2'5%7%/*6%5' +%'(%$%4$'/+%8,;06+%$%0'8'2')+10'4%',.'0*8%'0*$)'&10%5')*-%)+%$'.5')+%'0+'6%'*&')+%'7%.)$,(/%0'/)%$%5' +%'02866)*80'5,&&%$'&$*8')+0%*&)+%'6$%(%5,.-'7'$,%)2',.')+')'+%'06%(,'/0%.0%0'$%'0%/5*8',.7*/7%5H''.5')+')''/)+*1-,+'(*86/%',5,*(2'8'2'((*86'.2')+%0%'/%0,*.0',)',0'8*$%'101'/&*$')+%'4$',.')*'4%&*1.5'('6'4/%'*&'0*8%'0/,-+)',.)%//,-%.(%')+*1-+'1.%E1'/')*')+%'(*.(%6),*.'*&''40)$')'()',5%'0

.')+%'&*1$)+'7'$,%)2')+%'/')%$'/6*$),*.0'*&')+%'4$',.''$%',.(*86/%)%' +,0'/%0,*.'-%.%$'//2'*((16,%0'*.%'0,5%'&')+%'4$',.'/%'7,.-')+%'*)+%$'+%8,06+%$%',.)'()'%7%$'/6*,.)0',.')+%'+%8,06+%$%'8'2'4%'&&%()%5'*$')+%'3+*/%'*&''0,.-/%'/*4%'*0)'101'//2')+%$%',0''5%6$%00,*.'*((162,.-')+%'0%')'*&W*.%'*$'8*$%(*.7*/1),*.0' 1(+'''/%0,*.'*((')0,*.'//2'))'(90')+%'3+*/%'+%8,06+%$%'-,7,.-',)')+%'66%'$'.(%'*&''/'$-%'6*1(+&,//%5'3,)+'&/1,5' *8%),8%0'/0*')+%'.%,-+;4*1$,.-'7%.)$,(/%'(*881.,(')0'3,)+',)H*$')+%$%'8'2'4%'81(+'7%.)$,(1/'$'%&&10,*.'3,)+',86%$&%()'5%7%/*68%.)'*&')+%'(*$610'0)$,')18')+%'*6),(')+'/'810')+%'(*$.1''88*.,0')+%'8'88,//'$2')14%$(/%')+%'($10'(%$%4$,''.5')+%'*6),('.5'*/&&,() $2'.%$7%0'*&*.%'0,5%'''.5'*(*.0,5%$'4/%'65*6'*$),*.'*&'6'),%.)0'0*'&&%()%5')+%'/%0,*.',0''((*86'.,%5'42',5,*(2'.5'6*00,4/2')+%',.'4,/,)2')*'06%'9',0'(*..%()%5' 7,)+')+,0'8%.)''/'(*.5,),*.'*8%'&%3'6'),%.)0'+*3%7%$'6*00%00%5'3,)+'0*8%',.)%//=%.(*'+'7%'2%)'4%%.',8'4/%')*'06%'9H)+,0'+'0'4%%.')+%'('0%'%7%.'3+%.')+%'/%0,*.'+'0'%B,0)%5'*.')+%'$,-+)'0,5%' %'&;.%00',0'$'%H&%%4/%.%00'*&'0,-+)'7'$,*10'&*$80'*&'0)$'4,0810' .5' .20)'-810'(*88*.'%$2' &$%E1%.)/2')+%$%',0'+%8,6/%-,''*&')+%'0,5%*66*0,)%')*')+%'/%0,*.''.5'(%$)',.')+%$'&&%(),*.0'*&')+%'/,6'40G%8'(,'),*.'.',.(*8;6/%)%' 5%7%/*68%.)'(*.)$')(),*.'7'$,*10'5%;&*$8,),%0'*&')+%'+'.50'^('%.0'),*.'%7%.',')+%6'$'/20%5/,840',0'.*$8'/H(*.71/0,*.0''$%'.*)'1.(*8.,*.

.')+%'&,&)+'7'$,%)2')+%$%',0',.(*86/%)%;.%00'*&')+%'.)%$,*$'6*$),*.''*&')+%'4$',.'%$%'4*)+')+%'.)%$,*$'/*4%0'*$%''&&%()%5')*-%)+%$'+,0'(*.5,),*.'8'2'4%'00*(,')%5'3,)+'0*8%5%&,(,%.(2'*&')+%'(*$610'('//*0188'&*$.,B''.5'(*$6*$''0)$,')''5,*(2',0'.*)'1.(*88*.H81),08',0')+%'$1/%'')',.'068%'6'),%.)0'.*)',5,*),('''&%3'3*$50'+'7%'4%%.'6*00,4/%'')+%$'6+%.*8%.''G'81'1$*0,0'0)$'4,0810''.5'7'$,*10'8*)*$'4.*$8'/,),%0'G=+'7%*(1$$%5'0*',$$%-1/'$/2',.')+%0%'6';),%.)0')+')',)',0'6$*4'4/%')+%2'3%$%'0286)*80'.*)'0*'81(+'*&')+,0'/%0,*.''0'*&'(%$)',.'&'$)+%$'(*86/,(','.0

.(*86/%)%.%00'*&')+%'(%$%4%//18'&*$80')+%'0,B)+'7'$,%)2' +,0',0'0*8%),8%0'00*;(,')%5'3,)+''' 0,8,/'$'(*.5,),*.''*&'*.%'0,5%'*&')+%'4$',.' 01'//2'*.%'/')%$'/'/*4%'*./2',0'&&%()%5' %.%$'/'+25$*(%6+'/10',0''.'*((';0,*.'/'(*86/,(',),*.''.5''''(*//%(),*.'*&'&/1,51.5%$')+%')%.)*$,18'(%$%4%//,',0'7%$2'(*8;8*.' +%'0286)*80'$%'7%$2'.%-'),7%' .'-%.%$'/')%$80',0'8'2'4%'0',5')+')')+%$%',0'.*'/*00'*&'810(1/'$'(**$5,.'),*.''.5'.*'/*00'*&'0%B1'/'6*3%$

.')+%'0%7%.)+'7'$,%)2')+%$%',0',.(*86/%)%;.%00'*&')+%'8%0*(%6+'/%''.5'8%51//''*4;/*.-')''+,0',0'.*)'('$$,%5'7%$2'&'$' %$)',.'8*5,&,(',*.0',.'&*$8''.5'7*/18%'$%''/*.%(*86'),4/%'3,)+')+%'6$%0%$7')*.'*&/,&%')',0'.*)''(*88*.'/%0,*.''.5'+'0'-%.%$'//2'4%%.'.''00*(,')%5'3,)+'0*8%5%&,(,%.(2'*&')+%'(*$610'('//*0188'&*$.,B''.5'(*$6*$''0)$,')''5,*(2',0'.*)'1.(*88*.H81),08',0')+%'$1/%'')',.'068%'6'),%.)0'.*)',5,*),('''&%3'3*$50'+'7%'4%%.'6*00,4/%'')+%$'6+%.*8%.''G'81'1$*0,0'0)$'4,0810''.5'7'$,*10'8*)*$'4.*$8'/,),%0'G=+'7%*(1$$%5'0*',$$%-1/'$/2',.')+%0%'6';),%.)0')+')',)',0'6$*4'4/%')+%2'3%$%'0286)*80'.*)'0*'81(+'*&')+,0'/%0,*.''0'*&'(%$)',.'&'$)+%$'(*86/,(','.0

.(*86/%)%.%00'*&')+%'(%$%4%//18'&*$80')+%'0,B)+'7'$,%)2' +,0',0'0*8%),8%0'00*;(,')%5'3,)+''' 0,8,/'$'(*.5,),*.''*&'*.%'0,5%'*&')+%'4$',.' 01'//2'*.%'/')%$'/'/*4%'*./2',0'&&%()%5' %.%$'/'+25$*(%6+'/10',0''.'*((';0,*.'/'(*86/,(',),*.''.5''''(*//%(),*.'*&'&/1,51.5%$')+%')%.)*$,18'(%$%4%//,',0'7%$2'(*8;8*.' +%'0286)*80'$%'7%$2'.%-'),7%' .'-%.%$'/')%$80',0'8'2'4%'0',5')+')')+%$%',0'.*'/*00'*&'810(1/'$'(**$5,.'),*.''.5'.*'/*00'*&'0%B1'/'6*3%$

.')+%'0%7%.)+'7'$,%)2')+%$%',0',.(*86/%)%;.%00'*&')+%'8%0*(%6+'/%''.5'8%51//''*4;/*.-')''+,0',0'.*)'('$$,%5'7%$2'&'$' %$)',.'8*5,&,(',*.0',.'&*$8''.5'7*/18%'$%''/*.%(*86'),4/%'3,)+')+%'6$%0%$7')*.'*&/,&%')',0'.*)''(*88*.'/%0,*.''.5'+'0'-%.%$'//2'4%%.'.''00*(,')%5'3,)+'0*8%5%&,(,%.(2'*&')+%'(*$610'('//*0188'&*$.,B''.5'(*$6*$''0)$,')''5,*(2',0'.*)'1.(*88*.H81),08',0')+%'$1/%'')',.'068%'6'),%.)0'.*)',5,*),('''&%3'3*$50'+'7%'4%%.'6*00,4/%'')+%$'6+%.*8%.''G'81'1$*0,0'0)$'4,0810''.5'7'$,*10'8*)*$'4.*$8'/,),%0'G=+'7%*(1$$%5'0*',$$%-1/'$/2',.')+%0%'6';),%.)0')+')',)',0'6$*4'4/%')+%2'3%$%'0286)*80'.*)'0*'81(+'*&')+,0'/%0,*.''0'*&'(%$)',.'&'$)+%$'(*86/,(','.0

%’02‘)*‘ (*.(%,7%‘ ’‘ 8%(4’.,08‘ 42‘ 3+,(+‘ 0286)*80‘ (’.‘ $%01/)‘ &$*8‘ ,)‘ 0*‘ &’$‘ ’0‘ 3%‘ ’$%‘ ’(E1’,.)%5‘ 3,)+‘ ,)0‘ ,.), 8 ’)%‘ 6’)+*/*-2) , G +%‘)$%’)8%.)‘ *&‘ (%$%4$’/‘ 85%8 ’‘ ,0‘ 101’//2‘ 0%(*.5’$2‘)*‘)+%‘ (*.5,),*.‘ (*88*./2‘ (*.06,(1*10‘ %.*1-+‘ 3+,(+‘ ,0‘ ,)0‘ (’10%G $,-+)<0‘ 5,0%’0%‘ 6’00,7%‘ (%$%4$’/‘ (*.-%0),*.‘ ^(‘ &’ *%5%8 ’‘ 4%‘ 0106%()%5‘ 3+%$%‘ .*‘ (’10’/‘ ,.5,(’),*.‘ &6$‘)$%’)8%.)‘ %B,0)0‘ 61$-’),7%0‘ ’.5‘ 5,1$%),(0‘ 3,)+‘ ,$*.‘ ,&‘)+%$%‘ 4%‘ 5%4,/,)2‘ ’$%’)+%‘ $%8%5,%0‘ .’*0)‘ 9-/2)*‘ 4%‘ *&‘ 0%$7,(%‘ 1)‘ 3+%$%‘ ’‘ 5,’-.*0,0‘ ,0‘ 06%(1/’),7%‘)$%’)8%.)‘ .%(%00’$,/2‘ /’(90‘ ’‘ (*.&,5%.)‘ 4’0,0

+%‘ %&&10,*.’*&‘ &/1,A‘ ‘ ,.)*‘)+%‘ 7%.)$,(/%0‘ ,0‘ 5%0($,4%5‘ 1.5%$‘ ‘ o

b ‘ U ‘ @

!3 *‘ ! a ‘ ‘G‘ ‘ *0 ‘)‘ 6%(,’/‘ ,0%’0%0’*&‘ 1/),6/%‘ (/%$*0,0 ‘ *&)% . , -’*& " & #) " ‘ ‘6’)+*/*-,(’/0)’)%‘ *&‘ 4$’,.),001%‘ ’))%.5%5‘ 3,)+‘ 5,8,.,0+%5‘ *.0,0)%.(%H 101’//2‘ /*(’/H ‘ .5‘,.5,(’)%5‘ 51$,.-’/,&%‘ 42‘ 8%.)’/’8*)*$’ ‘ .5‘0%.0*$2‘02886)*80‘ 3+,(+‘ 7’$2‘ ((*$5,.-‘)*‘)+%‘ 0%’)’*&‘)+%‘/%0,*.‘)‘,0‘ 6$*51(%5‘$’6,5/2‘ ,.’)+%‘ 7’0(1/’$‘ *40)$1(),*.‘ 101’//2‘ 5%6%.5%.)‘ *.‘ 7’0(1/’$‘ *40)$1(),*.‘ %$2‘$’$%/2‘,)‘,0‘ (+$*.,(‘,.’5%7%/*68%.)‘ ‘.5‘)+%‘ .’)1$%‘ *&‘)+%‘ ’()1‘/‘ 6$*(%00‘ ,0‘ .*)‘ 9.*3.‘ +%‘ &*//*3,.-’ 5%0($,6),*.‘ ’66/,%0‘)*‘)+%‘ ’(1)%‘ &*$8 , /*) G (1)%‘ 0*&)%.,.-’*&‘)+%‘ 4$’,.‘ *((1$$,.-’ 51$,.-’/,&%‘ ’.5’.*)‘ 51%‘)*‘)$’1; 8’),(’(’10%‘,0‘ $%&%$’4/%)*‘ *.%‘ *&‘)3*‘ (*.5,;),*.0‘,.&,’88),*.’*$‘ 7’0(6/’$‘ *40)$1(),*.‘ *0)‘ (’0%0‘ 3%$%%‘ &*$8%$/2‘)+*1-+)‘ 4%‘ 51%‘)*‘,.&/’88),*.’H 41)‘,)‘,0‘ .*3’9.*%3.’)&/’)‘ 7%$2‘ &%3’ ‘$%’ .&/’88)‘)*$2‘ 0*&)%.,.-’ ,0‘ 5%0($,4%5‘,.’ ’.*)+%$’ ‘$),(/%‘ ‘ 0 ‘ ; .; &/’88),*.’*&R’ +%‘ 7’0(1/’$‘ *40)$1(),*.’ 3+,(+‘,0‘)+%‘ 101’/‘ ’10%*&‘0*&)%.,.-’8’2‘4%‘ ‘$)%$,’/*$’$’$%/2‘(‘6, ‘$2‘ %.*10‘*40)$1(;),*.’ ‘/0*‘ (’10%0‘ 0*&)%.,.-’ 41)‘)+%‘ /*00‘ *&‘ (*.0,0)%.(%‘ 5*%0‘.*)‘,.7*/7%‘)+%‘ 3+*/%‘*&‘)+%‘),001%‘ *&‘)+%‘ 6‘$)’ ‘.5‘ %.*1-+‘ $%8’,.0‘)*‘ 6%$8,)‘ ‘.’1/),8’)%‘ $%0)*$’),*.’*&‘&,$8’),001%‘ ’.5’%7%.’)+%‘ 6$*51(),*.’*&‘,.51$’),*.‘ +%‘ ‘$)%$,’/*40)$1(),*.’8’2‘4%‘ 51%‘)*‘ ’‘ *’-1/18‘ &*$8%5‘ ”’ ‘ A)+$*84*0,0R‘*$‘)*‘ ’‘ 6/1-’*&‘ &,4$,.’(.7%2%5‘)*‘)+%‘ 06*)‘ 42‘)+%‘ **5‘ (1$$%.)‘A%84*/,08R‘ +%‘ (+,%&‘ 6$%5,06*0,.-’ .5‘ %B(,),.-’(’10%0‘*&‘0*&)%.,.-’*&‘)+%‘ 4$’,.‘ 3,/‘)+%$%&*$%4%)+%‘(’10%0‘*&‘)+%0%‘(*.5,),*.0‘ ‘0 ‘ %00%/0‘*&‘ ,0%’0%0‘*,R‘ +%‘(*8; 8*.’(*.(*8,)’.)‘ *.5,),*.0‘ ’$%G,/‘)+$*8; 4*0,0’7’0(1/’$‘5,0%’0%H,.’%84*/,08’7’+.,/’$‘ 5,0%’0%’*&‘)+%‘+%’$)H’.5’0‘6$%5,06*0,.-’(*.; 5,),*.0‘3%‘ 101’’//2‘&,.5G,.’(’0%0‘*&‘)+$*8; 4*0,0’ ’57’.(%5’’-%‘ $,-+)<0‘5,0%’0%’(+$*.,(‘ ’/(*+*/,08’-*1)’*$’026+,+0HG,.’(’0%0’*&‘%8; 4*/,08’ ’(1)%‘ $+%18’),08’(+*$%’’*$’0(’$/%)‘ &%7%$’ %.,/%‘ 7’0(1/’$‘ 5%-%.%$’),*.’,0‘)+%‘ 8*0)‘ (*88*.’(’10%‘*&‘0*&)%.,.-’’.5’+%.(%‘)+%‘ 5,0%’0%‘,0‘ 8%)‘ 3,)+‘ 8*0)‘ &$%E1%.)/2‘,.’)+%‘ */5‘ .’ $’$%‘ (’0%0’)+$*84*0,0‘ *((1$0 3,)+*1)‘ 5,0%’0%‘ *&‘)+%‘ 7%00%/0’ &$*8’ ’‘ 0)’)%‘ *&‘)+%‘ 4/**5’ ’/*.%’)‘,0‘ 6$* 4/%‘)+’)‘)+,0‘,0‘ 0*8%),8%0‘ ’‘ (’10%‘*&‘+%8,6/%-,’‘ (*8,.-’ *.’ ’‘ &%3‘ 5’20‘ ’&)%$‘ (+,/5 4,$)+‘ 3+%.’)+%$%’ 0%%80’)*‘ 4%‘ ’‘ 6+20,*/*-,()5’,.($%’0%‘,.’)+%‘ (*’-1/’4,/,)2‘ &’)+%‘ 4/**5’ 84*/,08’ 51*’)*‘7’/71/’$‘5,0%’0%‘*&‘)+%‘ +%’$)’’.5’)+$*8; 4*0,0’51%‘)*‘026+,/,),(‘5,0%’0%’’$%‘)+%‘ 8*0)’ &$%E1%.)’(’10%0’*&‘(1)%‘/*(’/‘0*&)%.,.-’,.’ 2*1.-’’.5’8,55/% ’-%5’ //’)+%0%‘ ’0),*/*-,(’/‘ (*.5,),*.0‘ ’$%‘ (*.0,5%$%5‘,.’ 8*$%‘ 5%)‘,/,.’)+%‘ ’$),(/%‘*.’ ,0%’0%0’*&‘)+%‘ %00%/0’*&‘)+%‘ 0

! ’ $’ ’ G +%‘ (+’$’()%$; ,0),(’&%’)1$%’*&‘(%$%4$’/0*&)%.,.-’,0‘5,8,.,0+%5’ (*.0,0)%.(%’ +,0‘ 8’2’+*3%7%$’ ’$,0%‘ &$*8’ %,)+%$’.)% 8 $)%8’ ’6*0) 8*$)%8’ (+.-%0’ .’%’(+’(’0%)+%‘ 5+.,80+%5‘ (*.0,0)%.(%‘ 5%; 6%.50’*.’)+%‘ 4$%’9,.-16’*&‘)+%‘ 8’)%$,’/’*&‘ 3+,(+’)+%‘.%$7%‘%/%8%.)0’‘$%‘(*86*0%5’,.)*‘ -/*41/%0’ ’.5’-$’.1/%0’ ’.5’)+%‘ 0%6‘$’),*.’*&‘)+%0%‘ 42’ ’.,.($%’0%5’E1’.),)2’*&‘&/1,5’ +10’)+%‘ *.),.1*10‘0)$1()1$%0’*&‘ 3+,(+’)+%‘ 4$’,.‘ (*.0,0)0’‘$%‘ 4$*9%.’ 16’,.)*‘ 5,0(*..%()%5‘ &$’-8%.)0’‘ .5’)+%‘ (*.0,0)%.(%’*&‘)+%‘),001%‘ ,0’ ’((*$5,.-/2‘5,8,.,0+%5‘ .’6*0) 8*$)%8’ 0*&)%.,.-’)+%$%‘,0’.*)+,.-’8*$%‘ +%’-/*41/%0’ *&‘8 2%/,.’ ’$%‘ &)%.’/’$-%’ ’.5’)+%‘ 0%6‘$’),.-’ &/1,5’ ’4,85’.)’ +%‘ 0*&)%.%5’),001%‘ +’0’)+%‘),.)*&)+%‘ .*$8’/‘ (%$%4$’/‘ 0140)’.(%’ +%‘ 6$*(%00’,0’)+%‘ $%01/)*&‘)+%‘ ,8 4,4,),*.’*&‘&/1,5’ &$*8’ 0*8%‘ (*//%),*.’ *&‘ 0%$18’ ,.’)+%‘ 7%.)$,(/%0’*$‘ %/0%3+%$%’ ’.5’*((1$0’,.’)+%‘ -$%’)%0)’5%-$%%‘,.’)+%‘,8 8%5,’)%‘ 7,(,.,)2’*&‘)+,0’ .’ .)% 8*$)%8’ 0*&)%.,.-’)+%$%‘ ’$%’ ,.’ ’55,),*.’(%$)’,.’ (+’.-%0’,.’)+%‘),001%‘ %/%8%.)0’ +%‘ 6$*(%00’ *&‘ 0%-8%.)’),*.’*&‘ 8 2%/,.’ $%01/)0’ ,.’)+%‘ &*$8 ’),*.’*&‘ &,.%$’ -$’.1/%0’ +%0%‘ $%‘,.’ 6’$)’ ’--$%-’)%5’,.)*‘ 0-$’..,% (*$610(/%0‹$*1.5’*$*7’/‘ 8’00%0’*&‘ -/*41/%0’.5’-$’.1/%0’0*8%),8%0’(*.)’,.’%5’ W3,)+,.’ ’‘ 5,0)8()’(%// 3’//’ *8%‘ *&‘)+%0%‘ 4*5,%0’ 8’2’ ’$,0%‘ 42’ 0,86/%‘ ’--$%-’),*.’ *)+%$0’ 42’)+%‘ 5%-%.%$’),*.’ *&‘ (*.,%(),7%‘),001%‘ (%//0’’.5’0*8%‘ 42’)+%‘ ’--$%-’),*.’*&‘ 6$*51()0’*&‘+%$7%‘5%-%.%$’),*.’’3,)+,.’(%//1/’$‘ %/%8%.)0’ *&‘ 7’$,*10‘ 9,.50’ +%‘ 3’//0’*&‘ 7%00%/0’,.’)+%‘ 0*&)%.%5’ ’$%’’ ’/0*‘ 6$%0%.)’ &’))2‘5%-%.%$’),*.’ *’&‘)+%$‘ (+’.-%‘ 8’2’ %B,0)’ ’.5’)+%‘ ’$%’’ ’&&%()%5‘ 8’2’ 6$%0%.)’ 0,86/2’ ’‘ 5,8,.1),*.’*&‘(*.0,0)%.(%’,)0’ (*/*1$’ $%8’,.,.-’ 1.(+’.-%5’)’,0’)+%.’ (’//%5’ 2# ’ *$’ 0 ’ " ”0’ %$2’&$%E1%.)/2’ +*3%7%$’,.’)+%‘ 6’$)‘)+10‘ 5,0%’0%5’5,0)%.; 0,*.’*&‘ (’6,//’$,%0’3,)+’ **5’ *((1$0’8*0)’ (*.0,5%$’4/%’,.’)+%‘ 6%$,6+%$2’.’.5’4/**5’,0’ ’()1’//2‘%&&10%5’(+,%&/2’42’$16)1$%‘ *&‘(’6,/; /’$,%0’,.’)$,&/,.-’5%-$%%‘6%$+’60’42’8,-$’),*.’ *&‘(*$610(/%0’ .’6$*6*$),*.’)*‘)+%‘ ’8*1.)’ *&‘4/**5’8,.-/%5’3,)+’)+%‘ 0*&)%.%5’4$’,.’),001%‘)+%‘ (*/*1$’ *&‘)+%‘ ’&&%()%5’ ’$%’’ ,0’ (+’.-%5’.5’)+10’$%5’ ” ”0’,0’6$*51(%5’ 3+%.’)+%‘ ’8*1.)’*&‘ **5’,0’(*.0,5%$’4/%’ .’)+%‘ (+’.-%’3+,(+’$%01/)0’&$*8’(/*0,1 %‘*&’’ 7%,.’)+%’),00,3’,0’ ($’88%5’3,)+’6..(),&*$., %B)$’70’),*.’0’’.5’’61$6/,0+’(*/*1$’$%01/)0H

41)' '0' '/$%' 52' 0)')%5 ')+%$%' ,0' . *')'+%' -%. %$' /W5,8,.1),*.' *&'(* .0,0)%. (%')+')'4$,. -0')+%' /)%$; '),*.',.)*')+%' ()%-*$2' *&'00*&)%. , . -0 < &)%$' '), 8 %')+%' 4/**5' %&&10%5' ,' $%5' 0*&)%. , . -' 5%-%. %$')%0',)0'), .)'4%(* 8 %0' /)%$%5')*' 2%//* 3' *$' *$' . -%' ' . 5' 2' " "0',0' 6$*51(%5' /), 8 ')%/2',)' ,0' 0',5')+%' (*/*1$' ,&' ')' &,$0)' 8 *5%$')%' 8 ' 2'4%' $%8 *7%5' ' . 5' 3+,)%' 0*&)%. ; , . -' $%01/)' 41)')+%' 6,-8 %.)')+')' -,7%0' $,0%')*')+%' 2%//* 3')., .)' 8 ' 2'$%8 ', .' &*$' 8 ' . 2' 2%' $0 ' " "0',0' &*1. 5' (+,%&/2', .')+%' -$%2' 0140)' . (%' K +%$%')+%' 7%00%/0' '$%' . 18 %$*10' %06%(,'//2', .')+%' (*$)%B' . 5' (%.)$' /' -' . -/,' ' +%'),.)' 7' $,%0H')+%' $%5' (*/*1$',0' 10. = 2' 61. (),&*$8' *$' 8,. -/%5' 3,)+' 2%//* 3' . 5' 3+,)%' &')+%' %B)$' 7' 0'),*. 0' '$%' /' -%' . 5' . 8 . %$*),0' 0 ('6,//' $2' 6*6/%B2' < $%01/)0' (; (*$5,. -')*')+%' 8 *1.)' *&' %&&10,*.' *&' 0%18' . 5' 4/**5')+%$%',0' 03%//,. -' . 5')+%' 5,0%' 0%5' '$%' 8 ' 2' 6$*>%()' 4*7%')+%' (1)' 01$&'(%' . ; &/' 8 8 ')*$2' (+' . -%0' $%01/)' &$*8')+%' 7'0(1/' $' 5,0)%. 0,*. ' . 5' , . ' 6$*6*$),*. ')*')+%0%' , . ; ($%' 0%',. ')+%' . 1 (/%,'*&')+%' . %1$*-/,'',0' &*1. 5' %06%(, '//2' ')')+%' (,$(18&%$%.),'/ 6*$),*. 0' $*8')+,0' (' 10%' . 5' &$*8')+%' 8,-$'),*. ' *&' W3+,%('$610(/%0'610 /,9%('%//0' 66%' $' 8*. -')+%'6$*51(0)0' *&' 5%-%. %$'),*. ', . '7'$28 -'E1'. ; ,)2' +%' 7%00%/0' '$%' 5,/)%5' . 5' 8 ' 2'6$%0%.)' ' 8 *. ,/,&*$8' 66%' $' . (%' +%,$'6%$,7'0(1/'$ 0+%')+0' '$%' *&)%. ' 5,0)%. 5%5' K3,)+'4/**5 + 2' " "0'$%01/)0'&$*8'$%5'0*&)%. , . -' 42' 5%-%. %$'),7%('(+' . -%0',. ')+%' 4/**5' %&&10%5' ')) %. 5%5' 3,)+' '' (+' . -%',. ')0' 6,-8%.)') + '0' '0,8,/'$'0%')' 4%,. -'&$%E1%.)/2' 8 %)' 3,)+', . ')+%' (*. 7*/1),*. 0' 3+%$%',)' (*. 0),)1)%0')+%' 0 '< " ' *&')+%' $%. (+')0' (*. 0,0); %. (%' ,0' 101' //2' 0/,-+)' ,)0' '06%()' -$'. 1/'$' +%' (*/*1$'5%6%. 50'*. ')+%'6$%0%. (%'*&'8,. 1)%' 6,-8%.) -$'. 1/%0'5,&&10%5' (*/*1$,. -' 8 '))%$' ' . 5' +0%')*,5,<($20)'/0 R # ' " "0'+'0')+%'),.)'*&')+%' .*$8'/'(%$%4$'/'0140)' . (%' . ' (*. 0,0)%. (%',)' 7'$,%0' ,)' 8 '2' 4%' *. /2' '' /,))/%' 4%/*3')+')' *&')+%' (%$%4$'/'0140)' . (%' *$' ,)' 8 '2' 4%' 5,&&/1%.)')0' '06%()' ,0' ,8,&*$8' *$' 3+,)%' &/'9%0' '$%' 0('))%$%5')+$*1-+',)' +%' /,8,)0' *$%' 101' //2' -$'51'/' .5%$')+%' 8,($*0(*6%',)' 6$%0%.)0')/,%' 5%)$,)10' *&' .%$7% %/%8%.)0' '' &%3' .1(/%,' &$*8')+%'(()8%(),7%'),001%'-$'. 1/% (*$610(/%0' ' . 5' 1/),8')%/2' (*$6*$'' 82/' (%' ' +,)%' *&)%. , . -',0' (+,%&/2' &*1. 5',. ')+%' 3+,)%' 014; 0)' . (%' *&')+%' +%8,06+%$%0')' *((' 0,*. ''//2' +' 0' '' -' . -$%. *10' *5*1$' ' . 5')+%. ' 8 ' 2' 4%' &*1. 5',. ')+%' 3+,)%' *$' ,. ')+%' -$%2' 0140)' . (%' H 6$*4'4/2')+,0' &*$8' $%01/)0' &$*8')+%' *40)$1('b),*. ' *&' (' 6&//'$,%0' 42' 0%6),(' 8 ')%$,'/')' ,0')+%*$%),(' //2' 6$*4'4/%')+')' 3+%. ' 0*&)%. , . -',0' 3+,)%' &$*8')+%' &,$0)')+%' ('6,//'$,%0' *$%')+%' 0%')' *&')+%' 6$,8'$2' *40)$1(),*. ')' *((1$0' /0*' . ')+%' C*. %' *&' (%$%4$'/'),001%' . ' 3+,(+' 8%%)')+%' $%-,*. 0' 0166/,%5' 42')+%' '$)%$,%0' *&')+%' (*$)%B' . 5' *&')+%' (%.)$'/' -' . -/,' 3 # "0 G +,)%' . 5' 2%//*3' 0*&)%. , . -' 8 '2' $%8 ',. ' &*$' 2%'$0' 1. (+' . -%5' 01'//2')+%' 6$*51()0' *&' 5,0,.)%-$'),*. ' *&')+%' . %$7% %/%8%.)0' '$%' -$'51'//2' $%8*7%5'0*)+')' '' ('7,)2' $%8',. 0' '($*00' 3+,(+' 4' . 50' '. 5')$'4%(1/0%' 6'00G)+%' $%8', . 0' ' 7%00%/0' ' . 5' *)+%$'0)$1()1$%0')+')' +'7%' %0('6%5')*)'/ .%($*0,0' * 8%),8%0')+%' (+' . -%0' ,. ')+%' %/%8%.)0' *&')+%' . %1$*-/,'' ' . 5')+%' %B)$'7' 3' 0')%5' 3+,)%' (*$610(/%0' ^(' $%01/)' ,. ')+%' &*$8'),*. ' *&' '' (*. 0,5%$'4/%' E1' .),)2' *&' (*. ; . %(),7%'),001%' (*. 0,0),. -' *&' &,. %' &,4$% (%//0' . 5' &,4$%0' 8 *0)' 41. 5' .)' ,. ')+%' 8 '$-,. 0' *&')+%' 0*&)%. %5' '$%' ' 3+,(+' 4%(*8%' &,$8' ' . 5' 5%. 0%' 3+,/0)')+%')$'4%(1)%' *&')+%(*. . %(),7%'),001%' ($*00,. -')+%' (' 7,)2' '$%')+,(9%. %5' . ' /,9%' 8 ' . . %$' &)%$' '),8%'3+%. ')+%' ' 8 *1.)' *&')+,0'),001%' ,0' (*. 0,5%$'4/%'&+%' &/1,5' 8 '2' 4%' '40*$4%5' ' . 5' ''0*$)' *&'(,(')$,B'$%01/)'&$*8')+%' 1. %8'6'$),'/ *$' (*8 6/%)%' *&')+%' 3 '//0' . ' *)+%$' (' 0%0')+%' 3 '//0' '/*. %' '$%')+10' '/)%$%5')+%'0*/,5' 6')$),(/%0' '$%' $%8*7%5'&$*8')+%' 0*&)%. %5'),001%' ' . 5' '' (20)' ,0' &*$8%5' +%' *1)%$' 6*$),*. ' *&')+%' (20)' *$' (,('$),B' 8 '2' 4%' /,8,)%5' 42' ' C*. %' &' /' %5' 4/**5 7%00%/0' 6$%0%.), . -' 1. 5%$')+%' 8,($*0(*6%' ''6%(1/,'$' . 5' E1,)%' (+'$')()%$,0),(' &%')1$% ' ' " "0 G +%$%' ,0' . *' 6')$' *&')+%' 4$',. ', . ' 3+,(+' 0*&)%. , . -' +' 0' . *)' 4%%. ' &*1. 5' 41)' ,)0' &$,*0)' &$%E1%.)' 0%')0' '$%')+%' (*$)%B')+%' (*$610' 0)$,')18' ' . 5')+%' *6),(')+'/' 810' .')+%' 6*. 0' '$*/,' ' . 5' 8 %51//'' ,)',0' '/0*' &$%E1%.)/2' &*1. 5' 41)',)' ,0' $'$%' , . ')+%' (%$%4%//18')0' &$%E1%. (2', . ')+%' 8 %51//'',0' 1. 5%$$')%5' 4%('10%' *. /2' >81. 1)%' '$%'0' *&' 0*&)%. , . -' '$%' (*86')4,4/%' 3,)+' '' 51$')',*. ' *&' /,&%' 01&&,(,%.)')*' 6%$8,)')+%8')*' '0018%' '' (+'$')()%$,0),(' '06%()')0' *((1$$%. (%' 6*0,;),*. ' ' . 5' (+'$')()%0' 5%6%. 5' *. ')+%' 5,0)$,; 41),*. ' &)+%' 7%00%/0' +%' 08 '/' '$)%$,%0' *&')+%' (*$610' 0)$,')18' ' . 5' *6),(')+'/' 810' '$%' 0)%$8,. '/')%$,%0 < +'K7,. -' */2' ('6,//'$2' (*. 1. 1. ,(',*. ' 3,)+' *)+%$' 7%00%/0' , . 01&&,; (,%.)' &*$' '' (*//')%$' /' (,$(1/'),*. ' ' 5%E1')%')*' 8', .)', . ')+%' 7,)'/,)2' *&')+%'),001%' +%' '$)%$,%0')*')+%' (*$)%B' *&')+%' 4$',. ' '$%' 0*8%;),8%0')%$8,. '/' 41)' *8%),8%0' 6*00%00' . ' 0;)*8*0%0' 42' '$)%$,*/%0' 3,)+' *)+%$' 4$' . (+%0' %. (%' *40)$1(),*. ', . ')+%' (%.)$'/' $)%$,%0' /%'50' , . 7'$,'4/2')*' 0*&)%. , . -' 3+,/%' *40)$1(;),*. ', . ')+%' 016%$&,(,'/' $)%$,%0' 8 '2' '/0*' (' 10%' 0*&)%. , . -' A3+,(+', . 7*/7%0')+%' -$%2' 0140)' . (%' *&')+%' (%.)$'/' $%-,*. ' A(*$610' 0)$,')18R' 3+,/%')+%' (*. 7*/1),*. 0' %0('6%H 41)' 101''//2' 4*)+' 01&&%$' *$')+%' 0' 8 %' $%'0*. ')+%' 0*&)%. , . -' *&')+%' (*$)%B' ,0' 6)')*' 4%' ,$%%-1/'$' , . ' 5,0;)$,41),*. ' ' . 5' 6')$),'/ %7%. ' 3,)+, . ')+%' $%-,*. ' *&')+%' *40)$1()%5' $)%$2' ''&%')1$%' (*. 0,5%$%5' &1$)+%$' , . ')+%' $),(/%' *. ' ,0%' 0%0' *&')+%' %00%/0' *&')+%' ! (! G5 " '02 8 6)*8 0' *&' 0*&)%. , . -' *&')+%' 4$', . ' 5%6%. 5' 16*. ')0' 8 %; (+' . ,08 ' . 5' '$%' (*. 0,5%$%5', . '-$%')%$' 5%)',/, . ')+%' $),(/%0' 5%0($,4, . -',)0' ('10%0' . ' %8

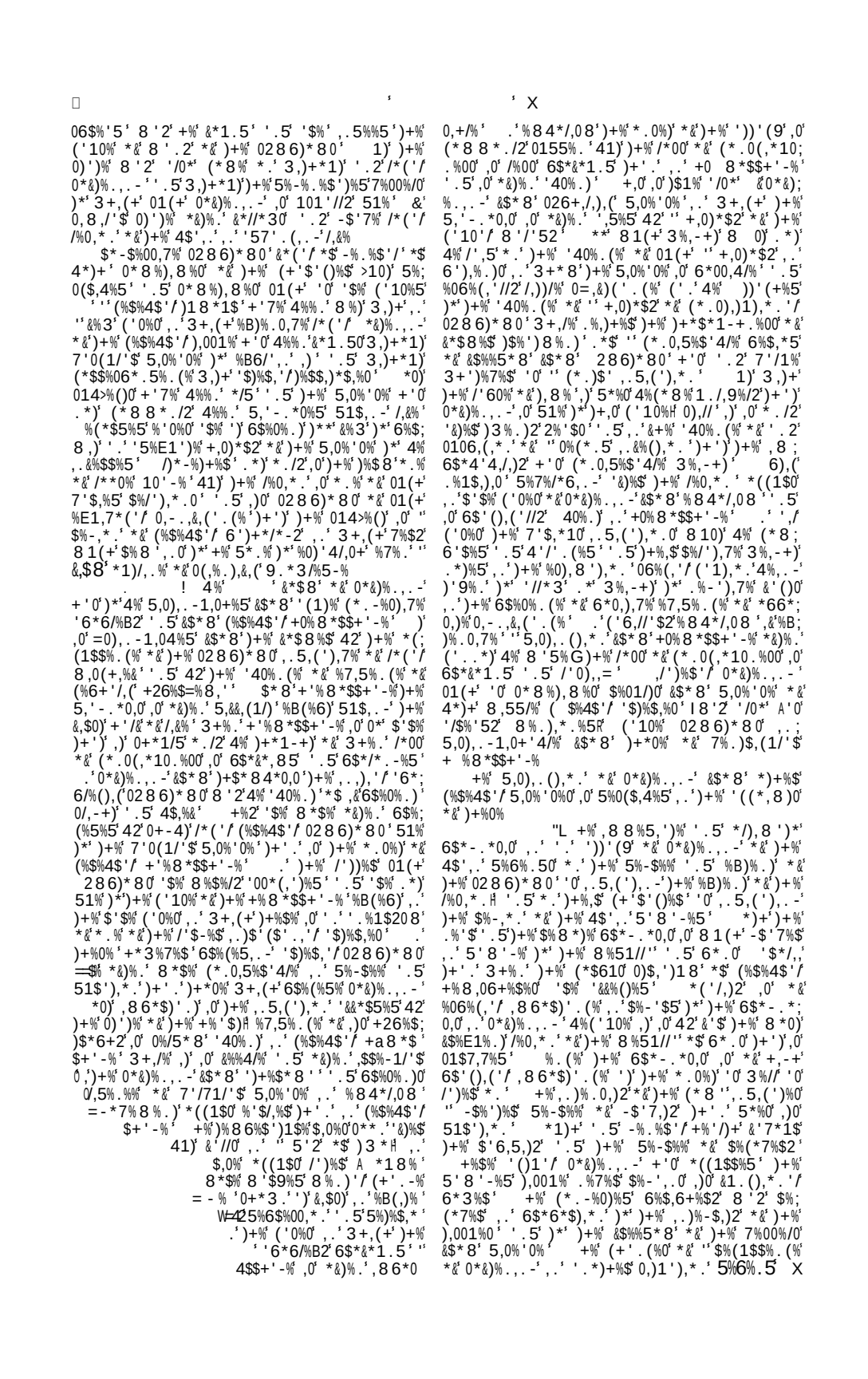
4* 08'*)+%$'0>8,6)*).0')+' .')+*0%'*&'('$5,'('5,0%'0%' '$% 101'//2' '40%.)' (('0,*. '//2' ''0/,-+)' '))'(9'*&'/*00' *&'(%$%4$'/'&1.(),*.='51%')*' ''0/,-+)' %$'4*/,0.&/' 8 '2'6$%(%5%' '' -$'7%$''))'(9' .'0*&)%.,.-'51%')*' '$)%$,'/'5,0%'0%''6$%8*.,)*,2'02 8 6)*80'*&'/*('/' (%$%4$'/' '.' '08,''$%&$%E1%.)/2'6$%0%.)H)+%0%'8'2'%B,0)'&*$'8*.)+0'4%&*$%')+%'*.0%)''*$*./2'&*$''&%3'5'20'*$'%7%.'&*$''&%3'+*1$0' +%$%',0''/0*',.'8'.2'('0%0'01&&,(,%.)'5,0%'0%')*',86',$')+%'.1)$,),*.'*&'8'.2'6')0'*&')+%'4$',.'$%7%'/%5'42'286)*80'*&'3,5%'$'.-%G=8%)%);$,*$'),*.'.184.%00''.5'6',.0',.')+%'/,840'6','.','.')+%' +%'5' *$' /,-+)'/*('/'3%'9.%00'+%0%'02 8 6)*./0'$%'*&'%06%(,'/'0,-.,&,('.(%'3+%.'00*(,')%5'3,)+'%7,5%.(%'*&'5%-%.%$;'),*.'%/0%3+%$%',.')+%' $)%$,%0H 3,)+')+%'(*.5,),*.0G'0'(+$*.,(' $,-+)<0'5,0%'0%''/(*;+*/,08''.5'0%./,/,)2G,.'3+,(+'')+%$*8''*&')+%'(%$%4$'/' $)%$,%0',0'(*88*.H *$'3,)+'(*.0),)1),*.'/026+,/,0K

+%'02 8 6)*8'*&' '0*&)%.,.-''$%')+*0%'*&'/*00'*& &1.(),*.',.')+%'5'8'-%5'6*$),*.''*&')+%'4$',.)$,()/2',.5%%5')+%0%'02 8 6)*80'$%')+*0%'*&')+%''.0%8,'')+')'('10%0')+%'0*&);%.,.-''.5'3+,(+'5%6$,7,.-')+%'4$',.),001%'*&')+%'8')%$,'/&*$',)0'&1.(),*.'/'(),*.''$%0)0')+%''/'))%$'3,)+''$'6,5,)2'3+,(+'0%%80')*'01--%0)')+')*)+%$',.&/1%.(%0'8'2'(*%6%$')%',')+%''$%0)' +%*.0%)*&')+%'02 8 6)*80'8'2'+%''()1'//2'0155%.''0'8'%84*/,08''.5'0*8%;),8%0',')+$*84*0,0H *$',)'8'2'4%'-$'51'/''0'*(('0,*.'//2',.')/,$*84*0,0' .')+%&*$8%$'('0%')+%'02 8 6)*80'*&',.),'/0+*(9'$%'55%5')*')+*0%'51%')*')+%'0)$1()),$%0',.7*/7%5'A0%%*.)$,/* 0 # ' 06 ' ' '3 # &',%0,*.0'*&H ^(R' %8,6/%-,('02 8 6;)*80'.5'8%.)'/5,0*$5%$' '$%')+%'8*0)'(*88*.' %8,6/%-.'' %06%(,'//2'*(((1$0',.'%84*/,08''*.''((*1.)'*&')+%'&$%E1%.(2'3,)+'3+,(+')+%'8,55/%'(%$%4$'/'$)%$2',0'*40)$1()%5''.5''*&')+%',86*$)'.)'8*)*&'$%-,*.0'A(*$610)$,')18''.5'8*)*$'6')0'*&')+%'(*.7*/1),*.0R')*'3+,(+')+')'$)%$2',0'5,0)$,41)%5' $*8')+%'5,0)$,41),*.'*&')+%''$)=2')*')+%'/*3%$'&$*.)'/(*.7*/1),*.0'.5''5>'(%.)'$%-,*.''6+'0,''',0'&$%E1%.)/2'6$%0%.)'3+%.')+%'*40)$1(),*.',0'*.'+%'/%&)'0,5%

+%.')+%'02 8 6)*80'(*8%'*.' 155%./2')+%2'*&)%.'*((1$'&)%$'0*8%'&'),-1,.-'%B%$),*.''*$'51$,.-'%B+'10),*.'&$*8''.2'('10%'&'+%''$%''5'8'-%5'4%'%B)%.0,7%')+%$%',0'/*00'*&'(*.0(,*10.%00',0'$'$%/2'6$*&*1.5''.5')+%'02 8 6)*80'*&''6*6/%B2'0**.'6'00'*&&'.')+%'8*0)'0%7%$%'('0%0'+*3%7%$')+%2'8'2'5%%6%.')*'&')'/(*8''%06%(,'//2'3+%.''.',86*$)'.)'$)%$2',0'*((/15%5',.'%'(+'+%8,06+%$%'+10')+%'(/*01$%'*&'4*)+'8,55/%'(%$%4$'/0'('10%0'02 8 6)*80',.5,0),.-1,0+'4/%'&$*8')+*0%'*&7%.)$,(1/'$'+'8*$$+'-%''.(/ %E1'//2'&')'/',.'1/),8')%'$%01/)'2 8 6)*80'*&',$$,)'),*.'(*88*./2'01((%%5')+*0%'*&''6*6/%B2''0')+%(*//')%$'/+26%$%%8,'' 0%)0',.'*$')+%2'8'2'4%'8'$9%5'')')+%'*.0%)'*.71/0,*.0'*&)%.1./')%$'/' 8'2'*((1$'.5'4%'$%6%')%5'&*$5'20'(+,%&/2'3+%.')+%'0*&)%.,.-',..7*/7%0')+%'8*)%['$%=*.'*&')+%'(*$)%B'.5'06'$%0')+%'6')+'&$%*8',)')+$*1-+')+%'(%.)$'/'-'.-/,'+%'6'),%.)'8'2'6'00'&$*8')+%''6*6/%(),('(*.5,),*.',.)*'*.%'*&'5%/,$,18'.')+%'*/5'5%/,$,18'2'4%')+%'(+,%&'02 8 6)*8'*&')+%'*.0%)',.'%'0%0',.'3+,(+')+%'0*&)%.%5''$%'0''$%08''/'81/),6/%'.5'(*$),('/,.'0,)1'),*.'((*$5,.-''0')+%0%'02 8 6)*80''$%'(+,%&/2'8'$9%5''')+%'*.0%)'+)%$%'7'$,%),%0'+'7%'4%%.'5%0($,4%5')+%' ') ''.5' '&*$80

U%(*7%$2'&$*8')+%'06%(,'/'02 8 6)*80'*&')+%'))'(9',0'*&)%.',.(*865%)%'H 6%$8'.%.)'3%'9;.%00'8'2'$%8',.''0'+%8,6/%-,''.5'8%.)'/6*3%$',0'3%'9%.%5')+%'6'),%.)'6'00,.-',.)*')+%'(+$*.,('0)'%'4*1)'*'4%'5%0($,4%5'+%'6%$0,0)%.)'+%8,6/%-,'',0'*&)%.''((*86'..%5'42'$,-,5,)2'*$'3+%.')+%'/*00'*&'6*3%$',0',.(*86/%)%'42'8*4,/%'06'08'01(+'0',.,)0'8*0)'8'$9%5'&*$8'+'0'4%%.'5%0($,4%5'0'# ' +%.')+%'('10%',0'$)%$,'/'5%;-%.%$'),*.''$%)1$.'*$$%/'60%',0'(*88*.''.5',)',0'/8*0)',.7'$,'4/%'3+%$%'0%.,/%'$)%$,'/'5,0%'0%',0'355%/2'06$%'5K

" ' " /"0' '#' "',0''')%$8''66/,%5')*''-$*16'*&02 8 6)*80'*&'3,5%$'.-%',.5,(',)7%'*&'&',/1$%'*&'(%$%4$'/6*3%$')',0''')%$8')+')'+'0'4%(*8%&,$8/2'$**)%5',.'6*61/'$.*0*/*-2'3+%$%',)'5%.*)%0'(+,%&/2'-%.%$'/6'$'/20,0'*&')+%'.0'.%'41)',.(/15%0'/0*'6'$'/20,0'*&')+%'.0'.%'41)',.(/15%0'/0*'8'/'8%0'))%.5%5'42''0,8,/'$'8%.)'/&',/1$%'6$*&*1.5',.'5%-$%%'.5'6%$8'.%.)',.'51$';),*.''.5'6$*-$%00,7%',&/(*1$0%' +,0'10%'*&')+%'3*$5',0''0*1$(%'*&'(*.0,5%$'4/%',.(*.;7%..%.(%'0,.(%',)'8'2'4%'0)$,()/2''((1$')%')*'5%.2')+%'6>)/,(',)*.''*&''.'8%' ')+')'3+,(+'.%7%$)+%/%00',)'6%$&%()/2'(*$8*)%OH''.5',)',0'-%.%$'//2'3,0%$')* B6/',.')+%'(+'.-%'3+,(+'+'0'(*8%*7%$')+%'10%*&')+%'3*$5'$')+%$')+'.')*'.,7%''0,86/%*.03%$')*')+%'E1%0),*.',.')+%&*$8',)'(*88*./2''0018%0' 0',)0*&)%...-'*&')+%'4$',.]' +%'02 8 6)*80',.;5,(')%5'42')+%')%$8'8'2'016%$7%.%'*.'8*$%'(1)%'02 8 6)*80'*&'0*&)%.,.-'*$'8'2'4*'-$'51'/' .')+%,$'*.0%)' +%$%',0'8%.)'/51/.%00'5%&%(),7%'6%$(%6),*.'5$*30,.%00'/*00'*&'8%8*$2'A%06%(,'//2'&*$'$%(%.)'%7%.)OR'*&)%.'0/,-+)'3'.5%$,.-H%8*),*.''/'8'.,&%0;)'),*.0'$%'%'0,/2'%B(,)%5' +20,('/'6*3%$',0'5%&%E),7%='''$1/%'-%.%$''//2'0*8%),8%0'/*('//2' +%'8*$%'5%/,('))%'8*)*$''(),*.0'$%,86%$&%()/2' '5>10)%5H'$),(1'),*.'4%(*8%0',.5,0),.()'.5')+%'+'.53$,),.-',86%$&%()=KK+%0%'02 8 6)*80'8'2'6$*-$%00',.)*' '(),>,84%(,/,)2'*$'8'2'4%(1)'0+*$)'42'0=8*$%'6$*&*1.5'(%$%4$'/'0%,C1$%'*$'42'..)%$(1 $%.)'61/8*.'$2' '&&%(),*.'$$&'-$'7%'42')+%'5%&,(,%.)'810(1' '$%EAL'6*3%$' +%2''$%'8%)'3,)+'(/./''.5''$%'6$*4'4/2'51%')*'(*.='6'$'),*.'*&'(%$%4$'/'),001%''>'0166/2,.-',)'3,)+'4,6*5G)=%%8%.)0'7'$2,.-' .'$%/''$%/'),*.' 6D)0'*&'0*=



)+%' %B)%.)')*' 3+,(+' ,)0' %' ,,0 ' /' %*,,5,),*.' ,0'
3,5%/2' 06$%'5' *$' (' .' 4%' $%&(' *7%5 ' . ' 7 ' 0 '
()5'$'5%-%.%$'),*.'$%(,,$$=$(%' ,0' '+ . *0)'(%$;
)' , . ' '%84* 08',)'$' $%' c' +%'6$*-. *0,0'
, .' 026+,/,),(' 5,0%'0%' *&')+%' %00%/0' 5%6%.50'
,,6*.')+%' $%(*-.,),*.' ' . 5')$%')8%.)' *&')+%'
026+,/,),(',.&/1%+(%'0*'&'$' '0'$%%,>/$$%.(%',0'(*.;
(%$.%5ℍ4B$')+%'6$*-. *0,0' *&'5%7%/*6%5'0286;
)*80',0', .5%6%.5%.)' *&')+%' d0H()' *&')+,0'026
/,),(' '10%' *$' *&' . 2')$%')* %.)')*' 3+,(+')+%'
6'),%.)' 8 '2' 4% 014>%() J =' $%')8%.)' (. '
*. /2', .&/1%.(%')+%'5,0%'0%' *&')+%'3 '// *&')+%'
7%00%/' ' .5')+,0'(' .'+ '7%. *'%&&%()', . '$%0)*$,. ='
)+%' (,$(1/'),*. =0,.(%')+%' 7%00%/' 4%25.5',0'
(/*0%5'42'(/*)>' *$', .'$%0)*$,. -')+%')$1()1$%*&'
)+%'5%0)$*2%5'),001%*&')+%'4$',. ' 0' '8 '))%$'
&&%%)')+%'4*1$0%*&'+%8,6/%-,''51%')*')+,0'
('10%',0'6$%(,0%/2')+%'0'8%' '0')+')' &+%8,;
6/%-,''5.%')*'0*&)%.,.-'6$*51(%5'42' . 2'*)+%$'
7'0(1/'$ 8%(+' ,08ℍ' ,86$*7%8%.)' *$' $%;
(*7%$2',0'5%)%$8,.%5'42')+%'6*0,),*.' *&')+%'
/%0,*. ' ' . 5')+%'%B)%.)')*3+,_=)+%'0286)*80'
'$%' .A '51%')*')+%' '()1'/'5%0)$1(),7%' *&)%.;
,.-' ' . 5')*'3+,(+')+%2'(' .' 4%' (*86%.0')%5'
86$*7%8%.)' *$' 6%$0,0)%.(%' *&' 0286)*80'
8 '2' (*,.(,5%'3,)+')$%')8%.)')41)+%'*.%',0'
.*)'51%')*',)'.*$')+%' *)+%$')+%' $%01/)'*&',0'
'40%.(%
& ! +%')$%')8%.)' ')')+%' *.0%)'
&'(%$%4$'/'0&)%..-',0'*&'-$%')',86*$)'.(
4%('10%' '/)+*1-+' .*)+,.-' (' .'6$*4/2'4%
5*.%')*'1.5*')+%'8,0(+,%&')+')'+'0'*((1$$%5'
81(+'8'2'4%'5*.%')*'6$%7%.)',0'%B)%.0,*.'
*$',.($%'0%' '.5',.' 8 '.2'('0%0',)',0'42'01(+'
6$%7%.)'4/%'%B)%.0,*.' *$',.($%'0%' '&)%$')+%'
6'),%.)' (*8%0' 1.5%$')$%')8%.)')+')')+%'
5%-$%%'*&'1/),8')%'5,0'4,/,)2'+*$'5%')+',)0%/&'
,0'5%)%$,..,1%5')',0'%00%.),)5')+')')+%'))%.;
),*.' *&')+%'6$'(),),*.%$'0+*1/5'4%'&,B%5'*.'
)+%'6')+*/*-,('/'6$*(%00' .5',)0'8%(+' .,08ℍ
+%'0+*1/5'%.5%'7*1$')*'6,()1$%')*'+,80%/&
(/%'$/2'3+')',0')'9,.-'6/'(%' .5'+*3',)',0'
4%,.-'4$*1-+)'4*1)' .5''$$' .-%'+,0')+%$';
6%1),('8%'01$%0'0*')*'(*1.)%$')+%'8*$4,5'
,.&/1%.(%0',.1)8*0)'6$'(),(/'4/%'5%-$%%'
+%'(/*01$%'*&''7%00%/'42'(/*)',0')+%'-$%')'
&')'*&'3+')'8'2'4%')%$8%5')+%')+%$'6%1),('
6')+*/*-2'*&')+%0%'('0%0' .5')+%'8%'01$%0'
)*'*47,')%')+%',.($%'0%',.')+,0'6$*(%00'+'7%'
81(+',.'8*.',.')+%' '$,*10'&*$%0'*&'
0*&)%.,.-' +%'7'$,'),*.0'$%.5%$%5'.%(%00'$2'
')+%'5,&&%$%.(%0',.'8%(+'.,08'$%'(*.;
0,5%$%5',.')+%'$),(/%0'*.')+%'0%7%$'/'7'0(1;
/'$ 5,0%'0%0' 1$,.-')+%' '(1)%')'-%')+%'
6'),%.)'8 10)'4%'9%6)')'6%$&%()'$%0)'3,)+')+%'
+%'5'8*5%$')%/2'$',0%5'&/%B,*.' *&')+%'1,%(9'
4%,.-' '7*,5%5' 1$,.-')+%',.,),'/'0)'-%'*&
0+**9' 3'$8)+'42' +*) 3')%$'4*))/%0'^('
0+*1/5'4%' '66/,%5')*')+%' %B)$%8,),%0')*'
%E1'/,0%')+%'(,$(1/'),*. ' +%'4*3%0',&'(*.;
&,.%5'0+*1/5'4%'8'5%')*' '()'-%.)/2ℍ41)'
1./%00')+%'%7,5%.(%'*&'%.(%6+'/,%'(*.-%0),*.'
4%%'$/2' .5'(*.06,(1*10'61$-'),*.'0+*1/5'4%'
'7*,5%5' +%'5%)%$8,.'),*.' *&'4/**5'&$*8'
)+%'4$',.')*')+%',.)%0),.%0',.7*/7%5',.'61$'
-'+*. '.5'5%0,$'4/%',.'(%$%4$'/'+0%8*$$+'-%

,0')*'4%'('$%&1//2''7*,5%5',.'(%$%4$'/'0*&)%.;
,.-')',0',86*$)'.)'/0*')*'8',.)',.')+%'
(,$(1/'),*.'0)%'52'.5'1.,&*$8''7*,5,.-''/,9%'
.51%' E1,(9%.,.-'*$'0/*3,.-'*&')+%'4/**5'
($$$%.)' %.(%'5,-,)'/,0',0'10%&1/',.''//(' (0%0'
,.'3+,(+')+%$%',0'('$5,'('3%'9.%00'*$',$$%-1;
/'$,)2' .'//'0%.,/%'('0%0'*$'3+%.')+%$%',0'
'' -*1)2' 5,')+%0,0' .,)$*.0' %)+%$' *$' *)+%$'
5,1$%),('5$1-',0'10%&,5'' .5',.')+%'/')%$'('0%'
0*8%/,)+,''8'2'4%'55%5' +10')+%')%.5%.(2'
*&')+%'4/**5')*'(/*)',0'/%00%.%5''.5')+%'$,09'
&')+%' %B)%.0,.' *&')+%'/%0,*.G'/3'20' ''
5'.-%$',.')+%'%'$/2'0)'-%'*&')+%'&&%(),*.G,0'
/%00%.%5' *$' *47,')%5'),81/'.)0'810)'4%'
-,7%.'*$'3,)++*/5')+%'((*$5,.-')*')+%'0)')%'*&'
)+%'+%'$)' '.5'(,$(1/'),*.ℍ3+%.')+%$%',0'
5*14)'3+%)+%$')+%2'0+*1/5'4%'-,7%.'*$'.*)',)'
,0'4%))%$')*'-,7%''08'//'E1'.),)2',.'0*&)%.,.-'
'.5')*'3,)++*/5')+%8',.'+'%8*$$+'-%'*$',&'
)+%'5,'-.*0,0'&,$*8'+'%8*$$+'-%',0'5*14)&1/'
&)%$')+%'0)'-%'*&'5%6$%00,*.'+'0'6'00%5')+%'
,$$,)',*.'51%')*'0%(*.5'$2',.&/'88'),*.',.;
5,(')%'42'+%'5'(+%'.5'%/%'7'),*.'*&')%86%$';
)1$%'.%%50'E1,%)15%'/'B'),7%0''.5'0*8%),8%0'
(*/5')*')+%'+%'5' +%.'(*.71/0,.0'$%'.'
%'$/2'.5'$%(1$$%.)'0286)*810)'$5'6/'0;
)%$0')*')+%'.%(9''.5'%B)$%8,),%0''.5'4$*8,5%
&'6)'00,18''$%'0*8%),8%0'%&&%(),7%ℍ,.ℵ
)+%'%'$/2'6%$,*5'(*/5')*'$,$%+%'5'8'2''$$%0)'
)+%8' +%'&,)0')+')'))%.5')+%'()1'/'*.0%)'
'$%'0%/5*8',.&/1%.(%5'42')$%')8%.)ℍ)+%2'
(%'0%'4%('10%')+%'),001%',0'5%0)$*2%5')+')'
,0'%00%.),'/'&*$')+%+$*((1$$%.(%' +%.')+%0%'
&',/'+2*0(,.%'8'2'4%'-,7%.'('1),*10/2'.'5'
,.'08'//'5*0%0'A2,)$*-$R
&)%$')+%')'(9'+'0'6'00%5'$%(*7%$2'810)'
4%',,5%5'42'8',.)',.,.-')+%'-%.%$'/'+%'/)+',.'
)+%'4%0)'6*00,4/%'**.5,),*.' +%'0%($%),*.0'
0+*1/5'4%'9%6)'&$%%')+%'5,-%0),7%'*$-'.0',.'
-**5'*5%$')+%'+'4,)0'0)$,()/2'$%-1')%5''.5'
.%$7,.%')*.,(0 (*5/,7%$'*,/'+26*6+*06+,)%'
*&'0*5,18'0)$2(+.,.%'E1,.,.%''.5',$*.G'
8'2'4%'-,7%.'3,)+'57'.)'-%' +%'02.,6ℵ
)*80'*&'(+$*.,('0*&)%.,.-'3+%)+%$'*((1$$,.-'
'&)%$'.'')(1)%')')'(9' $(*8..-'*.'-$'51'//2'
0+*1/5'4%')$%')%5',.''')0,8,/'$'8.%$
' U ' C @
% 3 %# !$0 ' ' '
*' 18*1$0'.5' %3' $*3)+0'*&
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!%3 %* ' N)'2)
&G=+% ,.),8')%'(*..%B,*.'*&')+%'4$',.'
3,)+',)0'8%8$'.0'8'9%0',)',8 6*00,4/%'%B;
(%6)',.')+%'8*0)'-%.%$'/)%$80')*'5$'3'.'2'
8'$9%5'5,0),.(),*.'4%)3%%.')18*1$0'*&')+%'
(%$%4$'/0140)'.(%'.5')18*1$0'$,0,.-'&$*8'
,)0'%.7%/*6%0' '-$*3)+'6$%00,.-',.3'$50'&$*8'
''8%84$'.%810)',86,.-%16*.'4$',.),001%ℍ
''-$*3)+'*$,-,.'),.-',+'4$'8),001%ℍ810)',.'
8'.2'0,)1'),*.0',.7*/7%')+%'8%84$'.%0
! ' ' 'G' +%'),001%0'
&$*8'3+,(+')18*1$0'+'7%')+%,$'*$,-,.'0%%8'
)*'6$%0%.)')+%'4%0)'-$*1.5'&*$' ''0(,%.),&,('
(/'00,&,(',),*.''*&')+%0%'/%0,*.0ℍ'.5',)',0'.*)

5%7*,5'*&', .)%$%0)'*' 8 '$9')+ ')')+%' '40*/1)%' .*$7% %/% 8%.)0' *&')+%' 4$',.' '$%' .*%7%$' 6$, ' .1&&,/2')+%'0*1$(%'*&'*' 8*$4,5' -$*3)+

%$%4$'/')18*1$0')+%.' 8 '2' 4%' $*1-+/2' 0%6'$')%5',.)*')+$%%'0%$,%0HG

' +*0%' 3+*0%'(%.)$%'*&*$,-.,.',0'0*8%'*.%'*$*)+%$'*&')+%' 8%84$'.%0'%B)%$.'/')*')+%' 4$',.'*$'5,66,.-',.)*')+%'7%.)$,(/%0

@' +*0%' 3+,(+' 06$,.-' &$*8')+%' 4/**5; 7%00%/0

"' +*0%' 3+,(+' *3.')+%'.%8*-/,'' '0')+%,$' 0)'$),.-6*,.)

7' *3%$0'(*.0,5%$0'01(+'' (/'00,&,(',*.' *&'08'// 6$'(),('/'7'/1%' '.5' 4%/,%7%0',)',0' 8*$%' (*.7%.,%.)')*' 5%0($,4%')+%' 7'$,*10' -$*3)+0' ,.')+%' *5%$%' *&')+%,$' &$%E1%.(2' 18*1$0')+%$%&*$%' 8'2'4%'-$*16%5',.' ,B' (')%-*$,%0

A R C # Y 14%$(1/'$'.5' 26+,/,)(' A@R G / ! Y /,*8''' '$(*8''' 2B; *8''' A?R " ' A R' # Y ,4$*8''' 0)%*8''' 0)%* &,4$*8''' AFR)&,0' Y +*/%0)%')*8''' ,6*8''' '0(1/'$' *$' $%() %' 18*1$0' 0'88*8''' %1$*8''' ADR6 3 (+,.*(*((10'.5' 20),(%$(10 '9,.-'+*3%7%$')+,0' $,-.,'/0145,7,0,*.' 3+,(+',0' ,.5&/%,0(+<0')+%')18*1$0' 3+,(+' '$%' 6/'(%5',.'%'(+' 0%$,%0' 5,&&%$' 0*8%3+')' &,H*8',+,0' '$$'.-%8%.)' .')+%' &,$0)' 0%$,%0' &,7%'9,.50'*&')18*1$'$%'&*1.5''$,0,.-'&,$*8')+%' 8%84$'.%0'*$'&,$*8')+%'&$%%' 01$&'(%'*&)+%'7%.)$,(/%0' +%0%'$%' '((+,*.,'.'-$'.1; /'),*.0H'06,.5/% (%5'0'$(*8'H'82B*8''*&')+%' 8%84$'.%0H'60'88*8'H' '.5'/,6*8''' +%'0%(*.5'0%$,%0'3,//,.(/15%'&,$0)'.%1$; 2080'5%6%.5,.-'16*.'5,0%'0%'*&'*.%'*$*8*$%' *&')+%' $)%$,'/'(*')0H' '.5'0%(*.5/2'01(+')18*1$0''0'+'7%')+%,$'*$,-,.',.')+%'0+%')+0' *&')+%'7%00%/0'(*86$,0,.-'('$(,.*8''(%$%4$,' 0,86/%BH'&)8-)+0'*&')+%'51$''8')%$H'(+*/%; 0%')*8'H'%6,)+%/,*8''82B*8')*5%0'60'8' 8*0.8H'6'6, *8''*&')+%'6,'' 8')%$''.5' 7%00%/0H'6'6, *8''82B*8')*5%0H'.5')1; 4%$(/%' 8')+%')+,$5'0%$,%0'8'2'4%'(*1.)%5'-/,*8'H'82B*8''*&')+%'.%$7%0140)'.(%H 026+,/,),(' -188'H'.5'&,4$*8''.(/15%5' 1.5%$'.*.%'*&')+*0%'+%'5,.-0'%(+,.*(*((,' '.5'(20),%%$(,'(% 1/*0'0'810)'4%'8%.),*.%5' '0')+%2'*&&%()')+%'4$',.

'(+'*&')+%'-$*3)+0'%.18%$')%5'3,'.*3' +%'4$,%&/2'5%0($,4%5

'6 # " "'0 " " G< +%0%'*$%' -$'.1/'),*.0'*&')+%'$'(+.*,5'0*8%),8%0' 8%)'3,)+',+'(+,/5+**5'7%$2'(*.0)'.)/2'&,*8' 8,55/%'-%'*.3'$50''.5'0('$(%/2'$%(*-.,0%5' '0'8*$4,5'/%0,*.0'+%,$''%),*/*-2',0',8' 9.*3.' +%2'5*'.*)'-,7%'$,0%')*''.2'0286;)*80' +%2''$%'(+,%&/2'0,)1')%5''/*.-')+% 016%$,*$'/*.-,)15,.'/'0,.10'3+,(+',.'$'%' ('0%0',0'6%$&*$')%5'42')+%8' +%2'&*$8' -$*160'*&'6'6, '%'(*.0,0),.-'*&'0)$,6%5'(*.' .%%),7%',001%'6**$',.'(% 0'.5'6$*(%%5,.-' 5,$%()/2'&$*8''')+,.'41)''(*.),.1' 2'$%; .%3%5'/'2%$*&'014 %6,)+% '/-%$8,.'/),001%

@' 1$(*8' G +,0'0*8%),8%0'+'0',)0'*$,-.,' .')+%' .%$7*10'),001%' ,)0%/&'41)' 8*$%' &$%;

E1%.)/2''$,0%0'&$*8')+%'51$''8')%$'%06%(,'//2' ')')+%'4'0%'*&')+='091 ' $*8')+%,$'0,)1';),*.'0'$(*8')''' $%'%06%(,' 2'6)')*',.)%$&%$%' 3,)+'*.%'*$'8*$%'*&')+%' ($%4$'/'.%$7%0' +%2'8'2'))',.')+%'0,C%'*&''' 6,-%*.<0'*$' %7%.'*&''+%.10,%--

+%.'0'$(*8''')'(90')+%'51$''8')%$',)' *$,-,.')%0'&$*8',)0',.)%$.'/'0,5% +%'8*0)' 101'/0,)1'),*.',0')+%'8%84$'.%'4*1)')+%' 0%//'')1$(,('''.5')+%'6'$0'6%)$*0''')'&*$80' '' 5%6$%00,*.',.')+k'4$',.'3+ %')+%'4*.%' 4%(*8%0'')$*>5%5'4%+,.5',)' +%' -$*3)+' ,0'(*86*0%5'*&'&10,&*$8'(% 0'3,)+')*/%$'4/2' .18%$*10' .5' 0*8%),8%0' 5 ')%5'7%00%/0' '$(*8')*10'-$*3)+0''$%'+*)'&$%%/2'5%7%/*6%5' '4*7%)+%'0.$^(%'41)'$')+%$',.',)+%'5%6)+0'*&' A)+%),001%H')+%2'5,0)%.5')+%'(%$%4$'/'(*.7*; /1),*.0'&D$8'5%%6'5%6$%00,*.0'*.')%'01$&'(%' .5'%7%.'6%.%)$')%'&%$',.)*')+%'4$',.' +%2' *((1$'1.5%$')3*'&*$80?# ' 3,)+' (*86'()'&,4$*10'&1.5'8%.)'/),001%'.5'08'//' (% 0'*&)%.'(' %5'&,4$*10')18*1$H'.5' D'3,)+''' /**0%$0(.')2',.)%$(% 1/'$' 0140)'.(%'.5'.18%$* ,'(% 0'*&'(*86'$';),7%/2'/'$-%'0,C%' +%'(%//0'$%8*0)/2'&10,; &*$8'41)'0*8%),8%0'$*1.5''.5'81/),.1(/%'' .5')+%')3*'/')%$'8'2'4%'01$$*1.5%'42')+%' &*$8%$' '$(*8'',.')80'0,)1'),*.',0'-%.%$'//2' 0,.-/%')'8'2'))',.')+%'0,C%'*&''.1)'*$' %7%.'*&'.''66/%'.5',0'&$%E1%.)/2'+)%8*$' $+'-,(.')+%'(%$%4$'/'),001%',)0%/&')+%'+'$5'0'$; (*8''')',.0''-$%')'5%-$%%'&'5%.0,)2',)',0' 0*8%),8%0'&,4$*10''')'*)+%$'),8%0'('$)'-,' .*10'&'' 5%.0%' +*8*-%.%*10' 0)$1()1$%' 3+,),0+'*$'4/.,0+ 3+,)-'3,)+''' 2%//*3'),.-%' +%$%'.5')+%$%'.5'3,)+'7%$2'&%3'7%00%/0')',0'5,0),.-1,0+%5'&$*8')+%'4$',.')+')'01$; $*1.50',)'42''' %$2'7'0(1/'$'C*.%')'('.' 4%'%'0 2'0%'6'$)%5'&$*8')+%'6'$%.(+28''.5'8'2')+10'4%'$%(*-.,0%5''&)%$'5%')+'&$*8' 0,86/%0(/%$*0,0''.5'+'$5'-/,*8''*&')+%'4$',.' +%'0*&)%$'&*$8G&,4$*(% 1/'$'0'$(*8'G,0' -%.%$' 2'%,)+%$''82B*''*$''-/,*0'$(*8'H 41)'61$%'&10*(% 1/'$'0'$(*8'',0'8%)'7$,)+' +%')18*1$',0''(/%'$'-$%2''/8*0)'/,9%')+% -$%2'8'))%$'*&')+%'(*$610'0)$,')18')',0' *&)%.'7'0(1/'$'3,)+''$%55,0+',.-%' +%0%' 0'$(*8')''' '$%'*&)%.'/8*0)'06+%$,('/'.'5' %'0 2'5%)'(+%5'&$*8')+%'01$%*1.5,.-'4$',.' 0140)'.(%')+%$0'+*3%7%$'0%%8')*'4%(*.;),.1*10'3,)+')+%'.%,-+4*1$,.-'0140)'.(%'' .5')*'4%/,))/%'8*$%')+'.'0,86/%+26%$)$*6+,%0' *&')+%'(%$%4$'/'),001%'' 06%(,' 2',0')+,0')+%' ('0%',.')18*1$0'*&')+%'(*$610'0)$,')18'.5' *6),(')+'/'810' +%'(%//0'*&'(%$%4$'/'0'$; (*8''')%'&$%E1%.)/2')+%'0%')'*&'&'))2'5%-%.%; $'),*.''.5')+%'3+*/%')&,8*1$'82'4%+'..*$' $+'-,(')0'8*0)'&$%E1%.)'0),1'),*.0',.')+%' 4$',.'')%'')+%'-./'),.*10'08''-$*3)+'0*&)'&,= %'+'7,.-''-%/'),.*10'06%()

2B* 8 ')'' '$% &$%E1% .)/2' 8 %)' 3 ,)+' , ')+%' Q(%$%4$'/ +%8 ,06+%$%0 ' . 5')+%. ')' 9%)+%,$' *$,-, . '&$* 8')+%' . %1$*-/,' ' 1(+' -$* 3)+0' '$% 6$* 4 ' 4/2' 8 '/,- . ' .)')+%'6$**&0' *&')+%,$' 8 '/,-; . ' . (2' 4%, . -')')+%2' '$%' *&)%. ' 8 1/),6/% /* (' //2Ĥ)+')')+%2' &$%E1% .)/2' $% (1$' 3+%. ' $%; 8 *7%5' &$* 8' ''6%$,6+%$'/ . %$7%Ĥ ' . 5')+')')+%2' . *)' %/5* 8' '&&%()' , .)%$. ' /' *$-' . 0' 2B* 8 '' 6*00,4/2' , . (/15%0' '//)+')' + '0' 4%%. ' ('//%5' (*//*, 5' (' . (%$' +%. ')+, 0' /%0, * . ' ' &&%()0')+%' ĥ(%$%4$'/' +%8 ,06+%$%0' ,)' 8 '2' 4%* *&'/ '$-%' 0, C%' +%' 8 1(10' ,0' ''(*. 0),)1%.)' 6 '$) *&')+%'),001%Hĥ 0,)', 0' . *)' ''6$*51()' *&' 0%($%), *. ' '0' , . ' 8 1(*10' (20)0 ')', 0' 8 *0)' (* 8 8 *. /2' '' 8 1(*,5' &*$8' *&' -/, * 8 '

' 0_3 =*a, ' = 0' 8 8 * 8 ')'' + ' 7%' 4%%. ' 8 %)' 3 ,)+' , ')+%' 4$' , . '06, . '/ 8 %8 4$' . %0' 06, ; . '/(*$5' ' . 5' . %$7%%Hĥ)+%2' ' $%' . *)' 1. (* 8 8 *. ' , . ')+%' (+*$*,5' 6/%B10' 41)' '$%' 8 *0)' 101' //2' &*1. 5', . ')+%' 6, . %' /-/' . 5' +%$%' $%')3 *'9, . 50' W*&')+%0%' -$* 3)+0' . ')+%' &, $0)')+%' 0' . 5' *(; (16, %0')+%' , .)%$, *$' *&')+%' 8 %0+%0' *&')+%' (*. ; . %(), 7%'), 001%', . '7%$2'7' $, %5'&*$8 ' ' 0'(* 8 6' ()' (2/, . 5%$0' '0' 6%' $ 0+' 6%5' 8 '00%0' '0' 06, . %0' Q*$' 0'-/*4%0 '01$$*1. 5%5' 42' (*. . %(), 7%'), 001%' H' . 5' (*. . %()%5' 42' ,)' 3,)+')+%' *)+%$' 6 '$)0' *&')+%')18 *1$' . ')+%' 0%(*. 5' &*$8 ')+%' 0' . 5' /, %0' Q3,)+*1)' (*+%0, *+' , . ')+%' 6 '$)0' ' . 5' 4%)3%%. ')+%8 ' 0*')+')+%' 5, &&%$%.)' -$' , . 0' *&' 0' . 5' 8 ' 2' 4%* %' 0, /2' , 0*/' ')%5' . ')+10' /'))%$' &*$8 ')+%' 60' 8 8 * 8 '' , 0' (* 8 6*0%5' 8 *0)' -%. %$' //2' Q*&' $*1. 5' %//, 6), (' /' (*$610(/%0' ' . 5' 0* 8 %), 8 %0' '/0*'*&'/' $-%' (* 8 6/%B' (*. -/* 8 %$'), *. 0' +%0%' /,))/%')18 *1$0' +' 7%' 101' //2' '' (*. (%.)$, (' '$; $' . -% 8 %.)', .)%$. ' //2

F' S G +, 0' , 0' ''$3%')18 *1$' , . ')+%' Q4$', . ')' 8 ' 2' 4%' (*. . %()%5' 3 ,)+')+%' ,, 8 %$' 1$&' (%' *&')+%' 51$'' . %')%$' *$' 3 ,)+')+%' %6%. ; 52 8 ''*&')+%' 7%.)$, (/%0' +%' &')) 2' 8 '))%$', 0' (*.)', . %5', . '(%//0' ' . 5')+%' (%//0' '$%'01$$*1. 5%5' 42' . '*$-' . , 0%5' 8 % 8 4$' . %' , 6* 8 ''0' 101' //2' 0, . -/%' 0%/58 . ' 8 1/), 6/%Hĥ *&', $$%-1/'$' +' 6%Hĥ ' . 5' 7' $, %0', . ' = %'&$* 8' ''0 8 '//' . 1)')*' ''+%. 0' Q%--' 8 '//' 6, %(%0' *&' ('$4* . ')%' *&', 8 %' +' 7%' 4%%. ' &*1. 5', . ')+%0%')18 *1$0

D' &" / G +%'/' $-%$' (%$%4$'/ ' . %1$; 20 8 0' +' 7%' 4%%. ' *40%$7%5' &$* 8' %' $/2'), 8 %0' *$%' $%%%. &&2' , *17, //%' +' 0' ('//%5' 06%(, '/ Q'))%.), *. ')*')+%014>%()' *&' 8 , /, ' $2' ' . %1$20 8 0' ' . 5' +' 0' = * 3 . ')+')+%2' ' $%' (* 8 8 *. Ĥ)+')' K)+%2' ' $%' 8 1/), 6/%Hĥ)+')' = % 2' &$%E1% .)/2' -, 7%' 3 ' 2' , . ')+%' 4$', . ' *$' , . ')+%' 6, ' ' 8 ')%$Hĥ ' . 5')+')')+%2' *&)%. ' (* %B, 0)' 3 ,)+' ' . %1$20 8 0' *&')+%' /' $-%$' 7%00%/0' , . ' *)+%$' 6 '0)0' *&')+%' 4*52' . %1$20 8 *&')+%' 8 , 55/%' 8 %. , -%'/' W*&')+%', .)%$. ' /' (' $*), 5' 3 ,)+, . ')+%' (' 7%$. *10' ĥ0, . 10' . 5' ')',)0' %B,)' &$* 8',)' *&')+%' .)%$, *$' W(%$%4$'/' ')+%' .)%$, *$' (* 8 8 1 . , ('), . - ' *& 0)+%' $)%$, %0' *&')+%' (*$610' %'//*018 ' *&')+% 8, 55/%' (%$%4$'/' *&')+%' 6*0)%$, *$' (* 8 8 1. , (%'), . - ' *&')+%' 7%$)%4$'/' *&')+%' 4'0, /' $' *&')+%' W6*0)%$, *$' (%$%4$'/' . 5' *&')+%' $)%$, %0' 0166/2' 0, . -')+%' (%$%4%//18 ›' $%' '// 8 %)' 3 ,)+' . *)', . ; &$%E1%.)/2' +%' 8, 55/%' (%$%4$'/' . 5')+% 4'0, /' $' +*3%7%$' = %')+%' 7%00%/0' 8 *0)' 101' //2' '&, %()%5' W3,)+', 0' /%0, *. ' W

+%' 8, . 1)%' 8, /, '$2' . %1$20 8 0' +' 7%' 4%%. ' *40%$7%5' , . ')+%' 6, '' 8 ')%$' ')')+%' 01$&' (%' *&')+%' (*. 7*/1), *. 0' *$', . ')+%, $' 0140)' . (%' , . ')+%' *6), (')+' /' 8, ')+%' 6*. 0')+%' (*$6*$'' 0)$, ')' ' (%$%4%//18 ' (1'' (%$%4$, ' . 5' 8 %51//'' *4/*. -')' Ĥ 8 %$%' $' $%/2' , . ')+%' (%.)$1 8 ' *7' /%' '/' $-%*. %' 3 '0' &*$85' 42' $' '0), . ' , . ')+%' /%.), (1/' $' . 1(/%10' +%0%' 8, /, '$2' ĥ ' . %1$20 8 0' 8 ' 2' 4%' 7, 0, 4/%')*')+%' . '9%5' %2%' +%' 0 8 '//%0)' '$%' 0%%. ' 1. 5%$')+%' 8, ($*0(*6%' '0' 861//'%' *&')+%' 7%00%/0' (*.)', , , . -' (*' -1; /')%5' 4/**5' *$' -$' . 1/%0' *&' +' %8 ')*, 58 ' +%' ')%$, '/ 3 '//0' +' 7%' -%. %$)&, /2')8 5%$-*. %' 0* 8 %' &*$8' *&' 5%-%. %$'), *. ' +%' 7%00%/' 5, /')%5')' 0* 8 %' 6 '$)0' , 0' (*. 0)$, ()%5' ')' *)+%$0' +%' /%0, *. ' 8 '2' +%' '' (*. 0%E1%. (%' *&')+%$* 8 '' *&')+%' 7%00%/' 41)' &' $* 8 *$%' (* 8 8 *. /2' ,)' , 0')+%' $%01/)' *&' $)%$, * 0(/%$*0, 0' *&')+%' , . . %$' (*')' *&')+%' 7%00%/0' %, =, %$' ')')+%' 0%')' *$' , . ')+%' , 8 8 %5, ')%' . %, -+4*1$+**5' *&')+%' . 1%$; 208 ' 8 4*/, 0 8 ', 0' '' &$%E1%.)' (' 10%' ' %00%/0' *&' , 0%' 0%0' *&

M' " ' ' G '. (%$' %B(/15, . -'&$* 8')+, 0')%$ 8 '0' $(* 8 '' . 5'-/, * 8 ' 8 ' 2' *$, -. , ')%' , . ')+%' ($8', /' 4*. %0')+%' 51$'' 8 ')%$')+%' 6, '' 8 ')%$')+%' (%$%4$18 ')+%' (%$%4%//18 ')+%' 6*. 0' . 5')+%' 8 %51//'' *4/*. -')' ' +%' 8 %51//''*4/*. -')' ')+%' &*. , B 0' . 5')+%' (*$6*$''E '5$, -%8, . ''$%')+%' $%-, *. 0' /%'0)' *&)%. ' (%$%4$'/ +%8 ,06+%$%0' '$%')+%' 8 *0)' &' 7*1$,)%/*(',), %0' /' &*$8 0' *&' (' . (%$' '$%' 8 %)' 3 ,)+' , . ' . ''/' ('0%0' +' 7, . -')+%, $' *$, -, . ', . ')+%' (*')0' *&')+%' 7%00%/0' 6,)+% ' /' (' . (%$' +' 0' 4%%. ' -%. %$' //2' 4%/, %7%5')*' +' 7%',)0' 0)' $), . -' 6*. .)' . ')+%' 6%$, 6+%$' /' /' 2%$' *&')+%' '$' (+. *, 5')+%'), 001%')+')' /, . %0')+%' 1. 5%$' 01$&' (%' *&')+%' 51$'' 8 ')%$' . %%6+' /*, 5' (' . (%$' , 0' +* %7%$')+%' 8 *0)' (* 8 ; 8 *. '&*$8' 8 %)' Q3,)+', . ')+%' 4$', . ?' . "0 ' ' # ' 1/ ' '(' . '0(' $(%/2' 4%' 0%6' $')%5' &$* 8')+%' 6$%(%5, . -' &*$8' ')' $, 0%0' &$* 8')+%' 1)%$' 01$&10%' *&')+%' 51$'' 8 ')%$' 6%. %)$')%0' 3,)+')+%' %00%/' &$* 8' 3+, (+',)' 06$, . -0' , .)*')+%' (* 8 6' ()'), 001%' 5%0)$*20')+%' 7,)$%*10')' 4/%' ' . 5' 06$%' 50' *1)' . ')+%' 5, 6/* ' , . ',)0' 6$*-$%00' ,)' 8 ' 2' 6%. %)$')%)+%' %B)%$. '/')' 4/%' . 5' /, &)Ĥ 16')+%' , .)%-=%.)0' *&')+%' ($' . , 18 ' +%' , .)%$. '/')' 4/%' , . 7' $, ' 4/2' 01&&%$0' 8 *$%')+' . ')+%' %B)%$. '/' ĥ * 8%), 8 %0')+%$%', 0' (*, . (,5%.)' 6' 00' -%' *&')+%)18 *1$', . ; 3 ' $50' ' . 5')+%' 014>' (%.)' 8 %8 4$' . %0' 4%(* 8 %' -/1%5')*')+%' 51$'' 8 ')%$' . 5')*')+%' (%$%4$'/ 0140)' . (%' +%$%' 8 ' 2' $%01/)' 0, 8 6/2')+%' 5%6$%00, *. ' *&' 01$^ (%' (*. 0%E1%.)' 16' . ' 6$%0; 01$%' &$* 8' '4*7%' 41)' 8 *$%' (* 8 8 *. /2' (%/' -$* 3)+' 0, 8 , /' $')*')+')' *&)+%' *$, -, . '/')18 *1$')' 9%0' 6/' (%' &, $0)' &$* 8')+%' 7%00%/0' *&')+%' 6, '' 8 ')%$' ' . 5' ' &)%$3' $50' &$* 8')+%' 7%00%/0' *&')+%' (%$%4$'/ (* . 7*/1), *. 0

P' /*0%/2' '//, %5')*')+%' %6,)+%/, '/ (' . (%$')+')' + 0' ,)0' *$, -, . ', ')+%' 51$'' 8 ')%$', 0')+%' # ' 3+, (+', 0' -%. %$' //2' 0,)1')%5' ')+%' 4' 0%' *&')+%' 4$', . ' , . 5&/%, 0(+' (* . 0, 5%$0' ,)' '' 0E1' 8 *10' %6,)+%/, * 8 ' ' 3+*0%' (%//1/' $ (2/, . 5%$0' '$%' 3+* 2' (* . 7%$)%5', .)*' '' 8 '00' *&' 6%' $/2' . *51/%0' 3,)+' '' 0, /92, /10)$%')', 0

(*7%$%5'42')+%' '$'(+.*,5'.'.5'06$,..-0'%,)+%$'&$*8')+%' 7%00%/0' *&')+%' 6,'',.')%$' *$' 8*$%'$'$%/2' &$*8')+%'6%$,7'0(75'$' 0+%')+' *&')+%'7%00%/0',.')+%'0140)'.(%'*&')+%'4$',.

! ' '0)' *&')+%' ('.(%$0',0' '').8*8H')+')'+'0' 4%%.' &*1.5',.')+%')+,$5'7%.)$,(/%G 7
) 2 G(*.;0,0),..-' *&'-/*4%0' '.5'(2/,.5%$0'*&'%6,)+%/,'/'(%//0'%84%55%5',.' '' 7%$2'41/92'0)$*8''*&'81(*10',001%

6$,.-,.-' '/0*' &$*8')+%' 7%00%/0')3*'&*$80'*&' '$%'8%)'3,)+G6'6,//*8''6&')+%'6,'' 8')%$' '.5'7%00%/0H '.5'6'6,//*8''82B*8')*5%0' +%'&*$8%$',0'(*86*0%5'*&''.184%$'*&'4$'.(+,.-' 6'6,//'%' %'(+' *&'3+,(+'(*.)',.0'' 4/**5 7%00%/' 3,^'' 08'//'8*1.)' *&'(*..%(),7%'),001%'*.'.5'' 5*14/%'(*')' *&'%6,)+%/,18'*&'3+,(+')+%' *1)%$'/'2%$',0'(*/18.'$' .')+%'/'))%$'3+,(+',0'6$*4'4/2''' 8%$%' 7'$,%)2' *&')+%' &*$8%$')+%' 0)$1()1$%'*&')+%')18*1$',0')+%'0'8%'41)')+%'(*/18.'$'(%//0'0%($%)%'''7'0)'*8*1.)'*&'7,0(,5'81(10

@' 4%$(/%'06$,.-0'&$*8')+%'8,55/%')1.,('*&')+%'08'/'$)%$,%0'*&')+%'6,'' 8')%$'*$'*&')+%' .%$7% 0140)'.(%')'$'$%/2')'))'(90')+%'8%84$'.%0',.')+%'&*$8'*&')18*1$'$'$%/2''/0*')+%'3+,)%'8')%$'*&')+%'4$',.'41)'6$%&%$0''0',)0'6$,.(,6'/'0%')')+%'-$%2'8'))%$'*&')+%'(*.7*/1),*.0' '.5'*&')+%' 5%%6%$' 6'$)0'14%$(/%'*&')+%'51$'' 8')%$',0'+*3%7%$'0*8%),8%0'8%)'3,)+'.5',)'8'2',.51(%'*4/,)%$'.'*&'0,.10%0'+%'(%$%4%//18'',0''&$%E1%.)'0%')'*&')14%$(/%'3+,(+'%B,0)0'+%$%',.'8%'&*$8'*&'016%$&,(,'/-$'.1/'),*.0'+%'6*.0''/0*',0'&$%E1%.)/2''&&%()%5'3,)+')14%$(/%'4*)+',.')+%'&*$8'*&'08'//')18*1$0'*&',)0'0140)'.(%''.5''0'6*/%6*10')14%$(/%0'*&')+%'&*1$)+'7%.)$,(/%' 14%$(/%',0'0%6'$')%5'&$*8')+%'01$$*1.5,.-'(%$%4$'/0140)'.(%'42''7%$2'5%/,()%'$%55,0+'%.7%/*6%

14%$(1/'$'))1.*1$0'*&')+%'(%$%4$'/014;0)'.(%''$%*&)%.'81/),6/%''.5'.*)',.&$%E1%.)/2'/'$-%$')+%2'*$%'*&'7%$2'0/*3'-$*3)H 6%$0,0)'/*.-',.')+%'('0%*10'0)')%H '.5'8'2'4%&'*1.5'($%),&/%5' *8%),8%0')+%$%',0'(%$%4$'/'0*&)%.;,.-''$*1.5')+%8' ,$(+*3'0)')%0')+')'+%',.(%$'0%'*&')14%$(/%0')'9%0'6/'(%'42'366*;0,),*.'*$>1B)'6*0),*.''.5')+')'+%'66*0,),*.')=%0'6/'(%'.*)'42'/'2%$0'6$,8'$,/2'('0%*0'41)'42'C*.%0'*&'.%3'-$%2'6$*/,&%$'),*.'101''//2',.')+%'&*$8'*&'88'$2')14%$(/%' '7%$2'5%/,(')%'/'2%$'*&'(*.%(),7%'),001%'*&'.%3'&*$8'),*.''' 06%(,%0'*&'%.(20),.-'&'/0%'8%8;4$'.%'$%6$%0%.)0')+%'8*)+%$),001%'&*$')+%'0140%E1%.)'-%.%$'),*.''*&'2*1.-')14%$(/%0

"' B '('//%5'42' ,//$*)+'0 " '
'*$' " ',0'6$'(),;
('//2''''/*('/'+26%$6/'0,*'5%7%/*68%.)'*&')+%'.%8<-/,'')'8'2''66%'$',.')+$%%'&*$80'%,)+%$''0' 0 $,(+',.' %//0G)+%'8*0)'(*88*.'9,.5H'0'# '0 '&,4$*10''.5',&'K=)+% 7%00%/0' '$% 81(+'5%7%/*6%5'%)/'.-,%()'0,(H*$')+,$5/2''0''' (0 ''(*86/%B')18*1$',.'3+,(+'6')*&')+%')18*1$')'9%0')+%' '66%'$'.(%'*&'81(*10'),001%' + '.')1$%'*&')+%')8.*1$',0'6')/2

5%)%$8,.%5'42')+%'.')1$%'*&')+%'),001%'&$*8'3+,(+',)'06$,.-0H)+10'-/,*8''*&')+%'4$',.',0'-%.%$'//2'41)'.*)'/'3'20'0*&)'-/,*8''*&')+%'%6%.528''+'$5' +%'0*&)'-/,*8')''$%'(/*0%/2''//,%5')*'82B*8')''' +%',.)%$(%//1/'$0140)'.(%',0'&*,85',.'8*5%$')%'E1'.),)2' .')+%'8*$%'81(*10'-/,*8')''')+%'.%)3*$9',0'$%-1/'$' '.5'/'$-%''.5')+%',001%'+'0'/,))/%'(*+%0,*.' &')+%'8%0+%0''$%'/'$-%$'0),//''.5')+%'81(*10'%/%8%.)''41.5'.)')+,0'7'$,%)26'00%0',.)*''' 82B*8''' &')+%$%'4%'''(*.;0,5%$'4/%',.($%'0%'*&(%//0'3+,/0)')+%)$'4%(1/0%4%(*8%.'$%*3%$'3%'-%)'''8%51//'$2'-/,*8''3+,(+'2'4%')$'.0&*$8%5',.)*''' 8%51//'$2'0'$(*8''',&')+%'(%//0'(*.),.1%')*'-$*3'.5'81/),6/2' +%0%')$'.0,),*.0''$%' .*)'8'(*88*.'%7%.',.')+%' '8%)18*1$'%06%(,'//2',.')+%'6*0)%$,*$'/*4%0'*&')+%'4$',.' &')+%'7%00%/0''$%'5%7%/*6%5',.'-$%')'41.5'.(%'3%-%)+)%8*)$+'-%0'.5''9,.5'*&',8-10'+0%8''*5%0' '$5'-/,*8'',0'(/*0%/2''//,%5')*'&,4$*8''3,)+'3+,(+',.5%%5',)'8'2'4%'(*84,.%5')*'&*$8''&,4$*-&,*8' .'+'$5'-/,*8'')+%'&,4$%0'$%'.*)''$$'.-%5',.''.%)3*$9'41)',.'6'$'//%/'/,.%0'/,9%'&%/)'+%'.%$7*10'%/%;8%.)0'.')1$'//2'(*.)',.%5',.')+%'.%1$*-/,''$%'4%'.%0'.')+%'&*$8'*&')18*1$'$'$%/2''/0*')+%'3+,)%'8')%$'*&')+%'4$'.(%'*&')+%'(%$%4$'/0140)'.(%'-/,*8''*&')+%'6%.528''+'$5' +%'0*&)'-/,*8')''$%'(/*0%/2''//,%5')*'82B*8')''' +%',.)%$(%//1/'$0140)'.(%',0'&*,85',.'8*5%$')%'E1'.),)2' .')+%'8*$%'81(*10'-/,*8')''')+%'.%)3*$9',0'$%-1/'$' '.5'/'$-%''.5')+%',001%'+'0'/,))/%'(*+%0,*.' &')+%'8%0+%0''$%'/'$-%$'0),//''.5')+%'81(*10'%/%8%.)''41.5'.)')+,0'7'$,%)26'00%0',.)*''' 82B*8''' &')+%$%'4%'''(*.;0,5%$'4/%',.($%'0%'*&(%//0'3+,/0)')+%)$'4%(1/0%4%(*8%.'$%*3%$'3%'-%)'''8%51//'$2'-/,*8''3+,(+'2'4%')$'.0&*$8%5',.)*''' 8%51//'$2'0'$(*8''',&')+%'(%//0'(*.),.1%')*'-$*3'.5'81/),6/2' +%0%')$'.0,),*.0''$%' .*)'8'(*88*.'%7%.',.')+%' '8%)18*1$'%06%(,'//2',.')+%'6*0)%$,*$'/*4%0'*&')+%'4$',.' &')+%'7%00%/0''$%'5%7%/*6%5',.'-$%')'41.5'.(%'3%-%)+)%8*)$+'-%0'.5''9,.5'*&',8-10'+0%8''*5%0' '$5'-/,*8'',0'(/*0%/2''//,%5')*'&,4$*8''3,)+'3+,(+',.5%%5',)'8'2'4%'(*84,.%5')*'&*$8''&,4$*-&,*8' .'+'$5'-/,*8')

8%),8%0 '/0')+%02886)*80 51%')*'5,$%()' '.5'$%&/%B $%B(,)'),*.' 8'2'(*,.(,5%''.5')+,0 ,0 6'$),(1/'$/2')+%' ('0%' ,.')18*8$0 *&')+%' 4'0%' +%'8',.'5,&&,(1/),%0/,%',.')+%'6*00,4/%' /')%.(2'*&'/' 02886)*80H ,.')+%,$',.)%$8,0; 0,*.'H ,.')+%'5,0),.(),*.'.5'(*84,.'),*.'*&' 5,$%()''.5'$%&/%B'%B(,)'),*.H '.5',.')+%'$%; 8,00,*.0 &*//*3,.-'6+20,('/ *$ 602(+,('/ %B(,)%8%.)

286)*80')+%.'8'2'5%6%.5'*.'5,$%()'*$ $%&/%B %B(,)'),*.''.5'(*.0,0)'*&' %B'/)'),*.' *&'&1.(),*.'/'('(),7,)2'01(+''0'(*.)$'6),*.0' 6'$),'/*$-%.%$'/(*.71/0,*.0'+26%$0%0)+%0,'' '.5'+26%$,5%'),*.')+%$0'$%'6$*51(%5'42' 0%(*.5'$2'/%0,*.0' ,.')+%' .%,-+4*$+**5'*&')+%')18*1$'G'(*.-%0),*.' +)%8*$$+'-%',.; &/'88'),'.*.'^(G'.5')+%0%'8'2',.(/15%'.*)' *./2'/'/',.')+%'6$%7,*10'5,7,0,*.'41)'%86*; $'$2'*$'6%$0,0%.)'6'$'/20,0'&%7%$''55'*)+%$' 6+%.*8%.''+%.')+%$%'8'2'4%'0J1.6)*80' *&'5,$%()'(*86$%00,*.'5%&,.,)%'6'$'/20%0''.5' -$'51'/'%.&%%4/%8%.)'*&')+%'0%.0*$,'/''.5' ,.)% %()1'/'(1/),%0

'9,.-'0*8%'*&')+%'8*$%'(*88*.'(*.; 5,),*.0',.'*$5%$''.5'7,%=8-')+85'N5%; 6%.5%.)'*.'5,$%()'*$'$%&/%B',$$,)'),*.')+% 8*0)'&$%E1%.)'(%$)',./2',0'+%'5'(+%'5' %B(%6)',.')18*1$'*&')+%'(%$%4%//18'3+%.')+%'+%'5'(+%',0''/8*0)',.7'$,'4/2'*((,6,)'/')+%$%',0.*'02886)*8'/%00'10%&1/',.'5%)%$8,..-')+%'6*0,),*.'*&')+%'/%0,*.')',0'/%00'&$%E1%.)/2' 51%')*'5,$%()'%B(,)'),*.')+.')*'$%&/%B' +%' 6',.',0'7%$2'0%7%$%',.5%%5'8*$%0*')+'.',.' .2'*)+%$'5,0%'0%'%B(%6),.-'6%$+'60'8%.; ,.-,),0H ,)'6%$0,0)0')+$*1-+')+%'3+*/%'8'/'52H ''.5',0',.($%'0%5'42'7,4$'),*.'*&''9,.50' /,-+)'0*1.5'*$'8*7%8%.)'*&')+%'+%'5')' 8'2'4%'(*.&,.%5')*'''0,.-/%'06*)'*$'4%5,&&10%5' *7%$')+%'3+*/%'+%'5' *..%()%5'3,)+'+%'5; '(+%',.'8'.2'%'0%0'.5'*&)%.'%E1'//2')+% %&&%()0'*&'$'5,')%5',.&/1%.(%''$%')..,)10' '1$,18'8*$4,5'(1)%.%0 *&'+%'$,.-'*$ 6',.&1/0%.0,),7%.%00')*'0*1.5H 5,0)1$4'.(%0 *&'7,0,*.'5,6/*6,''810(0%'7*+)'.)%0''.5' 0)$'4,0810'3+,(+'8'2'4%')$'.0,%.)H &*$8,(';),*.''.5'0*8%),8%0'+26%$'0)+%0,[''*&'-$%')%$ *$'/%00'%B)%.)' .'0*8%'('0%0')+%$%',0''.' '-,)')%5'(*.5,),*.''*&')+%',.)% %()1'/&'(1/),%0' '.5'%7%.'5%/$,18' ,0)1$4'.(%0'*&'0,-+)' '$%'7%$2'(*88*.' +%'$%),.'/'/%0,*.0'3, 4%'0140%E1%.)/2'5%0($,4%5')',0''$%8'$9; '4/%&'()'0'4%'$,.-'16*.')+%'5%(100'),.-' '$$'.-%8%.)'*&')+%'*6),(.%$7%0')+')'+%' &'()'0'4%'$,.-'101''//2',86/,(')'*4*)+'%2%0' %7%.'3+%$%')+%')18*1$'+'0',.7*/7%5'*./2'*.% *6),(.%$7%''.5',0'.*)'0,)1')%5'.%'$')+%'*6),(' (+,'08''*$')+%'(*$6*''E1'5$,-%8,1''% '$; ,.-',0'&'$'/%00'*&)%.'&&%()%5')+'.'7,0,*. %.%$'//2''0/,-+)'5,8,.1),*.'*./2'*&')+,0 &1.(),*.',0'*40%$7%5H''.5',.')+%'$'$%('0%0' ..'3+,(+'(*86%)%'5%'&.%00',0'8%')+',)',0' B8,/')%$'/' '0)%''.5'08%''$%'0%/5*8',.;)%$&%$%5'3,)+' +%.')+%0%06%(,'/'0%.0%0'$% 8*$4,5/2''&%%()%5')+%')18*1$'3, '6$*4'4/2' 4%0,)1')%5',.')+%'$8(10'-2$,'+,66*('86,A)+% +,66*('86'//*41/%'*$,)0',8 8%5,')%'7,(,.)2

+%'02886)*80'*&'(*86$%00,*.' 8'2'4%',.I '(/15%5',.')+%'%B6$%00,*.'0/*3%$,.-*&&1.(),*.<K (*86$,0,.-''6')+2'&%%4/%.%00'*&' 8%8*$2' 3').'*&'))%.),*.''(*.&10,*.''.5''-%.%$'/K %.&%%4/%8%.)'*&',5%'0' +%0%'(*.5,),*.0''$%' *&)%.''((*86'.,%5'*$6$%(%5%5'42'(%$)','.5,&; &10%5'02886)*80'01(+''0'7%$),-*

%$),-*' ,0')+%' &,$0)' 02886)*8' ,.' 8'.2' ('0%0H ,)' ,0' &%/)' %06%(,'//2'3+%.')+%'6'),%.)' ,0',.')+%'16$,-+)'6*0,),*.')'*&)%.'6$*51(%0' 1.(%$)',.)2'*&'-',)'%7%.'3+%$%')+%')18* K ,0'.*)',.')+%'(%$%4% 18')$'.-%0%.0',*.0' ,.')+%'+%'5''$%' '0*' (*86/',.%5'*&''&%%/,.-' *&'+E1,5',.')+%'+%'5'*$'*&''8*4,/%'4*52H *$')+%0%.0',*.' 8'2'4%')+')'*&''0*/,5'4*52' &,//,.-')+%'+%'5'*$'6$%00,.-'16*.'0*8*' 6*$),*.'*&',)

+%0%'6+%.*8%.''*&)%.'(*,.(,5%'Q3,)+'%7,; 5%.(%0'*&',$$,)'),*.' *&')+%'8%0*(%6+'/%' 3+%)+%$'51%')*'5,$%()'(*86$%00,*.' $)*' $'5,')%5',$$,)'),*.'*&')+%'8%51 ''*4/*.-')' +,%&''8*.-0)')+%0%'02886)*80',0'7*8,),.-'),0',^0)'),*.0'*&'5206%60,''.5',)'3,//*((1$' 3+%.')+%'0)*8'(+',0'%86)2')'('.'&$%'#E1%.)/2'4%'(+%(9%5'*./2'42'9%%6,.-')+%' 6'),%.)',.''$%(184%.)'6*0,),*.' *.0),6'),*8' '/0*',0'*&)%.'*40),.')%

6,/%6),&*$8'(*.71/0,*.'+'0'.',86*$)'.)' 4%'$,.-'*.')+%'5,'-.*0,0'*&')+%0%'/%0,*.0' %$2'&$%E1%.)/2'(*.71/0,*.',0'6$%(%5%5'42' 8'.2'*&')+%'6+%.*8%.''''/$%'52')*1(+%5' 16*.'01(+''0'+%'5'(+%'*$'7%$),-*' $%; E1%.)/2'+*3%7%$'(*.71/0,*.'6$%(%5%0' ' *)+%$'8*$4,5'6+%.*8%.'''.5')+%'6'),%.)' 8'2'4%',.'6%$&%()'+%'/)+',.')+%',.)%$7'/0'*&')+%'))'(90' ,7%.')+%$%&*$%'(*.71/0,*.'0')+%'*.%'&'()*$',.'&*$8,.-'.'*6,.,*.',)',0' .%(%00'$2')*'(*.0,5%$')+%'/,'4,/.)2'*&')+% 6'),%.)')*'(*.71/0,7%'))'(90'&$*8'('10%0' *)+%$')+'.')18*1$0H)*'$%'/,0%3+%)+%$')+%'' &'8,/2'+,0)*$2'0+*30'.2'0106,(,*.'*&'%6, /%602H''.5')*'%/,8,.')%'&$*8')+%'('0%')+% 6*00,4,/,)2'*&'0')1$.,.%''/(*+*/,('.5'1$0%8,% 6*,0*.,.-'&')+,0',0'5*.%''.5'%06%(,'//2', &'3%'&,.5'%'$/2'(*.71/0,*.'00*(,')%5'3,)9' +%'5'(+%'.5'3,)+'7*8,).-')+,0'02886)*8' Q3,'6$*7%'.',86*$)'.)'',5',.')+%'5,'-.*0,0 *&')18*1$

+%'6+%.*8%.''5%6%.5,.-'*.')+%'6$%0%.(%' *&)18*1$',)0%/&'8'2'+%'00*(,')%5'3,)+H *)+%$0'51%')*'(*86/,(',*.0'01(+''0'*%5%8'' (*.-%0),*.'%.(%6+'/,),0'*$'8%.,.-,),0'*&') 01$$*1.5,.-'6')$)0' ',-*')%86%$')1$%'&*$' ,.0)'.(%'3,//6*,.)'),'.&/'88'),*.'%,)+%$'*&K)+%'.%$7*10'0140)'.(%'*$' *&')+%'8%.,.-%0' .%'$')+%'/%0,*.H '.5'8%.,.-%'/',&/'88''Q),*.'0%%80')'*' +%''((*86'.,%5'42')+% +,-+%0)')%86%$')1$%' 26+,/,),(' -1.8'' +*3%7%$' 8'2'(*,.(,5%' 3,)+'026+,/,),(' 8%.,.-,),0'*.'0*8%'*)+%$'6*$),*.'*&')+% %.(%6+'/*.'.*)'5,$%()/2'(*.%()%5'3,)+')+% ,88%5,')%'01$$*1.5,.-0'*&')+%')18*1$ '00,.-'&*$')+%'8*8%.)')+%'014>%()'*&b 5%&,.,)%'6'$'/20%0'3,)+')+%'$%8'$9')+')')+%' 06+,.()%$0''$%'0%/5*8''&&%()%5'%7%.',.'('0%0H

U ‘ U ‘ ‘ ‘ U ‘

*((1$0‘ ,-+)‘ ’.5‘ 08%//‘ ’$%‘ &$%E1%.)/2‘ ’&&%()%5‘06%%(+‘0%/5*8‘ %8,6/%-,’‘(*.71/;0,*.0‘ ’.5‘ 602(+,(’/‘5,0)1$4’.(%‘ 3,/‘*((1$‘ 81(+‘’0‘,.‘)18*80‘*&‘)+%‘ 8,55/%‘/*4%0 .‘)18*1$‘*&‘)+%‘ ‘ ‘)+%$%‘,0‘ -%.%$’/‘+%’5’(+%‘0%/5*8‘/*(’/,0%5‘,.‘)+%(*(;(,61)H‘.**)+%$‘0%.0*$2‘5,0)1$4’.(%‘ /,= 2‘ 8’$9%5‘ +%8,6/%-,’‘ *((1$0‘ ’.5‘ (*.K713,7%‘))’(90‘ ’$%‘ 7%$2‘&$%E1%.)‘ +%$%‘,0‘.**5,0;)1$4’.(%‘*&‘)+%‘*$-’.0‘*&‘06%(,’/‘0%.0%‘ $%‘/,))/%‘’&&%()%5H‘’.5‘)+%$%‘’$%‘7’$,*1 0‘8%.)’/‘&’(1/),%0‘ ‘$k‘ -$%’)/2‘ ‘/)%$%5’6’$’ ’),*1/’$/2’,.’)+%‘)%.5%.(2‘)*’5%6$%00,*. U‘)+$%%‘ /*4%0‘ 8‘2‘4%‘ ’&&%()%5‘ W3,)+‘)18*1$‘(*,.(,5%.)/2’ ’.5‘)+%‘ +%’5’(+%‘ ,0‘)+%.’7%$2‘,.)%.0%H‘)+%‘%6,/%6),&*$8’(*)) /’%,*.0‘%B(%%5’)+%‘6’$’/2),(‘6+%.*8%.’H‘)+%‘*$-’.0‘*&‘06%(,’/‘0%.0%‘ ‘$%‘/,))/%‘’&&%()%5H‘’.5‘)+%$%‘’$%‘7’$,*1 0‘8%.)’/‘5,0)1$4’.(%0 .‘)18*1$‘*&‘)+%‘ ’) (‘)+%‘ +%’5’(+%‘ ,0‘ -%.%$’//2‘/,8,)%5‘ %,)+%$‘)*’)+%‘ &$*.)’/‘$%-,*.0’)*’ *.%‘ 0,5%‘*&‘)+%‘ +%’5’*$‘)*’)+%‘*((,61)‘ +%$%‘ ,0‘.%,)+%$‘ .’%0)+%0,’’.*$‘6’$$&20,0‘41)‘.%.0%‘(*.71/0,*.0‘*((1$‘)+%06%(,’/‘0%.0%0‘’$%‘.*)‘5,0)1$4%5‘ +%‘8%.)’/‘ *.5,),*.‘.0‘*.%‘*&‘,$$,)’),*.‘ %7,5%.(%5‘42‘5%/,$,18’.5‘%B(,)%8%.) ’0)/2‘7%$2‘7’$,*10‘$%-,*.0‘*&‘)+%‘4$‘,.‘8’2‘4%‘0,81/)‘.%*10/2‘)+%‘0%’)‘*&‘)18*1$‘’.5’)+%‘8*$4,5‘6+%.*8%.’’3,//‘4%‘.%(%00’$,/2‘(*86/%B " ‘ # "0 ‘G‘)‘+’0‘0%%8%5‘8*$%‘(*.7%.,%.)’)%‘06%’9‘*&‘$%),.’/‘(+’.-%0‘5%;6%.5%.)’*.’(%$%4$‘/‘)18*1$‘0%6‘$’)%‘+K 8‘)+%‘*)+%$‘0286)*80‘ $%’)‘7’$,’),*.0‘,.‘)+%‘/%0,*.’*((1$G‘((*$5,.-’)*’)+%‘6*0,),*.’*&‘)+%‘)18*1$H‘,)0‘5,$%()‘,.)%$&%$%.(%‘3,)+‘)+%‘*6),(‘(%.)$%0H‘,)0‘(*86/,(’),*.’3,)+‘8%.,.-.,),0H‘.5‘,)0‘6$%001$%‘*.’)+%‘*6),(‘.%$7%0‘.5’(+,‘08’ ’9,.-’(+*9%5‘5,0(‘*6),(‘.%1$,),0’ ’.5’)$*6+2’*&‘)+%‘*6),(‘.%$7%‘(‘0’)+%’)+$%%‘(+,%&/%0,*.0’(%$%4$’/‘)18*1$‘8‘2‘7%$2’&$%E1%.)/2’,.51(%‘(+*9%5‘5,0(‘42‘,.)%$&%$,.-’K3,)+’)+%‘7%.*10‘%44‘&$*8’)+%‘%2%H‘*6),(‘.%1$,),0’,&‘84.,.-.,),0‘,0‘’00*(,’)%5’K3,)+’)+%‘)18*1$H‘*6),(‘’)$*6+2‘42‘6$%001$%‘*&‘)+%‘),1.*1$‘*.’)+%‘*6),(‘.%$7%‘*$‘42‘)+,0‘6$%008$%‘*&‘)+%‘)18*1$‘*$‘*&‘+25$*(%6+‘/10‘0%(*.5‘$,/2‘,.;51(%5‘42‘,)‘*.’)+%‘*6),(‘(%.)$%0‘*$‘)$‘()0‘*$42‘0*&)%.,.-’‘$*1.5’)+%’)18*1$‘01(+‘0*&)%.;,.-’,86/,(’),.-’)+%‘*6),(‘(%.)$%0‘*$‘/‘0)/2‘42’)+%‘6$*6‘-‘),*.’*&‘0(/%$*0,0‘ .2’)18*1$‘0,)1’)%5‘&‘$‘4‘(9‘,.’)+%‘%.(%6+‘/*.‘8‘2‘,.)%$&%$%‘W3,)+’)+%‘7%.*10‘&/*3’)+$*1-+’)+%‘7%.‘%‘ ‘%.,’‘.5‘0*‘6$*51(%‘+25$*(%6+‘/10‘*&’)+%‘7%.)$,(/%0‘ ‘.5’)+%‘$%),.‘/‘%&&%()0‘*&‘+25$*(%6+‘/10 +%$%‘‘$%‘.*‘$%),.‘/‘(+’.-%0‘&$*8’)18*1$‘,.’)+%‘(*$610‘(‘//*018’.*$’‘0‘’‘$1/%’&$*8’)18*1$‘,.’)+%‘*6),(‘)+’/’18,’)1.*1$0‘*&’)+%‘(%$%4$‘/‘+%8,06+%$%0‘ ’ ,.&/1%.(%’)+%‘*6),(‘.%$7%‘,&’)+%2‘,.)%$&%$%‘3,)+’)+%‘4’0%‘*&’)+%‘4$‘,. 18*1$0‘*&’)+%‘(%$%4%//18’8‘2‘(’10%‘6$%0;01$%‘*.’)+%‘/’)%$’/‘0,.10%0’)+%’0)$‘,-+)‘0,.10’)+%‘7%.‘% ‘/%.,’‘*$’)+%’)*$*1/‘$‘ %$*6+,/,

6$%008%‘,.’’.2‘*&’)+%0%‘0,)1’),*.0‘8‘2’6$*;51(%‘(+*9%5‘5,0(‘ $’)+%’)18*1$‘8‘2’‘&&%()’)+%‘ (*,6*$’‘ E1‘5$,-%8,.‘H ‘*$‘ 0*&)%.,.-’‘$*1.5‘,)‘ 8‘2‘06$%‘5’)*’)+%0%‘*$-’.0‘’.5‘’)$*6+2‘*&‘)+%‘*6),(‘.%$7%‘4%‘)+%‘$%01/)‘&’ ‘)18*1$‘*&‘)+%‘(*$6*$’‘E1‘5$,K-%8,.‘’)+%80=7%0‘W3,/;‘/%‘5’)*’)$*6+2‘*&‘.%$7% 18*1$‘*&‘)+%‘($1$’‘(%$%4%//,’(‘10%0‘+25$*(%6+‘/10‘’.5‘,)0‘%&&%()0‘.’)+%’$%),.’ .’‘’0,8,/’$‘3‘2’)18*1$0‘06$,.-,.-’&$*8’)+%’4*.%‘*$’)+%’8%84$’.%0‘’)’)+%’4‘0%‘*&’)+%‘4$‘,.’ 8‘2 6$*51(%‘(+*9%5‘5,0(‘*6$*;51(%‘(+*9%5‘5,0(‘ $’)+%’)*6+2’‘((*$5,.-’)*’)+%‘6*0,),*.’*&’)+%’6$%001$%‘ *6),(‘.%1$,),0‘42‘(*86/,(’),*.0‘3,)+’8%.,.-,),0’*$‘.%1$*$%),.,),0‘42‘,$$,)’;),*.’*&’)+%‘(*.%(),7%‘%/%8%.)0‘*&’)+%‘.%$7%0‘W ‘ . (*6‘ ‘ ‘ 3‘ %8,;’.*60,’‘4,)%86*$’/,0‘&1-’B‘+’0‘4%%.’0+*3.’42‘ 66%.+%,8‘)*’4%‘’‘7/1‘4/%‘5,’-.*0),(‘0286)*8’*&‘026+,/,),(‘5,0%‘0%‘,.’)+%‘4‘0%‘*&’)+%‘091// *1 +%‘(/,.,(’/‘(*1$0%‘ &‘(%$%4$‘/‘)18*1$0‘,0‘,.)%$8,))%.)’.5‘6’$*=08‘/’ .’8’.2‘(’0%0’01(+’‘0’)+*0%‘*&‘-/,*8’,)‘,0’7%$2‘0/*3‘ 3*’-$*160‘*&‘6+%.*8%.’’8‘2‘(*86/,(’)%‘,)0‘*$5,.‘$2‘(*1$0%‘.’8%/2’)+*0%‘00*(,’)%5‘W3,)+‘8%.,.-.,),0’.5’‘6*6/%B2 ! (! ‘ #‘ (‘ $‘ ! G .%1$20;8’/‘)18*1$0‘8’2‘0*8%),8%0‘4%‘5,0),.-1,0+%5‘42’)+%‘0%.0%‘*&‘)+$*44,.-‘,.’)+%‘+%’5H‘42’)+%‘6’),%.)’4%,.-’*&‘51/)‘-%‘*$‘2*1.-H‘42’,0‘4%,.-’’))’(9=‘,.’)+%‘8,50)‘*&‘6%$&%()’+%’/)+H‘42’7*8,),.-’ 4%,.-‘$’$%’‘6*6/%B2’&$%E1%.)‘6’$’/20,0‘*&($’.,’/‘.%$7%0‘%’$/2’‘.5’1./’)%$’/H‘.5’42’‘40%.(%‘*&‘8%.)’/‘6+%.*;8%.’‘ .%1$20‘8’0,)1’)%5’,.’)+%‘(‘7%$.*10’0,.10‘6$*51(%0‘%B*6+)+’/8*0‘ ‘0 ’%00%/0‘*+‘ ,0%‘0%0’*& +%‘02860)*80‘*&‘%(+,.*(*((,‘5,&&%$‘7%$2‘/,)))/%‘&$*8’)+*0%‘*&‘*)+%$‘0/*3’)18*1$0’+%’5’(+%’5,CC,.%00’7*8,),.-’02.(*6%’.’5’%6,/%6),&*$8’))’(90‘$%‘8*0)‘&$%E1%.)’ ,0;)1$4’.(%0‘*&’)+%‘8*)*$’.’5’0%.0*$2’&1.(),*.0’.5’‘/0*‘*&’)+%‘8,.5’,)0%/&’‘$%‘0*8%),8%0‘8%)‘W3,)+’.5’7’$2’((*$5,.-’)*’)+%‘0,)1’),*.’*&’)+%’/%0,*.’ +%‘6$*-.*0,0‘,0’1.&’7*1$’4/%A)+%‘5,’-.*0,0‘,86*00,4/%’1./%00‘%(+,.*(*((,’%B,0)’’)’)+%’0’8%‘),8%’,.’)+%‘/,7%$ 20),(%$%,’8’.,&%0)’)+%,$‘6$%0%.(%‘,.’)+%‘4$’,.’42‘%6,/%6),(‘’))’(90’3+,_=’1-8%.)’,.’.184%$‘.’5’0%7%$,)2’H)+%‘+%’/)+’*&’)+%‘6’),%.)’4%)3%%.’)+%‘&,)0’,0‘’)’&,$0)’-**5’)+%.’‘6’)+2’.5’)*$6*$‘016%$7%.%H +%8,6/%-,’‘.0’$’$%’’.5’.%7%$’%’$/2H ($’.,’/‘.%$7%‘6’$’/20%0’‘$%‘ %B(%6),*.’/H‘)+%‘02860)*8%0‘ ‘$%‘ 5,&&10%‘.5‘4,/’)%$’/’*3,.-’)*’)+%‘6*0,),*.’*’)+%‘6’$’0,)%‘,.’)+%‘-$%2‘(*.7*/1),*.0’.5’,.’8’.2‘06*)0’)’’’),8%’ +%’-%*&’)+%‘6’),%.)’,0’4*7%&*$)2’ %$+‘60’)+%$%‘8‘2‘4%kW7,5%.(%*&’)+%‘6$%0%.(%’*&’)+%‘(20),(%$*,’%/0%3+%$% 26+,/,),*’)18*1$0‘(*,.(,5%‘W3,)+’(‘)1’/*$‘6$%7,*10‘026+,/,0’ +%‘+%’5’(+%‘’))%.5,.-’)+,0‘&*$’*&’)18*1$‘,0‘-%.%$’//2‘,.)%.0,&,%5’’)’.,-+)

.’)14%$(/%‘*&’)+%‘4$’,.’)+%$%‘,0‘*&)%.’’

)14%$(1/*10 &' 8 ,/2 +,0)*$2 *$)+% 6$%0%. (% *&) . 4%&5%%/0%3+%$% , . ')+%' 4*52)0%/5*8 (*86$%00%0 ($' . ,' . %$7%0)0 (/, . ,('/ %7*; /1), * . ,0 *&%. 42 6 '$*B2080 ' ' . 5 -$ '7% ('0%0 '$%(*84, . %5 3 ,)+')14%$(1/*10 '$' (+ . ,), 0 ' . 5 +25$*(%6+'/10 *&)+% 7% .)$, (/%0 14%$(/% , . ')+%(*$), ('/ 0140)' . (% * & ')+% 4$ ' , . ' . 5 (%$%4%//18 8 '2 '+*3%7%$ '4% '))%. 5%5 42 . *' 06%(, '/ 0286)*80 . ' (' . (%$ '/0*')+%$%' , 0 &$%E1%.)/2 ''& ' 8 , /2 +,0)*$2 <-)+, 0 8 '/' 52 ' . 5)+%' (' . (%$*10 ('(+%B, '' 8 '2 4% 6$%0%.) ' '. (%$ 0%/5*8 %B, 0)0 %/0%3+%$% 3+%. ' ,)' , 0 (%$%4$'/ +, 0 -$*3)+ , 0 81(+ /%00 *&)%. ' ' ((*86 . , %5 42 0286)*80 51%)*' (*. -%0), *. ' ' . 5 +$%8*$$+' -%)+' . ' -/, *8 '' *$0 '$(*8 ' 4%, . -'/%00 7 '0(1/'$ G +% I' 6$*-. *0, 0 *& (%$%4$'/)18*1$, 0 '/3 '20 4 '5 ' %B(%6) , . 026+, /,), (' -818 ' ' . 5 6%$+'60 ' . %1=08 & ! ". ' 026+, /, %-188 '' . 5 , . ' . %1$208'/'$-% 5*0%0 *& ', *5,5% *& 6*)'00,188 '2 4% 0%5 3,)+ 8 *$%*$/%00 01((%00 +, 0 $% 852 , 0' '/0 10%&1/ , . '5,06%$0, . -')+%' $%01/0 *&)+%' 8% . , . =), 0 3+, (+'0*' *&)%. ' ' ((*86 . , %0)18*1$*&)+%' 4 '0%' %2*. 5')+, 0)+%$% , 0 /,))/%' (*$, 5*. % ' %B(%6) , . ')+%' %. 5% '7*1$)*' $%/, %7% 6 ', . ' . ' . 5)*' 0166*$) +%' 0)$%. -)+' *&)+%' 6 '), %.) . ' '' &%3 , . 0) ' . (%0 (%$%4$'/)18*1$0 +'7% 4%%. ' 01((%00&, ,//2 '$%8*7%5 42 *6%$'), *. '

3 ' ' ' ,*, ' *$' ,0%'0%0' *&

' . %1$20, . G= +% /'$-%$' '$)%$, %0 *&)+%' 4$ ' . ' ' . 5')+%, $' 8 , . 1)%'+$' . (+%0' , . ')+% (%$%4$'/ 0140)' . (%' '$%' 4*)+'/, '4/%')*' ' . %1$; 208 '/5, /')'), *.

& " ' # ' 0 ' 7 ', 0 8*$% (*88*. ')+' . ')+')' *& 7%00%/0 *& '' 0, 8, /'$'0, C% %/0%3+%$% ' +% /'$-% 7%00%/0 *&)+%' 4'0%' *$)+%, $' 6$, 8 '$2 4$' . (+%0' 8 '2 4% '&&%()%5 +% 4'0 '$' . 5' 8, 55/% (%$%4$'/ '$)%$, %0 '$%)+*0% 8 *0)' &$%E1%.)/2 5, 0% '0%5 ' . %1$208 0 *&)+%0 ')3*' 7%00%/0 ' (*. 0), 1), . -' 8*$%)+' . '+'/&)+% '0%0 %B)' , . '&$%E1%. (2 , 0')+%' , .)%$. '/ ('$*), 5' +% 7%$)%4$'/' .)%; $, *$' . 5 6*0)%$, *$ (%$%4$'/0*' .)%$, *$' . 5 6*0;)%$, *$ (*881. , (), -'' . 5*' .)%$, *$ (%$%4%//'$ '$)%$, %0 '$%*((' 0, *. ''/2 41)' /%00 &$%E1%.)/2 '&/%()%5 . ' *. % $)3*' $%(*$5%5' (' 0%0')+% ' . %1$208'+'0 4%. ' 0,)1')%5', . ')+%', .)%$, *$ *&')+%' 6*. 0 '$*/, ' *$ (%$%4%//18 +% 5, 0; %' 0%', 0 $ ')+%$ 8*$% &$%E1%.)' *. ')+% /%&)' 0, 5%' 41)')+, 0 , 0 (+, %&/2 51%)*')+% -$%')%$ 6$*(/, 7,)2 *&')+% /%&)' . *, 55/% (%$%4$'/ (*8; 6'$%5 3,)+')+% $, -+)' '' &' ()' 3+, (+', 0 %B; 6/', . %5 42')+% 0%), */*-2' +%$% 8 '2 4% 8*$%)+' . ' *. %' . %1, 208 0,)1')%5' . ' 5, &&%$%.)' $)%$, %0 '*$*. '5, &&%$%.)' 4$' . (+%0 *&')+% 0 8% '$)%$2 +% ' . %1$208', 0 101 ''/2 0 ((1/')%5 $'$%/2 5, 00%(), . -')0 0, C% 101 ''/2 7 '$, %0 &$*8)+')' *&' ''6% '')*')+')' *&' '' . 1)' +1)' . %1$2080 +'7% 4%%. ' 8%)' 3,)+' 0 /'$-% ' 0 ' '+%. 0 %--' b +%. ')+% 0, C% , 0 (*. 0, 5%$'4/%)+% 4$', .

), 001% , 0 6$%00%5 16*. ' ' . 5 0*&)%. %5 ' 0 42 ' . 2*)+%$'9, . 5'*&')18*1$

$ A' H 0< <(D G< +%0%' . %1$; 2080 '$%$')+%$*8*$% (*88*. ' , . ' 8%. ')+' . ' , . ' 3*8%. ' '&)%$' ()1'/ (+, /5+**5' . 5' '$% &'$ 8*$% &$%_: . %.)' 4%&*$%')+%' *$5, . '$2 5%-%; . %$'), 7% 6%$, *5')+' . ' . %1$2080 %/0%3+%$% ' %'$/2 +'/&')+% $%(*$5%5 , . 0)' . (%0 +'7%*(; (1$$%5'4%)3%%. ')%. ' ' . 5'&*$)2 2%'$0 *&' -%' ' . 5 ' '4*1)*. % 0, B)+ 4%)3%%. ')%. ' ' . 5')3%.)2 +% %+)=*' , . ')+% '$)%$, '/ 3 '/ *$%0%84/%0)+')' -, 7, . -'$, 0%')*' ' . %1$208 %/0%3+%$% G ' &, 4$*, 5' 5%-%. %$'), *. ' 3,)+'/*00 *& 810(1/'$ ' . 5 %/' 0;), (', 001% ' , 0)%. 0, 4/%), 001% 3+, (+ 25%/50 6%$8' . %.)/2 4%&*$%)+% 4/**5 6$%001$%' , 0 0140),)1)%5 &*$')+% $%0, /, %.)' %/%8%.)0 *&)+% 3 '/' 3+, (+' . *$8 '/2 '4$, . -'4 '(9)+% 7%00%/)*',)0 6$%7, *10 0, C% '&)%$%' (+'5, '0)*/% +% '/)%$'), *. ' , 0 *((' 0, *. ''/2 6 '$)' *& '' 3, 5%/2; $%' 5' '$)%$, '/ A&*' . -('41)' 8 8%' &$%E1%.)/2 , 0 /*('/)' , 0)+%. ' 51%)*' 0*8%/*('6$*; (%00 '101''/2 *. %' *&)+$%%' 9, . 50 ' A R 026+, ; /,), (' 5, 0%'0%' 3+, (+'+'0' /)%$%5')+%' 3 '/' 41)' +'0' . *)' * ,)%$')%5' *$ -$%')/2' $%51(%5')+% /18%. ' *&)+% 7%00%/H A@R , . >1$2G '' 4/*3' *$ &'/ *. ')+%' +%' 5' 3+, (+' 6$*4/2' ()0 42' (' 10, . -' '' /*('/ '$)%$,), 0' 3+, /0)' %B)%. ; 0, 7%$)$'(%0 *& *5/' , . &/' 8 8 '), *. ' '$%' 0*8%;), 8%0 &*1. 5' , . ')+% . %, -+4*1$+**5' *&)+% ' . %1$208 , . ' 01(+' ('0%0H AZR %84*/, 08 , 86%$&%()*((/10, *. '*&)+%' 7%00%/ 42 '' 6/1-' &$*8' '' 7/7%' &&%()%5' 3,)+' (), 7%' %. 5*('$; 5,), 0 $ +1$(+', &, $0)' 6*, .)%5' *1)')+%' 00*; (, '), *. ', . '2*1. -'6%$0*. 0*& (%$%4$'/ ' . %1$208 3,)+' 7'/71/'$ 5, 0%'0%' *&)+% +%')%H ' . 5' 0* 8 ' . 2' &' ()0 +' 7% 4%%. ' 614/, 0+%5' 3+, (+' 016; 6*$)*)+%' *6, . , *. ')+')')+% $%/'), *. ' 810 4% $='$5%5' '0 4%2*. 5' E1%0), *. ')' , 0' . ' *((' ; 0, *. '/('10%*&' . %1$208', . '*)+%$'0,)1'), *. 0' +%$%', 0*&)%. '%7, 5%. (%*&', . &/' 8 8 ')*$2' . 5' 5%-%. %$')/, (9%. , . -' ('/(, &, (' ;), *. R, . ')+%' $)%$, '/3 '/ *&)%$ %84*/, (' *((/1; 0, *. ' %06%(, '/2 3+%. ')+%' 6/1-' (*8%0' &$*8' ' . ', . &/' 8%5' %. 5*('$5, 18 ')')+%. '0%%80')*' +'7%')+%' 6*3%$*&' %B(,), . -' '' (*. 0, 5%$'4/% 5%=%%' *&', . &/' 8 8 '), *. ', . ')+%'), 001%' 3,)+' 3+, (+',)', 0', . '(*.)'()'' . 5')+%%/%8%.)0' *&)+% '//*&')+%' $)%$2' 8 '2 '4%' /)%$%5' '0 42')$'1; 8 '), (' $)%$,), 0' &')+%' *40)$1(), *. ', 0', . (*8; 6/%)%')+%' /)%$%5' 3 '/' 8 '2' 2, %/5')*')+% 4/**5 6$%001$%' +, 0 ('10%' %B6/', . 0')+% -$%')%$' &$%E1%. (2' *&' . %1$208', . ')+%' /%&)')+' . ', . ')+%' $, -+)' 8, 55/% (%$%4$'/' . 5' '0*' +'%8*$$+'-%&$%E1%.)/2' +'7%' 7'/71+'5%. 0%' *&)+%' +%')' . 5', . ' ''0, /' /'$-%$'6$*6*$), *. ', . ' 2*1. -'6%$0*. 0' K +')%7%$', 0')+%' (' 10%' *&)+%' /)%$')., *. ', . ')+%')%$, '/3 '/ *)+%' %&&, (, %.)' -%.)', . ')+%' 6$*51(), *. ' *&)+%' . %1$208' , 0')+%' +, -+' 4/**5 6$%001$%' , . ')+%' (%$%4$'/')%$, %0 ' (*16/%5' 6%$+'60 3,)+' ''0/, -+)%$' %B;)%$. '/ 0166*$)')+' . ' , 0' 6*00%00%5' 42)+% 7%00%/0', . '*)+%$'6' $)0

$ 2 '+'0*((1$$%5', . ' 8*$%)+' . '+'/& *&)+%' $%(*$5%5' ('0%0' *& (%$%4$'/' . %,)$208 +%' 4/**5' 8 '2' %0(' 6%$' 6, 5/2' *$' 0/*3/2' ' . 5

6$%7%.)%5' 42')+%' ' . '0)* 8 *0%0')+ ')' %B,0)' ' . 5' '0')+%0%' '$%' 7%$2', $$%-1/'$', . ')+%' (*$)%B' *&')+%' 4$',1' 4*)+' , . ' 5,&&%$%.)' 6%$0*. 0' . 5' , . ' 5,&&%$%.)' 6')$)0' *&')+%' 0' 8 %' '$)%$,'/' '$%' ' (*.0,5%$'4/%' 7'$,'),*. 0' %B,0)' , . ')+%' %B)%.)' *&' 0*&)%.,. -')+')' $%01/)0' &$* 8' *((/10,*.' *&')+%'0'8%'$)%$2' 1)' , . ')+%' (%.)$'/' -' . -/,'' ' . '0)* 8 *0%0' '$%' '40%.)' ' . 5' 0*&)%.,. -' 1 . ,' &*$8/2'&*//*30' +10' %8 4*/,0 8'*&')+%' 8 55/%' (%$%4$'/ 8 '2' ('10%' 0*&)%. , . -' *&')+%' (*$61]' 0)$,')1. ' ' . 5')+%' (*$)%B' 0166/,%5' 8 '2' 4%' , .)'()'0*&)8 %5', . ' ,$$%-1/'$' $%'0'*$')*)'//2' 5%0)$*2%5' '6,//'$2' %8 4*/,0 8' '/0*' %' . 0%0' 0*&)%. 8 - ' ' . 5' 3 +%. ')+%' *40)$1(),*. ' ,0' &$* 8' '' 0%6),(' 0*1$(%' 0 8 %)'0)'),(' '40(%00' 8 '2' $%01/)' +10' (%$%4$'/ '40(%00' $%01/)0' &$* 8' 01661$'),7%' 5,0%'0%' , . ')+%')+*$'B' . 5' *)+%$' 6')$)0' .%*&')+%' $'$%' (1$,*0,),%0' *&' 6')+*; /*-2',0')+%' 6$*51(),*. ' *&' 01(+' '40(%00' 42')+%' %8 4*/,(' *40)$1(),*. ' *&')+%' 7%00%/0' 3 ,)+' &$' -; 8 %.)0' *&' 2 " ' '6/1-' *&' &,4$,. ' 0*8%),8 %0' _3(9/2'4$%'90' 16' . 5',0' ('$$,%5' , .)*')+%' ('68 '$,%0'0*')+')')+%' ')$)%$2',0' 6%$; 7,*10')5)+*1-+')+%' 4$',.),001%',)' 0166/,%0',0' . %($*0%5' %(%00'$,/2'3+%. ')+%' ('6,//'$,%0' '$%' *40)$1()%5' '' (*//')%$'/' 4/**5 0166/2',0' *&' . *' '7',/')*' i $%7%.)' 0*&)%. , . -

*$' ! ' E! (!)')' . 5' ' B & '$-'# = +) ' *+$ *' '0)' *&)%. ; , . -'$-

' 16)1$% G 16)1$%' *&' (%$%4$'/ '$; -%' ,0' . ' ,86*$)'+)' %/%8 %.) G=$16)1$%' ,0')%$,%0',0' (*8 8 *. ' . 5',0')+%' ('10%' *&' (%$%4$'/ 8 *0)' (*8 8 *. ' '&)%$'&,&)2'41)' 8 '2'*((1$'&$* 8' +'%8 *$$+'-%H ' . 5'$16)1$%'*&' ('6,//'$,%0',0' . *)' /*('/' 7'0(1/'$' 5,0%'0%' ')' . 2' -'% %$%5,; , . &$%E1%.)' 16)1$%' *&' 7%, . 0' ,0' %B)$%6,%/2')'$2'6$%5,06*0,),*. ',0'%&&%(),7%' 42' '')%. 5%. (2' $'$%'%B(%6)' 0')+%' $%01/)' *&' , . >1$2 $'$%'*$/2'5%-%. %$'),*. ' ' . 5',0' *&)%.'7%$2' (*. ; ' '& G +%'6$*B,8 ')%' ('10%0' *06,(1*10H 0%7%$'/). %84%$0' *&')+%' 0' 8 %' $16)1$%' '$%' 3%'9%. , . -' *&')+%' '$)%$,'/ 3'//' &' 8 ,/2'5,%' ')+%' 0' 8 %), 8 %' *&' /,&%' &$* 8')+,0' . 5' , . ($%'0%5' 6$%008$% 3 ,)+, . ')+%' 7%00%/' ('10%' *0,),*. ' *&'5%-%. %$'),*. ' ,0' 6$*4'4/2' +%' (4. 5,),*. 0' 3+,(+' -,7%' $,0%')*')+%0%')3*' /'$-%/2', . &/1%. (%5' 42')+%' 5,0)$,41),*. ' *&')+%' &' ()8 0' '$%')+%' $%8 *)%' ('10%0' *&' $16)1$%' 7%00%9H ' . 5')+%'/'))%$' 8 '2'4%'+%$%5,)'$2' '0' =' '()1'/' $16)1$%' ,0' (*8 8 *. /2' 51%')*' '')+%' 0' 8 %' $%), . '/' $%)%$2')%86*$'$2' 6155%. ' %B(%00' *&' , .)$'7'0(1/'$' 8 '2'4%' 0%%. ' , . ' 6'$%.)' . 5' (+,/5' *')**' 6$%001$% (*$%06*. 5%. (%' , . ')+'' 3'2' , . ' 3+,(+')+%' , $,* G +%' 3'//' *&')+%' 7%00%/' ,0' (%$%4$'/ ')%$,%0' *&')+%')3*' 0,5%0' 5,7,5%' . 5' 3%'9%. %5' %06%(,''//2'42'5%-%. %$'),7%' 5,0%'0%' '$%' 5,0)$,41)%5' 8 '2'4%' *40%$7%5')*' (*, . (,5%' G (+$*. ,(' 6%$,'$)%$,),0' *$' A$'$%/2'R 0,86/%' 3,)+' '' (/*0%' (*$$%06*. 5%. (%' , . ')+%' 6*0,),*. ' &')2' 5%-%. %$'),*. ' =%1$208 '/' 5,/')'),*. ' *&'06*)0' *&'7,0,4/%'5%-%. %$'),*. ' '. 5'5*14)/%00' . 5')+8, . -' 8 '2' +'7%' $%01/)%5' &$* 8')+%' '/0*' 5%)%$8, . %0' '' 8%' 028 8%)$2', . H)+%' "7 (+$*. ,(' (+' . -%' .' 0*8%' 5,0%'0%0' '))%. 5%5') 5%-%. %$'),*. ' *&')+%0%' '. %1$208 0H' 3,)+' '')%. 5%. (2')*' %B)$'7'0'),*. ' A61$61$' +%. (%$16)*%'0*8%), 8 %0' *((1$0' ')+%'0' 8 %' +0%8*6+,/, ' ^(R,)' ,0'6$*4'4/%')+')')+%'7'0; (1/'$' 3'//' 1.5%$-*' $'6,5' 5%-%. %$')*, ' A, . ')+%' (E1,$%5R'*$' $%' 1.101'//2')+, . ' A, . ')+%' (*. -%8, '/R' 8'/'5,%0' %&%(),7%' %B)%$. '/ 0166*$)'&$*8' ')$*6+2' *&')+%' 4$', . ' ('10, . -' , . ($%'0%5' 0,6%' *&')+%' 6%$,7'0(1/'$' (. '/0' 3'0' &*$8%$/2')+*1-+)*' 4%' '' 6*)%.)' ('10%' . 5',0' . *3'6%$+'60'1.5%$$')%5' +%' 8*4,/%' 6%$,7'0(1/'$'&/1,5'3+,(+'01$$*1.50')+%'7%00%/0' 8 10)' '&&*$5' '' /%00' %&&,(%.)' 0166*$)')+' . ' (%$%4$'/),001%' . 5'0155%. '7'$,'), *. ' ,0'(+' $16)1$%' ,0' (*8; 0,C%' *&')+%0%' ('. '/0' 3 ,//' %B6*0%')+%' 7%00%/0')*' 0155%. ' 5,&&%$%. (%0' , . ')+%' ' 8*1.)' *&')%. 0,*. ')*' 3+,(+')+%,$' 3 '//0' $%' %B6*0%5 +%. ' 7%00%/0' '$%' 81(+' 3%'9%. %5')+%2 8'2$16)1$%' 3+%. ')+%' %B)$'7'0(1/'$'6$%001$%

,0')' *$' %7%. ' 4%/*3')+%' . *$8 '/H 7%$2' (*8; 8*./2' +*3%7%$')+%$%' (*%B,0)0' ,. ($%'0%5' 6$%001$%' *00'*&' '$)%$,'/%/'0),(,)2'/%'50')*' ''>%$92'6$%001$%' $)%$,'/ 5%-%. %$'),*. ' '. 5' 0),// 8*$%' (*. 0)' .)/2' '$)%$,'/ (*.)$')(),*. ' ,. ' $,-+)<0' 5,0%'0%' ('10%' ,. ($%'0%5')%. 0,*. ' 42' *40)$1(),*. H ' . 5')+%' +26%$)$*6+2' *&')+%' +%')$)' 3+,(+' 5%7%/*60')*' *7%$(*8%')+%' *4; 0)$1(),*. ' '550' 8 ')%$,'//2')*')+%' 6$%001$%' 3,)+, . ')+%' '$)%$,%0' 26%$)$*6+2')*' *7%$; (*8%' . '*40)'(/%'. %'$')+%'+%')$' + '0'6$*4'4/2' . *', . &/1%. (%' , . ' ('10, . -' $16)8%' *&' (%$%4$,' 7%00%/0

+%', 8 8%5,')%' a' *&' $16)1$%' ,0' -%. %; $'//2'0*8%')%86*$'$2', . ($%'0%' *&')+%' 4/**5' 6$%001$%' 51%')*' %&&*$) =0', . '(*1-+'0)$', . , . -' ')' 0)**/ *$' 7*8,), . -H %B(,)%5' '()*.' *&')+%' +%'$)H 0155%. /2' 5%7%/*6%5' +%')$)' *$' /1. -' 5,0%'0%' *40)$1()., . -')+%' (,$(1/'),*. H /*('/' *40)$1()*.')*' $%)1$.' *&' 4/**5H (*.)$'()*.' *&')+%' ')$%$,*/%0' -%. %$'/ *$' /H' (*/H' *$')+%' '()*.' *&' -$'7,)'),*. ' , . ')+%' $%(18 4%.)' 6*0;)1$%' +%' /'0)')3** ('10%0' '()., . -')*-%)+%$' 6$*4'4/2' 5%)%$8, . %')+[' &$%E1%.)' *((1$$%.(%' *&' $16)1$%' 51$, . -'0/%%6

+%' (*.5,),*.0' 3+,(+'6$*51(%')+%0%'6$*B,; 8 ')%' ('10%0' '$%')+%' $%8*)%' ('10%0' *&' $16)1$%' +%' 8*0)' %&&,(,%.)' $%')+*0%' 3+,(+5%)%$8, . %' 3%'9%. , . -' *&')+%' 7'0(1/'$' 3' ' '. 5' +'7%' '/$%'52' 4%%. ' 06*9%. ' *&' , ' %-%. %$'),*. R' ' ' 16)1$% G 16)1$%' *&' (%$%4$'/ '$; -%' ,0' . ' ,86*$)'+)' %/%8 %.) G=$16)1$%' ,0')%$,%0',0' (*8 8 *. ' . 5',0')+%' ('10%' *&' (%$%4$'/ 8 *0)' (*8 8 *. ' '&)%$'&,&)2'41)' 8 '2'*((1$'&$* 8' +'%8 *$$+'-%H ' . 5'$16)1$%'*&' ('6,//'$,%0',0' . *)' /*('/' 7'0(1/'$' 5,0%'0%' ')' . 2' -'% %$%5,; , . &$%E1%.)' 16)1$%' *&' 7%, . 0' ,0' %B)$%6,%/2')'$2'6$%5,06*0,),*. ',0'%&&%(),7%' 42' '')%. 5%. (2' $'$%'%B(%6)' 0')+%' $%01/)' *&' , . >1$2 $'$%'*$/2'5%-%. %$'),*. ' ' . 5',0' *&)%.'7%$2' (*. ; ' '& G +%'6$*B,8 ')%' ('10%0' *06,(1*10H 0%7%$'/). %84%$0' *&')+%' 0' 8 %' $16)1$%' '$%' 3%'9%. , . -' *&')+%' '$)%$,'/ 3'//' &' 8 ,/2'5,%' ')+%' 0' 8 %), 8 %' *&' /,&%' &$* 8')+,0' . 5' , . ($%'0%5' 6$%008$% 3 ,)+, . ')+%' 7%00%/' ('10%0' *0,),*. ' *&'5%-%. %$'),*. ' ,0' 6$*4'4/2' +%' (4. 5,),*. 0' 3+,(+' -,7%' $,0%')*')+%0%')3*' /'$-%/2', . &/1%. (%5' 42')+%' 5,0)$,41),*. ' *&')+%' 7%00%9H ' . 5')+%'/'))%$' 8 '2'4%'+%$%5,)'$2' '0' =' '()1'/' $16)1$%' ,0' (*8 8 *. /2' 51%')*' '')+%' 0' 8 %' $%), . '/' $%)%$2')%86*$'$2' 6155%. ' %B(%00' *&' , .)$'7'0(1/'$' 8 '2'4%' 0%%. ' , . ' 6'$%.)' . 5' (+,/5' *')**' , $,* G +%' 3'//' *&')+%' 7%00%/' ,0' (%$%4$'/ ')%$,%0' *&')+%')3*' 0,5%0' 5,7,5%' . 5' 3%'9%. %5' %06%(,''//2'42'5%-%. %$'),7%' 5,0%'0%' '$%' 5,0)$,41)%5' 8 '2'4%' *40%$7%5')*' (*, . (,5%' G (+$*. ,(' (+' . -%' .' 0*8%' 5,0%'0%0' '))%. 5%5' 3,)+' '')%. 5%. (2')*' %B)$'7'0'),*. ' A61$61$' +%0%8*6+,/, ' ^(R,)' ,0'6$*4'4/%')+')')+%'7'0; (1/'$' 3'//' 1.5%$-*' $'6,5' 5%-%. %$')*, ' A, . ')+%' (E1,$%5R'*$' $%' 1.101'//2')+, . ' A, . ')+%' (*. -%8, '/R' 8'/'5,%0' %&%(),7%' %B)%$. '/ 0166*$)' &$*8' ')$*6+2' *&')+%' 4$', . ' ('10, . -' , . ($%'0%5' 0,6%' *&')+%' 6%$,7'0(1/'$' (. '/0' 3 '0' &*$8%$/2')+*1-+)*' 4%' '' 6*)%.)' ('10%' . 5',0' . *3'6%$+'60'1.5%$$')%5' +%' 8*4,/%' 6%$,7'0(1/'$'&/1,5'3+,(+'01$$*1.50')+%'7%00%/0' 8 10)' '&&*$5' '' /%00' %&&,(%.)' 0166*$)')+' . ' (%$%4$'/),001%' . 5'0155%. '7'$,'), *. ' ,0'(+' $16)1$%' ,0' (*8; 0,C%' *&')+%0%' ('. '/0' 3 ,//' %B6*0%')+%' 7%00%/0')*' 0155%. ' 5,&&%$%. (%0' , . ')+%' ' 8*1.)' *&')%. 0,*. ')*' 3+,(+')+%,$' 3 '//0' $%' %B6*0%5 +%. ' 7%00%/0' '$%' 81(+' 3%'9%. %5')+%2 8'2$16)1$%' 3+%. ')+%' %B)$'7'0(1/'$'6$%001$%

*8%' *&')+%' (%$%4$'/ '$)%$,%0' -,7%' 3'2' 8*$%' &$%E1%.)/2')+' . ' *)+%$0' %06%(,''//2')+%' '$)%$,%0' *&')+%' (*$6*$'' 0)$,')'' . 5' 6*. 0' '$*/,,' +,0' 0%% 8 0' 51%' A R')*')+%,$' *$,-,.

8 '2'4%' ('10%5'/*('//2'42')+%''$)%$,'/5,0%'0%0'8%.),*.%5''/$%'52'3+,(+'/%'5')*'.'$$*38-'.5'/*00'*&%/'0),(,)2

A"R' .',.($%'0%5')%.5%.(2'*&')+%'4/**5')*'Q(*'='):%' +,0',0'0%%.'.','8'.2'5,0%'0%0'%06%(,'//2',.'.>'$'08,(''0)')%0',.'2*1.-''.5'*/5'A01(+'')'$%'('10%5'42'6+)+,0,0''.5'('.(%$R','.''(1)%'$+%.8'),08)'.5',.')+%'=61%$6%$'/(*.5,),*.'' 0 -+)'('10%'')+%.'01&&,(%0')*'6$*51(%'(*'-1/'),*.''.5')+%'3%'9'+%'$)'0*'(*88*.',.'8'.2'*&')+%0%'(*.5,),*.'0'8'2'('10%'01&&,(,%.)'$%)'$5'),*.'*&')+%'4/**5=(1$$%.)

A R' '0)/2')+$*84*0,0',.' ''$)%$2'8'24%'" 3 ')*',)0'(*86%)%'*$'68$),'/*40),$'(_'),*.'42'.'%84*/10

' ! ' ' ' " +%' '$)%$,%0'*((//15%5'8'2'4%'*.%'*$'0%7%$'/''.5'/'$-%'*$08'//' +$*84*0,0'*((1$0')^*0)'&$%E1%.)/2',.')+%',.)%$.'/('$*),5'8,55/%'(%$%4$'/'7%$)%'+$'/'.5'4'0,/'$'$)%$,%0'*$'),,%,$'4$'.(+%0',)',0'.*)K1.(*88*.'&*$''(/*)'*'&*$8',.''4$'.(+')+')'(*8%0'*&&'')''5,0%'0%5'06*)'3+,/%')+%'8',.''$)%$2'(*.),.1%0'6%$7,*10'K +%'*$,&,(%'*&')+%'4$'.(+',0'.'$$*3%5'0*')+')'%.*1-+'4,6*5'5*%0'.*)'%.)%)*'8',.')','.')+%'(,$(1/'),*.',.')+%'6')$)'4%2*.5'+%'7'0(1/'$'3'//8'2'6$%0%.)''.2'*&')+%'/*('/'('10'/(*.5,),*.0''/$%'52'8%.),*.%5'Q*$,)'8'2'4%'+%'/)+2'&)%$''),8%')+,(9%.;,.-'&$*8'0%(*.5'$2''$)%$,),0'*((1$0'K,)+,.'+%'7%00%/',0''(*'-1/18'3+,(.'101'//2'&,//0',)0',.)%$,*$'.5',0'5+%$%.)')*')+%'3'//')'8'2'.*)'&,//)+%'7%00%/'%,)+%$'4%('10%'Q%$,-,.%2',86%$&%()'*$'4%('10%')+%'(/*)'+'0'Q0+$1.9'' $%(%.)'E1,(9/2&*$8%5'(*'-1/18',0'$%5'41)'&)%$''),8%',)'4%(*80'6'/%''.5'2%//*3'' '0/*3/2&*$8%5'(*'-1/18',0'6'/%''.5'8'2'4%'/'8,.')%5'' 0%(*.5'$2'(/*)'101'//2'&*$80'&'$*.)*')+%'(*+)$'()%5'5,0)'/',,$'.(+%0''.5'*.')+%'8*B,8'/0,5%''0'^$'0')+%'.%'$%0)'/'$-%'4$'.(+'/),8')%/2'),/%'(/*)'8'2'$'$%/2'0*&)%.')+%'(+',8%/'4%,.-'0*8%),8%0'$%%0)'4/,0+%5'*$%'(*8;8*./2',.)*'(*'/%'5'),.'*%0'.)*'(*+)$'(%5%5'42')+%'02867*80'*&/*('/%$%4$'/''.'%8,'' ,'0'.'%8,'' *&R'+%')+$*84*0,0'),)0%/&'/%'50')*')+%'02867*80'*&/*00'*&&1.(;),*.',.')+%'6')$)')*'3+,(+')+%''$)%$2'6'00%5'+%'*.0%)'*&')+0%'02867*80',0'0/*3'*$'015;5%.''((*$5,..-')*')+%'$'6,5,)2'3,)+'3+,(+')+%'(*'-1/18'&*$80%'.5')+%,$'5%-$%%'5%;6%.50'*.')+%'0,C%'*&')+%'7%00%/'*((/15%5',)06*0,),*.''.5',)0'$%/'),*.')*')+%$'7%00%/0'3+,(+'8'2'0166/2'4/**5')*')+%'$%''.;7*/7%5'+$*84*0,0'*&''08'//'7%00%/,.')+%(%$%4$'/0140)8,(%'101''//2'/%')50')*')$'.0,%.)'4$',.5,0),&$4'.(%'+%'5',,+%'7%$),-*'),.-;/,.-''.5')%86*$'$2'3%'9.%00',.')+%'/,840'3+,(+'0**.'6'00''3'2',&''(*//')%$'/(,$(1/';),*.',0'%0)'4/,0+%5H8*$%'0/*3/2',&'0*&)%.,.-'%.01%0'42'(*86%.0')*$2''(),*.'%/0%3+%$%'+%'*((/10,)8'&''/'$-%'700%/'('10%0'(*8;8*./2'8*$%'8'$9%5'0286)*80'*=86/%)%+%8,6/%-,'',0'&$%E1%.)''.5',)0''*.0%)'8'2'4%'8'$9%5'42'/*00'*&'(*.0(,*10.%00''0)*&)%.,.-'*&

& G +%5,'-.*0,0'$%0)0'*.''(*8;4,.'),*.''&')+%'0286)*80'*&/*('/(%$%4$'/5,0%'0%'3,)+')+%'('10'/(*.5,),*.G7'0(1/'$8,0(+,%&A,.5,(')%5'42'6$*4'4/%'-%'5%-%.%$;'),*.'%/0%3+%$%''*$026+,/,0R''.5'3,)+'(*.;5,),*.0'/%'5,.-')*'$%/'B'),*.''&')+%'4/**5'(1$$%.)''*$',.($%'0%5'(*'-1/'4,/,)2'*&')+%'4/**5'+%5,'-.*0,0',0'$%.5%$%5'8*$%'6$*;4'4/%'42')+%'%J1.6)*80',&'5>-+)'4%,.-')$'.;0,%.)',&'0%7%$%'4%,.-'*&'-$'51'/*.0%)''.5'3+%)+%$'0/,-+)'*$'0%7%$%'4%,.-'6$%(%5%5'42')+%'6$%8*8)*$2',.5,(',*.0'*&/*('/('/(%$%4$'/'.0%8,'

+%'H<(&<''.5'N ! '*&')+$*8;4*0,0','5'$)%$,%0'$%'(*.0,5%$%5'1.5%$',)0'(*.0%E1%.(%'0)'&)%.,.-'*&

AFR' 5"''4 # '8 "''"''

* $ " +$*84*0,0',.'0,.10%0'8'2'4%'6$,8'$2''.'51%')*'(+'.-%0',.')+%'(*.;0),)1),*.'*$')+%'(,$(1/'),*.'*&')+%'4/**5H*$0%(*.5'$2''.'51%')*'/*('/('10%0',.51(,.-'(*'-1/'),*.'5,$%()/2''')'+%'06*)'''&&%()%5'%(*.5'$2')4$*84*0,0',0')+%'8*$%'(*88*.'+%'0'8%'(*.5),*.0'*&')*'$5%5'(,$(1/'),*.''.5'/')%$%5'4/**5 0)')%'3+,(+'6%$8,)'(*'-1/'),*.',.''$)%$,%0'&'7*1$',)''/0*',.'7%,.0''.5',)',0'*&)%.'0%%.',.'01(+'(*.5,),*.0''0'6+)+,0,0''.5'('.(%$''.5'%06%(,'//2',.'8'$'08,('0)')%0',.'(+,/5$%.'%.(%')+%'6$,8'$2'&*$8',0'8*0)'(*888*.',.'(+,/5$%.'41)')+%'0%(*.5'$2'&*$8'*((1$0'3,)+'.%'$/2'%E1'/&$%E1%.(2')+$*1-+'/,&%'*('/'$%)''$5'),*.''*&')+%'(,$(1/'),*.'&$*8'.'$$*3,.-'*&')+%0,.10'*$'(*86$%00,*.'*&')+%'>1-1/'$'7%,.'((''0.'/'2'00,0)0'+%'4/**5(1$$%.)',.')+%'&$*.)'6')$)'*&')+%'/*.-,;)15,.'/0,.10',0'*.%'*&%B)$%8%'0/1--,0+.%00'*.''((*1.)'*&')+%'6+20,('/(*.5,),*.0'*&')+%'(,$(1/'),*.'*('/(+'.-%'('10,.-'(*'-1/';,.',.0'101''//2')+%'B)%.0,*.')*')+%'0,.10'&'5>'(%.)',.&/'88'),.''*$*&''(/*)'6$*51(%5',.''')$,41)'$2'7%,.'42'01(+',.&/'88'),.'''$,%0'*&')+%'4*.%0'*&')+%'09='%06%(,'//2'*&')+%')%86*$'/4*.%''.5'8%.)*-,&&0'$%(*8;8*.'('10%0''0)/2',.>1$,%0'*&')+%'091/',.7*/7,.-')+%0,.10%0'0*8%),8%0'('10%'(*;'-1/'),*.',.')+%8

! ' $' ' G &' 6$,8'$2')+$*84*0,0')+%'016%$,*$'/*.-,)15,.'0,.10',0')+%'8*0)'(*88*.'0%')'.5')+%.(%')+%(/*)'06$%'50',.)*')+%7%,.0'*+'%,)+%$'0,5%'.5'*&)%.'/0*',.)*')+%'/')%$'/(%'0,.10%0'K+%.'0%(*.5'$2')+%)+$*84*0,0'*((1$0',.')+%'0,.10'.%'$%0)'*')+%'/*('/8,0(+,%&H,.'5,0%'0%'*&')+%'6%)$*10'4*.%')+%/')%$'/0,.10'0'101''//2',.7*/7%5'+%'0,.10',0'5,0)%.5%5'42'&,$8

'57' . (%0' 3,)+' -$%')%$' $ '6,5,)2')*' 8 ')1$,)2')+' . ' , . ' %'$/2'/,&%')+%' 4$%'0) -/' . 5' % . /'$-%0' ' . 5' 8 '2' 4% 6', . &1/')+10' ('10, . -' ' . B,%)2')*')+%' , . 5,7,51'/' %7%/*6 8 % .)' 101''//2')'9%0' 6/'(%' 028 8 %)$,('//2', . ')+%'&% 8 '/%H 41)'3+%. ')+%' -/' . 5' *&')+%' * . %' 0,5%')'9%]' 6$%(%5%. (%' *&')+')' *&')+%' *)+%$')+%' (,$(1 8 0)' . (%' . %%5' *. /2' 4% $%-'$5%5' 0' '' 5%6'$)1$%' &$* 8')+%' *$5, . '$2'$1/%'&*$' . *')$*14/%' 3,/f' $%01/)' ' . 5' , . ' 51%'), 8 %' 4*)+' 3,/f' '))', . ')+%,$' . *$ 8 'f 6$*6*$),*. 0' . ')+%' 8 '/%'6', . ' *$ 1 . %'0, . %0 0' 0* 8 %), 8 %0' *((1$0' &*$' '' &%3'5'20' '4*1)')+,0' 6%$,*5'7%$2'*&)%. ' %B(,)%5'42')+%' 6$%001$%' *&')+%' 5$%00' +%' $% 8 *7'f *&')+,0'('10%',0'01&&,;(,%.)')*' '$&%0)' &1$)+%$' 8 ,0(+,%&

5"' # ' ')+%' 5%7%/*6 8 %.)' *&')+%' 4$%'0)' +'7, . -'$%'(+%5' 8 ')1$,)2')+%' -/' . 5' 4%(* 8 %0' '00*(,')%5' 42' 02 8 6')+%),(' , . &/1%. (%0' (* 8 ; 8 1 . ,(')%5')+$*1-+' . %$ *10'0), 8 1/,' 3,)+')+%' &+. (),*. 0' *&')+%' 6%/7,(' -%. %$')7,%' *$-' . 0' +,0' 6+20,*/*-,('f &&%)' 0+*1/5' '/3'20' 4% $%; 8 % 8 4%$%5' 3+%. ' , . 7%0),-')', . -')+%' . ')1$%' *&')+%' 8 *$4,5' '&&%(),* . 0' *&')+,0' *$-' .

$*8' ''(/, . ,('f 6*, .)'*&'7,%3',)',0' %00%.),'f)*' %B' 8 , . %')+%' 5,0%'0%0' *&')+%' 4$%'0)' 1 . 5%$')+%')3*'0)')%0' 4%&*$% 8 %.),* . %5' . ' 8 %/2 G A R 3+,/0)')+%'-/' . 5',0K1 . 5%$-*, . -'8%)' 8 *$6+*0,0' , .)*' ''0%($%), . -' $-' . ' ' . 5' 51$, . -'/'()'),*. H A R' 0' '' 8 ')1$%'-/' . 5'41)'6'00,7%' '0' $%-'$5 0' ,)0' &1. (),*.

/' . (, . -' ')')+%' 7'$,*10' 8 *$4,5' 0)')%0' *&')+%'4*52'*&')+%'-/' . 5' '0' '' 3+*/%')+%2' 8 '2' 4%' 5,7,5%5'6$,8 '$,/2', .)*')3*-$*160' G)+%' " " '5%$' . -%8%.)0H' . 5')+%' *$' +,0)*/*-, (' f 5,0%'0%0

%'3,/f . *3'6$*(%%5')*'5,0(100')+%0%'&&%(;),*. 0' '0')+%2' '$%' 6$%0%.)%5' ')')+%'5,&&%$%.)' 6%$,*50' 8 %.),*. %5' '4*7%

&)%$' (*. (%6),*. ')+%'4$%'0)0'0**. ' 4%-,)*' %. /'$-%' . 5' 8, . 1)%' 6,0,&*$8', . 51$'),*. 0' 8 '2' 4%' &%)/' ')')+%,$' 4*$5%$0' . 5' 01$&'(%' (('0,*. '//2' 41)' 7%$2' $'$%/2')+,0' . *$ 8 'f , . ($%'0%', . '41/9',0'))%. 5%5'3,)+'(*. 0,5%$'4/%' 6', . ' . 5',$$,)'),*. '%B)%. 5, . -')+$*1-+*1)'+)%' . %$7*10'$%/'). 0' &')+%'-/' . 5' +%' 6', . ' , 0' $%&%$%5')*')+%' 4'(9' . %(9' , . 0,5%' &' '$80' 0+*1/5%$0' ' . 5'0,5%' &')+*$'BG*7%$', . ' &%%)')+%' '$%'' &' 5,0)$,41),*. ' &')+%' 4$' . (+%0' &')+*0%', .)%$(*0)'f . %$7%0'3+,(+'0%. 5'&,/'8%.)0')*')+%' 4$%'0)0')' '&*$5 0' '' -**5'%B' 8 6/%'*& $%&/%()%5',$$,)',*. ' +,0')%' 101''//2'*((1$0' '&)%$')+%' &,$0)' (*. (%6),*. ' . 5' , . ' 3*8%. ' *& %B(,)'4/%' . %$7*10')%8 6%$' 8 %.)'))%.),*. ')*' *$5, . '$2' +2-,%. ,(' 8 %'01$%0' 51$, . -')+% 6$*-$%00' *&')*'8%)' 8 *$6+*0,0' *&')+%' *$-' . ' , .)*' ''0%($%), . -' -/' . 5' 3,)+',)0' '((*8 6/,0+; 8 %.)' '&&*$50' $%+%&')*')+%' 6', . ' . ' /'$-%' /'B' 6%. 51/*10' 4$%'0)0')+%' 0%6'$')%' /*4%0' *& 3+,(+' %'(+',0' (*8 6*0%5' 8 '2' %B(,)%' '66$%; +%. 0,*. ' *&')+%' %B,0)%. (%' *&'') 1 8 *1$' 1)')1 8 *1$0' (*8 6*0%5' *&' . %3')001%' '$%' 0*' %B;)$% 8 %/2'$'$%/2' 5%7%/*6%5' 51$, . -' 6$%-. ' . (2')+')+%' -$%')%0)' (' 1),*. ' 8 10)' 4%' %B%$(,0%5' , . ')+%' 5,'-. *0,0*&')+%,$' . ')1$%

3, G= %2'$%/2' . *'(+' . -%3+');
%7%$' , . ')+%' 4$%'0)0' '((*8 6' . ,%0' 6$%-. ' . (2

1 . 5%$'3K+,(+',$(1 8 0)' . (%0')+%$%',0' . ' . ''40%. (%' *&')+%' 0%($%), *. ' . '*&' 8 , ,9' ,9' &)%$' 6 '$)1$,), *.

M

'0),),0

&&,8* G %&*$%/'()'),*. ' . '' (1)%', . &/' 8 ; 8 '), *. ' . '*&')+%'4$%'0)0',0'7%$2'1. (* 8 8 *. ' &)%$' /'()'), *. ' . '* . ')+%' (*.)$'$2',)', 0'7%$2'&$%E1%.)' +,0' 8 *$4,5'0)')%' ,0'*&)%. ')+%'$%01/)'*&' ('$%; /%00. %00'*$', -. *$'. (%'*. ')+%'6')$')*&')+%' . 1$0%' +%'0/, -+)%0)'1. 101'/&)&/. %00'*$'09. *)), . %00 5,0(*7%$%5''&)%$')+%', . &%.)'+'0'4%%. '01(9, . -' ' . 5'3+%. ')+%'51()0' . 5')+%,$')%$8, . '/'0%($%); , . -'7%0,(/%0'0+*1/5'4%%86)2'$%E1,$%0', 8 8 %; 5,')%' '))%.), *. ' *. -%0), *. ' *&' /*41/%' *$ /*4%' 3,)+' 8 ,/9'6$*51(%0')+%' . *51/%' . 5')+% ('10%'*&')+%', 86%5,8%.)')*',)0' %0('6%'0+*1/5' 4%' 0*1-+)' &*$' +%' 0)')%' *&')+%' . ,66/%',0' -%. %$'//2')+%'*$,-, '*&')+%5,&&,(1/)2' ,)+%$')+%' *$,&,(%' *&' '' 51()' 8 '2' 4%' *40)$1()%5' 42' %6,)+%/,18' *$' '' 016%$&,(,'f 1/(%$'), *. ' %B,0)0' '$*1.5' ,)' +%' 8 *$4,5' *$' 5%&%(),7%' 0)')%0' *&')+%' . ,66/%' '$%')+%' 8 *0)' &$1,)&1/' ('10%0' *&' , . &/' 8 8 '), *. ' . ' . 5',)0' $%01/)0' , . ')+%' 4$%'0)' $*6+2/'%),%' 8 %'01$%0'0+*1/5' '/3'20' 4%', . ; 0),)1)%5'3+%. ')+%$%',0' $%'0*. ')*' &%'$')+')' '' 5%&%(),7%' 5%7%/*6 8 %.)' *&')+%' . ,66/%' 3,/f , .)%$&%$%' 3,)+')+%' &$%%' &/*3' *&')+%' 8 ,/9' 7%. ' 3,)+' 0*8%' 8 *)+%$0',)' 3*1/5' 4%' '5; 7,0'4/%')*' $%0,-. ')+%'51)2' *&'01(9/, . -'$')+%$')+' . ' 014>%()')+%8 0%/7%0')*')+%'/8*0)'(%$)', . ' 8 ,0%$2''$,0, . -'&$*8'6%$0,0)%.)' . 5', . %&&%()1'f '))%8 6)0')*'5*'0*' . &/'8 8 '),*. ' -%. %$'//2' 6'00, . -'*. ')*'01661$'),*. ' . ' . 5'40(%00'%'),+%$' 3,)+, . ')+%'4*52'*&')+%'4$%'0)' *$' *. ',)0' 01$; &'(%' ,0' 8*0)' &$%E1%.)' ,. ' 6$,8,6'$0%' ' . 5' 3,)+, . ')+%'&,$0)' 8 *.)+' '&)%$'6')1,), *.

!(! " ,$0)'+'$5. %00,0'&%/)'0''9. *)<, . '0*8%'6'$)'*&')+%' 0140)'. (%'*&')+%' *$-' . 'H ,0'%. /'$-%0' . 5' 8 '2' '))', . ')*'(*. 0,5%$'4/%' 5,8%. 0,*. 0' 4%&*$%' ('10, . -'6', . ' *$' %7%. ' , 8 ' %'0, . %00' %B)'6', . ',0'&%)/'51$, . -'01(9/, . -H)+,0', . ($%'0%0'%'(+'),8%')+%', . &%.)'01(90' ' . 5' 0)+%'5$'1-+)'<, 0'6$*51(%5' +%', .)%-18%.)0')+%. '4%(*8%'6, . 9' ' . 5' '&)%$3'$50'$%5')%. 0%' 0+, . , . -H 8*%'*$'/%00'*&')+%'4$%'0)'&%)+%', . &%.)'0 5%8 ')*10H' . 5' ,)+')+%'&, . -%$')')+%'(%.)$%'*&')+%'61$6/%' C*. %' ')' 0/, -+)' 5%6$%00, *. ' ' . 5' 0*&)%. , . -'06*)' (' . '4%'5%)%()%5' . ' '40(%00' . *3'%B,0)0' ' . 5' &/1()1'), *. ', 0' 8 *$%' *$' /%00' 8 '$9%5' , . ' 6$*; 6*$), *. ')*')+%'E1' .),)2'*'610')')+%' 61$6/%' (%.)$%')+%' (1),(/%'+'0' 6$*4/4/2'42',0'),8%' 0%6'$')%5'&$*8')+%'(1),0H' . 5' ' 7%0,(/%'(*. ;)', . , . -'0%$18'%),)+%$'2%//*3'*$0/, -+)/2'), . -%5' 3,)+' 4/**5', . 5,(')%0')+')' 1/(%$'), *. ' *&')+%' (1),0',0'6$*(%%5, . -' ' . 5')+')')+%'610'3,//0**. ' %0('6%' +%' 4*7%',0' '' 4$,%&' 5%0($,6), *. ' *&')+%' *4>%(),7%' 0, -. 0' , . 5,('), . -')+%' 8*$4,5' 6$*(%00%0' . *),(%'4/%', . ' '//' ('0%0'*&'/*('/', . ; &/' 8 8 '), *. ' '57' . (, . -')*' ' . 5')%$8, . '), . -' , . ' 01661$'), *. ' . ' . 5' 40(%00')', 0' . *)' 6*00,4/%')*' 0)')%' 3,)+' . 2' 5%-$%%' *&' %B'(). %0')+%

□

))1 . *1$0' *&')+,0' -/' . 5' 8 '2' 4Z' (/ '00%5', . ')3 *' -$*160')+10 G&,$0)')+0%' '00*(,')%5' 3,)+' ,)0' 51()0')+%' %7,5% . (%' *&' 3+,(+' ,0' '&&*$5%5' +2')+%' %0('6%' *&' &/1,5' ')')+%' . ,66/%H' ' . 5' 0%(*. 5/2')+*0%' . *)' (* . .%()%5' 3,)+')+%' 51()0' +2' ' . 2' 1(+' %7,5%. (%

+%' &*//*3, . -')'41/'$' '$$' . -%8%.)' 3, //' 6/' (%' 4%&*$%')+%' $%'5%$' ')' '' -/' . (%' ' /')+%' 7'$,%),%0' *&' (20)0' 8 %)' 3,)+', . ')+%' 4$%' 0)

#' # ' ' (*8; 81 . ,(') , . -' ' . 5' (* . . %()%5' 3,)+')+%8

' *.)', . , . -' 8 ,/9

@' . (/*0, . -' -$*3)+0H' 3 ,=' 0%$18 (*' - ./,8/%' ' . 5' *&)%. '), . -%5' 3,)+' 4/**5 G

' 5%. *,5' 6*3)+0

' $' . 1/'), *. ' (%// -$*3 ,0

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' '" ' "" ' 2 #' # '

H' 1$$*1 . 5, . -' %&&10%5' 4/**5

@' . (/*0, . -' 8 ,/9

?' ,8 6/%' (20)0' b' /1,5' . *)' (* .)*C** . ' (20)0' ' '-1/'4/%

F' . 7%0), . -' -$*3)+0H' 3,)+' 0%$18' (* '-1/'4/%'), . -%5' 3,)+' 4/**5' ' . 5' (*.)', . , . -' (+*/%0)%$8% G

' 5%. *,5' -$*3)+0

' $' . 1/'), *. ' (% -$*3)+0

' ' . (%$

' %' + '7%' '/$%' 52' 5%0($,4%5' B85%$')+%' . ' 8 %' 0 ' '')18*1$' *40%$7%5' 51$, . -' 01(9/, . -' ' . 5' (*86*0%5' *&' 8 ,/9' 1)')+%' 0 "' ,0' *((' 0,*. ''//2' (*. 01/)%5' '4*1)' '' Q03%//,,=' 3+,(+' ')' &,$0)' 0, -+)' 3*1/5' 0%%8')*' + '7%' . *' $%&%$%. (%')*')+')' &1. (), *. ' %7%$;)+%/%00')+%' 8 ,/9' *$' //')+')' $%8 ' , . 0' *&')+')' 0%($%), *. ' (*. 0),)1)%0' ,)0' %.), $%' 41/9' &' %B' ()' , . E1, $2' 4%' 8 '5%')+%' 6'), %.)' 0)')%0')+')' '')18*1$+' 0' %B, 0)%5' 1. ' ((*86' . , %5' 42' 6', . . ' &$*8')+%' 6%$, *5' *&')+%' /' 0)' 3%' . , . -' 6%$+' 60' . *)' +' 7, . -' 4%%. ' *40%$7%5' 1.), /')+%' -/' . 5' (%' 0%5')*' 0%(($%)%' ' . 5')+')' ,)0' 0, C%' 0/*3/2' 5, 8, . , 0+%5' 1.), /' ' '(%$)', . '6%$, *5' 08 (%' 3+, (+' ,)' +' 0')%8' . . %5' *&' 1 . 7' $2=' 41/9' +, 0' 5%($%' 0%' , 0' 51%')*')+%' *40*$6), *. ' *&')+%' 0%$18' *&')+%' 8 ,/9' 3+, /0)')+%' 0*/,5' 6')0' $%8 ' , . ' +%' (20)' 0+*1/5' 4%' , . (, 0%5')+%' (*.)%.)0' $%; 8*7%5' ' . 5')+%' 3*1. 5' 0+*1/5' 4%' 5$' , . %5

20)0' (*.)', . , . -')+%' 0*/,5' 6')0' *&')+%' 8 ,/9' '$%' 0*8%), 8%0' '00*(,')%5' 3,)+' 6%$&%()/2' . %3' -$*3)+0' *&')+%' -/' . 51/'$')26%

@' $1%' G)+')' ,0')*' 0'2' (*//%(;), *. 0' *&' 0%$18' (, $(180($,4%5' 42' '' &, 4$*10' 8%84$' . %G '$%' &$%E1%.)/2' 8%)' 3,)+' ' . 5' '$%' (*88*. /2' '00*(,')%5' 3,)+' '5%. *, 5' -$*. 1/'), *. ' . 5' (' . (%$*10' -$*3)+0' +%2' *((1$' , . ')+%' 4$%')0' *&' 8, 55/% ' -%5' 3*8%. ' +%' &/1,5' 3+, (+')+%0%' (20)0' (* .)=', 0' 0*8%;), 8 %0' E1,)%' (/%'$' ' . 5' *&''2%//*3'), .)H' ')'*)+%$'), 8 %0',)', 0'), . -%5' 3,)+' 4/**5 (*/*1$, . -' 8 '))%$' ' . 5', 0')1$4, 5')' /3' 20' (*.)' , . 0' 0*8%' (*. ; 0),)1%.)' **' -1>' 4/%' 42' +%')' . 5')+%' 58, B)1$%' *&' .), $, (' ' (, 5' +%0%' '$%')+%' %B15'), *. (20)0' *&')+%' 8 ' 8 8 '$2' -/' . 5

?')+%$' (20)0' (*.)' , . , . -' ' ' &/1,5' 9%' 0%$18', 8), /' ,)0' (*86*0,), *. ', 0' ('$%&1//2' %B' 8, . %5' '$%' 5%7%/*6%5' , . ')+%' 4$%' 0)' ' . 5' '$%' 6$*4' 4/2' '00*(,')%5' , 8 8 %5, ')%/2' 3,)+')+%' 0%($%), . -' 6' $)' *&')+%' -/' . 5' *$')+%' 0' 9%' *&' ,5%.), &, (', *. ')+%' 3$,)%$' 3*1/5' 5%0, - . ')%')+%8' +%' (*.)' , . %5' &/1,5' ,0' . *)' (*' - ./' 4/%' 42' %,)+%$' +%')' *$' (, 5')0' (*/*1$' ,0' 4$*3. ' 8 *$%' *$' /%00' , . (/, . , . -')*' ' -$%%. , 0+' +1%' . 5' ,0' 6$*4' 4/2' $%' //2')+')' *&' /)%$%5' 8 ,/9H ,)' ,0' *6' /%0(%.)' *&' 7' $, '4/%' 06%(, &, (' -$' 7,)2G '4*1)' !@!' $')+%$' -$%' 02' 3+%. ' $144%5' 4%)3%%. ')+%' &, . -%$0' ' . 5' %B+, 4,)0' ' . ' /9' /, . %' $%' (), *. ' +%. ' 01&&, (, %.)' E1' .),)2' , 0' (*//%()%5', . ' ')%0))14%' ' . 5' ''//*3%5')*' (**/' , . ' ''&%3' +*1$0')+%' /*3%$8*0)' 0)$')18' *&')+%' &/1,5' 4%(*8%0' (/%'$%$')+' . ')+%' 166%$' +%' 166%$8*0)' '/3' 20' $%8' , . 0' *6' /%0(%.)' &' ''))/%' *&')+, 0' /'0)' 4%' %B' 8, . %5' 3,)+' ' ' 8, ($*; 0(*6%' *, /-/*41/%0' '$%' 0%%. ')*-%)+%$' 3,)+')+%' 4*5, %0' ('//%5' (*/*0)$18' *% 0' +%' -$%' 02' . ')1$%' *&')+%' &/1,5' (' . 4%' 5%)%()%5' 42' 08%' $, . -' ' ' 5$*6' *&',)' *. ' ' ' 6, %(%' *&' -/' 00 +%' 5%7%/*6 8%.)' *&')+0%' (20)0', 0' . *)' 7%$2' (*88*. ' %' 8' 2' +%$%' $%8' $9')+')')+%2' 0%%8')*' +' 7%' %0('6%5')+%' *40%$7'), *. ' *&' 01$-%*. 0' '0' . *' 06%(, '/. *), (%' *&')+%8' *((1$0' , . ')+%' 8*0)' $%(%.)' 8*. *-$' 6+0' %)')+%2' '$%' 0*' 5, 0), . ()/2' 0%6' $')%5' &$*8' '/')+%' *)+%$' (20)0' 3+, (+' '$%' &*$8%5' , . ')+%' 4$%' 0)' , . $%06%()' *&')+%%*86*0,), *. *&')+%, $' &/1,5' H')%.)0')+%, $' 6$*-$%00' ' . 5')+%, $' 6$*-. *0, 0')+')+%2' (*. 0),)1)%' ' ' 8' $9%5' 5, 0), . ()' ' . 5', 0*; /')%5' (/'00' K % 8%%)' 3,)+')+%8' , . ')+%' 4$%' 0)0' *&' 0, . -/%' 3*8%. ' , . ' 8' $$, %5' 41)' 0)%$, /%' &%8' /%0' ' . 5', . ' 3, 5*30' 4%)3%%. ' &*$)2' ' . 5' &, &)2' 2%' $0' *&' -%' 01' //2')+%2' '$%' ((, 5%.)' //2' 5, 0(*7%$%5', . ' ' . 2' E1' $)%$' *&')+%' -/' . 5' 3+%. ' '4*1)' . ', . (-+', . '5, '8%)%$' +%, $' 0+' 6%', 0' -/*41/' H' *$' k *, 5H)*')+)*1(+' %/' 0;), (,)2', 0')+%' 8' , . ' &%')1$%' ' . 5', &' 01&&, (, %.)/2' /' $-%' ' . 5' 016%$&, (, '/' &/1()1'), *. ' 8' 2' 4%' 5%)%()%5' . '0*8%' , . 0)' . (%0')+%'), 60' *&')+%' &, . -%$0' 8' 2' 4%', . 0, . 1')%5', .)*' ''0*$)' *&' &1$$*3' '$*1. 5')+%8' ', . ', 0' $' %/2' *86/' , . %5' *&' +%')$%')8%.)' (*. 0, 0)0', . '%86)2, . -')+%' (20)' 3,)+' ')$*('$' ' . 5' (' . 1/' &)%$')+, 0')+%' &/1,5' 5*%0' . *)' -' . ' &*$8' +%0%' (20)0' . 0. ' 2' 66%'$' 0, . -/2' . 5', . ' *. %' 4$%')0' *. /2' 41)')+%' 3$,)%$' +' 0' 0%%. ' ''6'), %.)' , . ' 3+*8')+%2' 3%$%' 81/), 6/%' ' . 5' *. ' 4*)+' 0, 5%0

20))' (*.)', . , . -' 4/**5G# G' '$%' 7%$2' $' $%/2' &*$8%5', . ')+%' 4$%')0' %B(%6)', . ' '00*(,')*. ' 3,)+' 0*8%' . %3 -$*3)+' &$*8' 3+, (+' 4/**5' *$' 8*$%' *&)%. ' 4/ 52' 0%$18' **C%0' +%2' 8' 2' +*3%7%$' *((('0, *. ' //2' *((1$' , . 5%6%. 5%.)/2' *&' . 2' . %3 -$*3)+

D' $1%' " % ' '$%' 5%7%/*6%5', . ')+%' 4$%')0' +%2' '$%' (%$)', . /2' $' $%' ' . 5' (' . *)' 4%' 5, 0), . -80+%5' &$*8' *)+%$' (20)0' 1.), /' , . ; (, 0%5' B), $6'), *. ' 42' %B(, 0, *. ', 0')+%' 06%%5, %0)' 8%' +0' *&' %&&%(), . -' ' 1$%

D' %4' (*10' (20)0' '$%' *((('0, *. ' //2' 8%)' 3,)+', . ')+, 0' $%-, *.

$' */, 5' 18*1$0 G %' +'7%' . %B)')*' 5%0($, 4%')+%' 0* 5')18*1$0' +%0%' '$%' %0' 0%.), ' 2' . %3 -$*3)+0' *&', 001%' 0. 6%$' 55%5')*')+%' . *$8' /' -/' . 5' %. %$' //2')+%$%&*$%' '

(+'$'()%$,0),(' &%')1$%' *&')+%' %B,0)% . (%' *&' 01(+' -$* 3)+0' ,0' ' .' , . ($% '0%5' 41/9' *&')+%' '&&%()%5' *$- ' . H' ' . *)+%$')+%' &,$8 . %00' *$' $%0,0)' . (%')*' 6$%001$%' 3 ,)+')+%' &, . -%$0' 3 +%. ' (* .)$' 0)%5' 3 ,)+')+%' -$*16' *&')1 8 *1$0' 4%&*$%' 5%0($,4%5' +%' 0*/,5')1 8 *1$0' + ' 7%' /* . -' 4%% . ' (/' 00%5' , . ' $%- ' $5')*')+%,$'/*(' /' ' . 5')(* . 0,),1), * . ' /' %&&%()0' ' . 5')+%,$' $%01/)0' * . ')+%' /,&%' *&')+%' , . 5,7,51' /' '&&%()%5' 3 ,)+')+%8 ' , .)*')3 *' -$*160G)+%' " " " ' *$' + ' $8 /%00H ' . 5')+%' 0" " ' *$' /,&% 5%0)$*2, . -

' & " G = . ')+%' &,$0)' (/' 00' '$%' 6/' (%5')+%' -$* 3)+0' 8 *$%' *$' /%00' (/*0%/2' $%0%8 4/, . -' , . ')+%,$'),001%0')+*0%' (* 8 6*0, . -')+%' -/' . 51/' $' 0)$1()1$%' *&')+%' 4$%' 0)' '$,*10')%$ 8 0' + ' 7%' 4%% . ' '00,-. %5')*')+%0%')18 * 8 $0' . ' 8 %/2' +$* . ,(' ' 8 8 '$2' 1 8 *1$0' '. ($%'), ' '$; (* 8 ' ') / ' " " ' ') " (' '

' ' ' 8 8 '$2' X /' . 51/'$' 1 8 *1$' ,4$* 8 ' ' 5%. * %/%' +%,$' (* 8 ; 6*0,), * . ',0' (+,%&/2' &,4$* 10'),001%H')+%' (0%(,' *$' (, . ,' * &' 0%($%), . -' 0)$1()1$%0' 3 ,)+' 8 *$%' *$' /%00' 5,0), . (0/2' 8 '$9%5')$' (%0' * &' 51()0' 4%, . -' , .)%$06%$0%5')+$*1-+*1')+%' 8 '00' ' / I ! % / 5%. * 8 '

5%. * 8 ')'' '$%' 5%7%/*6%5' , . ')+%' 4$%' 0)0' *&' 2*1 . -' 1 . 8 '$$,%5' 3 * 8 %. ' &$* 8')+%' '-%' *&' 614%$)2' 163 '$5 0H' $' $%/2' '&)%$')+,$)2' 41)' 7%$2' (* 8 8 * . /2' 4%&*$%')+')' '-%' +%2' 8 ' 2' 4%' , .)$' -/' . 5,5 '$' *(((162, . -') +%' 0140)' . (%' *$' 4 * 52' * &')+%' -/' . 5' ' . 5' + ' 7, . -')+%' . * $ 8 ' / -/' . 5),001%' , . 7%0), . -') + % 8 ' 5'')+%$' , . ; 0)' . (%0')+%2' 0%% 8')*' 4%' '))' (+%5' 42' ''9, . 5' *&' 6%5, (/%' %,)+%$')*' ,)0' 01$&' (%' *$' 8 '$- 8 ' . ' %7%$2' , . 0)' . (%')+%2' '$%' 6/' (%5' 3 ,)+, . ')+%' &' 0(, ' / ' . 7%0) 8 %.)' *&')+%' *$- ' . ' +%. ' ');)' (+%5 ' '0' >10)' 5%0($,4%5')+%,$' $% 8 '$9 ' 4/%' 8 *4,+)2' 5, -+)' /*41/'), * . ' *&' 01$&' (%' ' . 5' &,$8 . %00' (*16/%5' 3 ,)+')+%' 2*1)+' *&')+%' 6'),%.)' '$%' 01& (,%.)' , . 5, ('), * . 0' *&')+%' +'$8/%00 . %00' *&')+%,$' . ')1$%' 01' //2')+%2' *((1$' 0, . -/2' . 5', . ' . %' 4$%' 0)H')+%2' 8 ' 2' 4%' 8 ,,/),6/%' . 5', . '4*)+'4$%' 0)0' +%' * . /2' 8 %' . 0' 42' 3+,(+')+%2' (' . ' 4%' $% 8 *7%5', 0' %B(,0,* . ' * 3%7%$'/'$-%')+%')18 * 1$' ,)0'$% 8 *7 ' /0+*1/5' 4%' /3 ' 20' '))%86)%5'3,)+*1)'(1)), . -'' 3 ' 2' . 2' 6*$),* . ' *&')+%' . *$8 ' /4$%' 0)' . ' 8 *0)' (' 0%0')+,0' (' . ' 4%' 5* . %' %06%(, '//2',&')+%' 6'),%.)' 4%' 2*1)+&1/' ' . 5')+%' -$*3)+' *&' 8 %5,1 8 ' 0,C%' %7%. ' 0+*1/5' ,)' 4%' 5%7%/*6%5' , . ')+%' 4*52' *&')+%' -/' . 5' ' . 5' %B)%. 5')+$*1-+' ,)')*')+%' 6%()*$' / 8 10(/%' &)%$')+,$)2 &,7%' 2%' $0' *&' '-%' ,)' ,0' %B6%5,%.)')*' $% 8 *7%')+%' 4$%' 0)' 0' 3%//' *$')+%0%')8 . *1$0' %06%(, '//$')+*0%' 3+,(+' 8 ' 2' 4%' (' //%5' 0*&)' 5%. *,50' '66$*' (+' 7%$2' (/*0%/2')*')+%' (' . (%$0' ' %! % 3' ' 0%(), . ' 0+*3 0' '' 0*/,5 ' ,8 ,&*$ 8' 01$&' (%' 5,7,5%5', .)*'/*4%0' . 5'/*41/%0'42'&,4$*10'0%6)' ' 0* 8 %), 8 %0' 0/,-+)/2' 4$*9%. ' 16' 42' &,00),$%0' *$' (/%&)0' , . ' 3+,(+')+%$%' '66%' $0' '' /,))/%' (/%' $')%. ' (, *10' &/1,5' +%' -$*3)+' ,0' *&)%. ' 7%$2' 01((1/%.)' ')' *)+%$'), 8 %0' * . /2' 8 *,0)H ,)0' +1%' 8 '2' 4%' -$%2,0+' 2%//*3 ' *$' '/8 *0)' 3+,)%' 6$*-. *0,0' *&')+%0%' ('0%0',0' , . 7 '$, '4/2' &' 7*1$; '4/%

@' . ' &3>$%* 3 = ,6* 8 ')'' *$' 8 '00%0' *&' 5,6*0%'),001%' '$%' 5%7%/*6%5', . ')+%' 4$%' 0)' *$' $')+%$' , . ' $%/')*. ' 3 ,)+' ,)')*' 06%' 9' 3 ,)+' W ' ((1$' (2' +%2' '$%' (+' $' ()%$,0%5' ')+%' 101' /' , . 5,(', *10' ' . 5' $%E1,$%' . *' 06%(, '/ 8 %.),* .

"' N) ? 5 ' 8 ' 2' 4%' E1%0),* . %5' 3 +%)+%$' . 0%710' *$' '' -$* 3)+' *&')$1%')$' 4%(1/' $' 7' 0; (1/' $' &,4$%)>001%' ,0' %7%$' 517%/*6%5', . ')+%' 0140)' . (%' *&')+%' 4$%' 0)')+')', 0')*' 0' 2', . ')+%' -/' . 5),001%' ' /)+*1-+')+%', .)%-18 * .)' $*1 . 5')+%' 8 ' 8 8 ,//'' 8 ' 2' (%$)', . /2' 4%' 0*' '&&%()%5' , . ' %' $/2' /,&%' 4%&*$%')+%' 5%7%/*6 8 %.)' * &')+%' -/' . 5 ' ' . 5' '' 014(1)' . %*10' . 0% 10' 8 ' 2' %B,0)' ')')+%' 0,)%' *&')+%' &1)1$%' *$-' .

' ĸG . 5%$')+,0' +%' 5, . -' ' 0' 3% ' '0')+')' &*$ 8 %$/2' % 8 6/*2%5' *&' 0&,4$*6/' 0),(')18 *1$ 3%', . (/15%' '' -$*16' *&' . %3 -$*3)+0' (* 8 6*0%5' *&' 8 *$%' *$' /%00' 3% ' 5%7%/*6%5' 0' $(* 8 ''),001%' , . ' 3+,(+' '$%', .)%$06%$0%5' 0* 8 %3+')' 8 *5,&,%5' ', . ' . 5' 51()0' *&')+%' -/' . 5' +%2' '$%' 5%7%/*6%5' , . ' 3 * 8 %. ' *& 8 .55/%' '-%', . ($%' 0%' $' 6,5/2' ' . 5' ' &)%$' %B; (,0,*. ' '$%' /,'4/%')*' -$*3' '-', . ' +%2' 101' //2' $%E1,$%' (* 8 6/%)%' $% 8 *7' /' *&')+%' 4$%' 0)

F' G */*,5' -$* 3)+0' '$%' *((' 0,* . ' ' 2' 8 %)' 3 ,&&,' . ')+%' 4$%' 0)' +%2' '$%')$1%' (' . (%$0' 3+,(+' +' 7%' 1 . 5%$-*. %')+%' 101' /' (* *,5' 5%-%. %$')*. H' . 5')+%2' 8 10)' 4%')$%')%5' * . ')+%' 0' 8 %' /, . %0' +%2' '66%' $', . ' 8 ,55/%' &%' . 5' '$%' . *)' 5,0), . -1,0+' 4/%' &$* 8' *)+%$' 0* 5')18 *,10' 1.)' '&)%$' %B; (,0,* .

D' " ' ? ' '$(,. * 8 ' ' (* 8 8 * . /2' (' %5' (' . (%$' ,0' 5%7%/*6%5' , . ')+%' 4$%' 0)' , . ')3 *' 5,0), . ()' &*$ 80' +%' &,$0)' . ' 5' 8 *0)' (* 8 8 * . ' ,0')+')' 7' $,%)2' 3+,(+' ,0' 51%')*' , . ; &,/)$')' . *' *&')+%' . *$ 8 ' / '),001%0' *&')+%' -/' . 5' 42')+%' %/% 8 %.)' $2' (%//0' *&' (' . (%$')' (* . 0),;)1)%0')+%' # ' 7' $,%)2' +%' 0%(* . 5', 0')+')' 9, . 5' 3+,(+' ,0' 6$*51(%5' 42')+%' 5%7%/*6; 8 %.)' *&' '' 8 '00' *&' ' ' *$' " ' ' (' . (%$ -$* 38 ' *)+' 7' $,%),%0' '$%' 8 %)' 3 ,)+' , . ' 3 * 8 %. ' '&)%$' &*$)2' 2%' $0' *&' -%' 41)')+%') *)' 81(+')+%' 8 *0)' &$%E1%.)/2' $%7, *10/2')*')+')' -%')+%' 5,0%' 0%' ,0' $' $%H &$* 8' &*$)2') ' &,&)2',)' ,0' 8 *0)' (* 8 8 * . /2' 0%%. H' . 5' ,)' 4%(* 8 %0' $%/'),7%/2' /%00' &$%E1%.)' 0' '-%' '57' . (%0' '/' $-%$' . 18 4%$' *&' 8 '$$,%5' 3 * 8 %. ' '$%' '&&%()%5' 42' ,)')+' . ' 0, . -/%' ' . 5\ 6$*/,&,(' 3 * 8 %. ' 3+*' +' 7%' 01(9/=')+%,$' (+,/5$%. ' '$%' E1,)%' '0' 6$* . %')*')+%' 5,0%' 0%' ,0' $' $%H &$* 8' &*$)2') ' &,&)2',)' ,0' 8 *0)' (* 8 8 * . /2' 0%%. H' . 5' ,)' 4%(* 8 %0' $%/'),7%/2' /%00' &$%E1%.)' 0' '-%' '57' . (%0' '/' $-%$' . 18 4%$' *&' 8 '$$,%5' 3 * 8 %. ' '$%' '&&%()%5' 42' ,)')+' . ' 0, . -/%' ' . 5\ 6$*/,&,(' 3 * 8 %. ' 3+*' +' 7%' 01(9/=')+%,$' (+,/5$%. ' '$%' E1,)%' '0' 6$* . %')*')+%' 5,0%' 0%' ,0' $' $%H '0')+%' 0)%$ %' *$')+*0%' 3+*' +' 7%' . *)' 01(9/%5' *$')+%' +,0)*/*-,(' /0)$1()1$%' '

! (! ? # ' (' . (%$' (* 8 8 %. (%0' , . ' . 2' $%-, * . ' *&')+%' 8 ' 8 8 ' $2' -/' . 5' '/;)+*1-+' 8 *0)' &$%E1%.)/2' 6%$+' 60' , . ')+%' 'B ' /' $2' 0%-8 %.)' ' 0 8 = ' &,$8' . *51/%' ,0' 101' 2' ' (,5%.)' 2' 5,0(*7%$%5' 3 ,)+*1)')+%' '))%.), . ' . ' *&')+%' 6'), %.)' + ' 7, . -'4%%. ' '))$' ()%5')*' ,)' 42' 6' , . ' ' $%/2')+%' 3+*/%' *$-' . ' ,0' 0, 8 1/)' . %*10/2' , . &,/)$')%5' 41)' 8 *0)' &$%; E1%.)/2' * . %' /*4%' * . /2' ,0' '&&%()%5' +%' , . ; &,/)$')' , . ' ,0' *&)%. ' (%. &$' /' , . ')+%' 4*52' *&')+%

U ' '

-/' . 5 '%06%(,' //2 3+%.')+%*$- ' .',0 ')$*6+,%5 ' . 5)+%$ $%7%$0%* *((1$0 3+%.')+%*%B)$%8%% = %* *$ '' /*4%,0 '&&%()%5 ')',)0 6%$,6+%$2 +%,.&,/)$'),*.' 8 '2 0)%'5,/2',.($%'0%1.),/)+%3+*/% 4$%'0)$ &*$80 '' $,-,5 0*/,5 8 '00H 41)$ 8*0)$ &$%E.%.)/2)+%/ '$-%$ 6'$)$ *&)+% *$- ' .'$%8 ',.0 1. '&&%()%5 +%5,0%'0%-,7%0 $,0%42 ,)0 (*.)$'(),*.')*8 1(+5%&*$8,)2 *&)+% $%-,*.))*5,8 6/,.-' %*$$1-=/),*.' ' .5 ,$$%-1/'$,),%0 *&)+% *)+%$3,0%$*)1.5',.)%-. 8%.)'/01$&'(% +%.,66/%>10)',.'6$*6*$;),*.')*)+%%&&%() *&)+% -$*3)+ 16*.')+% 51(0 4%(68%0 $%)$'()%5 *$ 5$'3.')*3'$50)+%)1).*1$ 1(+'$%)+%*$5,.'$2 *4>%(),7%5 0,-.0 *&,.&,/)$'),.-'(' .(%$,.',)0%*'$/2 0)'-% +%6$*-$%00 8'5%42)+% 5,0%'0%,0 014>%())* 7%$2 $%8'$9 4/%7 $,'),*.0 ,.5,&&%$%.) ,.5,7,51'/0' .5)+% 0)'-% 4*7%5%0($,4%5 8'2 4%/*.-'5%/'2%5 .'0*8% ('0%0 8'.2 8*.)+0 *$ %7%.'2%'$0 8'2 %/'60% 4%&*$%)+% $*3)+ '001).%0 .2 -$'7% ,6,6*$)'.(% ** .%$ *$ /')%$ +*3%7%$)+% ,.)%-18%.) *7%$)+% -$*3)+ 4%(*8%0 '5+%$%.))* ,) ,.&,/)$')%5 .5 $%5 '57'.(%0)*3'$50 Q1/(%$'),*. .'1/(%$.*3 &*$80)+% %5-%0 *& 3+,(+ '$% %7%$)%5 $'--%5 .5))'(+%5)*)+%-$*3)+ 4%.%')+ +*/% %B)%.5,.-',.)*)+%)18*1$ 4%(*8%0 5%%6%$ .5 5%%6%$H ,(+*$*10 5,0(+'$-%0 8*$% *$ /%00 6$*&10% (*.),.1%3,)+*1) 81(+'6',.H .5)+%*6'),%.) 4%(*8%0) /'0) 3 $. *1) *$ 01((1840)*)+% $'7'-%0 *& '' (' .(%$*10 -$*3)+',.'' 7,)'/ *$-'.

+%' P) "'(*88%.(%0 ,.5 '' 08 '//' (,$(180($,4%5 -/*4=' $.*51/%',.) +% 4*52 *&)+%-/' .5H -$*30 $'6,5/2H 0%6 $')%0)+% /*4%0 *&)+% *$-' .H %B)%.50 %E1'//2 ,.5 ' 5,$%(),*.0H .5 4%(*8%0 '5+%$%.))*)+% 09,.3+,(+'(*88*./2 0/*1-+0 .5 '//*30 *& '' 6$*)$15,.-'&,8-'),.-'8 '00 .'4*)+' 7'$,%),%0)+%' B, '$2 /2 8 6+'),(' -/'.50 0** %$' /')%$' 4%(*8% ,.7*/7%5' ,.')+% 5,0%'0%'3+,(+'8 2' /0*06$%'5')*)+*0%,.')+% .%(9' .5 3,)+,.')+%)+*$ 'B

5 ! G= *('/'66/,(''),*.0 %B%$)'/,))/% ,&'.2',.&/1%.(% *.')+%-$*3)+*&('.(%$' +% 7,)'/6*3%$0 *&')+% 6'),%.)'0+*1/5 4% 016; 6*$)%5' '0 81(+'0 6*00,4/% 42 +2-,%.,(' 8%'01$%0' '.5 %06%(,'//2' 42 &%$$1-,.*10)*.,(0' +%'$%8*7'/ *&')+% 6$,8 '$2'-$*3)+' 4%&*$%)+% (*.)'8,.'),*.' *&)+% /28 6+'),(' $,0 *& -$%')',86*$)'.(%H '.5')+% 8%)+*5,('/ $%8*7'/ *&')+% 'B,//'$2' -/'.50',0')*' 4%' 0)$*.-/2' $%(*88%.5%5' &')+% ('0% +'7%' '57'.(%5')*** &'$' &*$ *6%$'),7% ,.)%$; &%$%.(%' .5' .' *6%.' 0*$%' +'7%' &*$8%5' 01,)'4/%' .),0%6),(' $%8%5,%0 8 10)' 4%' %8; 6/*2%5

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@' +%0 " " '-$*K)+0 (*.0),; 1)%''(/'00 *&)+%80%/7%0')',0 *./2 *&/')%2%'$0)+')'))%.),*.' +'0 4%%.' '))$'()%5'))+%8 ' +%2 '$%'$'$%/2 8%)' 3,)+' .5 3+%.' 61$%' $% 1.'))%.5%5 42 1.)*3'$5 (,$(8. 0)'.(% ?' *')+%)+,$5 (/'00 4%/*.-0 '' -$*16'*& ('0%0)+*$*1-+/2 (' .(%$*10 ,.')+%,$.')1$% '.5 5,&&%$,.-' *./2 &$*8')+% *$5,.'$2 &*$80 *&)+')' 5,0%'0%42)+% '((,5%.)/ &*$8'),*.' *& (20)0 ' ,0%'0%0 * &')+% '/% $%'0) G +% 8'/% +'0 0*8%),8%0 '' 3%// 5%7%/*6%5 8'888 '$2-/'.5''.5')+% 6'$)',0 014>%()')*)+% 0'8% 5,0%'0%0 '0')+% &%8'/% 1)')+% 0,86/%%./'$-%8%.)*&')+% *$-'.',0'+'$8/%00 '.5 0+*1/5.*)'4%,.)%$&%$%5 3,)+')')+% -% *& 614%$)2)+% 8'888 '$2 $%-,*.' *&)%. 4%(*8%0 6',.&%/'*3,.-',.'6'$)')*)+% 6$%0 08%*&)+%5$%00 16*.')+% 8'88,//''.5')+% $15,8%.)'$2 *$-'. &/'88'),*.&*//*3%5 42 01661$'),*.'+'0 4%%.'*40%$7%5')'+,0),8%

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5 D " "&',)0%%&%()0 6$*51(% 81(+ 01&&%$,.-'.5')+% 6%$,*5 *& 01(9/,.-' &$%; E1%.)/2 %B(,)% 5%%6 0%')%5 8,0(+,%& +% 08 '/ 1/(%$0 ('//%5 ($'(90 0 +'60 ^(3+,(+'&*$8 4%)3%%.')+% $1-[' .')+% '6%B' .5 0,5%0 &*$8 4%)3%%.')+% ,66/% 8'2 4% (1$%5 3,)+' .'66/,(''),*.'*& 3')%$ 5$%00,.-'*$ 42 6*3; 5%$,.-')+%'6$) 3,)+' $4*.')% *&8'-.%0,18 *$*B,5% *& C,.('*$ 3,)+' 3%'9 0*/1),*.'*& ($4*/,('(,5 ,$ ',6%0 -')'+'0 5%0($,4%5 '' (+$*.,(% (C%8 '' *&)+% .,66/% 3+,(+' 8 '2 '001 8 % '' 8 '/,-.'.)'(+'$')%$ 6 " / " 0 2 # '*((1$*.')+% .,66/% ' .5 0+*1/5 4% %B(,0%5) $* ; (($)F $- = 0 5

+ G +% %B6,$%5 ,$ *$ 3+')',0 &'8,/,'$/2)%$8%5 # ' #',0 ,8; 6*$)'.) 4*)+ &$*8 '.' a),*/*-,('/ '.5 '' (/,.,('/6*,.)' *&7,%3'' .5')+% *4>%()* &*)+% 6$%0%.)' '$),(/%',0')*'6$%0%.)' '' 4$,%&01 8 8 '$2 *&)+% 8 ',.&'()0 $%/'),.-')*)+,0 014>%()

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3,)+ 3+,(+ &*$ 6$'(),(/ 61$6*0%0 ,) ,0 .%(%00'$2)*4% '(E1',.)%5
+%%),*/*-,(/ $%/'),* .0 *)+% %B;6,$%5',$3, 4% 8*$% '66$*6$,')%/2 5,0(100%5',.5%)',/ 1.5%$)+% -%.%$'/014>%()* &' 0%),*/*-2, & '10%0 *&R'41) '&%3'*&')+% 8*$% 0)$,9,.- %B'86/%0 *&)+% 8'..%$,.3+,(+ ,) &&%()0)+% +%'/)+ 8'2 4% -,7%.+%$%) ,0 3%/9.*3.')+')+% %B6,$%5',$,& $% 4$%')+%5 42)+% 0'8%,..5,7,51'/3,)+;*1) +'7,.- 4%%.'61$,&,%5 42 '6$*6%$ '58,B;)1$% 3,)+ ')8*06+%$,(',$ 3, 6$*51(%0%$,*10)*%&%()0 16*.')+% %(.*82' .5 3,/1/),8')%/2/%'5')*'5%')+ 42 '06+2B,' -',.'+%$%) ,0 3%/9.*3.')+')+% %B6,$%5',$,& $% 4$%')+%5 42)+% 0'8%,..5,7,51'/3,)+*1) +'7,.- 4%%.'61$,&,%5 42 '6$*6%$ '58,B;)1$% 3,)+ ')8*06+%$,(',$ 3, 6$*51(%0%$,*10)*%&%()0 16*.')+% %(.*82' .5 3,/1/),8')%/2/%'5')*'5%')+ 42 '06+2B,' -',.'+%$%)+%' 4$%')+ *& ''.184%$ *& 6%$0*.0 (*//%()%5')*-%)+%$',.''.,// 7%.),/')%5 6/'(% 8'2 6$*7%,.>1$,*10)*01(+ ,.5,7,51'/0)+% ,8 61$%0)8*06+%$%)+10 -%.%$')%5)%.50)*'/*3%$)+%'-%.%$'/ +%'/)+')*'%)'$5')+%'5%7%/*68%.)*&')+%'2*1.-')*',.($'0%')+%'7,$1/%.(%'*&,.&%(),*10 5,0%'0%0'''.5')*'6$%5,06*0%')*'61/;8*.'$2' &&%(),*.0 .5%%5'0*8%' 3$,)%$0 $%-'$5' $% 4$%')+%5 ',$ '0 *.%' *&')+%' 8*0)'6$*8,.%.)' ('10%0 *&' 61/8*.'$2' 6+)+,0,0 1$)+%$' 1.5*14)%5/2)+% %B6,$%5' ,$,0 '' 8*0)',86*$)'.)'(+'..%/42'3+,(+')+%'6*,0*.'*&' (%$)'..',&%(),7%' 5,0%'0%0G&*$ %B'86/%')+')'*&'8%'0/%0'0('$/'),.''*$'5,6+)+%,,'G=0(*.7%2%5'&$*$.*.%',.5,7,51'/')*''.*)+%$')'+'0'4%%.'&&,$8%5')+')'6+)+,0,0' (' .'4%')$'.0;8,))%5'5,$%()/2',.')+,0'8'..%$'41)'5%E1')%6$*&'&')+,0'0)'%8%.)',0'%.),$%/2'3'.)8-@' $*8''(/,.,('/ 6*,.)'*&'7,%3')+%'4$%')+ 8'2' '&&*$5 10% ,.&*$8'),*.',.'5,'-.*0,0 *$,) 8'2 6$%0%.) (+'$')()%$0'-,7,.-',86*$)'.) ,.5,(',*.0 &*$ 6$*-.*0,0''.5')$%')8%.)) 8,-+) 4% $%E1,0,)% ,.'5,&&%$%.)'('0%0)*' 0148,)')+%'%B6,$%5',$)*''8*$%'*$ /%00 020)%8'),(' %B'8,.'),*.''.5')+%&*//*3,.-'*1)/,.%'3,/ 0%$7%')*'01--%0)+%6')$),(1/'$0)*' 3+,(+' '))%.),).*.'0+*1/5 4%5,$%()%5',.')+,0%B'8,.'),*.''.5')*'6*,.)'*1)+%6$'(),(/ 10%0 3+,(+',)' 8'2 0%$7%
^' +% 4$%')+' +'0 4%%.' 8'5% 10%*&')*5,0),.-1,0+ 4%)3%%.' '.5' / "'#' *$)+,0 61$6*0% '' 5%/,(')% &%')+%$**$''/,-+)',0 +%/5 4%&*$%)+% 8*1)+' *$.*0;)$,/0''.5',)',0 .*)%5'3+%)+%$ %,)+%$'*&')+%0%,0 ,0)1$4%5 *$ ' (*/5 8,$$*$,0 6/'(%5 4%&*$%')+% 8*1)+'3+%.',&'4$%')+,.-',0 -*,.-'*.',)0 01$&'(% 3,/ 4%(/*15%5 42')+% 8*,0;)1$% (*.5%.0%5 16*.',) +%0%)%0)0 '$%'+*3%7%$'.*)*(*.0,5%$%5 7%$2 $%/,'4/%p' +% 2 '*&')+% %B6,$%5',$ 8'2 4%,86*$)'.)',(%' .'0*8% (*.5,).*0 %B(%%5,.-/2 (*/5'.5')+,0 8'2 4%$%'5,/2 6%$(%6),4/%')*')+%'+'.5')+% 4$%')+'+'7,.-''' (+,/ &%%/'*) ,) 8'2 4% 7,0,4/%',.(*.0%E1%.(%*&')+% 8*,0)1$% ,.')+% %B6,$%5',$ 4%,.-'(*.5%.0%5 %7%.3+%.')+% 0%$;$*1.5,.-')8*06+%$%',0 3'$8 +% 6+%.*;8%.*.',0 *40%$7%5 &*$,.0)'.(%',.')+%(*/;/'60% 0)'-%*&'(+*/%$'' .')+%*)+%$ +'.5')+%)%86%$')1$%*&')+% 4$%')+ 8'2 4%$',0%5'8*$%*$/%00'0',.&%4$,/% 5,0%'0%0
(" " "*&')+% 4$%')+ 8'2 6$*7%*&0%$7,(%''.5',),0 6$*4'4/%)+')+,0 8,-+)'&&*$5 10%&1/,.&*$8')+,*.',&',)3%$% $%0*$)%5')*' 8*$% &$%E1%.)/)+')'.',0')+%(10)*8''))'6$%0%.)'.')+%&,$0)'6/'.%')+,0%B'8,.'),*.'8'2'4%%86/*2%5')*'5%)%$8,.%')+%'6$*6*$),*.'*&'('$4*.,(''(,5'6$%0%.)'.'(%$)',.''&&%(),*.0''0'51$,.-'.''))'(9*&'0)+8''*$ 8'%'0%0 *&%B)%.0,7% 4$*.(+,)0)+%'8*1.)*&'('$4*.,(''(,5',.')+% %B6,$%5',$,0 8*$% *$ /%00 ,.($%'0%5 .'*)+%$0 01(+'0 ,.')+%'(*//'60% 0)'-%*&'(+*/%$')+%'(*.0),)1%.)' 8'2 4% 7%$2 5%&,(%.)'-',.'(+%8,('/ %B'8,.')*,.'*&')+% 4$%')+ 8'2 $%7%'/')+%'6$%0%.(%*&''6*,0*.',.')+%'020)%8',.)$*51(%5 &$*8'3,)+*1)'&*$%B'86/%'+25$*;(2'.,(''(,5)'+'0'/0 4%%.'%86/*2%5')*'0+*3')+% %B,0)%.(% *&' 5%/%)%$,*10 6$*51(0 -%.%$')%5 3,)+,.')+% 4*52 %06%(,'//2',.'(0%0 *&' $%.'/5,0%'0%)' ,0 '&8.$%5')+')'8 8*.,''8'2 4% 5%)%()%5',.')+% 4$%')+'.0*8%('0%0 *&')+,0'9,.5'42 +*/5,.-'' -/'00 $*5 5,66%5',.'+25$*(+/*$,(''(,5 4%&*$%')+%0*8%('0%0 *&')+,0'9,.5'42 +*/5,.-'' -/'00 $*5 5,66%5',.'+25$*(+/*$,(''(,5 4%&*$%')+%8*.)+')+%'8 8*.,''4%,..-''' 6$*51()*&')+%5%(*86*0,),*.''*&'1$%'
(" "' $-' ! => /) 7)'! + */ 7'+4 /) $') 4 $-'/) # # 4 ! . '+ $+> 7 !$43!' ! '+ --)* 7' ! 4+)# + # ! . '+ -$4 7 $-'/4 * $)"'/ ! !
&')+%' 4$%')+',0')+%' 8*0)',8;6*$)'.)'(+'$'()%$' 5%8'.5,.-''))%.),.'&,$*8''6$'(),(''/6*,.)'*&'7,%3')',0'%'0,/2'$%((=.,0%5''.5')+%'6$'(),),*.%$' 0+*1/5' '/3'20'4%'*.')+%''/%$)')*'.*),(%')+%'08%/*&')+%'4$%')+'*&''6'),%.)''0')+,0'*&)%.''&&*$50 8')%$,'/',5',.'5,'-.*0,0''.5'8'2'%7%.'$%7%'/(%$)',.'8*$4,5'(*.5,),*.0'3+,(+'*)+%$3,0%'$%/,'4/%')*'4%%.),$%/2'*7%$/**9%5' %0,5%0'6'),%.)0'.*)',8(*88*./2'0%%9''57,(%*.''((*1.)'*&'0&*1/.%00'*&'4$%')+'<'0''02 6)*8'&*$3+,(+')+%2'$%E1,$%'06%(,'/)$%')8%.)' +%'&*//*3,.-'01888'$2'3,',.5,()%')+%'6$,.(,6'/(,$;(180)'.(%0'1.5%$'3+,(+')+,0'(/,.,('/6+%.*;8%.*.'8'2'6$*7%'*&'0%$7,(%'.'5,'-.*0,0'.5',.')+%'(*1$0%'*&')+%'$%8'$90',)3,//4%6*,.)%5'*1)',.'3+')'(*.5,),*.0)+%'4$%')+',0'6'$),(1/'$/2'*&&%.0,7%')')+%'*1)0%)0)'.(%0'8%.0'*40%$7%5')+')' ,.'0*8%'.5,7,51'/0)+%'4$%')+',0'(*.0%E1%.(%*&')+% 8*,0)1$% ,.')+% %B6,$%5',$ 4%,.-'(*.5%.0%5'%7%.'3+%.')+% 0%$;$*1.5,.-')8*06+%$%',0 3'$8 +% 6+%.*;8%.*.',0 *40%$7%5'&*$,.0)'.(%',.')+%(*/;/'60% 0)'-%*&'(+*/%$'' .')+%*)+%$ +'.5')+%)%86%$')1$%*&')+% 4$%')+ 8'2 4%$',0%5'8*$%*$/%00'0',.'&%4$,/% 5,0%'0%0
(" " "*&')+% 4$%')+ 8'2'/,.5',),0 8'2 6$*7%*&0%$7,(%''.5',),0 6$*4'4/%)+')+,0 8,-+)'&&*$5 10%&1/,.&*$8')+,*.',&',)3%$% $%0*$)%5')*' 8*$% &$%E1%.)/)+')'.',0')+%'

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*5*1$'3+,(+',0'E1,)%' (+'$'()%$,0),(H 41)',)'
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3+,(+')+%2'0*' &$%E1%.)/2'(*8=',' +%0%'
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-%.%$''//2'-,7%')+%80%/7%0'.'%B(%//%.)'(+';
$'()%$'&*$')%86%$'.(%'+.5'0%%8'%.),$%/2')*'
&*$-%)'+')'+*0%'3,)+'3+*8')+%2'(*8%',.)*'
(*.)'()''$%'%.5*3%5'3,)+')+%'0%.0%'*&'08%//'
-',.')+%'4$%')+'8'2'$%7%'/')+%'6$%0%.(%'
&' %$)',.'8%)'//,('6,0*.0',.')+%'020)%8'*&
3+,(+'8%$(1$2',0')+%'./*0)',86*$)'.)'%B;
'86/%'41)'/%'5'8'2'/0*' '&&%()',0)'*5*1$'
+%'%B6,$%5''$'6$%0%.)0')+%'*5*1$'*&''88*;
.,'',.'%B(%6),*.'/',.0)'.(%0'*&'1$%%8,''5E%'
)*')+%'%B+'/'),*.'*&'('$4*.')%'*&''88*.,18'
5%$,7%5'&$*8')+%5%(*86*0,),*.'*&'1$%''.',
('0%0'*&'5,'4%)%0' '.5'%06%(,'//2'5,'4%),('
(*8''')+%'4$%')+'8'2'+'7%''03%%),0+'&$'-'
6.)'*$%)+%$%'/*5*1$'))$,41)%5')*''(%)*.%
A,,R' +%'4$%')+'+'0''6%(1/,'$'*$'8*$%'*$'
/%00'5,0'-$%%'4/%'*5*1$',.'(*..%B,*.'3,)+'
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,)+')+%'&%4$,/%'(*.5,),*.',0'3%'9.*3.' .'
7'$,*10'5,0*$5%$0'*&')+%'5,-%0),7%'*$-'.0')+%'
4$%')+',%'*&)%.'7%$2'*&&%.0,7%'41)',)',0'.*)'
6$'(),('4/%')*'$%&&%$' .2'6')$),(1/'$'*5*1$')*'
6')$),(1/'$'5,0%'0%0'*&'%),)+%$'*&')+%0%'*$-'.0H
,)'8'2'+*3%7%$'4%' '&&,$8%5')+')' .'1.;
6/%'0'.)'08%/',0'&$%E1%.)/2''00*(,')%5'3,)+'
+'4,)1'/'(*.0),6'),*.' .'('0%0'*&'0)%$(*$'
(%*10'7*8,),..-')+%'4$%')+'8'2'+'7%''5,0;
),.()/2'&%('/'*5*1$' .')+,0'$%/'),*.',)'8'2'
4%'8%.),*.%5')+')',.'0*8%'('0%0'*&'6+)+,0,0'
)+%'3$,)%$+'0'.*),(%5''0,(9/2'08%/'*&')+%'
4$%')+'3+,(+'0%%8'0')*'5%6%.5'16*.')+%'0)')%'*&')+%'
0)*8'(+' .'('0%0'*&'(%$%4$'/5,0%'0%'/0*'
)+%'4$%')+'*&)%.'4%(*8%0'%B(%%5,.-/2'*&&%.;
0,7%'*.'((*1.)'*&')+%'(*.5,),*.'*&')+%'/,;
8%.)'$2'('.'/' *('/8*$4.5'(*.5),*.'0'
'4*1)')+%'8*1)+')+$*')'*$'.'0'/'('7),)%0'
(*.0),)1)%''8*0)',86*$)'.)'(/'00'*&''&&%(;
),*.0'3+,(+',.&/1%.(%')+%'*5*1$'*&')+%'4$%')+H
,.'8'.2'('0%0',)'4%(*8%0'%B)$%8%/2'&*1/''.5'
8'2'4%'E1,)%'6%(1/,'$',.'),)0'(+'$')%$0'8*.-'
)+%0%'(*.5,),*.0'0+*1/5'4%'8%(,'//2'8%.;
),*.%5'3'.)'*&'(/%'./,.%00'*&')+%'8*1)+'.5'
)%%)+H 5%('2%5')%%)+H 5,0%'0%5'4*.%',')+%'
8*1)+'*$'.*0%H 1/(%$'),*.'*$'-'.-$%.%''4*1)'
)+%'8*.)+'%06%(,'//2'%'.($1,''*$,0''.5'-'.

-$%.*.0'1/(%$'),*.''/*.-')+%'-18 0$'01661;
$'),*.'1/(%$'),*.''*$'-'.-$%.%',')+%' (/
%,)+%$' *&'/*('/'*$,-,.''*$' '00*(,')%5'3,)+'
026+,/,0' 0('$/'),.''5,6+)+%$,''*$' *)+%$'
-%.%$'/' 5,0%'0%0H 1/(%$'),*.''*&')+%' .'0'/'
81(*10'8%84$'.%''.5'(+$*.,('*Y0%X'H'.5'
8'/,-.'.')'5,0%'0%' +%'08%/'*&')+%'4$%')+'
,0'*&'06%(,'/'7'/1%',.'5$'3,.-')) %.),*.')*'
0*8%'*&')+%0%' (*.5,),*.0'&*$')+%2'8'2'%B,0)'
3,)+*1)'-,7,.-'$,0%')*' .2'/*%'/'02 8 6)*80'
3+')%7%$''.5')+%'6'),%.)'8'2'4%'E1,)%'1.;
(*.0(,*10')+')')+%$%' ,0' '.2)+,.-' 3$*.-'
%7%$'/'0)$,9,.-' ,//10)$'),*.'0'*&')+,0'0)')%;
8%.)'+'7%'(*8%',85%')+%' $,)%$<0'*40%$7';
),*.' -',.'(%$)','(*.5,),*.0'*&')+%'$%06,;
$')*$2'*$-'.0'$%'/,'4/%')*' '&&%()')+%'*5*1$'
*&')+%'%B6,$%5',$''.5'8'2'$%.5%$',)'1.4%'$;
'4/2'&*%),5' 8*.-')+%0%'8'2'4%'8%.),*.%5'
0/*1-+,.-'1/(%$'),*.''4*1)')+%'/'$2.B'61/;
8*.'$2'-'.-$%.%',.''.2'&*$8''.5')+%'5%;
(*86*0,),*.''*&'%)',.%5'8*$4,5'6$*51()0',.'
5,/')%5'4$*.(+,'/)14%0'*$',1'('7,),%0'
%$%''-',.')+%'08%*&')+%'%B6,$%5',$'8'2'
$%7%'/3+')'*)+%$3,0%',0'/,'4/%')*'4%'%.),$%/2'
*7%$/**9%5''.5'%06%(,'//2'3+%.')+%'6'),%.)'
(*1-+0'0*'0')*'%B6%/'0*8%*&')+%'$%)',.%5'
',)'*1)'*&')+%/1.-0'0)/2')+%'4%')+'8'2'
+'7%'''6%(1/,'$'*5*1$',1'0*8%'06%(,'/'5,0;
%'0%0'01(+'0'62'%8,''15,)0''//,%0
! ``)' $ "' 7 7' !) ' $
&&%$''&%3'$%8'$90'0')*')+%')$%')8%.)'&
" ' ' #' +%'&,$0)'-$%')',.5,(',*.'
,0'*&'(*1$0%')*'0%%9'*1)'+%'('10%'*&')+,0'
0286)*8''.5'%.5%'7*1$')*'$%8*7%'*$'$%;
8%52')+,0'42'3+,(+',.''/'$-%'6$*6*$),*.'
*&'('0%0''(1$%'8'2'4%'$%'5 2'%&&%()%5' +%'
+&)+,)0'0+*1/5'4%'51/2'$%-1/')%5H)+%'8*1)+'
.5')%%)+'6$*6%$/2'(/%'.0%5H)+%''/,8%.)'$2'
('./'8',.)'8%5',.'-**5'*5%$%H '.5''.2'
06%(,'/'&&%(),*.'$%E1,$,.-')$%')8%.)')%.5%5'
)*' +%.',86/%'0'.)'4$%')+'5%6%.50'*.')+%'
0)*8'(+',)'8'2'*&)%.'4%',8$*7%5'42')'9,.-'
(+'$(*'/6*35%$'*$4,0(1,)0''')+%'0'8%),8%
$%8%5,%0'4%,..-'%86/*2%5'01,)'4/%&*$)+%'6';
),(1/'$' &&%(),*.'6$%0%.)'.5'('/(1/')%5'
6$*8*)%')+%&1.(),*.0'&*)+%'/,8%.)'$2'('.'/
)+%'4*3%/0'4%,..-''/0*'9%6)'&$%%/2'*6%.' +%.'
)+%'4'5'0).%//'5%6%.50'*.'/*('/'('10%0',)'8'2'
4%'5,8,.,0+%5'42')+%'10%'*&'.),0%6),('8*1)+;
3'0+%0'-'$-/%0'06$'20'*$'.'0'/'5*1(+%0'*&
.52<0'&/1,5'('$4*/,('(,5'*$'($%'0)%'.),;
0%6),(',..+'/'),*>/0''$%',.5,(')%5',.'&(%)*$&$*$$'
)+%',$)14%0' * '5' '*

' !+ !+ 3 N!*' ! # $ M'
+%$8'/'/'9'/,.%'0'/,.%'3')%$0' ' $'
1
(0 N' F ' 7 ' $
' $ 0# ' %$'C ' $ 0# # '
F -#
+%')%$8' $ 0# ' P ' ,0' .*3' $%;
(*-.,0%5''0'-%.%$,('.'.5''0',.(/15,.-'0%7%$'/
5,0%'0%0'*&')+%'9,5.%2' .'2'3$,)%$0'$%;
(*-.,0%')' /%'0)')+$%%' 7'$,%),%0%'0'%'(+' *&

K' $'X''.,'7' ')+%'&,$0)')*'5%0($,4%)+$%%'&*$8''
*&' $,-+)<0'5,0%'0%'&,$0)')+%'-$'.'/'$'*$')$*6+,%5

,)**1-+' 0%7%$'ƒ (*.5,),*.0' W3+,(+' &*$ (*.'
%.,%.(% & 5%0($,6),*.' 8 '2'4% 5 8 5 %5',.)*'
)+$%% 0)'-%0' A_ R 0 ' ') ' " 7
" ' ' .')+,0' 0)'-%')+%' 9,5.%2',0' %./'$-%5ℍ
,)0' ('601/% 0)$,60' *&& $% '5,/2ℍ ,)0' 01$&'(%
'66%'$0' 8*$%' *$' /%00' $%5' 0*8%),8%0' *&' ''
5%%6' 6))$6/% (*/*71 ℍ ' .5'*((' 0,*.'//2' %B)$' '
'0'),*.0' W*&' 4/**5' '$%' 6$%0%.)' ,.' ,)0' 014;
0)'.(%' .'0%(),*.')+%' (*$),('ƒ 0140)'.(%',0'
&*8,5')*' 4%'$%/'),7%/2',.($%',0%5',.'41/9')0'
7%00%/0' ' ' 3%/ƒ '0')+*0%' *&')+%' (*.%0' '$%'
(*.-%0)%5' +%'0)$1()1$%' '66%'$0'0*8%3+')'
(*'$0%$')+'.' .')1$'/' 3+,/%')+%' (*.7*/1)%5'
)141/%0' *&)%.'6$%0%.)' '5 03*//%.'*6'E1%' '6;
6%'$'.(%' '.5' *((' 0,*.'//2' (*.)',.' 4/**5'
.' 8,($*0(*6,(' %B'8,.'),*.')+%' (*.-%0),*.'
*&')+%' 7%00%/0' 4%(*8%0' 7%$2' '66'$%.)' '.5'
)+%')1475%0' '$%&*1.5')*' 4%5'$9' '.5'*6'E1%'
)+%,$'/18%.'4%,.-'&$%E1%.)/2'*((/15%5' +%'
,.5,7,51'ƒ %6,)+%/,'ƒ (%//0' '$%' -$'.1/'$' '.5'
,.'' 0)')%'*&'(/*152'03%//,.-' 8'0*8%'('0%0'
'/8*0)' '//')+%')141/%0' '66%'$' &&%()%5',.'
*)+%$0' (*86'$'),7%/2'&%3' +%'%./'$-%8%.)'
&')+%'$-'.',0',.'6'$)'51%')*' (*.-%0),*.',.'
6'$)')*' %B15'),*.'..)*')+%')141/%0' 0')+%'
%B15'),*.',.($%'0%0')+%' (*.-%0),*.'4%(*8%0'
/%00' 8'$9%5'0*')+')' ,.')+%'/')%$'6%$,*5' *&'
)+,0'0)'-%')+%'9,5.%2'66%'$0'6'/%$'.5'8*%)
*6'E1%' ./%00' $%(*7%$2' *$' 5%')+')'9%0'
6/'(%')+,0'(*.5,),*.'6'00%0' ,.)*' A R +%'
" ' 0 ')+')' *&' ' " ' '
.')+,0'0)'-%')+%'$-'.',0'0),/ƒ %./'$-%5')0'
('601/% 0)$,60' *&& $% '5,/2ℍ)+%' 01$&%*%' *&)%.'
6$%0%.)0' 0)%//')%' 7%,.0' '.5',)0' (*/*1$' ,0'
8*))/%5')')+,0',)8%' %B)$'7'0'),*.0' '$%'
7%$2'$'$%/2'*40%$7%5'41')+%$%' '$%' '/)%$.');
,.-'6')(+%0' *&2%//*3,0+' *6'E %0%4'(%*10'
/**9,.-'8')%$,'/'8,.-/%5'3,)+'8*$%'.')1$'ƒ
)$1()1$%' .'0%(),*.')+%'(*$),('ƒ 0140)'.(%'
,0'0%%.')*' 4%' $%/'),7%/2',.($%'0%5' +%$%',0'
.*' (*.-%0),*.'*&')+%'7%00%/0' '15')+%' '/;
6,-+,'.'4*=%0'$%' .*)'6$*8,.%.)' +%'(*.;
7*/1)%5')141/%0' '$%',.'8'.2'6')$0'*((16,%5'
42')+%'0%418 /,9%'8')%$,'/' '.5'0*8%),8%0'
)+%'0))',-+)')141/%0'6$%0%.)')+%'0'8%''66%'$;
'.(%' .' 8,($*0(*6,(' %B'8,.'),*.')+%'
)141/%0' '/*.%' '$%' &*)85' '&&%()%5' '.2'*&'
)+%,.'6$%0%.)'1.5%$' /*3' 6*3%$0' '' 4/'(9'
'66%'$'.(%'51%')*' &'))2'5%-%.%$'),*.'*&')+%'
(*.)%.)0' *&')+%')141/%0')',0',.')+%' (%//0'
'/*.%')+')',0'(+'.-%*((1$0''.5'.*)'0*&'$'
'0')+%'3$,)%$'+'0'0%%.',.')+%'&$%%' %B15'),*.'
3+,(+'4,.50')+%'(%//0')*-%)+%$' .2'*&')+%'
)141/%0' '$%' (*86/%)%/2'4/*(9%5' 16'42')+,0'
8')%$,'/ℍ '.5'0*8%),8%0',.'8'9,.-')+%'0%(;
),*.'*&')+%' $%(%.)'9,5.%2')+%$%' ,0'01(+'.'
'8*1.)'*&'*,/'0%)'&$%%')+')',)'6%$8%')%0')+%'
3+*/%'0)$1()1$%'*&')+%'*$-'.'.5',0'/,'4/%')*'
6$*51(%')+%',86$%00,*.')+')')+%'&%))2'5%
&%.%$'),*.',0'1.,7%$0'/' +,0'(*.5,),*.'8'2'
&% 5%7%/*6%5'W3,)+,.'' 3%%9' *$')3*'*&')+%'
(*88%.(%8%.)'*&')+%',.&/'88')*.'.5',)'
8'2'(*.),.1%'&*$'2%'$0' 1$,.-')+%'3+*/%'
(*1$0%'*&')+%'0%(*.5'0)'-%',)'810)'4%'1.5%$;
0)**5')+')',.&/'88')*$2'(),*.',0'-*,.-'*.'
'/)+*1-+'81(+'/%00''(1)%/2')+'.''),$0)''.5
/%00' 3,5%/2'5,&&10%5' +%'5,0%'0%',0'0*8%;
),8%0'$%(*7%$%5'&$*8'41)'8*$%'(*88*./2'
,)'6%$0,0)0ℍ ''.5',&')+%'6'),%.)'01$7,7%'/*.-'
%.*1-+',)'6'00%0',.)*' A*R +%' # ' 0 '
)+')'*&' # ' +%'*$-'.',0'+%.'$%;
51(%5')*' *$'%7%.'4%/*3')+%'.')1$'ƒ 0,C%'
)0' ('601/% 0)$,60' *&& 3,)+' /,)))/% 5,&&,(1/)2'
'.5' ,)+*1)')%'$,.-')+%' 01$&'(%' +%' 01$;
&'(%',0'1.%7%.ℍ ,)')'$52'66%'$0'(*'$0%/2'
-$'.1/'$'' 0',.')+%'(,$$+*),('&*$8'41)'$')+%$'
6$%0%.)0'' 0%$,%0'*= 5%6$%0,*.0'3+,(+'-,7%'
,)'.'1.%7%.'*$'&,.%/2'-$'.1/'$'(+'$')(%$'
)0'(*/*1$',0'7%$2'0,8,/'$')*')+')'5%0(&,4%5'
'0'*((1$$,.-',.')+%0%(*.5'0)'-%'41)'+%$%',0'
/%00'*&')+%'0%4'(%*10/**9,.-'8')%$,'/' '
0%(),*.')+%'(*$),('/'0140)'.(%',0'&*,85'$%/';
),7%/2'5,8,.,0+%5' +%' '/6,-+,'.'4*5,%0'
'$%'.*)'6$*8,.%.)' +%',001%'&%%/0'8*$%'
5%.0%''.5'8'.2'*&')+%').41/%0''$%'*((16,%5'
42'0%4'*%*10/**9,.-'8')%$,' ' +%'4/**5;
7%00%/0''.5'6')$),(1/'$/2')+%'08'/' ')%$,%0'
'$%'0(/%$*0%5')+%',.),8'' .5')+%'57%.),),'
'$%'&$%E1%.)/2')+%'8,55/%'(*')'/8*0)',.;
7'$,'4/2')+,(9%.%5' +%'&,4$*10'0)$*8''0'
$%/'),7%/2',.($%'0%5'%06%(,'//2')*3'$50')+%'
01$&'(%'*&')+%'*$-'.''.5')+%')141/%0'8'2'
4%')$'(%5',.'5,&&%$.)'0)'-%0'*&'(%')*6+2'
(/*0%',.06%(),*.')+')')*6+2',0'&*1.5')*'
$%01/'.*)'0*'81(+'&$*8'0+$,.9,.-'*&')+%'
&,4$*10'0)$*8''0'&$*8'8*/%(1/'$'40*$6),*.'
&')+%(.)%.)0'*&')+%')141/%0
%0,5%0')+%')26,('ƒ &*8'&')+%',.&/'88';
)*$2''&&%(),*.'>10)'5%0($,4%5''7%$2'(*88*.'
7'$,%)2',0')+%'&*$8'*&'6*0)0('$/'),.'ƒ ,.;
&/'88')*.'&,$0)'((1$')%/2'5%0($,4%5'42'
/%40')*' 3+,(+'+*'+'0'-,7%.')+%' .'8%'
0 " # '4%('10%')+%'-/*8%$1/'
'$%'%06%(,'//2')&%()%5' .')+,0'(*.5,),*.''.'
'((181/'),*.''*&$*1.5'(%//ƒ %1(*(2)%0R')%0'
6/'(%',.')+%' -/*8%$1/,' '.5' .%,-+4*1$,..-'
(*..%(),7%',001%'3+,/%'4/**5',0'&$%E1%.)/2'
%B)$'7'0')%5'3,)+,.')+%' -/*8%$1/,'4%)3%%.'
)+%')1&)0'*&'7%00%/0''.5')+%'(601/%''0'3%/ƒ
'0',.)*')+%')141/%0' .')+%')141/%0''/0*'8*$%'
$'/%00',.&/'88')$2'(),*.'8'.,&%0)0',)0%/&'
,.')+%'%6,)+%/,18' '.5')+%'(*$%%06*.5,.-
0)$1()1$%0'*&')+%' '/6,-+,'.'4*5,%0'01&&%$'
,.''-$%')%$'5%-$%%')')+.%0')+%''((181/';
),*.''.5'03%//,=''*&')+%0%')$1()1$%0',0'0,&&&,'
(,%.)')*' (*86$%00')+%'7'0(1/'$')1&)' +,0'
5,0%'0%' '/0*'8'2'4%'5%0($,4%5''0'6'00,.-'
)+$*1-+')+$%%'0'-%0G=,' ,%&,$0)'*&'3+,(+'
)+%$%',0'0*8%%./',-%8%.)=3,)+'8,.1)%%B)$';
7'0'),*.0''.5')+%'8,($*0(*6,('(+'.-%0''4*7%'
5%0($,4%5ℍ ,')+%' %(*.5'3+%$%' '' &')))2'
)$'.0&*$8'),*.'+'0'*((1$$%5',.')+%'%6,)+%;
/,18''.5')+%'&,4$*10'),001%0'0+*3')+,(9%.,.-'ℍ
,.')+%')+,$5')+%$%',0'8*$%'*$'/%00')$*6+2'
W3,)+0+$,.9,.-'*&').41/%0'*$'8*$4,5',.($%'0%'
*&')+%'.')*8,('ƒ (+'.-%0'8%)'3,)+,.')+%$'
*$-'.0'$%'5%0($,4%5'*.-',$,)+')+%'(*8;
6/,(',)*.0
' &')+%) # ' ' +%'(*1$0%'*&'
)+,0'&&%(),*.',0'7%$2'(+$*.,(')'(*.0,0)0'
%00%.),'//2',.'&8',.($%'0%5'-$*3)+'*&')+%

. '),* . ', . ')+%' E1' .),)2' * &' 1$, . %' ' . 5')+%' 6$%; 0% . (%' *&' 5$*602
+%' * . 0%)' *&')+%' 5,0% '0%' 8 '2' +%' 0155% . ' *$' -$' 51' /' * 8 %), 8 %0' ,)' ,0')+%' 5,8, . 1), * . ' . 5' '/)%$'), * . ' *&')+%' 1$, . %')+ ')' '))$' ()0' '))%.), * . ' 0* 8 %), 8 %0')+%' 5$*602 ' 0* 8 %), 8 %0')+%' - '0)$, (' 5%$ ' . -%8 %.)' . 5' - %. %$ ' /' 1 . %' 0, ; . %00H' 41)' 3+, (+%7%$' 02 8 6)* 8 ' 8 '2' '66%' $' &, $0) ')+%' *)+%$0' 101 ' //2' 06%% 5, /2' &*//* 3 ' +%' 1$, . %' , 0' -%. %$ ' //2' 5, 8, . , 0+%5' , . ' E1' .),)2 ' *&)%. ' 0* 8 %3+ ')' *6' E1% ' ' . 5' 0 8 *92' *$' %7%. ' 4/**52 ')' (* .)' , . 0' 8 1 (+' '/418, . ' ' . 5' 8 . . %$* 10')14% ('0)0' +%' ('0)0' '$%' -$' . 1/' $' 4%, . -' (* 8 6*0%5' 8 *0)/2' * &' %6,)+%/, 1 8', . ' '' 0)')%' * &' (/*152' 0)7% , . =' H 0* 8 %), 8 %0' 4/**5>=H &$%E1% .)/2' +2 ' /, . %' *$' &, 4$, . *10' +%' 1$%' ', 0' 5, 8, . , 0+%5 ',)' 8 '2' 4%')*' . %+' /&* ' *. % &*1$)+' *$' %7%. ' '' /%00' 6$*6*$), * . ' *&')+%' . ')1$' / Q' 8 *1 .)' +, 0' /%' 50')*' &)' (*$$%06* . 5, . -' $%; 51(), * . ' *&')+%' 06%(, &, (' -$' 7,)2 ' 1 . /%00')+%$%' 4%' '' (* 8 6%. 0')*$2' 5, 8, . 1), * . ' * &' 3 ')%$' *$' , . ; ($%' 0%' * &' /418, . ' +%' 5$*602' , 0' -%. %$' //2' 5, 0), . ()' , . ')+%' &' (%' ' . 5' 03% , . -' * &')+%' %2%; /, 50' , 0' 3%// 8 '$9%5', . ')+%' 8 *$. , . -' *3' $50' %7%. , . -', &')+%' 6'), %.)' 4%' *1)' * &' 4%5')+%' /%-0' '$%' (+, %&/2' '&&%()%5' +%' 0($*)18' . 5' 6%. , 0' '$%' *&)%. ' 03*//%. ' ' . 5' 0* 8 %), 8 %0')+%' *45*; 8 %. ', 0' '/0*' 5$*60, (' /' +%$%', 0' /,))/%' E1, (9%. ; , . -' &61/0%' *$' %/%7'), * . ' * &')%8 6%$')1$%' 41)' '' -**5' 5%' /' * &' -%. %$' /' , 8 %' 0, . %00' , 0' %B; 6%$, %. (%5' 3,)+' 5%4, /,)2' . 5' 6', . ', . ')+%' /*, . 0H' . 5' 5206%6), (' 02 8 6)* 8 0' $%' * &)%. ' 6$%0%. ' / 51%')*' -' 0)$, (' (')' $$+' 1(+', 0')+%' 101' /(* . 5,), * . ' . ')+%' (* 8 8 %. (%8 8,)' * &')+%' 5, 0%' 0%' ' . 5' 51$, . -')+%' 6%$, *5' 3+, (+' +' 0' 4%%. ' . ' /$%' 52' 5%0($, 4%5' 0')+%' &, $0)' 0)' -%' 1)' 0* 8 %), 8 %0' ')')+, 0' 0)' -%' '' 8 1(+' 8 *$%' 0%$, *10' (* . 5,), * . ', 0' 5%7%/*6%5G . ' 8 %/2' 0166$%00, * . ' * &' 1$, . %' &*//* 3%5' 42' (* 8 '' *$' (* . 71/0, * . 0' /%' 5, . -')*' '' &%)' /' $%01/)H *$' 5$*602' 8 '2', . ($%' 0%')*' 01(+' . ' %B)%.)' 0' *&',)0%/&')*' ' (' 10%' 5%')+' $' ' - ', . ' 3,)+*1)' *$' %7%. ' 3,)+')+%' 8 *0)' 1 . &' 7*1$' 4/%' 286)* 80' 1 . 5%$' 66$*6$, ')%')$%')8 %.)')+%' 5 . %20' 8 '2' 4%-, . ')*' ' ()' 8 *$%' &, $%%/2')+%' 1$, . %', . ($%' 0, . -', . ' ' 8 *1 .)' ' . 5', 86$*7, . -', . ' (+' $' ()%$0' 3,)+' (* . 0%E1%.)' -$' 51' / 5, 0; '66%' $' . (%' *&')+%' 5$*602' ' . 5' $%0)*$'), *. ' *&' +%' /)+' $' '0' *&)%. ' +' 66%. 0')+%' -%. %$' / (* . 5,), *. ', 86$*7%0' 41)' ' (+$*. , (' /418, . 1$, '' $%8', . 0' ' . 5')+%' 5, 0%' 0%' 6' 00%0' , .)*')+%' 0%(* . 5' 0)' -%' 8 &, . %' 0')+%. ' . *' /* . -%$' 4/**52H)+%' E1' .),)2' , 0' -$%')%$')+*1-+' 0), // 4%/*3')+%' . *$8 '/H)+%' 06%(, &, (' -$' 7,)2' , 0' /*3 H)+%$%' , 0' '/418, . ' '/* . -'3,)+')14% ('0)0' &')) 2' +2 ' /, . %' *$' 8, B%5' 6' $)/2' &'))2' ' . 5' 6' $)/2' +2 ' /, . %' +%' 1$%'' , 0' 4%/*3')+%' . *$8 =' 0)' . 5' $5' +%' 5$*602' 8 '2' (* .), . 1%' ' . 5' . *' 2' %7%. ' -$' 51' //2' , . ($%' 0%' $' ,)' 8 '2' 6' 00' *&&' ' . 5' * . /2' '66%' $' 3+%. ')+%' 6'), %.)' , 0' &%), - . %5' *$' 3+%. ' +%' +' 0' ('1-+)' (*/5' +%' -%. %$' /' 0J8 6)* 8 0' $%8 ', . ' 1 . (+' . -%5' %B(%6)')+')' . '%8, ' . ' 5')+%' 6'), %.)<0' 5%4, /,)2' 0)%' 5, /2' , . ($%' 0%0' +, 0' (*1$0%' *&' %7%.)0' 8 '2' 6' 00' *. ')*' '' &%)' /' $%01/)H *$')+%$%' 8 '2' 4%' (* 8 6/%)%' *$' '0' , 0' 8 *$%' (* 8 8 *. ' 8 %$%/2' 6' $), =' $%(*7%$2' . ')+, 0' (* . 5,), *.)+%' 6'), %.)' 8 '2' /, . -%$' &*$' 8 ' . 2' 8 * .)+0' *((' 0, *. ' //2' 01&&%$, . -' %B' (%$4'), * . 0' ' . 5' +%' 8 '2' 01((184')*' . %' *&')+%8 ' *$')*' *4%' *&')+%' . 18%$*10' (* 86/, ('), * . 0')*' 4%' 6$%0%.)/2' 5%0($, 4%5' &')+%' 6'), %.)' 6' 00%0' , .)*')+%')+, $5' 0)' -%' +%' 66%' $0' 6$%8 ')1$%/2' */5' , 0' 1$, . %', 0' * &' . ')1*1.)' *$%7%. ' 0* 8 %+3+')' , . ($%' 0%5' , . ' E1' .),)2' 41)' * &' /* 3' 06%(, &, (' -$' 7,)2')' (* .)' , . 0' = 1 8 , . . . 5' ' ' &%3' (' 0)0' 8 *0)/2' +2 ' /, . %' 3,)+' 0('))%$%5' &'))2' (%//0', 8 ; 4%55%5', . ')+%8 ' +%' 1$%'', 0' %) /5, 8, . , 0+%5' +%$%' , 0' 5$*602' * &')+%' &%%)' . 5' ' . 9/%0', . ')+%' %7%. , . -0' ' . 5' 0/, -+)' %B6*0, , $%' 4$, . -0' * . ' 8 *$%' -%. %$' /'))' (90' +%' &*(%', 0' 6 /%' . 5' 6' 0)2' Z85')+%' %2%/, 50' '$%' *&)%. ' *%5%8 ')*10' +%' 61/0%' 4%(* 8 %0' +' $5' . 5')%. 0%H)+%' $)%$, %0' -$' 51' //2' 4%(* 8 %')+, (9%. %5' &$* 8' 0(/%$*0, 0' . 5' ')+%$* 8 'H 3+, /%')+%' 6%B 4%')' * &')+%' +%')' 6' 00%0' 5*3 . 3' $50' . 5')*')+%' /%&)' 0, 5%' *3, . -')*' +26%$)$*6+2' 6' $), (1/' $/2' * &')+%' /%&)' 7%.)$, (/%' . ')+, 0' (* . 5,), *. ' ''&%)' /' $%01/)' 8 '2' 4%' , . 51(%5' 42' . ' ' (1)%' %B' (%$4'), * . ' 3,)+' -%. %$' /' 5$*602H 42' (+$*. , (' *$' 8 *$%' $' $%/2' ' (1)%' . $0%8, 'H *$' 42' , .)%$%1$$%.)'))' (90' *&', . &/' 8 8 ')*$2' *$' *)+%$' '&&%(), * . 0' *&' 7' $, *10' *$-' . 0
/*8%$1/* . %6+$,)0' , 0' 6%$+' 60' '))%. 5%5' 3,)+' ' ' -$%')%$')%. 5%. (2')*' +0%8 ')1$, ' ' . 5' /%00')%. 5%. (2')*' 5$*602')+' . ' *)+%$' &*$8 0' *&' ' (1)%' . %6+$,), 0' 41)')+%' (/, . , (' /' &%')1$%0' '$%' . *)' ' 0' 2%)' ('6' %' *&' 4%, . -' 5%&, . ,)%/2' 8 '$9%5' *&&' &$*8')+*0%' *&' *)+%$' 8 5' 5, %0' $' %*$-%' *+. 0*. ' +' 0' 5$' 3. ' '))%.), *. ')*' '' 6%(1/, '$' 9, . 5' *&' *' 0)' (*.)' , . , -' . 18%$*10' /%1(*(2)%0' 3+, (+' (+'$' (%$, 0%')+, 0' 6')$), (1/' $' /%0, *.
< ' ' # ' # ' ' +%' *. 0%)' *&')+, 0' &&%(), *. ' , 0' %B)$%8%/2' , . 0, 5, *10' . 5' ,)' 8 '2' %B, 0)' &*$' ' &, . -'), 8 %' 3,)+*1)' 5, 0), . ()/2' , . ' 8 &%0), . -' ,)0%/&' 42' 02 8 6)* 8 0')0' %B, 0); %. (%' 8 '2' 4%' 0106%()%5' 3+%. ' ' 6'), %.)' 01&&%$0' &$*8' $%. '/' , . '5%E1' (2' , . ' $%06%()+')')+%' 1$%' 5, 0(+' $-%' &' //0' 4%/*3')+%' . *$8 '/' 0)' . 5' $5' ' . 5' '/418, . ' *((' 0, *. ' //2' '66%' $0' . ')+%' 1$, . %' +1)' . %' , 0' . *)' %.),)/%5')*' %0)' 4/, 0+' ' 5, '-. *0, 0' 16*. ' 01(+' -$*1. 50' '/*. %' +%' **1d), *. ' , 0' *&)%. ' 5, 0(*7%$%5' *. /2' 3+%. ' 5206%60, ' $)%8, (' (*. 71/0, *. 0' *$' 4/, . 5. %00' &$*8' $%), . ,)0' /%' 50')+%' 6'), %.)')*' (*. 01/)' ' 8 %5, ('/' 8 N=' +%' %' $/, %0)' 02 8 6)* 8 0' $%' *((' 0, *. '/' 0/, -+)' /418, . 1$, ' ' . 5' &$%E1%.)' ('//0')*' 8, ()8,)+*. ' 51$, . -')+%' . , -+)')+%' 1$, . %' +*3%7%$' . *)' 4%, . -' %B(%00, 7%' ,)0' 06%(, &, (' -$' 7,)2' 4%, . -' /*3' ' . 5')+%' 1$%'' 0*8%3+')' 5, 8, . , =%5' 1)' 3+%. ')+%' 5, 0%' 0%' +' 0' %B, 0)%5' &*$' 0*8%), 8%')+%' (*86/%B, *. ' 4%(* 8 %0' ' /)%$%5H)+%' %2%' 0018%0' ' 6%(1/, '$' 66%' $' . (%' &$*8' *05%. =, '*&')+%' (*. >1. (), 7' H)+%' 6'), %.)' , 0' 014>%()')*' 5206%6), ('))' (90H)+%' +%' $)' 4%(* 8 %0' +26%$)$*6+, %5' ' . 5')+%' 7%00%/0' 0(/%$*0%5' ' . 5' 5%-%. %$')%5H 3+, /%')+%$%', 0' /,))/%' *$' . *' 5$*602' 0 +%. ')+%' 5, 0; %' 0%' , 0' '57' . (%5')+%0%' (+' . -%0' . ')+%' (, $; (1/')*$2' *$-' . 0' '$%' 3%// 8 '$9%5' ' . 5')+%' (' (+%(' (* . 5,), *. ' 4%(* 8 %0' 5, 0), . ()' +%' *((. , B%. (%' *&' 7' $, *10' (* 86/, (', *. 0' 01(+' ' 0' 0%7%$%' -' 0)$, (' (')' $$+' 5, '$$+*%' ' . %%8, '

5206 . *%' ' 4$* . (+,),0 ' *%5%8 '' *& ')+%' /1 . -0 '
/,%' 5' *+%' 1$' %8 , ' ' ' . 5')+%' (+' $' ()%$,0),(' $%), . ' /' '&&%(),* . ' $%. 5%$')+%' 5,' - . *,0,0' % ' = '
$%E1% .)/2' 3 ' $50')+%' % . 5')+%$%' ,0' ' . ' , . ;
($%' 0%5' &/* 3' *&' 1$, . %' * &' /* 3' 06%(,&,(' -$' 7,)2 '
+,0' ,0' ,. ' 0* 8 %' '0%0' '' 7%$2' 6$* 8 , . %.)'
02 8 6)* 8 ' + %' 5,0%' 0%' ,0' . %7%$' $%(*7%$%5'
>&$* 8 ' ' . 5')+%' &')' / $%0B, /)' *** 8 0' &$* 8 ' 1$'%;
8 , ' H' &,=* 8' 0* 8 %' , . &/' 8 8 ')*$2' (* 8 6/,('), * . '
01(+' '0' 6/%1$,02 ' 6%$,(' $5,),0 ' 4$* . (+,),0 ' *$'
6 . %1 8 * . , ' H *$' &$* 8' 0* 8 %' $%01/)' * &' 5%-%. %$;
'),7%' (+' . -%' ' 0' + '%8 * $$+ ' -%' &$* 8' '' 8 1(* 10'
01$ ^ (%' *$' , . *)+%' 4$' , .

9' ' ' # ' 2 (' ' +%' * . 0%)' *&'
)+,0' '&/%(),* . ' ,0' -$' 51' / ' . 5' , . 0,5,* 10' '
6 '),%.)' 3 +*' + ' 0' 01&&%$%5' &$* 8' 6+)+,0,0 ' 02;
6+,/,0' *$' *)+%$' 3 ' 0), . -' 8 '/' 52' 6 ' 00%0' ' .'
%B(%00,7%' E1 ' .),)2' * &' 1$, . %' ' . 5' &, . =' +, 8 0%/&'
4/, -%5')' $,0%' 0%7%$' /), 8 %0' 51$, . -')+%' . , -+)'
&*$' 8 , ()1$,), * . ' +%' 1$, . %' ,0' 60 . %' * &' / * 3'
06%(,&,(' -$' 7,)2 ' (* .)' , . , . -' ')' &,$0)' . *' '/41;
8 , . ' 0140%E1%.)/2' * . /2' ' ')$' (%' 1/), 8 ')%/2'
' ' (* . 0,5%$' 4/%' 8 * 1 .)' +%' 1$%' ' ,0' /,))/%'
,&')' ' // ' 5, 8 , . ,0+%5H')+%')14% (' 0)0' '$%' %B;
)$% 8 %/2' &% 3 ' ' . 5' 8 * 0)/2' +2 ' /, . %' +%$%' ,0'
. *' 5$* 602 ' 41)' %7,5% . (%' * &' (* . (* 8 ,)' .)' 3 ' B2'
' &&%(),* . 0' * &' *)+%$' * $-' . 0' ,0' &$%A>1%.)/2' ' &;
&* $5%5' +%' /,7%$' ,0' %./' $-%5' ,)0' 8 ' $*, . -' %' 0,/2' &%/)' . 5' 0+' $6/2 5%&, . %5' +%'
06/%%. ' ,0' ' /0*' , . ($%' 0%5' , . ' 0,C%' +%' 4/**5'
,0' 0/, -+)/2' ' /)%$%5')+%' 3 +,)%' (* $610(/%0'
4%, . -' 0* 8 %$%5' , . ($%' 0%5' . 5')+%' $%5'
4%, . -' $')+%$' &/' 442' . 5' , 5%&, . %5' +%0%'
(* . 5,),* . 0' -$' 51' / 2' 4%(* 8 %' 8 * $%' 5,0), . ()'
. 5')+%' 0)$%. -)+' * &')+%' 6'),%.)' 5, 8 , . ,0+%0'
6 ' $&/2' &$* 8')+%' 5,0%' 0%' * &')+%' 9,5 . %20' . 5'
W*)+%$ * $-' . 0' 6 ' $)/2' &$* 8')+%' 3 ' 0), . -' 5,0;
%' 0%0' 3 (+' + ' 7%' , . 51(%5')+%' 5%-%. %$'),7%$
(+' . -%0' ' (' 0%' * &')+%' 9, . 5' + ' 0' 4%%. ' 9 . * 3 . '
)*' -* * . ' &*$' . %' $/2')%. ' 2%' $0' 51$, . -' 3 +, (+'
), 8 %')+%' 1$, . %' (* .), . 1%5' * &')+%' (+' $' ()%$0'
>10)' 5%0($, 4%5' ' . 5' 5$* 602' . %7%$' '66%' $%5'
)' /%. -)+')+%' 7,)' / 6* 3%$0' * &')+%' 6'), %.)' 4%;
(' 8 %' 5%6$%00%5' +%' 5' 0286)* 8 0' -$' 51' / 2'
016%$7%. %5' ' . 5' 5%')+' %. 01%5')' ,0' . *)'
W*&)%. ')+')' 01(+' ' . ' 1. (* 8 6/,(')%5' ('0%' ,0'
8 %)' 3 ,)+' *$%' (* 8 8 * . /2')+%' %B+' 10), . -'
Q5,0%' 0%' 3 +, (+' /%5')*')+%' 5%-%. %$'), * . ' (' 10%0'
W5%')+' 4%&*$%')+%' 3 ' B2' (+' . -%' + ' 0' -* . %' 0*'
&' $' * 8 %), 8 %0' '/0*' , .)%$(1$$%.)' (* 8 6/,(' ;
), * . 0' , . 51(%')+%' &')' / $%01/)' /. , . (' / * 40%$'
7 '), 6 . ' $%. 5%$0' ,)' 6$%4/%')+')')+%' 9,5 . %20 '
' 0' 3%/' 0')+%' /,7%$' ' . 5' 06/%%. ' 8 ' 2' $%(* 7%$'
&$* 8')+%, $' 5%-%. %$'), * . ' , . ' (' 0%0' , . ' 3 +, (+'
)+%' ('10' / 8 '/' 52' + ' 0' 4%%. ' - *)' $, 5' *&

% #0 2 A E & 0 ' A
') ' ' 3 K $' ! $
B ' " ' '$%' 8 %)' 3,)+' , . ' ')+%'
&* $8 0' *& $, -+)<0' 5,0%' 0%' ')' $$+' *& ')+%'
0)* 8 ' (+ G ' (1)%' 014 ' (1)%' ' . 5' (+$* . , (, G, 0'
(* 8 8 * . ')*')+%8 ' //' ' . 5', 0' (+' $' ()%$, 0%5' 42'
' . ' 1 . 101 ' /) % . 5%. (2')*' . ' 10%*' ' . 5' 7* 8 ,);
, . - ')' , 0' %06%(, '//2' &$%E1%.)' 51$, . -')+%'
&, $0)' 0)' -%' ' . 5' , . ' (1)%' %B' (%$4 '), * . 0' *&'
)+%' , . &/' 8 8 ')*$2' &* $8 ' ' . 5' , 0' *&)%. ' '' (+, %&'
0*1$(%' *& ' 01&&%$, . -' 51$, . -')+%' 8 *0)' ' 57' . (%5

)' , 0' . *)' 1 . (* 8 8 * . ' 51$, . -')+%'
3 +*/%' (* 1$0%' *& ')+%' 3 ' B2' &* $8 ' 41)' , 0' 8 *0)'
101 ' //2' 8 %)' 3,)+' , . ')+%' (, $$+*), (' 7 ' $, %)2'
*' (/*0%' , . 5%%5' , 0')+%' $%/ '), * . 0+, 6' 4%)3%%. '
)+%8 ')+')' , . ')+%' 8 ' . ' -%8 %.)' * &' ('0%0' * &'
(, $$+*0, 0' $%-' $5' 0+*1/5' (* . 0)' .)/2' 4%' + ' 5')*'
)+%' 0)')%' * &')+%' 0)* 8 ' (+' ' . 5' , . ' . *' ('0%' * &'
(+$* . , (' - ' 0)$, (' (')' $$+' 0+*1/5')+%' 6+20, (, ' . R
. %-/%()')*' , . E1, $%' , .)*')+%' 0)')%' * &')+%' 1$, . %'
+, 0' ' &&%(), * . ' 3 +%. ' (* 8 6/, ('), . -')+%' %' $/2'
0)' -%' * &')+%' , . &/' 8 8 ')*$2' &* $8 ' * &)%. ' * 3 %0'
,)0' * $, -, . ')*')+%' 0' 8 %' ('10%' '0')+%' 9,5 . %2 '
' &&%(), * . ' ,)0%/&' +%. ' (* 8 6/, ('), . -')+%' /')%$'
0)' -%0' * &')+%' , . &/' 8 8 ')*$2' ' . 5' ' . 2' * &')+%'
0)' -%0' * &')+%' (, $$+*), (' 5,0%' 0%')+%' (')' $$+'
, 0' 6$* 4' 4/2' ' ' $%01/)' * &' %&&*$)0' ')' %/, 8 , . '), * . '
* &' 8 ')%$, '/0' $%)' , . %5' , . ')+%' 4/**5' 42')+%'
&', /1$%' * &')+%' ' (), * . ' * &')+%' 9,5 . %20' 3 +%. '
* ((1$$, . -' , . ')+%' 3 ' B2' &* $8 ' ,)' , 0' &$%E1%.)/2'
51%' , . ' 6 ' $)')*')+%' %B, 0)%. (%' * &' 3 ' B2' 5%-%. %$;
'), * . ' * &')+%' 7%00%0' * &')+%' -' 0)$, (' 81(* 10'
8 %8 4$' . %' . ')+%' 3 ' B2' 5, 0%' 0%' 3%' 0* 8 %;
), 8 %0' &, . 5' 4/**5' 8 , . -/%5' 3,)+')+%' 7* . , , %5'
8 '))%$0' >10)' '0' 3%' &, . 5' + ' %8 * $$+' -%' , . '
)+%$' * $-' . 0' 3 +%. ')+, 0' 5%-%. %$'), * . ' %B, 0)0

/ # ' # ' " " ' '/0*' (('0, * . ' //2'
((1$0' 0 8 %), 8 %0' 6$* 51(, . -' . ' %B+' 10), . -'
5, '$$+*%' ' %06%(,)5/2' , . ' ' 57' . (%5' , . &/' 8 8 ' ;
)* $2' . 5' (, $$+*), (' ('0%0H' 41)' ,)' , 0' '/* . -' 3,)+'
)+%' 3 ' B2' 5,0%' 0%')+')' , .)%0), . '/' 02 8 6)* 8 0'
'$%' 8 *0)' (* 8 8 * . ' +%0%' '$%' 51%')*' 3 ' B2'
5%-%. %$'), * . ' ' . 5' (* . 0%E1%.)' 1/(%$'), * . H *$'
)*' *$5, . '$2')14%$(1/' $ 0,0%' 0%' * &')+%' , .)%0;
), . %' *) . ' * &')+%0%' '&&%(), * . 0' , . 51(%' 5, '$;
$+*%' ' 41)')+%$%' , 0' %7,5%. (%')+') ' . *)' * . /2'
8 ' 2',)')+10' * ((1$' 41)')+')' 4/**5' 8 ' 2' ' /0*' 4%'
5,0(+' $-%5' ' /)+' 1-+')+%$%' 4%' . *' ,,/(%$'), * . '
$%(* - . ,0' 4/%' 42')+%' . ' 9%5' %2%

P ' " G 1 . (), * . ' / 5%$' . -%;
8 %.)0' * &')+%' /,7%$' * ((1$', . ')+%' (* 1$0%' * &' ' //'
)+%' &' * 8 0' * &' $, -+)<0' 5,0%' 0%' +%' (+,%&'
* $-' . , (' (+' . -%0' ' $%' &')) 2' 5%-%. %$'), * . ' 3 ' B2'
5%-%. %$'), * . ' (, $$+*0, 0' ' . 5' 026+, /,), (' '&&%(;
), * . 0' +%' &, $0) . ' 8 %5' , 0' . *)' 06%(, '//2' $%;
/')%5')*' ' . 2' * &')+%' &* $8 0' +%' 3 ' B2' 5%;
-%. %$'), * . ' . 5')+%' 026+, /,), (' '&&%(), * . 0' '$%'
* &' (* 1$0%' (* 8 8 * . /2' 8 %)' 3,)+' '0' ' ((* 8 6' . ;
8 %.)0' * &')+%' 3 ' B2' 5, 0%' 0%H 3+, /0)' (, $$+*0, 0'
, 0' * (('0, * . ''//2' '00*(, ')%5' 3,)+')+%' (, $$+*), ('
9, 5 . %2' ' . 5' 0* 8 %), 8 %0' 3,)+')+%' *)+%$' & * $8 0
& ' , 0' * &)%. ' 0%%. ' '0' ' 8 ' . , &%0)'), * . ' * &'
-%. %$' / 5$* 602' , . ')+%' , . &/' 8 8 ')*$2' & * $8' * &'
$, -+)<0' 5,0%' 0%H' . 5' * 8 %), 8 %0')+, 0' , 0' ' '
6$* 8, . %.)' 02 8 6)* 8' , . ' 8, B%5' & * $8 0' 3+%. '
3 ' B2' 5,0%' 0%' * &')+%' /,7%$' , 0' '00*(, ')%5' 3,)+'
' ' 3 ' B2' . 5' 0/, -+)/2' , . &/' 8 8 ')*$2' (* . 5,), * . '
* &')+%' 9,5 . %20

6 " ' /, 9%' , . &/' 8 8 '), * . ' * &')+%' *)+%$'
0%$* 10' 8 %8 4$' . %0 G * . %' * &')+%' 8 *0)' , 8 6 * $;
)' .)' (/' 00%0' * &')+%' (* 8 6/, ('), * . 0' * &' $, -+)<0'
5,0%' 0%' , 0' * (('0, * . ''//2')+%' (' 10%' & 5%')+' , . '
' ')+%')+$%%' & * $8 0')' 8 ' 2' $%01/)' & $* 8'
/* (' / ' &&%(), * . 0' * $' & $* 8')+%' 0)')%' * &')+%'
4/**5H' . 5' 8 ' 2' 4%' ' (1)%' 0%7%$%' ' . 5')+%$%;
& * $%' * 47, * 10' * $' 0* ' , . 0,5, * 10' '0' 0(' $(%/2')* '
'))$' ()'))%.), * .

" '51%')*' ('$5,'('5,0%'0%')+%0%'/*'/'5,%0' '$%'58,.-1,0+%5'42')+%' -%.%$'/'(*.5,),*.'*&)+%'6'),%.)H)+%' '40%.(%'*&'('$5,'('5,0%'0%' '.5'*&'(*.-%0),*.',.'*)+%$'*$-'.0'H''.5')+%'(+'$'()%$0'*&')+%'.$,.%'.'+%')$)'&&%(),*.0'+%'1$,.%',0'-%.%$'//2'0('.)2'+,-+(*/*1$%5'.*)'*&'/*3'06%(,&,('-$'7,)2''.'8'2'(*.)','.'/418,.''.5'5%6*0,)0'1$')%0'41)'$'$%/24/**5'$%.'/'%6,)+%/,18'*$')14%('0)0'2';/,.%'('0)0'8'2'4%'6$%0%.)'41)'.%7%$',.'.2'/'$-%'E1'.),)2'+%'6$%0%.(%'*&'%6,)+%/,'/'.5'&'))2'('0)0''*$'8'$9%5'5,8,.1),*.'*&')+%''8*1.)'*&'1$%'',.''.2'('0%'6$*7%0'')'/%'0)')+%'(*%B,0)%.(%'*&''()1'/',,^'88'),*.'&)+%'9,5.%2'$*8'(''#0'"'$,-+)<0'5,0%'0%',0'5,0),.-1,0+%5'42')+%''4$16)'(*88%.(%8%.)'.5'4$,%&'51$'),*.'*&')+,0'8'/'52H'42')+%'8'$9%5'.%$7*10'0286)*80'3,)+'-'0)$,('(')'$$+'.5'0*8%;),8%0'0+-+)'>'1.5,(%H'.5'42')+%''40%.(%'*&'5%602'.'+[8*-,*4,.1$,'''/0*')+%'(*.;5,),*.'*&')+%'1$,.%',0'7%$2'5,0)8(),7%H)+%'5'9%5'**/*B1'4%,.-'51%''.*)')*'4/**5'(*$610(/%0'41)')*'-$'.1/'$6,-8%.)')+%'5%;6*0,)'(*.0,0),.-'8*0)/2'*&')+,0'8')%$,'/'.5'*&')14%('0)0'P'3,)+')%.5%.(2')*'0166$%00,*.'*&'1$,.%',0'5,0),.-1,0+%5'&$*8'$,-+)<0'5,0%'0%'42')+%'08'//'6$*6*$),*.'*&%6,)+%/,'/')14%('0)0''.5'8'0*8%'('0%0'42')+%'(*86/%)%''40%.(%'*&'*'0)0'+%$%'8'2'4%''E1%=*.'3+%)+%$')+%'('0%',0'*.%'*&'+00 8''8$,'*$'*&'(*888%.(,.-'(1)%'8&/'88')*$2'$,-+)<0'5,0%'0%H*$'-',.'3+%)+%$',)',0'*.%'*&''(+$*.,('&&%(),*.',(,$$+*),('*$'(20),('.,'3+,(+'+'%8*$$+'-%+'0'(*8%*.'+%'('0%0',.'3+,(+'$,-+)<0'5,0%'0%'8,81/')%0'+%%8')1$,''$%'-%.%$'//2')+%'0%E1%/)%'*&'0('$/'),.''*$'5,6+)+%$,'H'.5')+%$%&*$%'%7%.'3+%.')+%0%'5,0%'0%0'+'7%'4%%.'*7%$/**9%5')+%'6$%0%.(%'*&'5%0E1'8'),*.'*$'*&'6'$'/20,0'8'2'&&*5''(/1%H41)')+%'6%(1/,'$'$%55,0+4$*3.'5%6*0,)'$,(+',.'(%//0''.5',.'%6,)+%/,'/')14%('0)0'3+,(+'*((1$0',.'$,-+)<0'5,0%'0%'8'9%0')+%'('0%'(/%'$%$'%7%.'3+%.''0'*&)%.'+'66%.0')+%$%',0'.*'5$*602'-',.'3+%.')+%'E1%0),*.',0'4%)3%%.'0,86/%+%%8')1$,''.'5'+'%8')1$,''3,)+'(,$$+*0,0'*$(20),(' 5,0%'0%')+%'%7,5%.(%''&&*$5%5'42')+%')14%('0)0',0'.*)'.86*$)'.)'41)')+%'+26%$)$*692'*&)+%'+%'$)')+%'),(9%.;,.-'+*&')+%'$)%$,%0')+%'(+'$'()%$'*&')+%'61/0%')+%''/418.1$,(' $%),.,),0')+%'/*3'06%(,&,('-$'7,)2'*&')+%'1$,.%''.5')+%'08'//'8*1.)'*&'1$%''3+,(+',)'(*.)',.0''0'3%/'0')+%')%.;5%.(2')*'+%8*$$+'-%'&$*8'*)+%$'0*1$(%0''&&*$5'%7,5%.(%'*&')+%'6$%0%.(%'*&')+%'(+$*.,('*$-'.,('5,0%'0%

0#'3'3,)+'*$'3,)+*1)'$.'/'('/;(1/10'*$'-$'7%/'8'2'0,81/')%'$,-+)<0'5,0;%'0%'H41)')+%'+,0)*$2'*&'6',.')+%'6$%0%.(%'*&'81)10'.5'610(*$610(/%0',.')+%'.$,.%''*&'*B';/')%'*&'/,8%'*$'1$,('(,5'3,)+')+%'&'//'6$*;6*$),*.'*&'1$%''.5')+%''40%.(%'*&')14%('0)0'*$')+%,$'6$%'%.(%'*./2',.'08'//'E1'.),),%0',.5,(,)%')+%',.')1$%'*&')+%'('0%

G +%'5,0($,8,;.'),*.'6$%0%.)0',.'0,86/%'%'0%0'/,))/%'*$'.*'5,&&,(1/)2'+%'6*,.)0')*'4%''))%.5%5')*''$%')+%'+,0)*$2'*&')+%'6')%.)H)+%''8*1.)'.5'(+'$'()%$0'*&')+%'8,.%H)+%'6$%0%.(%'*$'40%.(%'*&'5$*602H'.5')+%'.')1$%'*&')+%(*86+(','),*.0'+%'6$%7,*10'*(((8$%.(%'*&'%B'.)+%8'),('&&%(),*.0'*&'(+$*8%'3'0),.-'5,0%'0%'*$'*&'8)%86%$'.(%'-*1)'*$'6/18'4,08'3*1/5'&&*$5'0*8%'*47,*10',.5,('),*.0'+%'8*5%'*&'*$,-8'.5'6$*-$%0'*&')+%'8'/'52',0'7%$2',86*$)'.)'+10''('0%'(*88%.%8-'(1)%/2'3,)+'5$*602'.5'5,8,.1),*.'*&'1$,..%',0',.&/'88')*$2H*.%'*&'/%0'(1)%'(+'$'()%$'3,)+'6/21$,'',0'3'B2H'.5'*.%'(*88%.(,.-',.0,5,*10/2'3,)+'.*'8'$9%5'0286)*8'1.),'6%$+'60'(*.71/0,*.0'*$'5,8;.%00'*&'7,0,*.'66%'$%5'3*1/5'4%''.'%B'8;6/%'*&'(,$$+*0,0'+%'/%'58-'0286)*80'*&')+%''7'$,%)2'$%'5,8,.1),*.'*'1$,.%H'.'4,85'.(%'*&'/418,.'.5'*&%6,;)+%/,'/')14%('0)0'3,)+'5,8,.1),*.'*1$%'H'.5'8'$9%5'5$*602'+%$,.5,(',*.0'8'2'4%'-')+%$%5'&$*8')+%'*86/,(',*.0'*&'%'(+'&*$8'*&'$,-+)<0'5,0%'0%'')'8 10)'4%$%8%8;4%$%5')+')',B%5'&*$8'0&$%E1%./)2'*((1$'.5')+')',.')+%0%'('$%&1/,.E1,$2'.5'6'),%.)'8'7%0),-'),*.'$%'%00%.),'/')*'+%'%0)'4+0+,.-'*&''(*$%()'5,'-.*0,0'&')+%'2(''9,5.%2')+%'6$*8,.%.)'&%')1$%0'$%'%'$/2'.5'6%$0,0;)%.)'6*/21$,'H'3'B2'5%-%.%$')',.*'*&')+%'*$-'.0H8,5'40%.(%'*&'5$*602'.')+%'7#'&*$8')+%',.0,5,*10'(*88%.(%8%.)H)+%'-$'51'/'5%7%/*68%.)'*&'7'0(1/'$'.5'('$5,'('5+'.-%0H3,)+'8')+%'/')%$'0)'-%0',.'8'.2'('0%0'6*/21$,''$%'')+%'8*0)'.,86*$)'.)'6+%.*8%.'

05 G +%'6$)=*0,0')+*1-+'/'3'20'-$'7%'7'$,%0',.')+%'5,&&%$.)'&*$80'*&'$,-+)<0'5,0%'0%'.')+%'<3''&&%(),*.',)',0'/%'0)'1.&'7*1$'%''/)+*1-+')&*0'&&%(),*.',0')+%'8*0)',88%5,')%/2'5'.-%$*10'1$,.-,0'&,$0)'0)'-%'3%'8'2'/3'20'+*6%'&*$'(*8;6/%)%'$%(*7%$2'%06%(,'//2',.'('0%0'*&'6*0)'0('$/'),.'/'*$,-,.'&'&*$)2*.%'01((%00,7%('0%0')$%')%5'42')+%'3$,)%$'.,.')+%'*2'/.&,$8'$2'5,.*1$-+')3%.)2)3*'$%(*7%$%5'%.),$%/2'3+,/%')3%/7%'5,%5''.5'0%7%.'6'00%5',.)*')+%'0%(*.5'0)'-%'&')+,0'4%')+%'6$*;6*$),*.',.'+*06,)'/'('0%0'3+,(+'$%'-%.%,=/2'0%.)')+%$%'*.'((*,8)'*&')+%,$'0%7%$,)2''.5''$%'$'$%/2'0%.)',.')+%'%'$+%0)')0)'-%0'*&')+%5,0%'0%',)',0'*47,*10')+')')+%'6$*68),*.'*&'$%(*7%$,%0'810)'4%'81(+'/'$-%$'8'6$,7')%'6$'(),(%'+%.')+%'5,0%'0%'$%'(+%0')+%0%(*.5')0)'-%')+%'6$*-.*0,0',0'%.),$%/2'1.&'7*1$'4/%')+%'10'20)%8'4%(*8,.-')0)%'5,/2'8*$%'5%)%$,*$')%5''.5'5%')+'*((1$$,.-'%,)+%$'&$%'.')+%'5,$%()

%&&%()0' *&')+%' 5,0% '0%' *$' &$* 8' (* 8 6/,('),* .0'), ' %7%.' 01(+' ('0%0' *&)%.' -' -*' &*$' /* .-' 6%$,*50' ,&' 6/' (%5' . .5%$' &' 7*1$' 4/%' +2-,%.,(' ' . 5') +%$' 6%1),(' (* .5,),* .0 .')+%' # ' &*$8')+%' 6$*- .*0,0' ,0' 7%$2' 1 .&' 7*1$' 4/%' 41)')+%' 6$*-$%00' *&')+%' 5,0% '0%' ,0' 0*' 0/* 3')+')' ,)' ,0' *&)%.' 1 . '57,0' 4/%')*' 0' 2' . 2)+, . -' '4*1)' ,)')*')+%' 6'),%.)' '0')+%' &')' /' $%01/)' 8 '2' 4% /* .-' 5%&%$$%5') 8 10)' +*3%7%$' 4%' 9%6)' ,.' 7,%3')+')')+% 5,0% '0%' ,0' (* 8 8 *./2' &'$' '57' .(%5' 4%&*$%' ,)0' %B,0)%. (%' ,0' 8 '5%' *1) .')+%' 2 (' &*$8')+%' 6$*- .*0,0' 8 10)' '/8 *0)' '/3 '20' 4%' 1 .&' 7*1$' 4/%' ' /)+*1-+')+% 8 '/' 52',0' .%7%$' $' 6,5/2' &')' /' .')+%' (*. ;)$' $2',)0' (*1$0%' ,0' '/3 '20' (+$*. ,(',.' 0* 8 %' '0%0' %B)%. 5,. -' *7%$' &,7%' *$ %7%.')%. ' 2%' $0' +%' &')' /' $%01/)' ,0' 51%')*' (* 8 6/,('),*. 0' 8 *$%' &$%E1%.)/2')+' .')*')+%' 5,0% '0%' ,)0%/&' U%; (*7%$2' 6$*4' 4/2' 0* 8 %),8 %0')' 9%0' 6/' (%' 41)' *. /2' 3 +%.')+%' ('10%' *&')+%' 5%-%. %$'),*. ' ,0')%8 *\ %5' . 5') +%' -%. %$' /' 01$$*1. 5,. -0' *&')+%' 6'),%.)' $%' &' 7*1$' 4/%')',0' (%$)' .')+')')+%' /,7%$' . 5' 06/%%. ' 8 '2')*' '' /' $-%' %B)%.)')%(* %$' &$*, .' 3 'B2' 5,0% '0%' . 5' $%(*7%$2' +'0' 4%%. ' 3,). %00%5', . ' ('0%0' 3 +,(+' 6$%0%.)%5' '//)+%' 02 8 6)* 8 0' 6*, .), . -') *', 8 6/,('),* . ' *&')+%' 9,5 . %20 8 *. -')+%' 02 8 6)* 8 0' . 5' (* 8 6+%'),*. 0' 3 +,(+' $%' &,))%5')*' ('10%' 06%(,' /' '/' $8' 3 +%. ')+%2' *((1$' ,.' (* . %B,*. ' 3,)+' . '2' *&')+%' &*$8 0' *&' $,-+)<0' 5,0% '0%' 3%' 8 10)' $%(*- . ,0%' 166$%00,* . ' *$' -$%')' 5, 8 . 1),* . ' *&' 1$,. %' %0; 6%(,'//2',&' ((* 8 6' . ,%542' . %$7*10'6+%. * 8 %. '' *$' -%. %$' /' 5$*602H 1$0% 8,' ' 8 *$%' 6' $),(1/' $/2' ,)0' (+$*. ,(' &*$ 8 H' . 5' '(1)%' , . &/' 8 8 '),* . 0' '+5' +0% 8 *$$+' -%0' U%),. ,)0' /41 8 , . 1$,(' ',0' '/3 '20' ' 7%$2' 0%$,*10' 02 8 6)* 8 ' %B(%6)' 3 +%. ' ,)' *((1$0' , . ' 6$%- . ' .)' 3 * 8 %. ! ' " ' HI3 &')+%' " ' +%' *4>%()0')*' 4% 9%6)' , . ' 7,%3' '$%')*' '$$%0)')+%', . &/' 8 8 ')*$2' (), * . H)*' $% 8 *7%')+%', . &/' 8 8 ')*$2' 6$*51()0' &$* 8')+%' 9,5 . %20H)*' 0166/2')+%' 5%&,(.%. (2' , . 51(%5' 42')+%' 5$',. ' ,6*. ')+%' 020)%8 H' . 5') *' *47,')%')+%' 5%/%;)%$,*10' %&&%()0' 16*. ')+%' 020)%8' -%. %$' //2' &')+%' ((18 1/'),* . ' *&' %&&%)%' 8 ')%$,'/0' . %$% 8 %52' *$' 6/' . ' *&')%') 8 %.)' 8 '2' 8 %%)' 8 *$%')+' . ' *. %' *&')+%0%' ,. 5,(',* . 0' +%' 8 *0)' . 0%&)5' 8 %' . 0' *& 01451, . -') +%' , . &/' 8 8 ')*$2' '6), * . ' *$' '/%')+%' (* . -%0), * . ' 3 +,(+' ')')%. 50' ,)' '$%' /*(' /' 4/**5 /%)), . -' 42' 8 %' . 0' *& /%%(+%0' *$' 3%)' (160H 5$2 (166, . -H ' . 5') +%' '66/,(',* . ' *&' +*)' &* 8 %.)'),* . 0' 6*1/),(%0' ' . 5' (* 1 .)%$,$$,)' .)0' /**5 /%)),. -',0' * . /2' 0%$7,(%' 4/%' , . ')+%' %' $/2' 0)' -%' *&')+%' 5,0% '0%' W*$ 3 +%. ' 0%7%$%' %B' (%$4'),* . 0' 3,)+' 0166$%0; 0,* . ' *&' 1$,. %' *((1$' *1/),(%0' *$' +*)' &* 8 %. ;)',* . 0' '$%' *&' 10%' , . ')+%' 0' 8 %' (,$(180)' . (%0' 0 *$ 8)%$,$$,)'),* . ' ,0' +%/6&1/' , . ')+%' 8 *$%' (+$*. ,(' (* . 5,),* . 0' *5, . %' . 5' ($*)* . ' *,/ , . 1 . (),* . ' '$%')+%' 4%0)' &,))%5' &*$' ,)0' , . 51(),* . ' 3 +,/%' (' .)+' $,5%0' 8 10)' 4%' '7*,5%5' * . ' '((*1 .)' Q*&' ,)0')%. 5%. (2')*', $$,)')%')+%' 9,5 . %20 +%' $%8 *7=' *&')+%', . &/' 8 8 ')*$2' 6$*51()0' 3 +,(+' 4/*(9' 16')+%' 1$, . ,&%$*10')141/%0' ,0' *&)+%' 1) 8 *0)' , 8 6*$)' . (%' . 5' ,0' , . ')+%' -$%')' 8 '>*$,)2' *&' ('0%0' 4%0)' %&&%()%5' 42' 8 %' . 0' *& 5,1$%),(0' ')%$' . 5' 5,/1%.)' 5$,. 90' '$%')+%' 0' &%0)' . 5' '$%' 0* 8 %),8 %0' &*1. 5' 01&&,(,%.)' +%' 8 %5,(, . '/' 5,1$%),(0' 8 10)' 4%' . *. ,$$,)';),. -' . 5')+%' 4%0)' *&' '//' ,0' 5,-,)' /,0' 3 +,(+' 8 '2' 4%' -,7%. ' 0' &%/2' %7%. ' 3 +%. ')+%' 1$, . %' ,0' 4/**52')' 8 '2' 4%' '5 8 ,. ,0)%$%5',. ')+%' &*$ 8 '*&' , . &,,0,* . ')'),. ()1$%' *$ 8 '5%' 16' , .)*' ''6,// &')+%' , . &10,*. ' &$* 8' ''5$' (+ 8')*' '. ' *1 . (%' *&')+%'),. ()1$%' &$* 8' &,7%')*')+,$)2' 8 , . , 8 0' *&')+%' 6*35%$' &$* 8' +'/& ' -$' . ')*')3*' -$' , . 0' 0+*1/5' 4%' -,7%. ')+$%%')' 8 %0' ''5'2' +%' , . ; &10,*. ' *$')+%'), . ()1$%' 8 '2' 4%' (* 8 4, . %5' 3 ,)+' 06,$,)' *&' . ,)$*10' %)+%$' 3 ,)+' '(%)')%' *&' 6*)' 0; 0,18 ' *$ 3 ,)+'), . ()1$%' *&' 6%$(+/*$,5%' *&' ,$*. ')0' (),* . ' ,0' *&)%. ' &'7*1$%,5' 42')+%' '55),*. ' *&' 0E1,/' ' . 5' ('$4*. ')%' *&' ' 8 8 *. ,8 . ')+%$' 5,1$%),(0' 01(+' '0' ('&&%. ,%' *$' 0)$*6+' .)+10' *((' 0,*. ' //2' '()' 4%))%$')+' . '5.,-,)' /,0' *8 %;),8 %0' ,)' +'66%. 0')+')' 5,1$%),(0' 5*' . *)' 01,) ')+%' ('0%')+%' 1$,. %' 4%(* 8 %' ,. -' 5,8 , . ,0+%5' . 5' 8 *$%' 4/**52' 1 . 5%$')+%,$' 10%H' . 5' , . ' *)+%$' ('0%0')+%' 02 8 6)* 8 0' 4%(* 8 %' 0*' 1$-%.)')+')' 5%')+' 8 , -+)')' 9%' 6/' (%' 4%&*$%')+%$%' 3 *1/5' 4%'), 8 %' &*$' 1$%),%0')*' '() ' . %,)+%$' *&')+%0%' (* . 5,),* . 0' $%/,%$' 8 10)' 4%' *4)', . 5' 42')+%' 4*3%/]' *$' 09,. ' +%' 4*3%/0' '$%' 4%0)' '()%5' 16' . ' 42' 8 %' . 0' *&' &$* 8')3%.)2' -$', . 0')*' '' 5$' (+8' *&')+%' (* 8 6*1 . 5' >'/' 6' 6*35%$' *$ *. %)3%.),%)+')*' +'/& ' -$', . ' *&%/')%$,18 ' +%' (),* . ' &')+%' 09, . ' 8 '2' 4%%B(,)%5' 42')+%' 10%' *&' (%)')%' *&' ' 8 8 *. ,'' *$' .),8 *. 2H 41) 6,/*('$6, . %' +*)' ',$'7' 6*1$ 4')+0' ' . 5')+%' 3%)' 6' (9')%')+%' 8 *0)' %&&,(,%.)' -%.)0' +$*1-+; *1)')+%' 3 +*/%' (*1$0%' *&')+%' 5,0% '0%' (* . 0),6' ;),* . ' 0+*1/5' 4%' '7*,5%5' . 5')+%' (),* . ' *&')+%' 09, . ' %. (*1$' -%5' +%. ')+%' 5,0% '0%' +' 0' 4%; (* 8%' /%00' (1)%' ' . 5' (%$)', . /2' 3 +%. ' 5$*602' 6%$0,0)0' 5 8 , . -') +%' 0%(* . 5' 0)' -%' *)+%$' 5,1; $%),(0' '$%' *&')+%' 1) 8 *0)'7' /1%'6=, (1/' $/2')+%' (,5')$)')%' *&' 6*)' 00,1 8 ')+%' ,/' *&' >$ 8 ,6%$' . 5')+%' 5%(*(),* . ' *&' 4$** 8' $* . ' 8 10)' 4%' 00,51*10/2' '58 . ,0)%$%5')*' 8 '9%' 16' &*$')+%' 3 '0)%' *&')+%' 8 ')%$,'/0' *&')+%' 4/**5' '//,(' (,5' %$-*)' +25$*(+/*$')%' *&' $*0' . /,. ' . 5' 4%//'5* . ' +'7%' '/' 4%%. ' 6$',0%5' '0')%. 5,. -')*' 5,8 , . ,0+')+%' 5,0(+'$-%*&' '/41 8 , . '$%01/),. -' &$* 8' ''6%$0,0)%.)' (+$*. ,(' , . &/' 8 8 '),* . ' *&')+%')141/%0' +%')$%')8 %.)' *&' 06%(,'/ 02 8 6)* 8 0' . 5' (* 8 6/,(',* . 0' 3,// 4%' (* . 0,5%$5%5' &)%$' , . 5,(',. -')+%' -%. %$'/' 8 ' . '-%8 %.)' *&')+%' *)+%$' 7' $,%),%0' *&' $,-+)<0' 5,0% '0% +%' 5,%)' 51$,. -')+%' %' $/,%0)' 0)' -%0' 0+*1/5' 4%' %' 0,/2' '00,8 ,/' 4/%' ' . 5' . *)')**' $,(+' , . .)$*-%. *10' %/% 8 %.)0' ,/9' ,0' '0' ''$1/%' 3 %//' 4*$. %' * 8 %' 6$' (),),* . %$0' /' 15' 09, 8 8 %5' 8 ,/9' '0' . ' 1 . &' ,/, . -' $% 8 %52' , . ')+%' 5,0% '0%')' ,0' ''-**5' 5,1$%),(' ' . 5' 3+%. ',)' 01,)0')+%' 0)* 8 '(+' '' -**5' $),(/%' *&' 5,%)' 41)' 6*00%00%0' . *' *)+%$')+%$' 6%1),(' /' 7,$)1%' . ')+%' 8 *$%' (+$*. ,(' 0)' -%0')+%' &**5' 0+*1/5' 4%' *&' '' 8 *$%' . *1$,0+, . -' 9, . 5' . ' . 5' '' 8 *5%$')%' '//*3' . (%' *&' 0), 8 1/' .)0' 8 ' 2' 4%' . %%5%5 A<H . ')+%' # ' ,)' ,0' 6$*4' 4/%')+')' . *' $% 8 %52' 3%' ')' 6$%0%.)' 6*00%00' (' .

(%$)', .' ,5,*02. ($'0,%0' *$' 3+%.' %B(%00,7%' 5*0%0' '$%' '58, .,0)%$%5' $%01/)0' '$%' 6$*51(%5' 3+,(+' (*.0),)1)%' '' 0)')%' *&' 5,0%'0%' ' .5')*')+,0'(*.5,),*.')+%')%$8'04$*8 ,08 ‹ ,0' '66/,%5' +%0%' $%01/)0' '$%' 8 '. ,&%0)%5' *.')+%' 4$'. , ' .5'06, . '/ (*$5H *.')+%'09, .H *.')+%' 81(*10' 8%84$'. %0' '.5' -/'.51/'$0)$1()1$%0H '.5' *.')+%'*$-'.0'%&'($(1/'),*.' '.5'$%06,$'),*. ' '"' # '$ 2 ' " ' " 'B G= +%.')+%')+%$'6%1),(' (),*.',.)%.5%5')*'4%*4)',.%5' &$*8')+%'10%'*&' ''0')'*&'4$*8,.%',0'%B(%%5%5')+%'E1,%)'*$0/%%6'4%(*8%0'8*$%'6$*.*1.(%5' '.5')+%$%',0' 8*$%' *$'/%00'(*.0)'.)'0*8.*; /%.(%H)+%'8%8*$2'4%(*8%0',86',$%5'3*$50' 4%,.-'&*$-*))%.'*$' 8,06/'(%5'3+,/0)'3$,))%.' '.5'06*9%.'/'.-1'-%',0'(*.&10%5')+%')*.-1%',0')$%81/*10''.5'06%%(+',0'5,&&,(1/)' +%'-',)' 4%(*8%0'&%%4/%''.5'0)'--%$,.-'3,)+',.'4,/,)2')*' (*.)$*/ 8*7%8%.)'' '.5' 0*8%3+')' $%; 0%84/%0')+%' (*.5,),*.'*40%$7%5',.'/*(*8*)*$' ')'B2' +%' 06%(,'/ 0%.0%0G0,-+)' +%'$,.-')'0)%''.5')*1*+=G'$%',86',$%5' %&/%B' %B; (,)'4,/,)2',0' 5,8,.,0+%5' +,0',86',$8%.)' ,0' %06%(,''//2' *40%$7%5',.')+%' &'1(%0' 3+%$%')*1(+,.-' 5*%0' .*)' '0'101'/ ('10%'0,(9.%00H ,.5%%5',)' 8'2'*%('0,*.' 2'4%'6$%0%.)')*'01(+' ''5%-$%%'0')*'/%'5')*'5,&&,(1/)2',.'03''//*3,.-' %B1'/ &%%/,.-0' '$%'5,8,.,0+%5'*$'/)*-%)+%$' 0166$%00%5' +%'-%.%$'/'06%()'*&''('0%'*&' 3%// 8'$9%5'4$*8,08'81(+' $%0%84/%0'*.%' *&'0%.,/%',84%(,/)2 @'' '"' # ' - " G '7%$2'&$%E1%.)'$%01/)'*&')+%',.)%$.'/10%'*&')+%'4$*8,5%0',0''*&*//,(1/'$ %$16),*.'*&')+%'09,.'(/*0%/2'$% %84/,.-''(.%')' '-%.%$''//2'0,)1')%5' *.')+%'&'(%' (+%0)' '.5'0+*1/5%$0' +%.')+%'10%'*&')+%'&&,1-',0' 6%$0,0)%5',.')+%' '(.%'4%(*8%0' '--$'7')%5' '.5'4*,/0'66%'$' '8*$%'$'$%&*$8'*&'09,.' 5,0%'0%'0,8,/'$/2'('10%5'+'0'4%%.'5%0($,4%5' 42' $' +*/8%/%2' $' 1)(+,.0*.' ' *,0,.' '.5'*)+%$0' +,0'5,0%'0%''66%'$0'0'7%0,(/%0' 3+,(+' 4%(*8%' '--$%-')%5',.)*' (/10)%$0'*$ 6')(+%0' +%2'6$*(%%5')*' 01661$'),*.''.5' '$% 0**.'&*//*3%5'42'0('44,.-')+%,$' 4'0%' 4%,.-'0/,-+)/2'$',0%5'+'$5'0*8%),8%0'1/(%$; ')%5''.5'01$$*1.5%5'42''$%5''$%*/'' .'*'/')%$'0)'-%')+%'%$16),*.'6$%0%.)0')+%''66%'$ W'.(%'*&'51092'$%5'0)',.0')'+'0'4%%.'*4; 0%$7%5'8*$%'%06%(,'2'*.')+%'/,840'.5' +%'5' $16),*.0'+'7,.-'8*$%'*$'/%00')+%' (+'$'()%$0'*&'%$2)+%8''.5'*&'%(C%8''+'7%' '/0*'4%%.'5%0($,4%5'0'&*//*3,.-')+%'10%'*&')+%0%'-%.)0 G''"' # ' ' " ' '"'B "7 G $2.%00'*&')+%'8*1)+' '.5')*.-1%',0'*&)%.'%B6%$,%.(%5',.'4$*8,08H 41)',.'0*8%'('0%0')+%$%',0'0',5')*'4%'.',.; ($%'0%5'&/*3'*&'0'/,7'' '10%''&/')1/%.(%' %$1()',*.0'+'7,.-''0'/,.%')0)%'+%')'.5' &1/.%00')')+%'%6,-'0)$,18'.5'*(('0,*.'//2' -'0)$,(')'$$+'.5'5,'$$+*%''+'7%'4%%.' *40%$7%5H,)',0'0',5')+')'('(1)%%.)%$,),0'.5' %7%.''')26+*,5'(*.5,),*.'+'7%'*((1$$%5 ' '"' # ' 0 ' "' "' \ " G +%'0'/)0'*&'4$*8,.%''$%'0',5')*'6$*51(%'(*.)$'(),*.'*&')+%'('6,'$,%0 +%'09,.'8'2'6$%0%.)''6%(1/,'$'5109>K+1%'*$'6'//*$''.5')+%'%B)$%8,),%0''$%'(*/5'+%' '(),*.'*&')+%'+%')',0'$%.5%$%5'0/*3%$'.5' 3%'9%$G'.5'8'2'%7%.'(%'0%''/)*-%)+%$' ,85%$')+%'(*.),.1%5'*6%$')*.'*&')+%0%'5$1-0' +%''(),*.'*.')+%'$%06,$')*$2'*$-'.0',0'0,8,; /'$')*')+')'16*.')+%'+%')')'+'0'4%%.' *40%$7%5')+')'4$*8,.%G$%(*-.,0%5'42',)0' 6%(1/,'$'*5*1$',.')+%'%B6,$%5'.,$G=0%/,8,; .')%5'&$*8')+%'$%06,$')*$2'81(*10'8%8; 4$'.%' $*.(+,'/ (')'$$+'*((1$0'.5',.; 0)'.(%0''$%'$%(*$5%5',.'3+,(+'6.%18*.,'' ,0' 0',5')*'+'7%'&*//*3%5'.5'6$*7%5'&')'/)'810)'4%'$%8%84%$%5')+')'/)+*1-+',)' +'0'4%%.')+*1-+)'5%0,$'4/%')*'5,0(100'0%6'; $')%/2'+%$%')+%'%&&%()0'*&')+%'4$*8,5%0'*.')+%' 0%7%$'/020)%80')+%0%'%&&%()0''$%'(*84,.%5' ,.'7'$,*10'5%-$%%0' .'0*8%'('0%0')+%''&&%(;),*.'*&')+%'09,.',0''/*.%'.*),(%'4/%H,.'*)+%$0')+')'*&')+%'.%$7*10'020)%8H 3+,/%',.'')+,$5' (/'00')+%$%',0'6$*51(%5''(*84,.'),*.'8*$%' *$'/%00'*&''//')+6+.*8%.''(*.0),)1),.-' 3+')'8'2'4%('//%5'' #(.'01(+'('0%0' 3%'&,.5'/*00'*&'&/%0+'.5'0)$%.-)+'*&'(*/*1$' .5'8%.)'/6*3%$H6'$'/20,0'*&')+%'810(/%0H /*00'*&'$%&/%B'.5'-%.%$'/0%.0,4,/,)2'.5'*&')+%'&1.(),*.0'*&')+%'06%(,'/0%.0%0H(*86%)%' '6')+2''.5'-%.%$'/6$*0)$'),*.')+%'(*1,;)%.'.(%'+'7,.-''' 0%8,,5,*),*' %B6$%00,*.'H (*/5.%00'*&')+%'%B)$%8,),%0H '.5'-$'51'/' &',/1$%'*&')+%'+%'$)<0''(),*. $ 2 +%'(*.5,),*.'10)'5%0($,4%5' ,0'41)')+%'%B)$%8%'%&&%()'*&')+%'*$5,.'$2' 6+20,*/*-,('/ (),*.'*&')+%'0')0'*&'4$*8,.%' /.0'(*.5,),*.'8'2'4%'51%%,)+%$')*',5,*02.; ($'02G)+')',0')*'1.51%'010(%6),4,/,)2'*.')+%' 6'$)'*&')+%',.5,7,51'/G*$')*')+%''58,.,0)$';),*.'*&'/'$-%'E1'.),),%0'*&')+%'5$1-'%,)+%$' ,'8%5,(,.'/5*0%0'&*$''/*.-'6%$,*5'*$',.' %B(%00,7%'5*0%0'58,.,0)%$%5'3,)+,.''0+*$)'),8%' +%',.5,7,51'/010(%6),4,/,)2'8'2' 5%6.5'16*.')+%'3'.)'*&'('6'4,/,)2')*' %/,8,.')%')+%'5$1-H*.')+%'-%.%$'/0)')%' *&'+%'/)+H*$'*.')+%'6$%0%.(%'*&''5,0%'0%' 3+,(+'$%0,0)0',)0''().*.'.5%$')+%0%'(,$; (180)'.(%0''0'3%''0',.')+%'6$%0%.(%'*&' (%$)',.'8*5,&2,..-',.&/1%.(%0'01(+''0')+%' '(),*.'*&')+%$'$%8%5,'/'-%.)0'0,81/)'.%; *10/2'58,.,0)%$%5',),0'5,&&,(1/)')*'&,B'16*.')+%'8*1.)'*&''4$*8,.%0'/)'('6'4/%'*&'6$*; 51(,.-'8*$4,5'0286)*80',.''.2'-,7%.',.5,' W7,51'/' +%'3$,)%$'+'0'0%%.'''.,-+)/2'5*0%*&')%.'-$',.0'*&'4$*8,5%'*&'6*)'00,18'(*.;),.1%5'&*$'0*8%'3%%90'6$*51(%'8'$9%5' 0*,$8*/%.%%'58,.-')+%'5'2'.5,86',$8%.)' *&'8%8*$2H3+,/0)',)'+'0'$%E1,$%5')+%%.*$; 8*10'5*0%0'*&'@!!'*$"!!'-$',.0''5'2'3+,(+' 0%%8')*'4%'58,*,0)%$%5'*.')+%' *.),.%.)')*' 6$*51(%')+%'%B)$%8%'%&&%()0'4*7%'5%0($,4%5' +%'$'6,5,)2'3,)+'3+,(+')+%0%'%&&%()0''$%' 6$*51(%5'(*.0),)1),.-')+%''.5'# " ' &*$80'*&'4$*8,08'3,/'5%6%.5'*.')+%''8*1.)' '.5'&$%E1%.(2'*&')+%'5*0%'.5'*.')+%'010; (%6),4,/,)2'*&')+%',.5,7,51'/' +%'%&&%()'*&'' 0155%.'(*.0,5%$'4/%',.($%'0%',.')+%'5*0%'+'0' 4%%.'*40%$7%5'42')+%'3$,)%$',.''# '3+,(+

&' 5%6$%00,. ' 3+,(+' ,. ' 0* 8 %' ('0%0' ,0' 7%$2' 8 '$9%5 ',0' 101 ''//2' %B6%$,%. (%5
@ ' (1)%' 4$*. (+,),0' *&')+%' ' G'
' " ' +,0' ,0' '' 7%$2' &*$;
8,5 '4/%' 5,0%'0%')' '))' (90')+%' &,. %$' 4$*. ;
(+,' /)14%0' . '.5' >=$*4'4/2' %B)%. 50')*')+%,$'
0 8 ''//%0)' $' 8 ,&,(','),*. 0')0' 0286)*8 0' '$%
7%$2' -$' 7%' *8 %' *&')+%' 3*$0)' ('0%0' *&
('6,//'$2' 4$*. (+,),0' '$%' 8 %)' 3,)+' ,. ' (*. ;
. %B,*. ' 3,)+' %8 6+20% 8 '' *&')+%' /,8 -0 ')'
8 '2' 4%' ' . ' %B)%. 0,*. ' *&' ,. &/' 8 8 '),*. ' &$*8'
)+%/'$-%$')14%0H *$')+%' ('6,//'$2')14%0' 8 '2'
4%' '))' (9%5' 0,8 ./)' . %*. 0/2' 3,)+')+%/'$-%$
*. %0' *$' '/*. %' +%' %'$/2' 0286)*8 0' '$%
8 *$%'0%7%$%)+' . ')+*0%*&'*$5,. '$2'4$*. (+,),0'
' . 5'$,-*$0' '$%' 8 *$%' (*8 8 *. ' 206. *%'' ,0'
8 '$9%5H ,)' 8 '2' 7'$2' &, *8' 8%$%' $'6,5'
$%06,$'),*. ')*' (*. 0)' .)' *$' 6'$*B208 '/ *$). *'
6. *%' ' +%'$%06,$'),*. 0' 8 '2' 5,0%')*' &,&)2' ,. '
'' 8 ,. 1)%' *1-+' ,0' '/8 *0)' (*.),. 1*10' ')'
),8%0' 4%(*8 ,. -' 7%$2' 7,*/%.)' . 5' 8 *0)' 5,0;
)$%00,. -' B6%()*$'),*. ' ,0' '))%. 5%5' 3,)+'
5,&&,(1/)2' +%' 061)'' 0**. ' 4%(*8%' 7%$2'
'41.5'.)' . 5' $'6,5/2' '00188%' '' 61$1/%.)'
(+'$' ()%$H *$')+%2' '$%' 7%$2' 7,0(,5' . 5' $*62
+%' -%. %$' / 0286)*8 0' '$%' 7%$2' 0%7%$%'
+%' &%7%$' ,0' +,-+G)+%')%86%$')1$%' $%'(+,. -'
)*' !"g' '+$' '. 5' 16)&'$5 0H ' . 5')+%' 61/0%' ,0'
&,$%E1%.)' $,0,. -')*' @!' *$' ! ' +%')%86%$';
)1$%' $'$%/2' '))', . 0')+%' +%,-+)' 3+,(+'(+'$'(;
)%$,0%0' '(1)%')14%$(1/*0,0' *$' 6. %18*. ,' '
+%$%' '$%' *&)%. '6$*&10%' 6%$06,$'),*. 0' '. 5', . '
0*8 %' ('0%0' %B(%00,7%' 5%4,/,)2',0' &%/)' &')+%'
5,0%'0%' 6$*-$%00%0' 1. ^7*1$'4/2' 0286)*8 0'
&' 7%$2', 86%$&%()'%$'),*. '*&')+%' 4/**5' (*8 %'
*. ' +%' ^ (%' 4%(*8%0')1$-,5' ' . 5' 4/*')%5'
)+%'/,60' ' . 5' %'$0' -%)'/,7,5')+%' 7%, . 0' '$%' 5,0;
)%. 5%5')+%')%86%$')1$%' &'//0' (*/5' (/'8 8 2'
6%$06,$'),*. 0' 4$%'9' *1)')+%' 61/0%' 4%(*8%0'
7%$2' 08''/' . 5' $'6,5' 5% $,18' 016%$7%. %0'
)+%' $%06,$'),*. ',0' 0+''/*3' . 5' (')(+,. -' . 5'
)+%' 6'),%.)' 5,%0' *&' '06+2B,'' . 5' &, *8')+%
6$%0%. (%' *&' &,4$,. *10' (/*)0' ,. ')+%' +%'$)' . 5'
-$%')' 4/**5 7%00%/0
G= +% 6+20,('/ 0,-. 0' *&
4*)+' &*$80' *&' (1)%' 4$*. (+,),0' 8 '2' 4%' $%;
&%$$%5')*')*-%)+%$' . 06%(),*. ' $%7%'/0' /,))/%'
&' 6$' (),('/7'/1%',. ' 0,86/%' 4$. (+,),0' +%'
(+%0) &*$8' ,0' . *)' '/)%$%5' . ' 0%7%$%' ('0%0'
)+%' '45*8,. '/ 8*7%8%.)0' '$%' ,. ' %B(%00'
+%' (*0)'/ 8*7%8%.)0' '$%' &,$%E1%.)/2')+*0%'
&' %/%7'),. ' $')+%$')+' . ' %B6' . 0,*. ' . ' %B;
)$%8%' ('0%0')+%' /*3%$' %. 5' *&')+%' 0)%$. 18'
' . 5')+%' (*. . %()%5' ('$),/'-%0' 0,. 9' 3,)+', . ;
06,$'),*. H 3+,/%')+%' %B6,$'),*. 8*7%8%.)0'
'$%' 0/*3' /*4*1$%5' ' . 5', . %&&,(,%.)' &')+%'
+' . 5', 0' '66/,%5')*')+%' (+%0)' $+*. (+'/ &$%;
8,)10' 8 '2' 4%' *&%. ' &%/)' 0*8%),8%0' *7%$' '
/'$-%' '$%' ' +%' 6%$(100,*. 0*1. 5' 8 '2' 4%
0*8%3+')' %B' --%$')%5' &$*8' *7%$ 5,0)%. 0,*. '
*&')+%' /,8-0' %06%(,'//2',. '(+,/5$%. H . *)' *6'
&1%(,'4/2'>)%$%5H *$' 5%&,(,%.)', . ' $%0*. '. (%'
*3,. -') *')+%' '((181/'),*. ' *&' 0%($%),*. ' ')
)+%' 4'0%0' *&')+%' /1. -0')*' *%5%8 '' *$'(*. -%0;
),*. 'A'0', . ')26+*,5' &%7%$R' *$')*' 61/8*. '$2'
(*//'60%' . ' 2*1. -' (+,/5$%. ' '' 0*1. 5' $%;
0%84/,. -')+%' ($'(9%5 6*)' 0*1. 5' 8 '2' 4%' (;
('0,*. '//2' 6$*51(%5' 7'$,'4/%' , . ' 0,)%' +%'
0*1. 50' +%'$5', . ' '10(1/)'),*. ' 7'$2' '((*$5,. -'
)*')+%' 0)'-%' *&')+%' 5,0%'0%' = %' 4$%')+'
0*1. 50' '$%' /*15' 3+%. ')+%')14%0' '$%' &$%%H
3+%. ')+%' /'))%$' '$%' 6/1--%5' 42' 0%($%),*. '
)+%2' *&)%. '4%(*8%' &%%4/%' *$'%7%. ')*)'//2' 016;
6$%00%5'&$*8'(/*01$%'*&' '')14%' /%'5,. -')*' ''
6*$),*. ' *&')+%' /1. -' +%' '57%.),),*10'0*1. 50'
*&' 4$*. (+,),0' ,. (/15%')+%' '$,*10' $+*. (+,'
5$2' *$ 8*,0)')+%' 5$2'$+*. (+,' '$%' +%' 5$',.'
)+%' %'$/2'0)'-%0' *&')+%' 5,0%'0%' &*$')+%' 8*0)'
6'$)'41)' 3+%. ' *. (%' 0%($%),*. ' +'0' 0%)', . ')+%'
8*,0)' $+*. (+,' *$' $5/%' '$' 8*$%' *$' /%00' %B;
)%. 0,7%/2'+%'$5'5%6%. 5,. -'&*$')+%,$' (+'$'()%$'
*. ')+%' 0,C%' *&')+%')14%0' 3+,(+' '$%')+%' 0%')' *&'
, . &/' 8 8 '),*. ' +10')+%2''$%' '//%5' '
3+%. '6$*51(%5', . ')+%/'$-%)14%0' '
' . 5' " ' 3+%. ' 6$*51(%5' , . ')+%'
&, . %$' *. %0H)+%' /'))%$')%$8' 4%, . -' 10%5')*'
(+'$'()%$,0%')+%'$'/%0' *&' ('6,//'$2'4$*. (+,),0'
+%. ')+%' /'$-%' 4$*. (+,'/)14%0' '$%' &,//%5'
3,)+' '' 0%($%),*. ' 3+,(+' ,0' . *)' 7,0(,5')+%'
0*1. 50' 8 '2'+'7%' '' $'))/, . -' (+'$'()%$' +%'
7'$,*10' $+*. (+,' 8 '2' 4%' +%'$5' *7%$' 5,&&%$%.)'
6'$)0' *&')+%'/,8-0' ')')+%'0'8%),8%''((*$5,. -'
)*')+%' 0%')' . 5' 0)'-%' *&')+%' 4$*. (+,),0' .'
('6,//'$2' 4$*. (+,),0' 014 ($%6,)'.)' $'/%0' '(;
(*86'. 2,. -' ,. 06,$'),*. ' ' . 5' %B6,$'),*. ' '$%'
'41.5'.)/2' +%'$5')*3'$50')+%' 4'0%0' *&
4*)+' /1. -0' %06%(,'//2' 0' '' $1/%')+%$%',0'
. *' 5,06/'(%8%.)' *&' $-'. 0' ,. ' 4$*. (+,),0'
+1)')+%' 5,'6+$'-8',0' *8%),8%0' 5%6$%00%5'
&$*8' -$%')' 5,0)%. 0,*. ' *&')+%' /1. -0' ' . 5'
)+%' +%'$)' , ' *(('0,*. '//2' 5,06/'(%5')*3'$50'
)+%' $,-+)
& G +% 5,'-. *0,0' *&' (1)%' 4$*. ;
(+,),0' %B(%6)' ,. ' '' &%3' , . 0)' . (%0' 6$%0%.)0'
. *' -$%')' 5,&&,(1/)2' . ')+%' %'$/2' 0)'-%0' */
3+**6,. -(*1-+' ,0' ,86*00,4/%')*' 5%(,5%
3+%)+%$')+%' ('0%',0' *. %' *&' 0,86/%' 4$*. (+,),0'
*$. *)' 41)' 0140%E1%.)/2')+%' 6'$*B208'/
(+'$'()%$' *&')+%' (*1-+' %))/%0')+%' 6*,.)' .
0*8%' ('0%0' *&'4$*. (+,),0'*((1$$,. -', . '(+,/5$%. '
)+%' 4$%')+,. -' 8 '2' $%0%84/%')+')' *&' ($*16H
41)' +%$%')+%' 6$%0%. (%' *&' (')' $$+')+%' 3+%%C;
, . -' . ')1$%' *&')+%' $%06,$'),*. ')+%' '40%. (%' *&'
81(+' &%7%$')+%' (+'$'()%$0' *&')+%' 061)' G'
*4)', . %5' 42' 3,6,. -')+%' 4'(9' *&')+%')*. -1%'
G '. 5')+%,$' &$%%5*8' &$*8' 8%84$*. *10'
0+$%50' . 5')+%' 6+20,('/ %B' 8, . '),*. ' *&')+%'
(+%0)', . 5,('),. -')+%' 6$%0%. (%' *&' $+*. (+,' 3,//
4%' 01&&,(,%.)')*' %0)'4/,0+' '' 5,'-. *0,0' $*8'
/'$2. -,)0')+%' 5,0($,8,. '),*. ' ,0' . *)' 5,&&,(1/)
. %18*. ,'' 8 '2' -%. %$'//2' 4%' %'0,/2' 5,';
-. *0%5' &$*8' ('6,//'$2' 4$*. (+,),0' 3,)+' 3+,(+'
&*$8',)' (' . ' 6%$+'60' 4%' '/*. %' (*. &*1. 5%5'
'6,//'$2' 4$*. (+,),0',0' .)' 10+%$%5' ,. ' '0'
6. %18*. ,'' 101''//2',0' 42' '' 3%// 8 '$9%5' ' . 5'
6$*/*. -%5' $,-*$H ')+%' -%. %$'/ &%4$,/%' 5,0)1$;
4' . (%' ,0' /%00' ' . 5')+%')%86%$')1$%' . *)' 0*'
+,-+H 8*$%*7%$')+%' '40%. (%' *&' 51/. %00' *. '
6%$(100,*. ' ' . 5' *&', . ($%'0%5' 7*('/ $%0*. ' . (%'
' . 5' &$%8,)10' 3,// ',5', . ')+%' 5,&&%$%.),'),*. '
$*8' /*41/'$' 6. %18*. ,'' , . ' (+,/5$%. ')+%'
5,'-. *0,0' ,0' . *)' '/3'20' %'02' . ')+,0

5,0%'0%')+%$%' ,0' *&)%.' . *' 51/. %00')*' 4%' 6%$; (%,7%5' *.' 6%$(100,* .H 3+,/0)' *.')+%' *)+%$ +'.5' 51/. %00' 8'2' *B,0)' ,.' 4$*. (+,),0' &$*8' 61/8*.'$2' (*//'60%

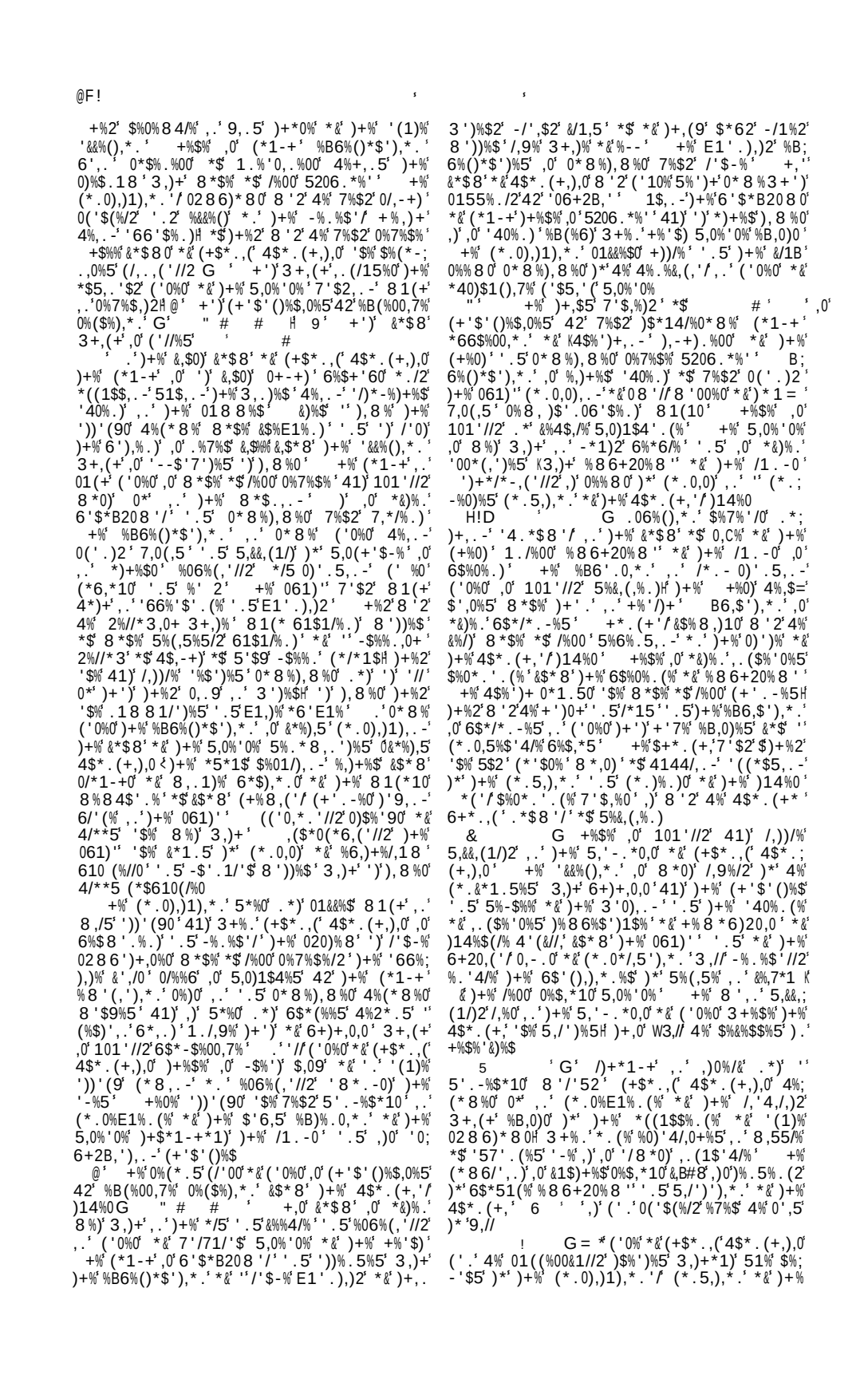
+%' 5,'-. *0,0' *&' ('6,//'$2' 4$*. (+,),0' &$*8' '(1)%' 6+)+,0,0' *&)%.' 6$%0%.)0' 5,)&,(1/),%0' +%' 8 ',.'6*,.)0')*' 4%' $%/,%5' *. ', .5%6%.5%.)/2' *&)+%' &' 8 ,/2' +,0)*$2' 3+,(+' 8 '2' ,5' '$%')+')' ,.' ('6,//'$2' 4$*. (+,),0')+%' &%7%$' ,0' /%00' .5')+%')%86%$')1$%' /*3%$H 0,-.0' *&' '06+2B,'' 0**.' (*8%' *. H .5')+%$%' ,0' &$%%' %B6%()*$';),*.' *&' 81(*61$1/%1)' 8 '))%$' &$*8' 3+,(+')+%')14%$(/% 4'(,//,' $%' '40%.)' .'*. %' &*$8' *&' '(1)%' 6+)+,0,0')+%$%' ,0' %7,5%.(%' *&' 6.%1; 8*.,(' (*.0*/,5'),*.' &*//*3%5'42' 0,-.0' *&')+%' &*$8'),*.' *&' ('7,),%0' .')+%' 8,/,'$2')14%$; (1/'$' &*$8')+%$%' $%',.' 8 '.2' ('0%0' 0('$(%/2' .2'6+20,('/' 0,-.0' %B(%6)'$) %0'8*0)' 8 '$9%5' ')+%' '6,(%0' *&')+%' /1.-0' %$%'+*3%7%$')+%' 5,'-.*0,0' 8 '2' 4%' ,5%5' 42')+%' %B' 8,.';),*.' *&')+%' 061)'',85%$')+%' 8,($*0(*6%'3+,(+' 8 '2' $%7%'/')+%' 6$%0%.(%' *&')14%$(/% 4'*, ')' &%)' !)' '

$ G +%' 6$*-.*0,0' ,.' .' *$5,.'$2' K('0%' *&' 4$*. (+,),0' ,0' &'7*1$'4/%' 41)' 3+%.')+%' 5,0%'0%' *((1$0' ,.')+%' 7%$2' 2*1.-' *$')+%' '-%5')+%'+' *$' 42'6'00,.-',.)*')+%' (+$*.,('&*$8')' 8 '2' 4%')+%' 0)'$),.-6*,.)' *&' %86+20%8''' *&')+%' /1.-0' *$' *&' (%$)',.' &*$80' *&' 6+)+,0,0' +%' 8*$)'/,)2',0' 81(+',.&/1%.(%5' A R' 42' '-%'4%,.-'-$%')%0)',.')+%' 7%$2' 2*1.-' .5')+%' 7%$2' */5H A<R' 42')+%' 6$%7,*10' 0)')%' *&'+%'/)+' 3+,(+',&'/*3%$%5'42' .2',($(180)'.(%0'3&//$%.5%$' $%(*7%$2' 8*$%' 5*14)&1/H A9R' 42')+%' %B)%.)' *&')+%' ,.&/'88'),*.'%06%(,'//2'3+%.')+%' 5,0%'0%' ,0' *&')+%' ('6,//'$2' &*$8 H A R' 42')+%' %B,0)%.(%' *$'.*. %B,0)%.(%' *&'.2' *$-'.,(5,0%'0%' *&')+%' +%')/1.-0' *$'9,5.%20H AFR' 42')+%' 5,0%'0%' 4%,.-'%6,5%8,(,.'(*.%B,*.'3,)+',.&/1%.0'' *$' *)+%$3,0%H '.5'/'0)/2' 42')+%'),8%')+%' ('0%' +'0' (*8%')85%$')$%')8%.) 3+%)+%$' %'$/2' *$'/')%'

! G .')+%')$%')8%.)' *&' 4$*.; (+,),0' $%-'$5' 810)' 4%' +'5')*')+%' (*.0),)1;),*.''/' (*.5,),*.' *&')+%' 6')%.)' '$%' 810)' 4%')'9%.')*' '0(%$)'.'3+%)+%$')+%' 5,0%'0%',0' 0%(*.5'$2')*' 0*8%' *$-.,(' '&&%(),*.' *$')+%' $%01/' *&' 8%(+'.,('/' ,$$,)','),*.' *$' *&')+%' 6$%0%.(%' *&' -*1)' *$' $+%181 '),08' ,.')+%' 020)%8' *$' *&',.&/1%.C'H *$' 3+%)+%$',)' $,0%0' ,5,*6')+,('//2',.'+%')$%')8%.)' *&')+%' 5,0%'0%' '0''6$,8'$2''&&%(),*.'3,/,'4%'(*.0,5%$%5'&,$0) .'.'*$5,.'$2'('0%' *&''(1)%' 4$*.(+,),0',)' 7%$2' 5%0,$'4/%')*' 9%%6')+%' 6'),%.)' (*.,' &,.%5')*' +,0' $** 8' '.5',&')+%' ('0%',0''))' 7%$%')*' +,0' 4%5' +%')%86%$')1$%' *&')+%' '6')8%.)' 0+*1/5'4%' 8 ',.)',.%5''))' &$*8' D!g')*' DFg' '+$' ' +,-+%$')%86%$')1$%')+'.')+,0',0' -%.%$'//2'.*)' &'7*1$'4/%')*')+%' 6$*; -$%00' *&')+%' ('0%' .')+%'%'$/2'0)'-%0' *&')+%' '))'(9',)',0'3%//')*' '//*3')+%' '&$' *&')+%' $**8)*' 4%' 8*$%' *$/%00'0')1$')%5' 3,)+' 0)%' 8' &$%%' '(),*.'*&')+%' 09,.'0+*1/5' 4%' 6$*8*)%5'H '.5' &*$)+,0' 61$6*0%' 3'8' 5$,.90'3,)+' *$' 3,)+*1)'0*8%'&*$8'*&''/(+*+/'*$0*8%'5,'6+*; $%),(' 8%5,(,.%' 8'2' 4%' -,7%.H *$' '+*)',$' 4')+' 8'2'4%' 10%5',.'4%5' $%')'$%/,%&',0'*&)%.' %B6%$,%.(%5' &$*8')+%' '66/,(',*.'*&''/'$-%' 810)'5' *$' 810)'$5'.5'/,.0%%5 8%'/'6*1/;),(%')*')+%' (+%0)H '.5',)',0' 3%//',&' 810)'$5',0' '66/,%5' &,$0)')*' '66/2',8 8%5,')%/2''&)%$;3'$50' '/'$-%'+*)'/,.0%%5 8%'/'6*1/),(%')*' 4%'$%.%3%5' %7%$2'&%3'+*1$0' +,0'(*.0)'.)' '66/,(',*.'*&' '$8)+' .5'8*,0)1$%')*')+%' (+%0)',0'*&)%.'6$*51(),7%' *&'7%$2'-$%')' $%/,%&')*')+%'02 8 6)*8 0

'0%0' *&''(1)%' 4$*.(+,),0' 5*' .*)' $%E1,$%' 7%.%0%(),*.' .*$',0')+%'66+(',*.' *&'/%%(+%0' *&)%.'%7%.',&'%7%$'('//%5'&*$' %7%$%'(*1.;)%$,$$,)',*.',0' 8*$%*7%$')*' 4%' 6$*+,4,)%5')',0'-%.%$'//2'5%0,$'4/%')*' '()*.')+%'4*3%/0' '.5' '' 8%$(1$,'/'&*//*3%5'42' ''0'/,.%'61$-';),7%'3,//*)%.,'4%'*&'-$%')'0%$7,(%' .')+%' */5' '.5' 5%4,/,)')%5' '0' /0**,.')+%' 2*1.-' '/' /*3%$,..-')%')8%.)' 810)' +*3%7%$' 4%' '7*,5%5' .')+%' %'$/2'0)'-%0' *&')+%' '&&%(;),*.' 4%&*$%' 0%($%),*.'+'0' (*8 8%.(%5' '.5' +%.')+%' 81(*10' 8%8$4$'.%',0' 5$2' '.5')+%' (*1-+' +'$5'5,'6+*$%),(0' 3,)+' ,6%('(1'.+' 8'2'*&)%.' 4%'-,7%.'3,)+' '57'.)'-%H 41)' '0' 0**.' '0' 0%($%),*.',0' &*,$/2' %0)'4/,0+%5' ('$; 4*.')%' *&' 88*.,18' 06,$,)' *&' (+/*$*&*$8' %)+%$' ('0('$,//' '0%.%-'' *$' 01(+/,9%' 5$1-0' 0+*1/5' 4%' '58,.,0)%$%5' .5%%5',.'/8*0)' %7%$2')'-%' *&' 4$*1(+,),0' ('$4*.')%' *&' 8; 8*.,18',0'*.%'*&')+%' 8*0)'7'/1'4/%'$%8%5,%0' 3%' 6*00%00' '$%' 0+*1/5' 4%' %B%$(,0%5' %0; 6%(,''//2'3,)+')+%' '-%5')+')'.*)+,.-'0+*1/5' 4%'-,7%.'3+,(+'3,//0*.'10%')%' '0')*'6$%7%.)' &**5'4%,.-')'9%.' .')+%'%B+,4,),*.'*&'8%5,; (,.%0')*' '//%7,')%')+%'(*1-+'$%-'$5'810)'4%' +'5')*')+%'(*.5,),*.'*&')+%'6'),%.)' +5')+%' 0)'-%'*&')+%'5,0%'0%' 6,18',.''//,)0'&*$80' 0+*1/5' 4%' -,7%.'3,)+'('1),*.'%06%(,''//2',.')+%'2*1.-'.5'*/5')'.*'5*14)'*&)%.'01(; (%%50',.'(+%(9,.-'(*1-+'41)',.'5*,.-'0*',)' '/0*'(+%(90'%B6%()*$'),*.''.5'('10%0''.''(; (181/'),*.',.')+%' 4$*.(+,'/')14%0' 3+,(+' 0*8%),8%0' 4%(*8%0' 7%$2' 5',=%$*10')*' /,&%' +/*$'/+25$')%',.'08''//5*0%0',0'*&)%.'*$-$%')' 10%' &*$'%+%7,.-'(*1-+'' .5',)' 8'2'4%' (*8; 4,.%5' 3,)+' *BJ1.%/'*&' 0E1,//')'+'0' /0*' '--*5'%&&%()',.'''//'2,.-'06'08'*&')+%')14%0',&)+,0'%B,0)' .'0*8%' ('0%0'*&' 4$*.(+,),0')+%' E1%0),*.'*&' 6$*(1$,.-'0/%%6'4%(*8%0''.',8; 6*$)'.)' *.%' 6,18',.',)0'7'$,*10'&*$80',0' -%.%$'//2',.'58,00,4/%'.'(*.0%E1%.(%'*&',)0')%.5%.(2')*' ,.($%'0%')+%' (*.'),*.'&'0; 6+2B,'H 41)'(+/*$'/'+25$')%' 8'2'4%' -,7%.' ,)+'0'&%)2' .5')+%' $%(*7%$2'*&' '6'),%.)' 8'2'0*8%),8%0' 4%' 5')%5' &$*8')+%' 0/%%6' 3+,(+')+,('/'-%.)*'6$*(1$%0 .'$%&%%(.(%')*')+%' %B+,4,),*.'*'&'/(*+*/,(' 0),81/'.)0')%B(%6)',.')+%'%'$/2')'-%0''.5',. ($%)',.'('0%0'5%6%.5%.)'*.'' -*1)2'*$'$+%1; 8',),(' (*.5,),*.')+%2'0+*1/5'101'//2'4%'-,7%.' ,.'08''//%$'*$/'$-='E1'.),),%0' +%2',.($%'0%

Q%B6%()*$'),. -' 6*3%$' ' .5' 3 '$5' *&&')+%')%. ; 5%. (2')*' '06+2B,' ' .')+%' */5')+%2' '$%6 %06%(,'//2' ('//%5' &*$' ' .5 ')*-%)+%$' 3,)+' ('$4*. ')%' *&' ' .1 . * . ,18 ' 0+*1/5' &* . . ')+%' 8 ', .')+%$'6%1),(' ' -%.)0')*' 4%' $%/,%5' * . ' .')+%')$%')8%.)' *&' ('6,//'$2' 4$*. (+,),0 ' ' 8 ; 8 * . ,'' ' .5' '/(*+*/,(' 0),8 1/' .)0' 0+*1/5' 4%' %B+,4,)%5' &$*8')+%' (* . 1 . %. (%8 %.)' ' . 5')+%' E1' .),)2' 8 10)' 5%6%. 5' .')+%' 0286)*8 0' *&' Q%'(+' ('0%' +%$%' ,0' * . %' 0*1$(%' *&'5' . -%$' , . ' ('6,//'$2' 4$*. (+,),0' 3 +,(+' 0+*1/5' '/3 '20' 4%' 4*$. %' , . ' 8 , . 5 '7, C ')+%' &*8' 3+. ')+%$%' ,0' %86+20%8 ' ' Q*&')+%' /1 . -0' +%,$' 6$%0%. (%' 8 '2' *&)%. ' 4%' 5, ' - . *0%5' 51$, . -' /,&%' &$*8')+%' $%06,$'), *. ' 4%(*8 , . -'7%$2' $'6,5' 0+' //*3 ' ' . 5' /' 4*1$%5H . * 8')+%' 61/0%' 4%, . -' E1,(+' 3%'9' ' . 5' 08 '//' ')+*1-+')+%' +%' $)' 8 '2' ')')+%' 0' 8%'), 8%' 4%' &%/)' 4%')., . -' 7, -*$*10/2H &$*8')+%' 7*,(%' 4%(*8 , . -' &%%4/%' ' . 5')+%' 8%.)' /' &' (1/),%' 0%$,*10/2' , 86', $%5' &)%$' 5%')+' '' /'$-%' 6*$),*. ' *&')+%' ('7,),%0' *&')+%' +%')$' 8 '2' 4%' &*1. 5' *((16,%5' 42')+%0%' 5%6*0,)0')+%' %'+4$%' *&')+%' 61/8*. '$2' $)%$2' . 5')+%' *$)'' 4%, . -' /'/0*' 8 ')%$, ''//2' 5, 8 , . ,0+%5' 42')+%8 .' 8 ' . 2' ('0%0' *&' 4$*. (+,),0' 3+%. ')+%' QW'(1)% 0286)*80' +'7%' 6'00%5' *&&' 41)')+%' 0%($%),*. ' (*.), . 1%0' 6$*&),0%' '0' 3%// '0' , . ')+*0%' ('//%5' 4$*. (+*$$+*%' ')+%' %B+, ; 4,), *. ' *&' , $*. ' , 0' *&)%. ' *&' -$%')' 0%$7, (%') ,0%%80')*' -, 7%')*. %')*')+%' $%/'B%5' ('6,//'$, %0' *&')+%' 81(*10' 8%84$' . %' ' . 5')*' 5, 8 , . , 0+')+%' 0%($%), *. ')' 8 '2' 4%' -, 7%. ' , . ' (*84, . ';), *. ' 3,)+' ('$4*. ')%' *&' '88*. , 8 . ' , . ')+%' &*$8' *&')+%' '88*. , * (,)$')%H *$')+%'), . ()1$%' *&')+%' 6%$(+/*$, 5%' 3,)+' %)+%$' *$' 06, $,)' *&Q +/*$*&*$8' 8 '24%' %86/*2%5' *$')+%' %)+%$%'/'), . ()1$%' *&')+%' '(%)')%' A +' %$R' 3+, (+' , 0' ''7%$2' 7'/1'4/%' 6$%6'$'), . ' . ' 0*8%' ('0%0 . +'/'), *. 0' '$%' 10%&1/&*$' '28-' (*1-+' , . ')+%' %'$/,%$' 0)'-%0' *&')+%' '&&%(), *. ' *$' &*$')+%' $%/,%&' *&06'08 ' . ' 0*8%' ('0%0' *&'0%73%' 4$*. (+,),0' 3+%$%' '06+2B,'' +'0' 4%%. ')+$%')' W%. %5' $%(*7%$2' +'0' &*//*3%5')+%' %B+,4,), *. ' *&' /'$-%' 5*0%0G+'/&' . ' *1. (%G*&' *,/' *&')1$6%. ;), . %' . ')+,0' 5*0%'+*3%7%$',)' 0*8%), 8%0' 6$*; 51(%0' '/'$8, . -' 0286)*80' ' . 5',)' ,0' 6%$+'60' 4%))%$')*' %B+,4,)' ,)' , . ' 08 '//%$' E1' .),), %0')%.)'), 7%/2' . ' %8%), (' 8 '2' 4%' 0%$7, (%'4/%' %06%(,''//2', . ' (+,/5$%. ', &')+%')14%0' '$%' 81(+' /*'5%5' +,/5$%. ' 01&&%$, . -' &$*8' 0%7%$%' '))' (90' *&' 4$*. (+,), 0' 0+*1/5' . *)' 4%' ''//*3%5')*' 0/%%6'/*. -' &*$&%' $'*&'5' . -%$*10' ((181/' ;), *. ' , . ')+%') 14%0' ' . 5' ('$%' 0+*1/5' 4%')'9%. ')+')')+%' 0%($%), *. 0' 5*' . *)' (*//%()' '4*1)')+%' 4' (9' *&')+%' 8*1)+' '), %.)0' 0+*1/5' . *)' 4%' 9%6)' *. ' ''/*3'5,%)' %7%. ' ')')+%' 4%-, . . , . -' *&' . ' '))' (9' ' . 5' '0')+%' 5,0%'0%'6$*-$%00%0')+%' E1' .),)2' *&&**5' '//*3%5' 8 '2' 4%' , . ($%'0%5' '((*$5, . -')*')+%' '66%),%' . ')+%')$%')8%.)' *&' -*1)2' 4$*. (+,),0' *$' 4$*. (+,),0' '00*(,')%5' 3,)+' '')%. 5%. (2')*' ,)+%' &*$8')," . ' *&' 1$,(' '(,5' , . ')+%' 020)%8 (*/(+,(18' ' . 5')+%' '/9'/,0' 810)' 4%' -,7%. ' ' . 5')+%' -%. %$'/' 8%'01$%0' 10%5' 3+,(+' '$%' '66+('4/%')*')+%' (*. 0),)1),*. '/' (*. 5,),*. ' &' 4$*. (+,),0' 5%6%. 5' *. ' '' -*1)2' 0)')%',)' 3,//' . *)' 2,%/5')*')+%'*$5,. '$2')$%')8%.)'41)' 3+%. ' ,)0' ('10%',0' $%(*- . ,0%5' ' . 5')+%' '66$*6$,')%' $%85,%0' '$%' '58, . ,0)%$%5')+%' 0286)*80' 101'//2' 0**. '4%-, . ')*', 86$*7% . ')+%' ('0%0' *&' 4$*. (+,),0' 3+,(+' '$%' (*. ; . %()%5' 3,)+' +%')$' 5,0%'0%' ' . 5' %06%(,''//2' 3,)+' 8,)$'/'$%-1$-,)'), *. '5, -,)'/,0',0' *&)%. ' *&' -$%')'7'/1%' 2' 0)%'52, . -')+%' ();*&')+%' +%')$)' ,)' $%+%7%0')+%' *7%$/*'5%5' 61/8*. '$2' 7%, . 0' ' . 5')+10' 5,$%()/2' 5, 8 , . , 0+%0')+%' (*. ; -%0), *. ' *&')+%' 81(*10' 8%84$' . %' '0' 8%. ;), *. %5' , . ')+%' 6'$' -$'6+' $%/'), . -')*')+%' 6')+*/*-2' *&')+%' 5,0%'0%)', 0', 86*00, 4/%', . ')+%' 0(*6%' *&')+,0' $), (/%')*' $%&%$'06%(,''//2')*')+%' &$%')8%.)' *&' 4$*. (+,),(' '))' (90' '$,0, . -' &$*8')+%' 7'$,*10' 9, . 50' *&' 8%(+' . ,('/' ,$$,)'), *. ' +%$%' ,0' +*3%7%$' *. %' &*$8' *&' 4$*. (+,),0' +,(+' 8 '2' 4%' 8%. ;), *. %5' 7, C')+')' (*. . %()%5' 3,)+' +'2 &%7%$' '$,0, . -' %,)+%$' &$*8')+%' , . +'/'), *. ' *&' 6*//%. ' *$' ('10%5' 42' 0*8% 6%(1/,'$')8*06+%$,(' , . &/1%. (%' '(), . -' *. ' '' 6%%$5, =' . %$7*10' 020)%8 ')', 0' 7%$2' 5, &&, (1/)' *&' (1$%' . ')+%' W3$,)%$<0' %B6%$, %. (%' . *'$%8%5, %0' 0%%8')*'+'7%' . 2' 6')$), (1/'$' , . &/1%. (%' *7%$' ,)' . 5' ,)' , 0' 101'//2' *. /2')*' 4%' $%/, %7%5' 42' $%8*7, . -')+%' 6'), %.)' &$*8')+%' %B(,), . -' ('10%' *&')+%' '&&%(;), *. ' . ')+%')$%')8%.)' *&' 4$*. (+,),0' 5%6%. 5; , . -' *. ' (*. 0),)1), *. '/026+, +0')+%' '66$*6$, ')%' 8%'0. $%0&*$')+')' &&%(), *. '8 10)' 4%' $%0*$)%5')* <' & ' M & ' M'& ' ' & A & " . ' #!)$ #' - * * $ ' $)' #$ 3 $ ' * $) ' $)' ' = . ' $-' ! ' +)$ #! ' 4+ ', G +$*. (' 4$*. (+,),0' 7%$2' &$%; E1%.)/2' $%01/)0' ^*8' $%6%')%5' '))' (90' *&')+%' '(1)%' 5,0%'0%'41)',)' 8 '2' 4%' (+$*. , (' &$*8')+%' 4%-, . . , . -' 86+20%8 ''*&')+%'/1. -0' 5, /'')%5' 4$*. (+,' ' . 5' 6+)+, 0, 0' $%' ('10%0' *&')+%' (*8; 6/', .)H' 0' $%' '/0*' 7' $, *10' &*$80' *&'+%')$)' 5,0%'0%' ' . 5' 0*, &, %' 4/**5 '&&%(), *. 0' 01(+' '0' -*1)' +%', . +'/'), *. ' *&', $$,)'), . -' 6')$), (/%0' -, 7%0' $, 0%')*' (+$*. , (' 4$*&$*+,), 0H' . 5',)' , 0' '/0*' 8%)' 3,)+', . ' (*. . %B, *. ' 3,)+' (+$*. , (' '/(*++*/; , 08 ')', 0' 8*0)' (*88*. ' '8*. -0)')+%' */5 ! ' $' ' G +%' 4$*. (+,' /81(*10' 8%84$' . %', 0' 5, 0(*/*1$%5' 4%, . -' *&' '51// $%5'), .)' -$%2, 0+' *$' 4$*3 , 0+' +%' 5, 0; (*/*$'), *. ' , 0' 101'//2' 6')$), '/' 41)' 0*8%), 8%0' -%. %$'/' +%$%' , 0' 03%//, . -' . 5' , . ($%'0%5' &, $8 . %0' *&')+%' 81(*10' 8%84$' . %' ' . 5')+%$%' , 0' -%. %$'//2' 8*$%' *$' /%00' %86+20%8 '' *&')+%' /1. -0 ! (! G +%' 0286)*80' $-' (+$*. , (' 4$*. (+,),0' 0'2' -$%')/2' , . ' 5, &&%$%.)' ('0%0



:R'),%.)' .' 0* 8 %' *'0%0 ,)' ,0 ' ,8 6*00,4/%')*' (*$%')+%' 5,0%'0%' ' .5' '// %&&*$)0 0+*1/5' +%' 5,$%()%5')*3'$50 6$%7%.),. -' ,)0 %B)%.0,* .H' '//%7,'),. -')+%' 02 8 6)* 8 0')*' 3+,(+' ,)' -,7%0 $,0%H' .'5'3'$5,. -' *&& 018)%' '))'(90'))%.;),*.' 8 10)' 4% %06%(,'//2' 6','5')*')+%' 0)'))%' *&)+%' +%'$)' .5' 9,5 .%20'H)+%' 51$'),*.' *&')+%' '&&%(),*.H)+%' '-%' <-')+%' 6'),%.)H)+%' (+';$'()%$0' *&')+%' %B6%()*$'),*.H)+%' 0)')%' *&')+%' /1.-0' '0')*')+%' %B,0)%.(%' *&' % 8 6+20% 8 '' *$*)+%$' 8 *$+,5' (*.5,),*.0H' '.5')+%' 6$%0%.(%' *&'-*1)' *$'$+%1 8 '),0 8 ' 6%'9,. -' -%.%$'//2'(+$*.,(' 4$*.(+,),0' 8 10)' 4%')$%')%5'42')+%' 10%' *&' '' -%.%$*10'5,%)' 3,)+' 8 *$%' *$'/%00' 0),8 1;/'.)0H' 42')+%' %B+,4,),*.' *&' %B6%()*$'.)0' .'5')6.,(0H' .'5'42')+%' '7*,5'.(%' *&' '// 5%6$%00;,. -' 8%'01$%0' +%' &1.(),*.' *&')+%' /,7%$' 8 10)' 4%'/**9%5')*H' .'5')+%' '58,.,0)$'),*.'*&' '' &%3'5*0%0' *&'4/1%'6,//' 3,)+' ''0'/,.%'6%$,%.)' *&)%.' -,7%0' -$%')' $%/,%&' .'5' '/)%$0')+%' (+';$'()%$' *&')+%' 4$*.(+,'/' 0%($%),*.' &' -*1)' *$'<')%.5%.(2')*')+%' &*$ 8 1$,(' ,(,5' ,0' 6$%0%.)' (*/(+,(18' 3,)+' '/9'/,0' .'5' *)+%$' $%8%5,%0' &*$' -*1)' 01(+' '0' '(*1$0%' *&' $,%5' $,(+0+' ' <)' 1.2'5,'*$' '$/04'5'3')%$0'3,//6$*7%' *&' -$%')' 0%$7,(%' &' ('$5,'(' 5,0%'0%' %B,0)' 3+%)+%$',.')+%' &*$ 8' *&'7'/71/'$',.(*8;6%)%.(%' *$' *&' 3%'9'&/'442' *$'5,/')%5'+%')' 5,-,)'/,0'(*84,.%5'3,)+',$*.' &%%-.%.)/2'6$*;51(%0' 8 '$9%5'4%.%&,)

.')+%')$%')8%.)' *&' *$5,.'$2' ('0%0' *&' (+$*.,(' 4$*.(+,),0' .*)' 5%6%.5%.)' *.' ' .2' *$-',(' 5,0%'0%' *$' (*.0),)1),*.'/' (*.5,),*.')+%' 6'),%.)<0' -%.%$'/'+%'/)+' +'0')*' 4%'/**9%5')*' +%' '&&%(),*.' +'0' '')%.5%.(2')*' /*3%$')+%' +%''/)+' '.5')*' 5,8,..0+' 0)$%.-)+' '.5')+%$%&*$%')+%' 7'$,*10')*., 0' 8'2' *&)%.' 4% -,7%.'3,)+' -$%')' 4%.=)' &')+%0%')+%' 8*0)' 10%&1/' $% E1,.,.%')+%' 6$%6'$')*.0' *&',$*.' .'5')+*0%' *&' C,.(' *5/,7%$' *,/',0' '/0*' 7%$2' 7'/1'4/%',.'0*8%' ('0%0' 3+%$%')+%$%')+8 1(+' 3'0),..-' +%' ('0%0' *&'4$*.(+,),0' 8'$9%5'42' %B(%00,7%'0%($%),*.' '$%'-%.%$'//2'4%0)')$%')%5' 42')*.,(0H 3+,/0)')+*0%' 3+%$%')+%' 0%($%),*.' ,0' 0/,-+)G('0%0' *&'0 5$2'(')'$$+'<G 4%,.-'*&)%.' '00*(,')%5' 3,)+' '' -*1)2' (*.5,),*.' *&')+%' %B6%(;)*$'.)0' '$%' 10%&1/G('$4*.')%' *&' 1 8 8*.,18',6,%('(1'.+''0E1,//'('0('$ /''0%.%-''(+/*$*;&*$8' ^(''.5')+%0%' 8 '2'*&)%.'4%' 4%.%&,(,'//2'(*84,.%5' 3,)+' 0*8%' &*$8' *&')*.,(' .' 8' .2'('0%0' & (+$*.,(' 4$*.(+,),0')+%' %B6%(;)*$'),.-'6*3%$',0' 5,8,..,0+%5''.5' 0),81/');,.-'%B6%()*$'.)0' '$%' *&' -$%')' 0%$7,(%' 1(+'('1),*.'8 10)'4%'%)*$(,0%5',.')+%' '58,.,0)$';),*.' *&' =,')%0' .5' *)+%$'.'$(*),(0' *$' 0%5';),7%0' K +%.' +*3%7%$')+%' 81(*10' 8%8;4$'.%',0' 7%$2',$$,)'4/%'.5'3+%.')+%$%',0' 41)'/,))/%' 0%($%),*.' 3,)+' '')$*14/%0*8%' (*1-+')+%0%' $%8%5,%0' '$%',.5,()%5' 6,18',0' *&' -$%')' 7'/1%'.5' (+/*$'/' +25$')%',0' '/0*' 7E$2' 0%&1/' '0' 3%/' '0',.' 0*8%' ('0%0' +%.4'.%

'.5' +25$*(2'.,(''(,5' *$' 3+%.%7%$'06'08',0' 6$%0%.)' 0)$' 8*.,18'/*4%/,''),+%)+%$0'.5' ('..'4,0',.5,('' .+'/'),*.0' '$%'0*8%),8%0' 7%$2' 4%.%&,(,'/' '0' *&')+%' 7'6*1$' *&' 3'$8' 3')%$',*5,.%' $%'0*)%' '.5'*)+%$'0140)'.(%0' +%',.+'/'),*.'*&' ($%'0*)%',0' %06%(,'//2'7'/1;'4/%',&')+%' %B6%()*$'),*.',0' &*%),5

*1.)%$,$$,)'),*.',0' *.%' *&')+%' 8*0)',8;6*$)'.)' 8%'.0' 3%'6*00%00' *&'$%/,%7,,/-'(+$*.,(' 4$*.(+,),0' +%',$$,)'),*.'0+*1/5'.*)' 4%' %B;(%00,7%'41)' 0+*1/5' 4%' /*.-(*.),.1%5' +%' '66/,(')*.' *&',*5,.%' *7%$' ''/'$-%' 01$&'(%' *&')+%' (+%0)'0*' '0')*' 9%%6'16' ''(*.0)'.)' 0/,-+),.&/'8 8'),*.'*&')+%' 09,.',0' 6%$+'60')+%' 4%0)')+')' (' .' 4% 10%5H 41)' *)+%$',$$,)'.)0' 8 '2' 4%')$,%5'01(+' '0' 0,.'6,0 8 0' *$')+%' 7'$,*10' 0),.8/'),..-'/,..8%.)0

+%' -%.%$'/' 8'.''-%8%.)' *&')+%' 6'),%.)',0' 8 *0)',86*$)'.)' ' 8,/5' (/,8')%' 0+*1/5',&' 6*00,4/%' 4%' (+*0%.' ,.')+%' 3,.)%$' +%' 6'),%.)'0+*1/5',7%' '0' &'$' '0' 6*00,4/%',1''.'');8*06+%$%' 3+,(+',0' 8,/5' '.5' 5$2' /)+*1-+'0*8%' ('0%0' '$%' 4%.%&,)%5' 42' '' 8*,0)' '.5' 3'$8' ')8*06+%$%')+%' 8'>*$,)2' *&' ('0%0' *&'(+$*.,(' 4$*.(+,),0' 5**' 4%))%$' ,.'' 5$,%$*.%'+%' 09,.' 8 10)' 4%' ('$%&1//2' /**9%5')*' ,)0''(),*.'0+*1/5' 4%' 3%/' 8',')',1%5''.5' 3'.'(/*)+,.-'/3'20' 3*$.' ' 8*5%$')%' '8*1.)'*&' 0*8%' '/(*+*/,(' 0),8./'1)' ,0' -%.%$'//2' 5%0,$'4/%H' '.5')+%' &**5' 0+*1/5' 4%' .1)$,),*10''.5''*&'%'02'5,-%0),*.' %/,%&' 4%' &*)8 5'&,$*8'3%'$,.-''$%06,$')*$

"' /'0),(' $*.(+,)'0 G +,0' ,0' '' $'$%' &*$8'*&' 5,0%'0%'' .5'*&',)0' 6'$),(,/'$' ('10%0' .*)+,.-',0'9.*3.')' ,0' 6%$+'60' (*..%()%5' 3,)+' 0*8%' 6%(1/,'$'5,')+%0,0' +%' /')%' ,$' *+.' *0%' *$8'(9' 01--%0)%5')+')' ,)' 8'2' 4%' '' 7'$,%)2' *&' 5,6+)+%$,'')' 8'2' *((1$',.'%,)+%$' 0%B' '.5')' '.2'6%$,*5' *&' /,&%'41)' ,0' 8*0)' &/K%E),%.)' ,.')+*0%' 3+*' '$%' *&' '0)$1;8*10' *$'6+)+,0,('/(*.0),)1),*.')+'0' 4%%.'9.*3.'+*3%7%$')*' ''))'_g' 6%$0*.0' *&' '66';$%.)/2'+%'/)+2' &$'8%'.5',.')+%'%.>*28%.)'*&'$*410)'+%'/)+

! ' %' ' * P G= /'0),(' 4$*.;(+,),0',0' .')*8,('//2'(+'$'%)%$0%5'42')+%' &*$8'),*.' *&' (.($%),*.0',.')+%' 4$*.(+,'/)14%0' +%0%'(*.($%),*.0'(*.0,0)'*&'&,4$,.*10' %B15'),*.' &$*8')+%' 81(*10' 8%84$'.%H)+%2' &*$8' ('0)0' *&')+%')14%0' .5' '$%' %B;6%()*$')%5' +%0%'('0)0' '$%'%,)+%$'0*/,5' *$+*//*3'.5'.*%B'8,.'),*.'%H' '/3'20' &*1.5')*' (*.0,0)'*&'(*.(%.)$,('/'8,.'%' +%2' '$%'&*$')+%' 8*0)' 6'7)'6*8%5' *1)',.)*')+%' &,.%$'4$*.(+,'/)14%0' 0*8%),8%0' +*3%7%$',.)+%' /'$-%$'*.%0'41)' .%7%$',.)*')+%')$'(+%' +%' ('0)0' '$%'*&' '' 3+,),0+' (*/*1$' 41)')+%2' '$%' *&)%.' 0)',.%5' 3,)+' 4/**5' ,($*0(*6,(;''//2')+%2'(*.0,0)'*&'.'' 8*$6+*10' *$&,4$,//'$8')%$,'/'3,)+'%B15'),*.(*$610(/%0'-$'85'$'8'))%$*''.5'*,/-/*41/%0

0 G +,0' 5,0%'0%' ,0' %00%.),'//2'(+$*.,(' 41)' ,)' +'0' 4%$',' 8%)' 3,)+' '0' '.'(1)%' '&&%(),*.',.' (+,/5$%.')')+%'),8%0'3+%.')+%' ('0)0'*&')+%')14%0' '$%'%B6%//%5'%B';(%$4'),*.0'*((1$')+%' 6'),%.)' 4%,.-'))'(9%5

0.0,//2' %B,0)0' , . K)+%' &*$8%$H' ,)0' 0+'6%' ,0' -%.%$'//2' 8*$%' $%-1/'$H' . 5' ,)' ,0' 101'//2' (*.),.1*10' 3,)+' 4$*. (+,'/')14%0' +%'01$; $*1.5,. .-' /1.-),001%' +'0' . *')14%$(1/'$, .&,/)$'),*.

+%' # /" ' *&' 4$*. (+,%()'0,0' +'0' *(; (16,%5' 81(+' '))%.),*. ')' ,0' 6$*4'4/%')+')')+%' %/'0),(' . 5' 810(1/'$' &,4$%0' /*0%')+%,$' %/'0),(,)2' . 5' (*.)$'(),/,)2' '0')+%' $%01/)' *&' (+$*. ,(', .&/' 8 8 '),*. ' ' . 5')+10' 2,%/5')*')+%' 5,0)%.5,. -' , .&/1%.(%' *&' (*1-+, . -' +%. ' *. (%' '' 5,/')'),*. ' ,0' 6$*51(%5' '((181/'),*. ' 6&')+%' 0%($%),*.0')'9%0' 6/'(%' 3+,(+')%.50' &'$)+%$')*', .($%'0%')+%' 5,/')'),*.

0 = +%02 8 6)*8 0'*&'4$*. (+,%()'; 0,0' '$%')+*0%'*&'(+$*. ,('4$*. (+,),0' '--$'7')%5' , .' 0*8%' ,8 6*$)'.)' $%06%()0' +%' (*)=+' ,0' &,$%E1%.)' '. 5'6'$*B208'/' +%'%B6%()*$'),*. ' ,0' 7%$2' '41.5'.)' 7%$2' 61$1/%.)' '. 5' 3+%. ')+%' 5,0%'0%' +'0'/'0)%5'0*8%'), 8%' 7%$2'&*%),5' +%'4$%')+' /0*'4%(*8%0'&*%),5' '%8*6)20,0' ,0' *((0,*. '//2'8%)'3,)+'%7%. ')*' '' (*.0,5%$; '4/%' %B)%.)' +%$%',0' 8*$%'3'0), . -')+'. ' , ' *$5,. '$2' 4$*. (+,),0' '. 5')+%' 4/**5',0' 8*$%' ,8 6%$&%()/2' '%$')%5' ,-+) 03%')0' '$%' .*)' ,8(*8 8*. ' .' &'()')+%' -%.%$'/ 0286)*80' '66$*'(+')+*0%' *&' 6+)+,0,0' +%' 5,-%0),7% &1.(),*.0' '$%' 101'//2' .*)' 81(+',86',$%5 ' ' ! +%' 8*7%8%.)' *&' %B; 6'.0,*.',0'5,8,.,0+%5',.'4$*. (+,%()'0,0'3+,/%')+')' *&' %B6,$'),*. ' ,0' 6$*/*. -%5' 7%$')+%' '&&%()%5' 6*$),*.0' *&')+%' /1.-')+%$%' 8'2' 4%' 0/,-+)'$%)$')(),*. ' *(' /'&$%8,)10',0',.($%'0%5' '.5' $+*.(+'/' &,&%8,)10' ,0' 0*8%),8%0' 3%// 8'$9%5' +%'6%$(100,*.' . *)%',0''/)%$%5' &' '' 5,/')%5')14%' ,0' 1$$*1.5%5' 42' (*.5%.0%5' /1.-),001%' *$' ,0' &1// *&' 0%($%),*. ')+%$%' ,0' 51/.%0 0' *.' 6%$(100,*.H' 41)' ,&' ,)' ,0' 0,)1')%5' .%'$')+%' 01$&'(%' '.5' %86)2'0*8%' 5%-$%%'*&)141/'$' $%0*. '.(%' 8'2' %B,0)' $'(9%5 6*)' 0*1.5'8'2'4%'')')',8%0'%/,(,)%5' +%'B%06,$' ')*,3' 0*1.50' '$%' +'$0+' *$' /*15/2' 4$*. (+,'/' 3,8' '' 8*$%' *$' /%00' *3,. -' (+'$')(%$' ' .5')+%2' 8'2' 4%' 5,0),. ()/2' ('7%$.*10' *('/' $%0*. '.(%' ,0' *&)%.' -$%')/2' ,. ($%'0%5' +%' 61/0%' 4%(*8%0'$'6,5' ,.')+%'/')%$'0)'-%0' +%)%86%$')1$%'$'$%/2',&'%7%$'$%'('+%0')+%'+%,-+)')+')' ,)' 5*%0' ,.' 6+)+,0,0' 3,)+' ('7,),%0' ' .5')+%'5',/2'*0(,//'),*.0'$%'.*)'0*' 8'$9%5 & " +%'8',.'5,&&,(1/)2'0'$%-'$50' 5,'-.*0,0',0' ,.')+%' 5,&&%$%.),'),*.'*&'(%$)',. ('0%0'*&'6+)+,0,0'3,)+'('7,),%0'&$*8'4$*.(+,; %()'0,0'3,)+'/'$-%'-/*41/'$'5,/')'),*.0' +%' 6*,.)0')*'4%'$%+%5'*.' '$%')+')' ,.')+%'/'))%$' 5,0%'0%')+%'8*$4,5'6+20,('/0,-.0'$%'101'//2' 8%)'3,)+' ')+%'8,5&&,%' .5'/*3%$'6')0'*&')+%'/1.-0'3+,/0)' ,.'*$5,.'$2'6+)+,0,0'+%2' '$%&*1.5'')')+%''6%B!)+')')+%')%86%$')1$%' 5,&&%$0',.')+%')3*' '&&%(),*.0''0' %.),*.%5' '4*7%!)+')' %8'(,'),*.' '.5' .,-+)03%')0' '$%' .*)'0*'8'$9%5',.' 4$*.(+,%()'0,0'!' '.5')+')' ,&'('0%0' '$%'3')(+%5')+%$%',0'101'//2' *40%$7%5' ''6$*-$%00,7%' '57'.(%'*&02 8 6)*80' ,.' 6+)+,0,0!' 3+,/0)' ,.' 4$*.(+,%()'0,0')+%' 02 8 6)*80' 8'2' $%8',.' 0)',*.'$2' .' 6+)/.0,0'0,-.0'*&'(*.0*/,5'),*.' 6$%(%5%')+*0% *&'(7,),%0'3+,/0)')+%2'&* * ')+%8',.'4$*.; (+,%()'0,0' '.5',.')+%'/')%$'5,0%'0%')14%$(/%' 4'(,//,''$%''40%.)'&$*8')+%'061)' ' $*. +,'/' 5,/')'),*.0' '.5')14%$(1/*10' (7,),%0' +'7%' 4%%.'&*$85,.')+%'0'8%'/*.-' +%'&*%)*$'*&')+%'4$%')+' '.5'061)'',.'>4$*.(+,%()'0,0'8'2' (10%''0106,(,*.')+')' -'.-$%.%'*&')+%'/1.-' ,0'6$%0%.)H 41)')+%'-%.%$'/02 8 6)*80'3,//' 101'//2'%.'4/%')+%'6$'(),),*.%$')*'&&,&&%$%.),')%' 4%)3%%.')+%')3*''&&%(),*.0

G= $*.(+,'/5,/')'),*.',0'6$*4; '4/2'.%7%$'(1$%5')'8'2'/'0)'&*$'2%'$0 ! G +%')$%')8%.)'*&'4$*.(+,%(;)'0,0'810)'4%')+')'*&'(+$*.,('4$*.(+,),0'3,)+')+%'10%'*&'01(+'8%'01$%0' '0' '$%' '66/,('4/%')*' '0),.-'5,0%'0%0',.'-%.%$'/' +%'&*%)*$'*&')+%'4$%')+',0'4%0)'$%+% %5'42')+%',.+'/'),*.' *&'($%'0*)%''*$'0*8%*)+%$' '.),0%6),(' +%' 5,0%'0%' +'0',.'0*8%''*'0%0'4%%.')$%')%5' 01((%00&1//2'42',.(,0,*.'' .5'5$',.'-% F ' '$$*3,.-'*$' 40)$1(),*. G '$; $*3,.-'*$*40)$1(),*.'*&')+%'4$*.(+,'/)14%0' ,0'42'.*'8%'.0'1.(*88*.'' .5'8'2'5%6%.5' *.' ,.)$,.0,(' *$ %B)$,.0,(' ('10%0' *86/%)%' *4/,)%$'),*.'*&''')14%',0'0*8%),8%0'&*1.5',.' (*.%B,*.'3,)+'4$*.(+,%()'0,0',8 8%5,')%/2' 4%2*.5''-/*41/'$5,/')'),*. – < <(DG= +%" " ' ('10%0'*&'*4; 0)$1(),*.'$%'')+,(9%.,.-'*&')+%'81(*10' 8%84$'.%'$%01/),.-'&$*8' 4$*.(+,),0H)+%' $%)%.),*.'*&'7,0(,5'0%($%),*.0'H)+%'%B15'),*.' *&'6/'0),('8')%$,'/',.)*')+%'),001%0'01$$*,85,.-')+%'14%0H 0*/,5'&*$8'),*.0',.'+%'6/%1$'H %./'$-%5'4$*.(+,'/-5=.50H' .5' .%1$208'/' .5')+)%$')14%0'41')+%'6$%001$%'*&')+*$'(,('1 8*1$0'.*)',.&$%E1%.)/2'('10%0'*40)$1(),*. *$' %7%.'*4/,)%$'),*.'*&''' 8',.'4$*.(+10' 3+,(+'*(('0,*.''//2G)'0',.')+)%'%'0%'*&'1%.$' 2080G,+%(*8%0'6%$&*$')%5 !(! " &' '' /'$-%'4$*.(+,'/)14%'4%; (*8%'0155%./2'.5'-$%')/2'*40)$1()%5'520; 6.*%'' *&' .'1$-%.)' (+'$'()%$'0%)0' ,.' .5' 5%')+' &$*8' '06+0$B,'' 8'2'06%%5,/2'$%01/)')8/%00')+%'*40)$1(),*.'4%'$%8*7%5' +%.')+%'*40)$1(),*.',0'*.'' '08'//%$'0('/%'4%,.-' (*X&,.%5')*')+%08'//%$')14%0'*$'3+%.''/'$-%')14%'01&&%$0'*./2'&$*8'0/*3'-$'51'//2',.; (%'0,.-'*40)$1(),*.')+%'02 8 6)*80'%%'42' .*'8%'.0'1$-%.)'&*$''),8%''.5'0/,-+)' 5206.*%''0*8%),8%0''(**86'.,%5'420)$,5*$' ,0')+%'8*0)'8'$9%5'&%')1$% ' $' " *86/%)%'*40)$1(),*.'*&' ''4$*.(+,'/)14%',.7' '4/2'/%'50')*' (*//'60%' *&')+%'6*$),*.0'*&'(1$.-')*' 3+,(+')+%')14%' ,0'5,0)$,41)%5''.5')+10'.'%.),$%'/1.-'8'2' (*'60%',&',)0'8',.'4$*.(+10'4%'*4/,)%$')%5' b +%$%'6'$),'/'(*//'60%',0'6$*51(%5'%8; 6+20%8''*&')+%'.%,-+4*1$,.-'/1.-),001%

+)//,0,0G=)+%)14%$(1/'$ 5,0%'0%0 *&)+%0% -/'.5 0 ,.'2*1.-' 014>%()0)',0 +*3%7%$')4)+%/')% *%/ 15.%'1 5% 1002 &* K ,.-'16 .5'3,5%/2%B)%.5,.-')+%,.7%0),-'),*.0 *& +,0 6$%5%(%00*$0)+') 3% '$% %06%(,'//2 ,.5%4)%5 &*$*1$ 9.*3/%5-%*&)+%%&&%()0 *&)+%0% /%,*.0 ' .5)* +,0 616,/ $%)2 3+* +'0 614/,0+%5 '.'%='10),7% 8%8*,$ 16*.')+%8 ' 1.5%$)+%),)/% S J& #

" # TD D +% 014>%() *& 5,0; %'0%*&)+%4$*.(+,'/-/'.50'6'$),(,6')% ,.')+% 5,0%'0%0 3+,(+ '&&%()/28 6+'),(-/'.50-%.%$'//2'.5 3+,(+ 3,/ 4% &*1.5 5%0($,4%5 ,.' ' 014; 0%E1%.) '$),(/%) (,' ! ,0%'0%0 *&R .')+,0 6/'(% ,) 3,/ 01&&,(%)*'%.18%$')%)+% 6$,.(,6'/ 8*$4,5 (+'.-%0)* 3+,(+)+%2 '$% /,'4/%' .5)+% %&&%()0 3+,(+')+%0%(+'.-%0 6$*51(%

+% 4$*.(+,'/-/'.50 '$% /,'4/%)* "7 0 " ,)+ %./'$-%8%.)'0 '$% -/'.50 ,. *)+%$0,)1'),*.0 P # 3 4%)+% $%; 01/)*&)+,0/'0)(*.')*.4%(*8,.-(+$*.,(+% -/'.50 ,.)+,0 0,)1'),*.4%(*8% '&)%$ (+,/5+*5 '/8*0) ,.7'$,'4/2 0)155%5 3,)+ 4/'(9 5%6*0,)0')+%E1'.),)2*&3+,(+ 8 2 4% 0*)(*.0,5%$'4/% '0')*)(*.0),)1)% "

9 +%0% -/'.50 '$% /,'4/%)* '.5 " ' (1)%,.&/'8 8'),*. ,.')+,0 0,)1'),*.')%$8,.'),..-', ,0 $'$%'41) 0%7%$'/('0%0*&)+% 9,.5'+'7%4%. $%(*$5%5 '('0%0*&)+% 9,.5'+'7%4%. $%(*$5%5 '('0%0*&)+%0% -/'.50 '00*(,')%5 3,)+ 5*14/% +25$*;)+*$'B 3,/ 4%&*1.5'5%0($,4%5'42')+% 3$,)%$0 &$,%.5)+%/')% $ *B*.',.')+% " 7 " ' #'6 # 0 ' 7* B,B' W6'DM@' +$*.,(',.&/'8 8'),*.'*&)+% -/'.50 '42'.* 8%'.0 1.(*8 8*.)'8 '2'/%'5')* 6%$8'.%.)%./'$-%8%.)* (*.)$'()*.'.'.5 ,.51$'),*.'*&)+% -/'.51/'$)%B)1$%0'3,)+')+% 6$%0%.(%*&('/('$%*10'6'$),(/%0'*$)*'(+$*.,('40(%00' +% (*.)%.)0*&)+% '40(%00 8'2 4% 8*$% *$/%00 (*86/%)%/2 '40*$4%5'/%'7,.- ''6'$),'//2&,//%5 '*$ (*.)',.,.-')+,(9 610'*$ (+%%02 *$ ('/('$%*10 8'))%$ 1))+%0% -/'.50'3+%.',.&/'8%5'.5%./'$-%5 8'2&*$8'5+%0,*.0 3,)+01$$*1.5,.-'6')0 %.5')+% (*.)%.)0*&'.' '40(%00',&',)'%B,0) 8'2'4% 5,0(+'$-%5'42'.')'6$*; (%00',.)*')+% 0140)'.(%*&''/1.-',.)*')+% 8%5,'0),.18',.)*')+%)$'(+%''*$*%0*6+'-10 *$%7%.',.)*''4/**5 7%00%/'B " #7 +'0*((1$$%5',.'0*8%('0%0H 3+,/0))+%86),%5'0'(+'0 '008.%5',.'0*8%,.; 0)'.(%0')+%'(+'$'()%$*&'') (*.%()%5 3,)+')+% /1.-0' +%.')+% 8')))%$,0 5,0; (+'$-%5',.)*')+%',$6'00'-%0' " (7 "',0')+%' $%01/)' 3* *$)+$%% %B'86/%0*&')+% 9,.5'3%$% .*),(%5''8*.-0))+% 3$,)%$0 ('0%0' '.5)+% 6*00,4,/,)2 *&)+%,$ 4%,.-'8,0)'9%.'&*$)+%'5,0(+'$-% &$*8' '(7,)2',')+% /,8-0'*$'.'%862%8'3'0 $%8'$9%5 16*.'))+%) ,8% +''40(%00 8'2 5,0(+'$-% 42 ' 0,.10',')+% .%(9 *$,.)*')+%8%5,'0),.18 '$%8'$9'4/%,.0)'.(% *&)+,0 9,.5',0 $%(*$5%5',')+%(*$5%5',')+% ('0%*&)+% /')% 81(+/'8%.)%5 $ 1//%$ (+$*.,('40(%00*&)+% 4$*.(+,'/-/'.50'+'5'*6%.%5 ,.)*')+%6*0)%$,*$ 8%5,'0),.18 +,0/%5')* 62'%8,'')*')+%&*$8'),*.'*& '40(%00%0',')+% 4$',.' '.5')*)+%/ /0%0*&-$%')6')+*/*-,('/,.)%$%0)',//10)$'),7% *&)+%0% 6*,.)0 3,/ 4% &*1.5 $%(*$5%5',)+%6 # 0 " G=7*/'BB7 6 @'42 $ *.6/'.5H,.'7*/'BBB '6'@F 42 $ '$/*3H,.'*'BBB7 '42 $ '9,.0 .'7*/'BBB7, $ %$(2 ,55 $%(*$50)3* $%8'$9'4/% ('0%0',.'*.% *& 3+,(+ 0155%. 5%')+ 3'0 ('10%5 42)+% ,86'(),*.'*& '' ('0%*10-/'.5',.')+%&$'%+%''.5''0%(*.5 ('0%,.'3+,(+ 5%')+ $%01/)%5 &$*8'65*&10% +'%8*$$+-% ('10%5 42 4$*.(+,'/1/(%$'),*.' 6%$&*$'),.-')+% 6$58*.'$2 $)%$2'51%)*')+% 6$%001$%*&''%'/('$%*10-/'.5 .')+%'0'8% 7*/18%,0 $%(*$5%5''('0%*& 01661$'),.-' 4$*.(+,'/-/'.5'42 $'*+.' */'.5 $' %% +'0'$%(*$5%5'0%7%$'/('0%0*&,.)%$%0)',.'7*/' B,,,'*& #'$ # 2J'P '$ +% 6$%001$%*&%./'(%5'-/'.50'8'2'(10% 5206+'-,'H.'.5''0%$,%0'*&'(0%0,//10)$'),7% *&)+,0'6*,.)'(*//%()%5'42 *8%3, '4%&*1.5' .*),(%5',')+% ' # " '7*/',,,' 6'@' +% 6$%001$%*&%./'$-%5'-/'.50'*.')+% 6.%18*-'0)$,('.%$7% 8'2'+'7% 8'$9%5 %&&%()0*.')+%+%')$)<0 '(),*.'('10,.-'-$%)' $'6,5,)2'*&)+% 61/0%*$)+%(*.)$'$2 ' %8*,$'42 $' '$9/%.'$ "' 'P (' '6 ')*8%,'''..9% ??M +%0%-/'.50 '$%/,'4/%)* 01&&%$ %06%; (,'//2'&$*8'7'$,*10'&*$80'*& 0" "' 7 '&$*8'7'$,*10'&*$80'*& 0" "' 7 '.5',. " '*$ ' # ' &)+%/'))%$'&*$8'*&5,0%'0%'0*8%0)$,9,.- %B'86/%0'+'7% &' %.'1.5%$)+% .*),(% *&)+% 3$,)%$1' .' 3+,(+'02866)*8 0 (/*0%/2 $%0%84/,.-' 6+)+,0,0' %B,0)%5' 41)' 3+,(+ 2,%/5%5')*)$%')8%.)'5,$%()%5')*)+%'06%(,&,(' 5,0%'0% .6! +% ('10%0'3+,(+'-,7%'$,0%)*'5,0%'0%'*&)+%'/286+'),('-/'.50'4%,.-'5,0; (100%5',.''.*)+%$'$),(/%'$%&%%.(%'3,/'+%$% 4%'8'5%'*./2')*')+%'06%(,'/'(,$(180)'.(%0 3+,(+',.&/1%.(%')+%'6'$),(1/'$'-/'.50' '.5)+10',)'3,/'4%01&&,(,%.)'8%$%/2')*' '8*.-0)' "0' ')*'+%$%5,)'$2' 6$%5,06*0,),*.')* -%.%$'/' ,86',$8%.)'*& +%'/)+'.5')+%'/,9%' ,)+'$%-'$5')*)+% ,.&/1%.(%'*&''-%'.5'0%B'$%&%$%.(%'+'0''/; $%'52'4%%.'8'5%')*)+%'3*$90'*& ,/+%)'.5 '$)+%C'*& $' %0)''.5'*&*)+%$(1)+*$0' 3+*'5%0($,4%5')+% &$%E1%.(2'*&)+% 5,0%'0% ,.'(+,/5+**5' +%'3$,)%$0'*40%$7'),*.0'8'5% *.'2*1.-'6%$0*.0''.5' '51/)0'0+*3')+') *&'F?'('0%0'A*&3+*8'@'3%$%'8'/%0'.5 "D'&%8'/%0G,.'*.%'('0%0)+%'0%B'3'0'.*)

)+'}' 0,5%*.'3+,(+')+%-/'.50 3%$% 8%.),*.%5'
'0 4%,.-' (+,%&/,H ,&' .*)' 3+*//2' '&&%()%5' .'
F' ('0%0' '.'*66*0,)% (*.5,),*.' 3'0'.*),(%5'
.'@' ('0%0')+% 8*0)' (*8&*$)'4/% 6*0,),*.'3'0'
/2,.-' *.K)+% 4'(9' .% 6'),%.)' 1.'4/%)*'
/,% 5*3.'0')' 3+%.',.'4%5'' .5'0)**6%5' &*$;
3'$5' .% 6'),%.)' '/,))/% 4*2'(*1/5'*./2'
$%0)' *.'+,0' &'(%'.5' 9.%%0' +,0' ('0% 3'0'
&1$)+%$' $% 8'$9'4/%,.'$%&%$%.(%')*')+% %/%'$'
.%00' 3,)+' 3+,(+')+% 5,0%'0%' 3'0' $%(*-.,0%5'
'.5')+% 01((%00&1' $%01/)' *&'0140%E1%.)')$%');
8%.)

)' 8,-+)' 4% 8%.),*.%5' +%$%',.(,5%.)'//2'
)+')')+%-/'.50' *&')+% $,-+)' 0,5% %$%'.*),(%5'
'0 4%,.-' (+,%&/2' '&&%()%5',.'@?' ('0%0'.5'*&'
)+%'/%&&',.'@@' ('0%0',.' ;'4*)+' 0,5%0' 0%%8%5'
%E1'//2' '&&%()%5'.5',.' .*' $%(*$5' 3'0'
8'5%' +% -%.$'/'*$' (*.0),)1),*.'/' 02 8 6;
)*8 0' **,8%()%5' 3,)+')+%' 8'/'52'1.5%$' .*;
),(%'.%%5'.*)' 4% 5,0(100%5' +%$%' +%2' '$%
,.'.*3,0%'6%(1/,'$'.5'3,//'4%&*1.5')$%')%5'
*&'%/0%3+%$%' +%'02 8 6)*8 0'5%0($,4%5''4*7%
+'7'%06%(,'/'$%&%$%.(%')*')+%'4$*.(+,'/-/'.50'
+%' (*1-+' '.5',)0' 6%(1+1$' (+'$')(%$,0),(0'
'$%'. '5*14)',.''-$%')' 8%'01$%'5%6%.5%.)'
.'6$%001$%'$'.',$$,)',*.'(*8 8 1.,(')'%5')*'
)+%6.%1 8*-'0)$,*' .%$7%0'.5')+%,$'4$'.(+%0'
'/,9%3,0%'6',.'.5'5,&&,(1/)2'&'4$%')+,.-'
,'''=%')'5%-$%%')+$*1-+'5,$%()'6$%001$%'*.'
W)+%' ,$ 6'00'-%0'8'2'/0*' ('10%*$'--$'7')%
)+%0%' 02 8 6)*80' 6+*.,''%06%(,'//2'0%%8 0'
)*' +'7%'$%/'),*.')*')+%' (*.5,),*.'*&')+%' $%;
(1$$%.)'.%$7%0' .'*.%'*&')+%'%'0%0'3+,(+'
)+%' 3$,)%$' 0'3' 3,)+' $' %..*B' $*3.%'
6'$'/20,0'*&')+%'/%&)' (+*$5'' 7*('+0'%B,0)%5'
+%'5,'-.*0,0'*&'-/'.51/'$'5,0%'0%'3'0'(/%'$'
'' (*.(/10,*.'(*.&,$8%5'42')+%'$%01/)0'*&')$%');
8%.)' *8,),..-',0'8%.),*.%5',')3*''0%0'
'5%' 1002'3$*)%')+')'}+,0',0''8*$%&$%E1%.)'
$%01/)'3+%.')+%' /%&)' 6.%8.*-'0)$,(.%$7%',0'
6$%00%5'16*.' %'0'3'' (*,8%B,*.'4%)3%%.'
)+%')$*14/%0*8%' 7*8,),..-'3+,(+'*((1$0' ,.'
0*8%'%'0%0'*&')14%$(1/'$'5,0%'0%'*&')+%/1.-0'
'.5'/,9%'6$%001$%'16*.'.%$7%0' +%'61&&,.%00'
&')+%'&'(%'.5'%2%0'.),(%5',.')+%0%' ('0%0'
,0'5%')*' 6$%001$%'*.')+%' 7%.*10')$1.90''
(*.5,),*.'3+,(+'/0*' '((*1.)0'.*)*./2'&*$'
0*8%' ('0%0'*&'+'%8*6)20,0'41)'&*$' 4/%%5,.-'
&$*8')+%.*0%'*(('0,*.'//2'6$%0%.)' *6,*10'
'.5'0*8%),8%0'6%$0,0)%.)'+0%8 >6)20,0'A6$*;
&10%' '0',.')+%',.0)'.(%' 6$%7,*10/2'8%.;
),*.%5'+'0'4%%.')$'(%5')*')+%' 6%$&*$'),*.'*&'
'' 7%00%/' 42' 1/(%$'),*.',.'(*..%B,*.'3,)+'
5,0%'0%'*&')+%'-/'.50

' $' G +%6+20,('/'0,-.0'.*),(%5'
,.')+%'L9'('0%0'$%&%$$%5')*'3%$%'.'C "'
+,0'3'0'6$%0%.)',.']'('0%0')'3'0'&*1.5'
4%)3%%.')+%'8',-,.'*&')+%'0('61/''.5')+%'
06,.'/'(*/18.')'*.%'*$'4*)+'0,5%0'*.''''/%7%/
3,)+')+%'&*1$)+'.5'&,&)+'5*$0'/'7%$)%4$)%')'
7'$,%5',.'5%-$%%''.5'3'0'8*$%'$%'5,/2'8'.;
&%0)%5'3+%.')+%' 810(/%0'*&')+%'4'(9'3%$%
0)$',.%5'42'&*/5,.-')+%' '$8 0''($*00')+%'(+%0)'
'.5'3'0'*&)%.'0)$,9,.-/2'5,0),.()'3+%.'*&,%
0,5%'3'0'(*.)$'0)%5'3,)+')+%'*')+%$' 1/.%%0'
3'0'6$%0%.)',.'&$*.)',.'9'%'0%0'A3+%)+%$'(*,.(,;
5%.)'//2'3,)+'51/.%00''')')+%'4'(9'*$.*)',0'.*)'
(/%',/2'0)')%5R'4%.%')+')+%)*6'*&')+%'0)%$.18'
'.5''')'%'(+'0,5%'4%/*3')+%'0)%8*%/'7,(1/'$'
>,8(),*.' +%'51/.%00'+%$%' '0 4%0)'%/,(,)%5'
42')+%'6'),%.)'%B6,$,.-'5%%6/2''.5'+*/5,.-'
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%'0%')+*1='.*'5*14)',)'8'2'*((1$
9' +%' 2" & 3%$%'7'$,*10/2'
8*5,&,%5' '$9%5')141/'$' 4$%')+,.-'3'0'
$%(*$5%5' '0' 4%,.-'6$%0%.)'*7%$')+%'0%')'*&'
5,0%'0%' ,.' (' 0%0' .')+%'%B6,$')*$2'
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81$'4%,.-'&*1.5')')+%'0'8%),8%' %%4/%;
.%00'*&')+%'$%06,$')*$2'81$83$'0''' 3+*/%
3'0'.*),(%5',.' '(' 0%0' .'0*8%')+,0'5%;
&,(,%.(2'%B)%.5%5'*7%$')+%' 3+*/%'/1.-H',.'
*)+%$0',)'%B,0)%5'*7%$')+%' 66%$'*$'/*3%$'
6*$),*.'*&''/1.-'4%+,.5'*$',.'&$*.)' +%'
40%$7'),.'0'8'5%'*.')+%'7*,(%'42')+%'3$,)%$'
3%$%'&%3'41)' '5%' 1002''.5' %$%'
4*1 %)'06%'9'*&''6%(1/,'$'085',.(%'0%5'$%;
7%$4%$'),*.'*&'4*)+')+%'7*,(%'.5')+%'(*1-+'
$' 10)'(%' 8,)+'+'0'5%0($,4%5',.')+%'(0%0'
*&'(+,/5%.''7%.*10'8.''+%'$5''')+%'$**)'
*&')+%'.%(9'3+%.')+%'+%'5',0')+$*3.'4'(9'
('10%5'42')+%'6$%001$%'*&')+%%./'$-%5'-/'.50'
*.')+%'7%.*10')$1.90

, ,0 G .')+%'6$%0%.)''$),(/%')+*0%'
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0),)1),*.'/'5,0%'0%',.''00*(,'),*.'3,)+'*)+%$'
-/'.50',.')+%'.%,-+4*1$+**5'(*.0),)1)%/'$-%'
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%!)',0%'0%0'*&R' *$',0',)'.,.)%.5%5')*'
-,7%'6$*8,.%.)'(*.0=%$=,*.')*')+%*0)')%'*&'
)+%'-/'.50'3+%.')+%2'%./'$-%',.''(1)%5,0%'0%'
G7 +%$%)+%*0)')%' *&')+%'-/'.50'6/'20''
0%(*.5'$2'6'$)' +%'3$,)%$'+'0'4%.'.'.B,*10'
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&')+%'4$.(+,'/-/'.50'(*.0),)1)%0')*'0*8%'
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6$%0%.)'.5',.''//'0,8,/'$',.0)'.(%0',)',0'
.%(%00'$2')*')'9%'8%'.0'&*$'%B(/15,.-',.'
1$',.7%0),-'),*.0'5,0%'0%0'3+,(+'8'2'6$;
51(%'/,9%'6+%.*8%.''+10'3%'8'2'&,.5'
(*1-+'6',.')%.5%$.%00'*.'6$%001$%''.5'
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%7,5%.)'0)$1()1$'/5,)%'0%' .')+%*)+%$*+'.5'
'' 08'//'}8.61$G0'2'' 08'//'.%1$208G'
8'2'6$*51(%'//')+%'0,-.0'*&'6$%001$%'3+,(+'
'$%' '4*7%' -,7%.''0')+%'0,-.0'*&'4$*.(+,'/
-/'.5%./'$-%8%.)')',0')+%'51)2'*&')+%'
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6*00,4/%')*' 5,0(100 ')+%' 014>%()' &1//2 ' +%$%G ' //'
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8 %.)0 ' *$')+*0%' $%01/),. -' &$* 8 ' 06%(,&,(' 5,0;
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5 ! G . ' 0%7%$ ' /' ('0%0 ' *&' 8 *$4,5 '
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' . 5 ')*')+%' %B)%$. ' /' 66/,('),*. ' 4%)3%%. ')+%'
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, . %.)' *&' ,*5,. %' +%' 0 ' 8%')$%')8%.)' +' 0 '
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3+,(+' '' 026+,/,),(' $,-,. ' &*$')+%' 5,0% ' 0%'
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8 *$%' *$' /%00 ' 01,)' 4/%')$%')8%.)' +%' (*1-+'
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4%//' 5*. . '' /, . , 8%.)' /' 15 ' . 18 ' ' . 5 ' 06,$,)'
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)+%' -%. %$ ' /' +%' /)+' 42 ' 3+*/%0*8%' 5,%)' 61$%'
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10%5 ')*' 5%0,-. ')%' 7 ' $,*10 ' ' 4. *$8 ' /' 0*1. 50 '
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') 4)')+%' -$*,. R<G g'
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,. -' *&' ' /286+'),(' -/' . 5 ' ,. ' . 2 ' 6 ' $)' *&')+%'
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8%5,(' /' 3$,),. -0 ' 41)' . *)' 6$*6%$/2 ' 5,0),. ;
-1,0+%5 ' ,. ' ,)0 ' 0%7%$ ' /' 7 ' $,%),%,%0 ' 1.),/')+%' 6$%;
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*&')+%' /J1. 6+'),(' -/' . 50 ' ((*86' . 2,. -')+%'
5%7%/*68%.)' *&')+%' ,. ,),' /' 0*$%' *&' 26+,/,0 '
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5,$%()' (*8 8 1. ,('),*. ' 3,)+')+%' 0*$%' 8$)+%$'
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+' 0 ' $%' (+%5 ' ' -/' . 5 ')+$*1-+')+%' '40*$4%.)'
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3+,(+' $%' $%8*)%' '0 ' (*86/%)%/2 ' '0 ' ,)' 5*%0 '
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14*%0 ' ((1$' 8*0)' &$%E1%.)/2 ' *. ')+%' 0,5%'
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)+%' 6*0,),*. ' *&')+%' %B(,),. -' 0*$%' +%. ' 414*'
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*. ' %' (+' 0,5%' *$' *. %' ')')+%' 8%0,' /' /,. %' +%'
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*$,.)%$/' (,. -' *&')+%' /28 6+'),('51()0 ')')+%'
8%0,' /' /,. %' . 5 ' 3+%. ')+%' -/' . 51/' $' '&&%(;
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-/' . 50 ' *&')+%' -$*,. ' *. ')+')' 0,5%' 14*',.

47 3' * / ' 7'.)4 '$##4) ' ' $4'
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4) !) ' 7'$!)')'.) ' -- # $ '
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' ,8 6/%' 14* G& "
[,*,*%) G +,0' 7'$,%)2' 8 '2' 4% ('10%5' 42'8%(+'.,('/',$$,)'),*.'*&')+%' 01$&'(%'01(+' '0'%$*0,*.0'*$&,001$%0',$$,)'')%5' 42'5,$)'*$'42' ('10),(' '66/,('),*.0H 42' 1$%)+$,),0' 4'1'/'.*' 6*0)+,),0' *$' 42' (' '.($%' 3+%.')+')' '()0' *./2' '0' '0,86/%/*('/',$$,)'.)' ,86/%'414*' ,0' 50*' *&)%.' %B(,)%5' 42' +%$6%0' %$20,6%/'0' 4*,/0'*$' *)+%$' .*. 7%.%$%'/',$$,)'.)0' *&')+%' -%.,)'/0' '0)/2')+*1-+' .%'$/2' '/' 414*%0' (' .'4%)$'(%5')*' '' /%0,*.'*&')+%' 6'$)' 3+%$%')+%,$' '40*$4%.)0' '$,0%')+%$%' '$%' *(('0,*.'//2' 0*8%*40%$7%5'&*$' 3+,(+' 01(+' *$,-,.'('...*)' 4%&*1.5' *8%' '$%' ('10%5' 42' %B(%00,7%' ' 0%B1'/',.)%$(*1$0%' *$' %B(,)%8%.)H)+%2' '$%' 8%)' 3,)+' -%.%$'//2' '8*.-' 2*1.-' /'50' '.5' -,$/0' 1(+' '$%' '.'/*-*10')*')+%' ,.&/'88';),*.'*&')+%',.-1,.'/'-/'.50'3+,(+' 0*8%),8%0' &*//*30'%B(%00,7%0)$',.,.-'*&')+%' 8 10(/%0',.'/*.-'3'/90'*$'$,5%0' 1)',' ,0' '/0*' 4%/,%7%5' 42' ,%' *3' '1)+*$,),%0')+')' (+'.'6*,0*.',.'$'$%',.0)'.(%0'+'0'4%%.' '40*$4%5' '/*.-')+%'/286+'),(' 51%)0'3,)+*1)'>'H*5.(,,#-' '' 0*$%'*.')+% 01$&'(%' +,0' 8 '2'+%')+*1-+' %B)$%8%/2'$'$%/2'.' '()1'/'*((1$$%.(%')' +'0'$%(%,7%5')+% .'8%0'*&' # ' '.5'# "'] #
!(! G, +%$%' '$%)3*'&*$80'*&'0,86/%' 414*G ' /,-+)'03%//,.-' '.5')%.5%$.%00'*&' *.%*$'8*$%-/'.50'%.5,.-',' '' &%3'5'20' 42'$%0*/1),*.' +,0'*((1$0'8*0)'&$%E1%.)/2' ,.'1$%)+$,),0' 4'1'.66*0)+,),0' *$' 0,86/%' (+'&,.-0' .'-%.18%' (+'.($%')+%' .%B)' .5'8*$%'0%$,*10'&*$8',0'8*0)'&$%E1%.)' @' 3%//,.-' (*88*./2'*&'*.%'0%/5*8'*&' 0%7%$'/'-/'.50H4$'3.2')+,(9%.,.-'*&')+%'01$;$*1.5,.-'),001%0H'$%5.%00'*&')+%',.)%-18%.)0H' -$%')')%.5%$.%00'.5'6',.'%06%(,'//2'3+%.' 3'/9,.-' .'' &%3'5'20')+,0'(*.5,),*.')%$;8,.')%0'%,)+%$'42' '40(%00')+%' 8*0)'&$%E1%.)' (1/8,.'),*.'42'-$'51'/0140,5%.(%')*')+%' .*$8'/0)')%'*$'42'(+$*.,(',.51$'),*.'*&'.%*$'8*$%'-/'.50' +%.')+%'414*'01661$'%0')+%'8')))%$',.0)%'5'*&'6*,.),.-')'*.(%'8'2' 41$$*3' ,.'7'$,*10'5,$%(),*.0' '8*.-')+%' /'2%$0'*&'(%//1/'$'),001%'4%&*$%' ,)'4$%'90')+$*1-+')+%'09,8' +%'610'*&')+,0'&*$8'*&' 414*',0'#,&3'20) %*$5,.'$2'610'*&',.&/'8;8'),*.I' c
8%' ('0%0' 8'2')%$8,.')%' 42'-$'51'/'(.7%$0,*.',.)*'(+$*.,(&,0)1/[H*$')+%'-/'.50'8'2'5%-%.%$')%'42'=14%$(1/,0'),*.'3,)+'01(;(%00,7%'&*$8'),*.0')&' '40(%00%0'*$*1.5')+%'09,.
" +,0' *$8'*&'414*',0'0%/5*8'5'.-%$*10'41)'/3'20' >%$,*10'3+%.',)'('10%0')14%$(1/,0'),*.'*&')+% ,.50'.5'41$$*3,.-H ,)',0')+%.'*&)%.'7%$2')I (/,*10'.5'%B+'10),.-)*')+%6'),%.)
<'!0 ' I G8 " ' +,0' *10'(+'.($%',5%.),('/ ,.'''/I41)'0,C%'3,)+')+%'0*$%'3+%.(%',)'3'0' ,.*(1/')%5' +,0'&*$8',0'.%7%$'' (*.0%E1%.(%'*&'-*.*$$+%''*$'*&' *.0),)1),*./'026+,/,0'41)'*./2'*&')+%'/*('I0*$%')',.'2'4%'-%.%;$')%5',.')3*'3'20' '2')*1(+,.-')+%'0,1H'&'(%'*&''0,86/%'*6%.'414*'3,)+'(+'.($*10'610'@' 2')+%'40*$6),*.'*&'(+'.($*10'610'/*.-')+%'/286+'),(' 51()0'/%'5,.-'&$*8')+%'(+'.($%')*')+%'-/'.5'8*0)'5,$%()/2'(*.%()%5'3,)+')+%'0*$%' 3*'6')+*/*-,('/'I&'()0'6$*7%)+%'$%'/,)2'*&')+,0'8*5%*&'*$,-,.' ,$0)' ,)'+'0'4%%.'*40%$7%5')+')' *((0,*.'//2'08'//(,$(180($,4%5'40(%00%0'3,//&*$8',.')+%'(*1$0%'*&')+%'/2,+65,'),(' 51()0'4%&*$%')+%2'$%'(+')+%'-/'.5' +%.')+%0%/,))/%'40(%00%0''$%'*6%.%5')+%2'6$%0%.)'+%' 6%(1/,'$'(+';$'()%$0'*&')+%'(+'),($%' %(*.5/2'3+%.''.%&&%$%.)'51()'+'0'4$*1-+)'(+'.($*10'610',.)*''-/'.5')+%'40(%00'$*1.5')+%'-/'.5'$%)',.0'+%'*$5,.'$2'6+/%-8*.*10'(+'$'(%)$'1.),/')+%'.%($*0,.-'(),*.'-*,.-'*.',.')+%',.&%()%5'-/'.5'/'20'*6%.'),)0',.)=,*$')+%.'(*.)'8,.';),*.'<-')+%'40(%00')'9%0'6/'(%''.5',.''&%3'5'20')+%'40(%00('7,)2'0018%0')+%'06%()'*&''+1-%'(+'.($%+%(*.5,),*.0'3+,(+'00,0)'*$'+,.5%$')+%(*.7%2'.(%'*&'(+'.($*10'610'/*.-')+%/28;6+'),(' 7%00%/0'$%'3+*//2',89.*3.+%'6$*6*$),*.'/'&$%E1%.(2'*&'7,$1/%.)414*')*')+%'.184%$'*&'(+'.($%0',0'.*)'9.*3.')',0'&'$'/%00'&$%E1%.)')+'.'0,86/%'414*')',0'0',5')+')' *.* .'$%'/%00'6$*.%')*',)')+'.8%.
+%.'.*)'9,5%.)' 2',.**$5')%5'7,$1/%.)414*%0''$%'/.)'3+*//2'(*.&,.%5')*')+%'-$*,.''.5'*$,-,.')%',')+%'-/'.5'3+,(+'/,%0'(*88*./2',')+%'(%.)$%'*&')+%'-$*16'*7%$')+%'-$%')'4/**57%00%/0' (('0,*.'//2'3+%.')+%'(+'.($%,0'*.')+%'&,.-%$''-/'.5'*&')+%'%6,)''%+/%'$'*$'B,//'$2'-$*160'5%7%/*60',.)*7,$1%.)'414*' ,,44%.%)'*&' ,%3'%B6$%$,;8%.)'//2',.*(1/')%5''0*&)'(+'.($%*.')+%'(+%%9'3+,(+'3'0'&*//*3%5'42'7,$1/%.)'414*'*&')+%'-/'.5',.'&$*.)'*&')+%')$'-10'*&')+%'$' +,0'414*',0'-%.%$'//2'1.,/')%$'/H$'$%/2'$%'4*)+'0,5%0'*&')+%'4*52'+&&%()%5H',.'01(+'('0%0')+%'(+'.($%,0'')+%'8%0,'/,.%'*$')+%$%'$%')3*'(+'.($%0'),//'8*$%'$'$%/2')+%'414*'&*$80'')+%'0,5%'*&')+%'4*52'*66*0,)%')*')+')'*&')+%'(+'.($%' +%'),8%'&*$'66%'$'.(%',0'-%.%,=2',.')+%&,$0)'*$'0%(*.5'3%%9'*&')+%'%B,0)%.(%'*&')+%'(+'.($%H+1)',)'8'2'*((1$')'.2'),8%'3+,/%')+%'(+'.($%',0'06$%'5,.-!(! 'G')' &,$0)')+%' 0286)*80'*&'06%(,&,('414*'$%')+*0%'*&'(1)%'40(%00'&*$8;,.-'$'6,5/2'$*1.5''0,.-/%'-/'.5' +10'&'$')+%2'5,&&%$' .*3,0%'&$*8')+*0%'*&' 0,86/%414*' +%.')+%'(*.)'-,*10'610'$%'(+%0')+%'40(%00''((,5%.)'//2'&$*8'3,)+*1)'*$'&$*8'3,)+,.')+%'-/'.5'42'1/(%$'),*.'*$',.(,0'*.'*&')+%',)0'('601/%')+%'0,86/%'01668'),.-'('7,)2'4%(*8%0''06$%'5,.-'1/(%$'3+,(+'$'6,5/28'9%0',)0%/&'3,5%/2'*6%.'42'5%0)$1(),*.'*&')+%',.)%-18%.)0'+%'09,.'')+,.''0',001%'6'6%$'-,7%0'3'2''')'0%7%$'/'6*,.)0''.5'/%)0 0'<

1)‘ ‘’/’$-%‘ ’8*1.)‘ *&‘8 ’))%$‘ 3+,(+‘,0‘)+,.‘ 2%//*3,0+ -$%2‘ *$ 2% *3,0+ $%5‘ 3,)+‘ 0+$%50‘ *&‘ ‘’(+*(*/’)%‘ (*/*1$‘ &/*’),.-‘ ,.‘ ,)‘ +%.‘ 6%$&*$’)%5‘)+%‘ 09,.‘ 4$%’90‘ $’6,5/2‘ ‘3’2‘ 1.),/)+%‘(’7,)2‘,0‘ 3,5%/2‘%B6*0%5

+%‘ &1$)+%$‘ 6$*-$%00‘7’$,%0‘ .’)+%‘/%’0)‘ 0%7%$%‘ 7’$,%)2’)+%‘ %5-%0‘*&‘)+%‘09,.’1/(%$’)%‘ ,$%-1/’$/2‘&*$‘ ’’0+*$)‘5,0)’.(%’)+%.’)+,(9%.’ ’.5‘ 4%-,.’)*‘ -$’.1/’)%ℍ)+%‘ &/**$‘ *&‘)+%‘ 1/(%$‘/*0%0‘,)0‘1.%7%..%00‘ ’.5‘$,0%0‘16‘)*’)+%‘ /%7%/‘*&‘)+%‘09,.ℍ ’.5‘(,(’)$,0’),*.’ &*//*30’ .)‘(*8 8*./2’ ’‘ 8 1(+’-$%’)%$‘ 5%0)$1(),*.’ *&‘),001%‘,0‘%&&%()%5’ +%‘09,.’,0‘%’)%.’’3’2‘ ,.)*’ 3,5%-’60ℍ)+%‘&/**$‘41$$*30‘1.5%$‘)+%‘ 09,.’,.’/*..-‘(+’$8%/0’*$‘5,7%0‘5%%6/2’’8*..-‘)+%‘-$%’)‘7%00%/0’ .’*)+%$‘(’0%0‘)+%‘1/(%$’;),*.’ 6$*51(%0‘ ’‘ /’$-%‘ 0+’//*3‘ 0*$%’ +%‘(*.)’-,*10‘(*.5,),*.’ *&‘)+%0%‘ 414*%0‘ *&)%.’(*.),.1%0‘&*$‘ 3%%90‘*$‘ 8*.)+0’0*‘)+’)‘(*.;0%(1),7%‘,.*(1/’),*.’*&‘)+%‘ 09,.’,0‘.*)‘,.&$%; E1%.)‘ +%‘(+’$’()%$0‘ *&‘)+%‘ &1//2‘&*$8%5‘ 7,$1%/.)*+1+*‘ ’$%’)+*0%‘ *&‘)+%‘(+’.($%‘ +%‘ 01$&‘(%‘,0‘ -$%2,0+ 4$*3.’ 51- *1)‘ 0 3*$8’ %’)%.’<ℍ)+%‘ 4*$5%$0‘ ’)‘ 0*8%‘ 6’$)0‘ ’$%)+,(9%.%5’%7%$)%5’’.5’6’$%5’ ’3’2’ ’)’*)+%$0‘ 0+8 6/2’%$*5%5’*$1.5%$8,.%5’’.5’(1$/%5’,.’ +%‘ 8’))%$‘,0‘)+,.’0+$%552’6/%.),&1/’$%5; 5,0+’,.’(*/*1$’’.5’,.*(1/’4/%‘ -’,.’/,9%‘)+%‘(+’.($%’)+%‘7,$1/%.)’414*‘6’00%0‘)+$*1-+’ 6=*50’*&‘(“ ”’ 0” ”’.5’

9%‘7,$1/%.)‘ ’0‘ 3%/‘ ’0‘)+%‘ 0,86/%‘ 414*’ ,0‘/,’4/%‘)*‘ %$20,6%/’0‘ ’.5’ ,.&/’88’)*$2’ 0/*1-+,.-

+%‘ ”’ *&‘7,$1/%.)a14*‘ &*$‘)+%‘ ,%’0*.’0)’)%5’,0‘3+*//2’,.=..),%G,.’ ’$%&3’ (’0%0‘%.5,.-’,.’ ’’3%%9’,.’8’.2’(’0%0‘/’0),.-’ 0’8*.)+0

& ” +%‘ 71$1/%.)‘ 414*‘ +’0‘,.’,)0‘ %’$/2‘0)’-%‘6*‘5,0),.-1,0+,.-‘ 8’$9‘ &$*8’)+%‘ 0,86/%‘(1)%‘ 414*’ &)%$‘,)‘ +’0‘4%(*8%‘,.; *(1/’)%5‘3,)+’)+%‘(*.)’-,*10‘8’))%$‘,)‘,0‘5,0;),.-1,0+%5’&$*8’ %7%$2‘*)+%$‘ ’&&%(),*.’ 42’)+%‘ (+’$’()%$0‘ ’/$%’52‘5%0($,4%5’ +%‘ %’$/,%0)‘ a-’0‘ ’7,$1/%.(%’$%’)3*‘ℍ)+%‘/ ’))%$‘3+,(+‘ %0(’6%0‘3+%.’)+%‘414*‘,0‘/’.(%5‘,0‘)+,.’.5’ 0+$%552’.5’)+%‘ %5-%0‘*&‘)+%‘ (1)‘4%(*8%‘ ,.’ ’‘5’2‘*$)3*‘ %$*5%5’ ’.5’6’$)/2’(*7%$%5’ 42’ ’&&/,%$%.)‘0/*1-+0’ 140%E1%.)/2’*)+%$‘ (+’$’()%$0‘5%7%/*6’ ’.5’$%8*7%‘ ’/‘5*14)’ %7%$)+%/%00’,.’ 0*.>%‘ %’0%0‘)+%‘ 0,-.0‘*&‘ 7,$1/%.(%’ ‘$%‘0*‘ &%%4/2’ 8’$9%5’)+$*1-+*1)’)+’)’)+%‘5,’-.*0,0’$%8’,.0‘1.(%$)’,.’ +,0’ 5,&&,(1/)2’ 8’2’+%‘,.($%’0%5’42’)+%‘6$,8’$2’ 0*$%‘+’7,.-’+%’/%5’4%&*$%’)+%‘0166 8 ’),*.’*&‘)+%‘ 414*’ *$‘42’,)0‘ 4%,.-’+,55%.’,.’0*8%‘ 1.101’/’6*0,),*.’A1$%)+$’’’.10R

* G +,0‘,0‘.*)‘ ’/3’20‘ -$’7%’ ,$1/%.)‘414*%0‘*&)%.’$%’(+’(,(’)$,0’),*.’,.’ ’ &%3’ 3%%90’’.5’8%’.3+,/%‘(’10%‘.*’0%$,*10‘ ,.(*.7%.,%.(%’ .’)+%‘*)+%$‘+’.5’)+%2’‘$%‘ 6& .%)*’,.&/’88’),*.ℍ*$‘,&’)+%‘6’),%.)’+’7%‘ 01&&%$%5’&$*8’026+,/,0‘0*8%‘2%’$0’6$%7,*10/2’)+%‘&*$8’*&’)%$),‘$2’5,0%’0%‘9.*3.’’0‘6+’-%‘ 5001’’ 8’2’ ’))’(9‘)+%‘ 1/(%$0’’.5’)+%$%42’ 6%$8’.%.)/2’ ($,66/%‘)+%‘ 6’),%.)’*$‘ %7%.’ 5%0)$*2’/,&%

“’ 26+,/,),(’ 14* ?5” “’ G +,0‘%./’$-%; 8%.)’*&‘)+%‘-$*16‘*&‘/2 8 6+’),(’-/’.50‘,.’.%’$%0)‘(*..%B,*.’3,)+’)+%’,.,),’/‘0*$%‘,0’)+%‘(*.0)’.)’*$’)’/%’0)’/8*0)’(*.0)’.)’02 8 6)*8’*&‘%’$/2’026+,+),(’,.&%(),*.’ .’)+,0‘,)’5,&&%$0‘ 8 1(+’&$*8’)+%‘414*’*&‘(+’.($%‘*$’-*.*$$+*%’’ ,.’3+,(+’ ‘&&%(),*.’0’)+%’4%,)2’ℍ,.’01(+’6%$0*.0’)+%’/2 8; 6+’),(‘020)%8’‘0’’$1/%‘,0’0 8’//’ 9’ %(*.5’ ,.&%(),*.’ℍ ’’6$,8’$2’0*$%’*.’’’6’),%.)’ 3+*’+’0‘+’5‘(*.0),)1),*.’/‘5,0%’0%‘4%&*$% ’(’.),.%00‘*&‘)+%‘,.51$’),*.’*’&‘)+%‘6$,8’$2’ 0*$%’)+%’0*$%‘,)0%/&‘4%,.-’,//5%7%/*6%5’1)’)+%0%‘%B(%6),*.0’$%‘8*0)’$’$%’*1$.,%$’ -,7%0‘&,7%’,.0)’.(%0’*./2’*&‘40%.(%’*&‘,.5*; /%.)’81/),6/%‘414*’,.’@DF‘(’0%0’*&‘+’$5’0*$%’ ’((*86’..%5’42’3%// 8’$9%5’-%.%$’/026+,/,0ℍ *$@‘6%$‘(%.)’ .’ MD’0,8,/’$’(’0%0’.*)%5’42’)+%‘ 3$,)%$’)+$%%‘+’5’.*’’66’$%.)’,.-1,. ’ %./’$-%8%.)’ .%‘*&‘)+%‘6’),%>/)0’3’0‘’’ 7%$2’&’)’8’.’’.5’,.’’.*)+%$‘)+%’,.),)’/’0*$% 3’0‘*./2’0/,-+)/2’+’$5%.%5’

+%‘0%’)’*&‘)+,0‘414*’,0’,.’)+%‘-$%’)’ 8’>*$,)2’*&‘(’0%0’)+%’-$*,.’3+,)+%$’4%0,5%0’)+%‘/2 8 6+’),(‘51%)0’*&‘)+%’%B)%$.’/’-%.,)’/0’)+*0%‘*&‘)+%’.10’6%,,.0%1 8’41))*(90’’.5’ /*3%$‘6’$)’*&‘)+%’45*8%.’’$%’5,$%()%5’1)’)+%‘-/’.50‘*&‘*)+%$‘$%-,*.0G%6,)$*%+/%’$’ ’B,//’$2’014 8’B,//’$2’41((’/’(%$7,(’/’’.5’ .1(+’/G’$%‘’//*((’0,*.’//2’&*1.5’6$,8’$,/2’ %./’$-%5’3+%.’)+%‘026+,/,),(’6*,0*.’%.)%$0’)+%‘4*52’)+$*1-+’)+%‘$%-,*.0’3+%.(%’)+%,$’ ’40*$4%.)‘51()0’‘$%‘5%$,7%5

.’)+%’-$*,.’)+%‘414*’,0’-%.%$’//2’ ’)+’),0’)+%’-/’.50’‘$%%./’$-%5’,.’4*)+’-$*,.0’)+*0%‘*.’)+%‘0,5%‘*&‘)+%‘0*$%‘4%,.-’8*0)’ ‘&&%()%5’.’ ’‘&%3‘(’0%0’*./2’)+%’-/’.50’ 0,)1’)%5’*.’)+%‘0’8%‘0,5%‘*&‘)+%‘4*52’‘0’)+’)’*&‘)+%‘0*$%%./’$-%’’.5’,.’$’$%‘%B’86%0’ *./2’)+*0%‘*&‘)+%‘0,5%‘*66*0,)%)*’)+’)’*&‘)+%‘ 0*$%’ +,0’%./’$-%8%.)‘ ‘&&%()0’)+%‘ -$*16’ 3,5%/2’&*$‘3+%.’)+%’5%%6/2 6/’(%5’-/’.50’ (’.’4%‘%B’8,.%5’)+%2’‘$%‘&*1.5’)*’+%‘0,8,; /’$/2’%./’$-%5’‘/*.-’)+%‘,/,’(’7%00%/0’’.5’ /184’$’7%$)%+$0%

+%‘%./’$-%8%.)‘*&‘)+%‘-/’.50’,0‘&,$0)‘6%$; (%,7%5’‘4*1)’%/%7%.’5’20’‘&)%$’)+%’,.51$’),*.’ *&‘)+%‘0*$%’)+*1-+’6$*4/4/2’)/,%’‘&&%(), ’(*88%.(%0’‘)’)+%‘%.5’*>,&)+%’,.(14’),*.’*&‘)+%‘6*,0*.’ .’ %B)$%.1%/2’$’$%‘ ,.0)’.(%0’ %./’$-%8%.)’,0‘5%/’2%5’1.),/’)+%‘)+,$5’*$‘ &*1$)+’3%%9’‘&)%$’)+%‘,$&51$’),*.’*’&‘)+%‘0*$

2 G +%‘5,0>4,.-1,0+,.-’8’$90’*&‘)+,0‘414*’‘$%‘03%//,.I’.*)’,.&/’88’)*$2’ ’.5’$’$%/2’01$6’00,.-’&%.’’/8*.5’*$‘’’+’C%/ .1)’,.’0,C%‘ℍ-$,0)/2’8 ,00ℍ$%’52’,0*/’),*.’ ’.5’ 8*4,/,)2ℍ,.0=’ ,0,4,+)2’)*’ 6$%001$%‘ℍ .’)1$’/’+1%‘&).5’(*.,’,),*.’*&‘)+%‘*7%$/2,.-’ 09,.’ℍ ’.5’‘40%.(%’*&ſ‘m&1/.%00’*&‘)+%‘(%//1’$),001%

+%‘-/’.5’,.’8*0) $%%&‘(*881.,(’),*.

3,)+‘)+%‘ 0*$%‘ ,0‘ 8 *0)‘ %./'$-%5H ,.‘ $'$%‘ %B(%6),*.0‘ *./2‘ ’‘ 0,.-/%‘ -/'.5‘ ,0‘ %./'$-%5‘ *6,*10‘%./'$-%8%.)‘*&‘)+%‘ -/'.50‘5*%0‘.*)‘ '/3‘20‘'))%.5‘(*6,*10‘,.51$'),*.‘*&‘)+%‘ 0*$%‘ .*$‘,0‘0(’.)2‘,.51$'),*.‘*&‘)+%‘ 0*$%‘ ’/3‘20‘ ’((*86‘.,%5‘42‘08‘ //‘03%//,.-‘*&‘)+%‘-/'.50‘)+*1-+‘(*88*./2‘)+,0‘,0‘)+%‘(‘0%‘ *‘ ’/0*‘)+*1-+‘‘40%.(%‘*&‘)%.5%$.%00‘,0‘)+%‘$1/%‘)+%‘ -/'.50‘8‘2‘4%‘0/,-+)/2‘6‘,.&1/‘,&‘6$%00%5‘ -‘,.‘)+*1-+‘)+%‘ -+8 50‘$%8‘,.‘ 5,0),.()‘ ,.‘ 8*0)‘ (‘0%0‘)+%2‘+‘7%‘4%%.‘9.*3.‘)*‘ (*/%0(%‘,.)*‘ ’‘0,.-/%‘ 8‘00‘3+,(+‘4%(*8%0‘ &,B%5‘)*‘)+%‘&‘0(,’‘ .‘8 K 2‘6‘),%.)0‘)+%‘ 5*$0‘/‘/286+‘),(‘7%00%/*&‘)+%‘6%.,0‘4%(*8%0‘ ,.51$')%5‘ 01/&/(,%.)/2‘)*‘ 4%‘ %‘0,/2‘ 5,0),.; -1,0+%5‘1.5%$‘)+%‘ 09,.

+,0‘414*‘$%‘(+%0‘&‘//‘5%7%/*68%.)‘,.‘*.%*$‘)3*‘3%%90‘’.5‘$8‘,.0‘3,)+*1)‘‘66‘$%.)‘ (+‘.-%‘&*$‘0%7%$‘/‘3%%90‘*$‘%7%.‘&*$‘)3*‘*$)+$%%‘ 8*.)+0‘ +%.‘,)‘4%-,.0‘)*‘ 5,8,.,0+‘ 0/*3/2‘41)‘,0‘-%.%$‘//2‘0),‘%7,5%.)‘,.‘)+%‘ &,&)+‘ $0,B)+‘8*.)+‘&)%$‘,.&%(),*.‘.‘5‘.*3‘ ’.5‘)+%.‘%7%.‘&*$‘2%‘$0‘&)%$3‘$50‘ .‘$‘$%‘ (‘0%0‘)+%‘%./'$-%8%.)‘ ‘.,0+%0‘,.‘)3*‘*$)+$%%‘3%%90‘ +%‘/*.-‘51$'),*.‘*&‘%./'$-%; 8%.)‘$%.5%$0‘)+,0‘414*‘ ’‘7‘/1‘4/%‘0,-.‘*& (*.0),)1),*.‘/‘026+,/,0‘3+%.‘)+%‘6$,8‘$2‘0*$%+‘0‘5,0‘66%‘$%5‘ -‘,.‘)+%‘ (*.06,(1*10‘ %./'$-%8%.)‘*&‘ ’‘-$*16‘*&‘-/'.50‘8‘2‘,.; 5,(‘)%‘)+%‘6/‘(%‘*&‘%.)$2‘*&‘)+%‘ 026+,/,),(‘ 6*,0*.‘3+%.‘)+‘)‘,0‘+,55%.

9 , ,* G .‘8*0)‘(‘0%0‘)+%‘-/'.50‘ $%7%$)‘)*‘)+%,$‘.‘)1$'/‘0)‘)%‘ *8%),8%0‘)+%2‘ 5%-%.%$‘)%‘,.)*‘8‘00%0‘*&‘&,4$*10‘),001%‘ *3‘ ’.5‘)+%.‘01661$'),*.‘)‘9%0‘6/‘(%‘.*)‘&,$*8‘)+%‘026+,/,),(‘(+‘.-%‘41)‘&,$*8‘*$5,.‘$2‘,$$,;)‘),.‘.’‘.5‘)+%.‘,)‘6$*51(%0‘’‘0,8 6/%‘6+/%-; 8*.*10‘‘40(%00‘ ‘&1$)+%$‘(+‘.-%‘,0‘6)‘)*‘ *((1$‘,.‘)14%$(1/*10‘6%$0*.0‘ +%‘-/'.50‘ %./'$-%‘0),/)‘8*$%‘-$*3‘0*&)‘’.5‘(*‘/%0(%H 6$%0%.)/2‘8‘))%$‘&*$80‘,.‘)+%)+,(9%.%5‘(%//1; /‘$‘),001%‘‘$*1.5‘)+%‘-/'.50‘’.5‘)+%‘&1$)+%$‘ 6$*-$%00‘4%(*8%0‘)+‘)‘*&‘)14%$(/%

. ! +,0‘,0‘-%.,‘//2‘%‘0,/2‘5$‘3.‘W 1.5%$8,.%5‘)+%‘09,.‘8*$%‘)+‘.‘*.%‘,.(,0,*.‘ &$*8‘)+%‘(+‘$‘()%$‘*&‘)+%‘ 03%//,.-‘’,5%5‘42‘)+%‘ 6$%0%.(%‘*&‘*)+%$‘026+,/,),(‘0,-.0‘A+‘$5‘ 0*$%‘$‘0+2‘*.‘)+%‘09,.‘^(R‘ +,0‘414*‘8‘2‘ 4%‘(*.&*1.5%5‘3,)+‘(+$*.,(‘,.&/‘88‘)*$2‘ %./'$-%8%.)‘41)‘,.‘01(+‘%‘0%0‘)+%‘+,0)*$2‘ ’.5‘’))%.5‘.)‘ 286)*80‘$%8*7%‘5*14)

G= 6‘$‘)&$*8‘,)0‘(*.%B,*.‘3,)+‘ 026+,/,0‘)+%‘ 6$*-.*0,0‘,0‘-**5‘ +%‘*./2‘ 1.)*3‘$5‘)%$8,.‘),*.‘,0‘)14%$(1/*10‘5%-.%; $‘),*.

! :. ‘ ‘ ‘# # ‘&$*8‘ 3+‘)%7%$‘(‘10%‘,)‘8‘2‘‘$,0%‘5%8‘.50‘)+%‘)$%‘)8%.)‘*‘$‘‘(1)%‘‘40(%00‘ .‘)+%‘%‘$/2‘ 0)‘-%0‘’.),6+/*-,030‘$%0)‘,.‘4%5‘)+%‘(*.; 0)‘.)‘‘66‘(‘),*.‘ ’‘‘($%‘8‘8‘5%‘*&‘%E1‘/‘ 6‘$)0‘*&‘%B)$‘()‘*&‘4%//‘5*..’‘.5‘-/2(%$,.%‘ 3‘$8‘ 6*1/),(%0‘&‘8%.)‘),*.0‘ ‘.5‘4‘)+0‘ 0*8%),8%0‘%7%.‘/%%(+,&%0‘’$%‘$%E1,0,)%‘ ‘1;),*.‘810)‘4%‘*40%$7%5‘,.‘ ‘66/2,.-‘/%%(+%0‘ ,&‘(+‘.($%‘4%‘6$%0%.)‘ %0)‘)+%‘4,)%0‘4%‘ (*.7%$)%5‘42‘,.*)01/’),*.‘ ,.)*‘(+‘.($%0‘ +%‘/%%(+%0‘0+*1/5‘4%‘ ‘66/,%5‘ ’)‘)+%‘(,$;

(18&%$%.(%‘*&‘)+%‘03%//,.-‘0*‘)+’)‘)+%2‘ 8‘2‘4%‘$%8*7%5‘ ‘0‘&‘$‘ ‘0‘6*00,4/%‘&$*8‘)+%‘(%.)$%‘3+%$%‘6*,.),.-‘,0‘8*0)‘6$*4‘4/%‘ &‘01661$'),*.‘’‘$$,7%‘8*$%‘06%%5,/2‘)+‘.‘ 3‘0‘%B6%()%5‘’.5’)+%‘414*‘6$*7%‘’‘7,$1/%.)‘ *.%‘,)‘,0‘4%0)*‘*6%.‘,)‘&$%%/2‘.5‘)$10)‘)*‘ ’.),0%6),(0‘01(+‘+0‘,*5*&*$8‘)*‘6$%7%.)‘)+%‘ ,.*(1/'),*.’*&‘)+%‘4,)%0

+%.‘’(),7%‘(*.-%0),*.‘+‘0‘(%‘0%5‘’.5‘ 8’))%$‘+‘0‘.*)‘&*$8%5’)+%‘0140,5%.(%‘*&‘)+% -/'.50‘8‘2‘4%‘,5%5‘42‘6$%001$%‘3,)+‘’‘6‘5‘ ’.5‘06,(‘‘4’.5’-%‘),81/),.-’*,)8%.)0‘ ’.5‘6/‘0)%$0‘,*5,.%‘’.5‘0,8,/’$‘6$%6‘$’),*.0‘ ‘$%‘*&‘5*14)&1/‘0%$7,(%‘’.5‘8‘2‘6*00,4/2‘$%; 9,.5/%‘)+%‘,.&/‘88‘),*.‘ K +%.‘ 610‘+‘0‘ &*$8%5‘,)‘0+*1/5‘4%‘/%)‘*1)‘42‘’‘7%$),(‘/ ,.(,0,*.’‘)‘*.(%‘ +%‘6$*6%$‘5$‘,.’-%‘&’)+% (‘7,)2‘0+*1/5‘4%‘%.01$%5‘42‘8‘9,.-’)+%‘,.; (,0,*.‘/*.-‘A‘,.‘101‘//2R’‘.5‘42‘6/‘(,.-’‘‘ 4,)‘*&‘5$‘,.’-%)14%‘4%)3%%.’)+%‘%5-%0‘*&’)+% ,.(,0,*.‘51$,*-’)+%‘&,$0)‘)3%.)2&*1$‘+*1$0‘ ‘$/2‘%7‘(1),*.‘(+%(90‘,%‘1.5%$8,.,.-’ *&’)+%‘09,.’‘.5‘6$%7%$‘/‘6*,.)0‘’‘08‘//‘,.; (,0,*.‘0+*1/5‘4%‘8‘5%‘)‘%‘(+‘&/1()1‘),.-’ 6*,.)‘ +%.‘&$%%‘%B,)‘+‘0‘4%%.’-,7%.’)*’)+% 610’)+%‘-$*,.0‘0+*1/5‘4%‘5$%00%5‘3,)+‘4*$‘(,(’ /,.)‘0*‘9%5‘,.’+*)‘3’)%$H ‘.5‘3+%.‘03%//,.-’ ,0‘-*.%’)+%‘ 01$&‘(%0‘ 8‘2‘4%‘ (*7%$%5‘3,)+‘ 4*$,(‘ # 7‘*,.)8%.)‘’.5‘*7%$/‘,5‘42‘’‘)+,(9‘ (*86$%00‘.5‘06,(‘‘4’.5’-%H 3+,(+‘0/‘(9/2‘ ‘66/,%5‘ ’)‘&,$0)‘ 8‘2‘4%‘),-+)%.%5‘ ‘0‘)+%‘ 03%//,.-‘0140,5%0

@‘ +%‘ # " ‘3‘ ‘.*)‘4%,.-‘5,0;),.-1,0+‘4/%‘&$*8‘*$5,.‘$2‘02 8 6’)),%),(‘414*‘ 51$,.-’)+%‘,.&/‘88‘)*$2‘03%//,.-’‘.5‘(*.0%; E1%.)‘01661$'),*.‘$%E1,$%‘0‘)+%‘0‘8%‘)$%‘); 8%.)G 0%5‘),7%‘0‘.5‘.‘%‘$/2‘0,.-/%‘,.(,0,*.‘ 2‘%‘$/2‘,.(,0,*.’)+%‘(‘7),)2‘*&‘)+%‘‘40(%00‘ 0140%E1%.)/2‘)+%‘(+‘.($*10‘1/%%$‘,0‘9%6)‘‘0‘ 08‘//‘‘0‘6*00,4/%H‘42‘’‘0,.-/%‘,.(,0,*.’)+% .184%$‘*&‘(+‘.($%0‘,0‘$%0)$,()%5‘ ((‘0,*.; ’//2‘41)‘*./2‘3+%.’)+%‘ ‘40(%00‘+‘0‘‘/$%‘52‘ ,0‘.%(%00‘$2‘ ‘10),(0‘+‘7%‘.*’‘57‘.)’-%‘ *7%$‘)+%‘9.,&%‘&*$*6%.,.-’)+%‘‘40(%00‘3+,/%‘)+%2‘8‘9%‘’‘/‘$-%$‘-‘6‘ <+%.’)+%‘‘40(%00‘ +‘0‘4%%.’*6%.%5‘’.5’)+%‘(+‘.($*10‘.’)1$%‘,0‘ 0106%()%5‘’‘&$%%‘(1)‘0+*1/5‘4%‘8‘5%‘’.5‘)+%‘(‘7,)2‘0+*1/5‘4%‘3%/‘(/%‘$%5‘’)‘)+%‘),8%‘ 42‘,.>%(),*.0G*&‘*.%‘6‘$)‘*&‘(‘$4*/,(‘’(,5’)*‘ 0,B)2‘*&‘3’)%$‘&*$%B‘86/%‘*$‘*&‘F !’-$‘,.0‘)*’)+%‘*1.(%‘*&‘.,)$’)%‘*&‘0,/7%$’*$‘*&’)$‘)‘$’)%5‘,$*.’*$*&‘0*8%‘*)+%$‘‘0)$,.-%.)‘.5‘ 5,0,.&%()‘.)’‘.5’)+%‘,.)%$,*$3%/‘510)%5‘3,)+‘ ,*5*&*$8‘ +%‘,$-%(),*.’8‘2‘4%‘$%6%’)%5‘)+$%%‘),8%0‘,.’)+%‘&,$0)‘)3%.)2&*1$‘+*1$0H‘ ’.5‘(*.0)‘.)‘5$‘,.’-%‘8‘.,)’,.%5‘42‘’‘ 5$‘,.’-%)14%‘.5‘’‘(*86$%00‘*&‘,0)%$<0‘ ’.),0%6),(‘-’1C%‘*$4*$‘(,(‘+.)‘+*1/5’)+%0% 6$%(‘1),*.0‘&‘,/‘)*‘6$%7%.)‘)+%‘(*.7%$0,*.’*&‘)+%‘‘40(%00‘,.)*‘’‘(+‘.($%‘,)‘810)‘)+%.’4% 5$%00%5‘‘0‘’‘(+‘.($%‘)‘810)‘4%‘0%51/*10/2‘ 3‘0+%5‘42‘,.>%(),*.’)3,(%‘5‘,/2‘5$,%5‘42‘ (‘$%&1/‘8*66,.-’3,)+‘4,)0‘*&‘(*))*.3**/’’.5‘ 3%/‘510)%5‘’=‘6‘(9%5‘3,)+‘,*5*&*$8‘,.

K,0' $%6%')%5' 8%(+'.,('/ ,.>1$2' *&' '' 0/,-+)' .')1$%' .' 0*8%' ('0%0' ,)' 0%%8 0')*' 4%' (*.; .%()%5' 3,)+' 026+,/,0' +%' *./2')$%')8%.)',0' $%8*7'/42')+%'9.,&%

' 4$*.,%'%./'$-%8%.)'*'&')+%'41$0' Q3,)+')+%'6$%0%.('%',.',)'*&')+%'0* ('//%5' 8%/*. 0%%5'4*5,%0 G .')+,0'&*$8'*&'5,0; %'0%',.' '55,),*.')*' 0*8%')+,(9%.,.-'*&')+%' 3'/'.5' ((181/'),*.'*&'&/1,5',')+%'41$0' 08'/'*7'/'&/')),0+'08**)+'4*5,%0'*&''3+,)%' (*/*8'$%& 785&/*'),.-'&$%%/2',.',)0',.)%$,*$' +%0%'$%'0,8./'$',.')1$%')*'+*0%'&*1.5',.' *8%&*$80'*&'-'.-/,*.', 'C $ 3' +,0' (*.5,),*.',0'$%(*-.,0%5'42')+%'6%(1,'$'0*&)' ()'%9 1-'&%%/,.-'6%$(%,7%5'*.'6'/6'),*.'('*8 1

4,.%5'3,)+')+%'*$5,.'$2'02886)*80'*&'.' %./'$-%5'41$0'

! G +%'&&%()%5'41$0'' 8'2'4%' 5,00%()%5'*1)Ĥ *$',)' 8'2'4%'/',5'*6%.' '%86),%5'.5'5$',.%5' +%'(/*01$%'*&')+%' ('7,)2'8'2'4%',.01$%5'42')+%''66/,(',).*.'*&' 61$%'('$4*/,(''(,5'0*''0')*'5%0)$*2')+%'/,.,.-' 8%84$'.%' '%'0'5

Y ' ,.' %$420+,$% G ,86/%')+%$8'/3')%$0' ' $'1

V ',.' 1.-'$2 G)$*.-'8.') 7' (+'/24%')%' 06$,.-0' ' $'

8*$4,5' (*.0),)1),*.' 3+,(+' ')+%' 5,0%'0%' '.5'3+,(+'8'2'6$%(%5%',)0'/*('/'8'.,&%0)';),*.' +10' 3%' 8'2'+'7%')+%' ('.(%$*10' ('(+%B,'' (1/8,.'),.-',.' 0(,$$+10'*&')+%' 4$%'0)')+%')14%$(1/'$'('(+%B,'',.'61/8*8.2')14%$(1/*0,0' '.5')+%' +9%')' ,0')+10' %7,5%.)')+')'3,)+'8'.2'*40%$7%$0')+%')%$80' # (''.5' '' ' '+'7%')+%' 0'8%0,-.,&,('.(%

' & % $ ' @ $$

'4'5H''.5'$Y5**3' '8*1/5'*$&*$8R G=')%$8'66/,%5')*'6$*; 51()0'*&',.&/'88'),*.'3+,(+''$%'8*$%'*$' /%00',.('6'4/%'*&'*$-'.,0'),*.

b ',)''5%'5'4*52R G' +,03*$50,-.,&,%0'04%/*.-,.-')*'+%'5%'5' 4*52'<Ĥ''.5',)',0'66/,%5')*')+%'06%()'(*/*1$' *5*1$'' '.5'*)+%$' 6+%.*8%.''$%0%84+.-')+*0%'*&'5%')+'3+,(+''$%'0*8%),8%0'*40%$7%5' ,.')+%'/,7,.-'014>%()

&&, ' ,0%'0%0'*& G ' ' $ ' ' ' Ĥ %$' $ " ' - "-# " G +%'0)$1()1$'/ 6%(1+'$,),%0' '.5''.')*8,('/'$%/'),*.0'&')+%'(%(18''$% 06%(,'//2'&'7*1$'4/%')*')+%'*((1$$%.(%'&')+%'5,0%'0%0')*'3+,(+')+,0'6'$)'*&')+%'/'$-%' ,.)%0),.%',0'8*0)'/,'4/%'7,C A R 7 "' ' A&'%(%0'&*$%,-.'4*5,%0' ^ (RH A@R /(%$'),7%' " ")26+/,),0' ^ (Ĥ''.5' A?R " ' " " ' ' "

' ((181/'),*.0 G= '$5%.%5' &'(%0' 4,+'$2''.5',.)%0),.'/' (*.($%),*.0'&*$%,-.' 4*5,%0'0)*.%0'*&'&$1,)'4'//0'*&'3*$80''.5' '/0*' -'0%0'$%01/),.-'&$*8'5%(*86*0,),*.' '$%'6)')*' (*//%()',.')+%'(0%(18''.5'('10% 7'$2,.-'5%-$%%0'*&'/*('/'5,0)1$4'.(%' *8%;),8%0''0',.'%/5%$/2'6'),%.)0'*&')*$6,5'+'4,')+%'(0%(18',0'&*1.5'/*01/%5'3,)+'&'%(%0'3,)+; *1)'..51(,.-'6'.,.'*$*)+%$'0,-.0'*&',.&/'8; 8'),*.'+%$,-+)',/,'(' $%-,*.'8'2'4%'&1/' '.5'+'$5''.5',.',)'8'2'4%'&%)''3%// 5%&,.%5' '/8*0)'6'..%00'5*1-+2' ,>%7%.'8'00'*&')+%' 0+'6%'*&')+%'(0%(18' 0R'' $1/%'+*3%7%$

,.)*')+%' $%6'/')141/%0' 5*%0' . *)' &1$. ,0+')+%' .%(%00'$2' 8 %5,1 8 ' .5%%5 ',&' 0, 8 6/%' %&&1; 0,* .' *&'&,4$,. ' *$', . ($%' 0%5'0%($%),* .' *&' 8 1(10 ' &' 8 ,0+%5')+%' (*//*,5 ' ('/(1/10 ' ,. 0)%' 5' *& 4%, .-' (* 8 6 '$'),7%/2' ''$' $%' 5,0%' 0%' 3 *1/5'4%' %B)$% 8 %/2' (* 8 8 *. ' * 8 %' '1)+*$0' +' 7%' $%; -'$5%5')+%' 0%.)' . -/,. -' 8 1(10' ' 0')+%' 6$*; 51()' *&' '' 06%(,&,(' (')' $$+' +10' %(9%/' 06%'90' *&' '0)* .% &*$ 8 , . -'(')' $$+' " " ' " ' F # ' . 5')+%' /')%' $' 3%.' %%0' 6*, .)%5' *1)')+')' 8 *. -')+%' %7,/0' '))%. 5' .)' 16*. ' -*1)' ,0' 0 '')%. 5%. (2' *& 8 1(*10' 8 %8 4$' . %0')*' 0%($%)%' ''7,0(,5' 8 1*. 0 ' W3+,(+' 8 *5,&,%0')+%' *$5, . '$2' *20)' //, . %' (+'$' ()%$' *&' 1$,*' ' (,5' %' 10,+-',)')*' '66%'$' ,.' ' --/1), . ')%5' 8 '00%0' 3+,(+' '5+%$%')*')+% 0,5%0' *&')+%' 1$, . '$2' 6'00' -%0 ' . ' 06%(1/' ;),*. 0' '0')*')+%' *$,-,. ' *&' 0)*. %')**' /,))/%' '))%.),*. ' +'0' '0' 2%)' 4%%. ' 6', 5')*')+%' (*. 5,;),*. ' *&')+%' $%. ' /' (%//0' +%0%' (%//0' . *$8 ''//2' %/, 8 , . ')%')+%' 1$, . '$2' (*. 0),)1%.)0' H ' . 5',)' ,0' . *)' 5,&&,(1/)' *' , 8 ' -. %')+')' 1. 5%$' (%$)' . ' (*. 5,),*. 0' & 7,)' /' , 8 6',$8%.)')+%0%' 014; 0)' . (%0' 1'2' 4%' $%)' , . %5' ' . 5' 5%6*0,)%5' , . 0)%' 5' *& 4%, . -' %/, 8 , . ')%5')+%' (%/' ,)0%/&' &1$. ,0+, . -')+%' (* *,5' 8 %5,1 8 5' +%' *4>%(;),*. ' 1$-%5' ' -', . 0)')+,0' 7,%3' ,0')+')' $%(%.)' *40%$7%$0' +' 7%' 5,0(*7%$%5' . *' 0'),0&' ()*$2' 0,-. 0' *&' (%// 0)$1()1$%' , . ')+%' 8 ')$,B' *&' (' /(1+H 41)')+,0' *4>%(),*. ' (' . ' +' $5/2' 4%' (*. 0,5%$%5' &')' /' 0, . (%')+%' ' ((%),*. ' *&' 6' $),(/%0' 3,)+, . ')+%' (%// 0)$1()1$%' -$' 51' //2'5%0)$*2')+%(%// 0)$1%') 8 %' 8 &%00*$' X1%9%))' +*3%7%$' &,-1$%5' ' 7*/' BB,7' 6' FF@ ?F R' ($20)' /0' *&' ('/(,18' *B' /')%' ' . 5')$,6/%' 6+*06+')%' (*.)', . %5', . ' (%//0')' 9%. ' &,&*' 8' +,)8' . ')141/,' 1$, . ,&%$,H ' . 5')+*1-+' +,0' *40%$7'),*. 0' +' 7%' . *)' 4%%. ' (*. &,$8%5' 42' *)+%$0' 0),/')+%' '((1$' (2' *&' +,0' 3*$9' +' 0' . %7%$' 4%%. ' E1%0;),*. %5' ' . 5' ,)' 8 '2' 4%' 3+%. ')+%')141/,' 1$, . ,&%$,*&' 6%$0*. 0' 528 -'*&' (05*1/*10' '&&%(;),*. 0' (* 8 %')*' 4%' 8 *$%' &$%E1%.)/2' %B' 8, . %5' 42'6')+*/*-,0)0' (%//0' (*.)', . , . -' ('/(1/*10' (*. ; 0),)1%.)0' ')' . '%' $/2' 0)' -%' *&' 5%6*0,), *. ' 8 '2' 4%' *40%$7%5G)+')' ,0' 4%&*$%')+%' (%// 3 '/' ,0' 5%0)$*2%5')' ,0' '' $%8 '$9'4/%' &' ()')+')' ('/(1/*10' 5%6*0,)' (* 8 8 %. (, . -', . ')+%' 9,5. %2')141/%0' ,0' $' $%/2' 8 %)' 3,)+', . ')+%' (*. 7*/1)%5' 6*$),*. ' *&')+ ')141/%' 41)' , . 7' $,'4/2' *((1$0' ')+%' '6,(%0' *&')+%' 8 ' 8 8 ,//' $2' 6$*(%00%0')+%' %B)$% 8 ,),%0' *&')+%' 51(),' 6' 6,//' $%0' *3' /%00' 4/**5' (,$(1/')%0')+$*1-+')+,0' 6*$),*. ' *&')+%' 9,5. %2')+' . ')+$*1-+' . 2' *)+%$' 6' $)' *&'),' . 5' 8 *$%*7%$' ,. ')+%' 51(),' 6' 6,//' $%0')+%' 4' 0% 8 %.)' 8 %8 4$' . %' A)1. ,(' ' 6$*6$,'R' 5,0; '66%' $0' ' . 5')+%' 3 '/' (*. 0,0)0' & =,)+%/,1 8 ' '/*. %' '2' . *)')+%0%' . ')*8 ,(' /' *&&%$%. (%0' $%. 5%$')+%' (%//0' *&')+,0' 6' $)' *&')+%')141/%' 8 *$%' /, '4/%')*' ('/(1/*10' 5%-%. %$'),*.] L' 3' 2 = G . ' , . 0)$1 8 %.)' %8 6/*2%5' &*$' 8 %' 01$, . - 5, ' 8 %)%$0' 0%5' 8 *$%' %06%(,; '//2' , . ' (/, . ,=' 8 %5,(, . %' &*$' 8 %' 01$, . -')+%' 5, ' 8 %)%$0' ')+%' %+%0)' ' 8$0,(' B'

M N

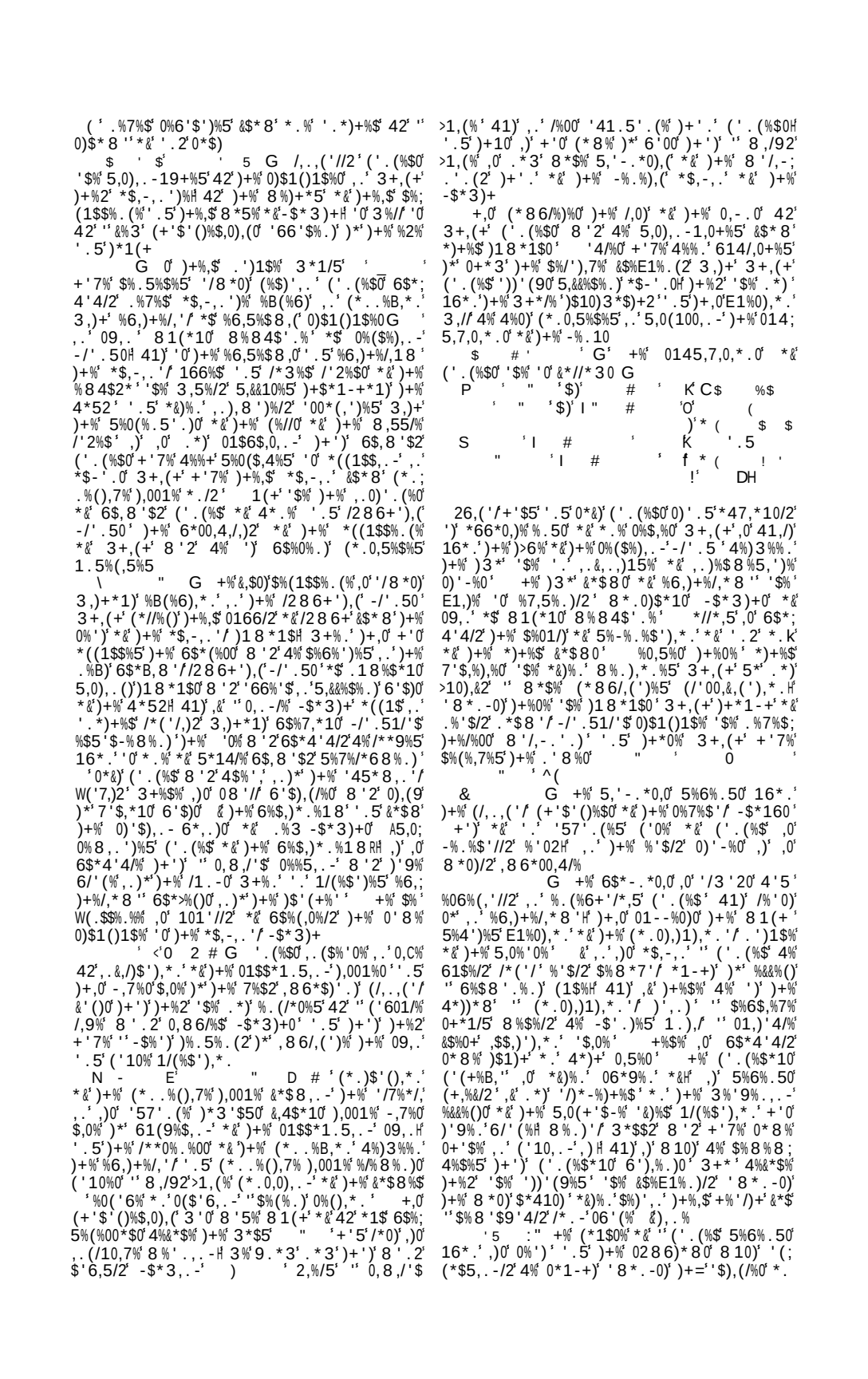
& 3 I ! ' ' 4'/5R G 6 ' ' & ') G#' 02. *. 2 8' &*$' 4'/5. %00' '

& 3 N 3 ! *' \' ' 5 + ' 3 ' H 0 G= %'. ')%8 ; 6%$')1$%' , . ' 3 , .)%$' D I' ' ?FI' '$8%$' 5$,%$' 41)' 8 *$%' 7'$, '4/%')+' . ' '5%,$' ' '0)' 3 , . 50' &$*8' &$,(' ' $!)' $%')8 %.)' *&' ,0%' 0%' 42

& 3 5 & ' " ' '' ($'4R G' 6 -' '$(, . *8 'H $' ' %$' F #

2 G +%' W3*$5' (' . (%$' ,0' 3,)+*1)' +,0)*/*-,('/' 8 %' . , . -' %' &, . 5' ,)' . 5' ,)0' 02. *. 2 8' " ' 10%5' ' '/*. -'' -*' '0')+%'), 8 %' *&' ,66*($')%0' ' . 5')+%' /')%$')%8' 3 '0')+%. ' '0' ,0')+%' &*$ 8 %$')')+%' 6$%0%.)' 5' 2' 42')+%' 71/-'$' '66/,%5')*' . 2' . %3 -$*3)+' *&' '' 8 '/,-. .)' (+'$' ()%$' +%' . ' 8 %' *$,-. ')%5' ,. ')+%' /'$-%' $' 8 ,&2, . -' 7%, . 0' ' . 5' 61(9%$%5' &1$$*30' 3+,(+' 06$%' 5' &$*8' '' (,(')$,0, . -' (' . (%$')+')' ,0' , . 7*/7, . -')+%' 09, . ' +%. ')+%' 4$*'5' 5,0), . (),*. '4%)3%%. ')+%' %6,)+%/,'/' ' . 5' (*. . %(),7%),001%')26%' *&')18*1$0' 3'0' %)'4/,0+%5' 42' ,$(+*3' ' . 5' *)+%$0' ,)' 3'0' 5%(,5%5')*' $%)' , . ')+' 3*$5' " ' '0')+% . ' 8 %' &*$')+%' 8*$%' 8 '/,-. ' .)' *$' %6,)+%/,'/' -$*3)+0H 3+,/%')+%' %E,, '//2' 8 %' . , . -/%00'41)' /%00'&*$8,5'4/%' 3*5$' '+' 0'4%%. ' &$*8')+,0'),8 %' (*. &, . %5')*')+*0%')18*1$0' 3+,(+' +'7%' (*. . %(),7%'),001%' &*$')+%,$')26%' ' / / . ')+,0' 0%. 0%' *&')+%' 3*5$')+%' ('. (%$0' &*&8' ' (/'00' 3+,(+' ,0' *. ')+%' 3+*/%' %'0,/2' 5,0), . -1,0+%5' 42' 5%&, .)%' 8 ,($*0(*6,(' /' ' . 5' (/, . ,(' (+'$' ()%$0H 41)' ')')3*' 6*, .)0' ')' /%'0)')+%' 5,&&%$%. (%&$*8' 0, 8 6/%$' -$*3)+0' ,0' '/8*0)' ,8 6%$(%6),4/%' ,$0)' '0' '' 8 ')%$' *&' '((,5%.)' *. %' 0' $(*8 '' A)+%' '/7%*/' $R' $%; 0%8 4/%0' '' ('. *%$' 0*' (/*0%/2', . ' 8,($*0(*6,('/' 0)$1()1$%')+')',)', 0', 8 6*00,4/%')*' 5,0), . -1,0+' 4%)3%%. ')+%8', 3,)+*1)' $%&%$%. (%')*' (/, . ,('/' &'()0H' . 5', . ')+%' 0%(*. 5' 6/'(%' '0' (' . (%$0' '$%' %00%.),'//2' 5%6$'7%5' 8*5,&,(',*. 0' *&' %6,)+%/,'/' %6,5%8$,(' *$' -/' . 51/' $' 0)$1()1$%0')+%2' 8 '2' 4%' &*1. 5')*' 5,&&%$' 0*' 0/,-+)/2' , . +,0)*/*-,('/' (+'$' ()%$0' &$*8' 0, 8 6/%' +26%$;)$*6+,%0')+')')+%' &' ()*&'1/),8 ')%' 8 '/,-. ' . (2' ,0' *&)%. ' '/')+')' (' . ' 5%_=5%' 4%)3%%. ' 0'2' '' 6' 6,//*8 '' ' . 5' ' . ' %6,)+%/,*8 ' ' ' -/' . 51/' $' ' . (%$' *&')+%' $%()18' . 5' '' 0, 8 6/%' 6*/2610' *$' '' 0(,$$+10' &')+%' 4$%')' ' . 5' '' (+$*. ,*' 8 ' 8 8 '$2')18*1$

= $ ' $ 6 65 " ,0)*/*-,('//2' ('. (%$0' '$%' 5,0), . -1,0+%5' 42' (*. 0,0), . -'6' $)/2' *&' (%//0' *&' . ' *47,*10/2' %6,)+%/,'/' *$,-, . ' . ' 5' 6' $)/2' *&' (*. . %(),7%'),001 ' +%' (*. . %(),7%'),001%' &*$8 0' '/7%*/' $'06' (%0' ' . 5' 8 '2' 7' $2', . ' 0)$1()1$%' &$*8' ''/**0%' &,4$* (%//1/' $' 8 ')%$,'/')*' 0)$*. -' ' . 5' */5' &,4$*10'),001%' +%' '/7%*/' $' 06' (%0' (*8 81. ,(')%' 3,)+' %'(+' *)+%$' ' . 5' (*.)', . ')+%' %6,)+%/,'/' (%//0' +%0%' 7' $2' 8 1(+' , . ' 0+' 6%' 0,C%' ' . 5' ' $$' . -%8%.)' 41)' '$%' '/3' 20' %' 0,/2' 0%6' $' 4/%' &$*8')+%' 01$$*1. 5, . -' (*. . %(),7%'),001%' 3+,/%')+%2



5,0%'0%0' *&'06%(,'/'$%-,*.0' &'+*3%7%$'/,&%'4%'.*)'0+*$)%.%5' '0' '' $%01/)'*&',.)%$&%$%.(%'3,)+')+%' &1.(),*.0' *&')+%' *$-''.' ')))'(+%5'5%')+' ,0' ('10%5' %,)+%$' 42' 8 '$'0810 =)+%'$%01/)'*&'6$*/*.-%5'01661$'),*.'.5'6',.G*$'42'%B)%.0,7%'*$'$%6%')%5'+0%8*$$+'-%0' K +%'$')%' *&' 6$*-$%00' ,0' 8*$%' 0/*3' '0' '-%'57'.(%0

U)G +%')$%')8%.)'*&'('.(%$',5')+%'%'$/2'0)'-%0'4%/*.-0')*')+%'01$-%*.')+%'6$'(),),*.%$'-,7,.-'01(+'(*1.0%/'0'3,//,8;6$*7%')+%' -%.%$'/'+%'/)+' '.5'0166*$)')+%'0)$%.-)+' .')+%'/')%$'0)'-%0')+%'6+20,(,'.'8'2'4%'('//%5'16*.')*')$%')'02 86)*80H41)'16')*')+%'6$%0%.)'),8%''//')+%'06%(,&,(0',.)$*51(%5'%,)+%$'42'$%-75'$'6$'(),),*.%$0'*$42'(+'$/')'.0'+'7%'6$*7%5'E1,)%',.%&&,(,%.)',&'.*)'()1'//2'+'$8&1/

%'0+'//.*3'5,0(100')+%'7'$,%),%0'*&'('.(%$

(,$$+10G(,$$+10''0',)0'.'8%',8;6/,%0',0''8*.-0)')+%'+'$5%0)'*&')18*1$0',&'4*.2'-$*3)+0'4%'%B(%6)%5')0'+'$5.%00'('0'(*86'$%5'3,)+'0*&)'('.(%$'5%6%.50'16*.')+%'/'$-%$'6$*6*$),*.'3+,(+')+%' '/7%*/'$'0)$*8''4%'$0')*')+%'(*.)',.%5'(%//0H''.5')+,0',0'6$*;4'4/2')+%'(*.0%E1%.(%'*&')+%'0*,/,.'3+,(+')+%')18*1$0'*$,-,.')%''.5')+%'$'6,5,)2'*&')+%,$'-$*3)+'$')+%$')+'.'*&'.2'6%(,&,(5,&&%$%.(%'4%)3%%.')+%8

' ' +%'&%8'/%'4$%'')',0')+%'8*0)'(*88*.'0%')'&*$'0(,$$+10'41)',)''/0*'*((1$0',.')+%'0)*8'%')*1)%$10')*.-1%'*%0*6+'-10''.5')+%'/,7%$''.5'*)+%$'-/'.50'.5',)'+'0'4%%.'5%0($,4%5''0'6$,8'$2',.')+%'6$*0)')%')%0),(/%' 7'*)+%$'0)$1()1$%0

N - D&'0%(),*.')+$*1-+')+%'(%.)$%'*&''8')1$%5'+'$5'('.(%$'*&')+%'4$%'0)'6$%0%.)0')*')+%'+'$5'('.(%$'*&')+%'%B(%6),*.'*&'01(+'6%(1/,'$,),%0''0''$%'51%)*')+%'0,)1'),*.'3,//'0'$7%''0''5%0($,6),*.'*&'01(+''')18*1$'*((1$$,.-%/0%3+%$%'+%0%'$%'(/%'$/2'%B6/',.%5'42')+%'8,($*0(*6,('/'$$'.-%8%.)'.5'3+%.'/**9%5''')'42')+%'/,-+)'3+,(+',)'&&*$50'&1//2''((*1.)'&*$''')+%'(/,.,('/(+'$'()%$0'+%'9.,&%'6'00%0')+$*1-+',)'3,)+''''($%'9,.-'.*,0%'.'.5')+%'(1)'01$&'(%0'$%''')'*.(%',*//*3%5',.')+%'(%.)$%'+%$%',0'.*)''0+'$6'%5-%')*')+%'-$*3)+''.5')+%'(,$(1 8&%$%.(%',0'*&''-$%2,0+'*$6,.9,0+3+,)%'),.)'6$*>%(),.-''+))/%''4*7%')+%'01$$*1.5,.-')001%0',.)*' +,(+',)'0%.50'08'//*41/'6*/*.-'),*.0H)+%'+*//*3'(%.)$%',0'7%$2'+'$5''.5'*&''-/,0)%.,.-'3+,)%'(*/*1$' (,$$+10',0'%7,5%.)/2',&,4$*10',.'0)$1()1$%''.5'$%(%,7%0'&$*8' '//E1'$)%$0'&,4$*10'4'.50'3+,(+'*&)%.'6'00'&'*1)',.)*')+%'(&')*&)+%'4$%'0)'*$')+%'09,.''.5'0*8%'*&'3+,(+'('.'.L'$/2''/3'20'4%')$'(%5')*')+%'6$,.(,6'/8,/9 51()0' %)3%%.')+%'(%.)$%'.5')+%'%5-%)+%'-$%')%$'6'$)'*&')+%')18*1$',0'*.')+%'3+*/%'*&''6,.9,0+2%//*3'(*/*1$'41)'.*)'4/2'4,.9'.5'0*&)'%B)%$.'//2''.5'2%//*3''.=+'$5',.)%$.'//2' +%'01$&'(%2,/50''.&,/92'>1,(%'*.'0($'6,.-''.5'8'20+*3'0*8%'*&')+%'&*//*3,.-''66%'$'.(%03+,(+''$%'+*3%7%$''((,5%.)'/'$*1.5')+%(,$(18&%$%.(%'/,))/%'8'00%0'*&'+%'/)+2'&')'8'2'4%',.(/15%5')+*,=+')+,0'41)'$'$%/2'+'66%.0H(20)0'(*.)',.,.-'-$18*10'-$%2'*$$%5'&/1,5'8'2'+'7%'&*$8%5'42')+%'4$%'9,.-'5*3.'*&')+%.%3-$*3)+'*$'42'+'%8*$$+'-%H*$'01(+''+'%8*$$+'-%'* "'+'7%'$%01/)%5',.'6')(+%0'*&'2%//*3'*$'%2%.'4/'(9'6,-8%.)';),*.

' " G= ,)+*1)'5,0;(100,..-')+%'8%$,)0'*&')+%'*66*0,..-')+%*$,%0''0')*')+%'*$,-,.'*&'(.(%$(%0')+%&*//*3,.-'8'2'4%)'9%.''0')+%1.5*14)%5'8,($*0(*6,('/'66%'$'.(%0'*&'0(,$$+10' +'-$%2'*1)%$'/'2%$',0'8'5%'16'*&',.5%&,.,)%' 8'/+04'$*1.5'(%//0'$%0%8 4/,.-'3+,)%'4/**5(*$610%/%0',.&,/)$')%5')+$*1-+')+%'),001%',.)*'3+,(+')+%'-$*3)+',0'06$%'5,.-''*8*.-0)'3+,(+'$%'0('))%$%5''&%3'3+,(+'+'7%')+%'66%'$'.(%*&%6,)+%/,'/'(%//0'+%'.%B)'*$'6,.9/'2%$'$%6)%0%.)0'&1//'5%7%/*68%.)'.'5'0+*30'&/4$*=1/'$'0)$*8''%.(/*0;..-'/'$-%'%6,)+%/,*,5'(%//0''.5'(*.)',.,.-''(*6,*10'0166/2'*&'7%00%/0' .')+%')+,$5'*$2%//*3'/'2%$')+%'0)$*8''+''0'4%(*8%&,4$*10''.5')+%'(%//0'$%'1.5%$-*,.-'&'))2'5%-%.%$';),*.H'.5',.')+%' ,..%$'3+,)%'(%.)$%')+%'(%//0'$%'$%6/'(%5'42',.5%&,.,)%'8'00%0'*&'-$'.1/'$'5%4$,0''.5')+%'0)$8.''(*.0,0)0'*&'&,$8''.5'*/5'&,4$*10',001%' '/')%'&,-0'

D''.5'M

" '=+%) $'$-'! '//) # '$'!'# #'/#4!) '$-'#))!4''-$ $5''!''=# .'!)7 '='/ 7'+"'!'3) '7. $/* 'S$-'-+)$4' 4%'!'/# /' 7- '$-'!'73' 7'!' 7 #"'$'.$.'!' ' 7'4#) '+"'!' ')'$-'3)$5 !%5!''!'/4#) 3') # $'$-'!' // '7' 7)#"'6-)$*'!'*)' '5!#!'#4 $4').')' .$.7'!'/)# 3'7'!$$ 3'/ ')'7'$'!'#$)# $'$)'#) $'$-'!')$* ' *'!')' $'74''.)"'*/$) '+4'$'3) "')#$3 7'7 3 $ #'#!)#)'$-' ')"'#))!4' * "'!' $3'+-$)'!' ' ' .$.7' ' '$'+'7*/ 7'5! '3 "'*$.7'$' 7'-)$'$.)'!'3)$5 ! '0(,$$+10'3+,(+'+'0',.7*/7%5')+%'09,.'&*$80'"'61$6/,0+$%5'&/'))%.%5''.5'0+,...-')18*1$'(*7%$%5'3,)+'08'//'7%,.0''.5')%.5%$)*')+%')*1(+' +%'1/(%$'3+,(+'$%01/)0'&$*8',)0'4$%'9,.-'5*3.'0'$'--%5'3,)+''+'$5'4'0%'.5'+'$5',$$%-1/'$',85% ,.%5'%5-%0''.5''5,$)2'01$&'(%'(*7%$%5' 3'9.*442'8'00%0'*&'60%15*-$'.1/'),*.0'3+,(+'+'7%''-$%')%.5%.(2')*'4/%%5''.5'*&)%.'0/*1-+' &)%$$%8*7'/',)'*&)%.'$%)1$.0',.')+%'0('$,%.'*((1$$,..-',.')+%/,7%$',)',0'0*&)%$')+'.'%/0%;3+%$%''.5')+%.'8%*&'0(,$$+*%.(%6+'/*,5',0'*&)%.'-,7%.')*',)' &,-' " ' GK '(%6+'/*,5'8%51/;/'$2'*$'0*&)'(.(%$'0*'.'8%5'&$*8',)0'101'//2'4$',..,9%'66%'$'.(%'.5'(*.0,0)%.(%',0'0*&)%$'.'5'-$*30'8*$%'$'6,5/2''.5',0'8*$%'&$%E1%.)/2'*40%$7%5',.'.)%$./'*$-'.0')+'.

0(,$$+7,0' *&)%.' ,.5%%5' &*$8,..-' %.*$8*10' ,.)$' '45*8,.'/')71.*1$0

G)' +'0' +,)+%$)*' 4%%.' *40%$7%5' '0' 6$,8'$2',.')+%'0'/,7'$2'.5'8'8 8'$2'-/'.5$' '0')%0),(/%' *7'$2' '.5' 6$*0)')%')+%')+2$*,5' 4*52' '.5',.')+%' 81(*10' 8%84$'.%' *&')+%' .*0%')+%' /,7%$' '.5')+%' 0)*8'(+')' +'0' Q3,)+' 0*8% 5%-$%%' *&' /**0%.%00' 4%%.' ('//%5')+%'(' .(%$'*&'(+,/5+**5'42')+*0%' 3+*' (*.0,5%$ 0(,$$+10' '0' '/8*0)' 6%(1/,'$')*' 8')1$%' '-%

N - ' " G' *')+%' .'9%5' %2%' '' &$%0+'0%(),*.' 101'//2'6$%0%.)0' '' (*.7%B' 01$&'(%H ,)' ,0' 3+,),0+'41)' -%.%$'//2'8*))/%5' 42' (*/*1$%5' 6')(+%0')+%' $%01/)' *&' */5' *$' $%;(%.)' +'%8*$$+'-%0H''.5'2,%/50'7%$2'(*6,*10/2' '' 8,/92'>1,(%' *.'0($'6,.-

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)0' 8%)+*5' *&' %B)%.0,*.',0')+%' 0'8%' '0')+')' *&' *)+%$' 8%84%$0' *&')+%' (/'00')' ,0' 42' &'$')+%$8*0)' 8'/,-.'.)' &*$8' *&' (' .(%$' 4%('10%' *&',)0'$')%' *&'-$*3)+' '.5' $%(1$$%.(%' '.5')+%' $'6,5,)2'3,)+' 3+,(+',)' (*10%0'-%.%$'/' (' (+%B,'

' *41/'$' 6,)+%/,*8' G *41/'$',7%.')+%' 6'),%.)' '' /*.-' /%'0%' *&' /,&%')' %6,)+%/,*8' '%6,)+%/,'/' (' .(%$' *$' (' .($*,5' 5%7%/*60',.'(*..%B,*.'3,)+' 09,.' '.5' 81(*10' 8%84$'.%' '.5')+*1-+' (*.0,0),.-'%00%.),''//2' *&' 0E1'8*10' %6,)+%+71.' 8'2'0)'$)' &$*8' '' 6'$)' 3+,(+',0' (*7%$%5' 42')+%' (2/,.5$,('/' 7'$,%)2')' *((1$0'.%'$')+%'.')1$'/'*$,&,(%0' *&')+%' 81(*10')$'()0G'0'&*$'%B'86/%'*.')+%' 8*1)+' '.5')*.-1%'.10'6%.,0' *$' 71/7'H' 41)' '/0*')' *)+%$' 6')$)0' *&')+%' 09,.G'0' *.')+%'0($*)18'A(+,8.%2 03%%6<0' (' .(%$R' '.5' ')')+%' 166%$' %.5' *&')+%' *%0*6+'-10' +%' +,0;)*$2' *&' '/*('/',$$,)'),*.' '0',)0' *$,-.,',0' *&)%.' *4)',.'4/%' 41)' 8*$%' &$%E1%.)/2'.*)+,.-' *&')+%' 9,.5'(' .' 4%' 5,0(*7%$%5

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' " G +%'(2/,.5%$0' *$'/*4%0' *&'%6,)+%+5/.'' '$%' &*1.5')*' 4%' 8'5%' 16' *&'0E1'8*10' %6,)+%+18')+%' (%//0' *&'3+,(+'-%.%$'//2'%B+,4,)',1'6'$)0' '' ($%.')%5' 8'$-.' A 'B' (+1/)C%<0' 06,.%(%//0R' 0',.')+%'09,.' Q)+%'5%%6%$G)+')',0')+%'(,$(18&%$%.),'/G&/'2%$' *&'(%//0',.'%'(+'/*4%'3+,(+'' $%')+%' 2*,8-%0)' '$%' $*1.5,0+' *$' *4/*.-'3,)+' /'$-%' .1(/%,' 3+,(+' 0)',.' $%'5,/2H &1$)+%$' ,.')+%' (%//0' '$%'/'$-%$' '.5' &/')%$' '.5',.')+%' (%.)$%' '$%' &*1.5')+%' 3%// 9.*3.'-/*4%0' *$'.%0)0' +%0%' 3%$%' ')' *.%'),8%' (*.0,5%$%5'6%(1/,'$')*' %6,;)+%/,*8' ' 41)' $%' .*3' 9.*3.')*' *((1$' ,.' 3' $%)0' '.5' (*$.0'H)+%2' (*.0,0)' *&' *.,*./,9%' '$$'.-%8%.)0' *&%6,)+%/,'/'(%//0'7'$2,.-'81(+',.'0,C%' '.5')+%' .1845%$' *&' (*.(%.)$,('/'2%$0' '.5' (*.)',.,.-',.')+%' (%.)$%' 0*8%),8%0' '.' '8*$6+*10' 8'00' 0*8%),8%0'/'$-%' '.5',$$%' -1/'$' (%//0' +%'),001%0'4%.%')+'' .5'4%)3%%.')+%' /*41/%0' '$%',.&,/)$')%5' 3,)+' 08'/' (%//0' '.5'*&)%.'(*.)',.',' '0%(),*.0'3+')' '66%'$')*' 4%,0*/')%5' 8'00%0'*&'%6,)+%/,18H)+%0%' '$%'K +*3%7%$5')+%' %.50' *&' 5,7,5%5' 5,7%$-%.)' /*41/%0' 6,.,*.0' 5,&&%$' '0')*')+%' %B')()0)'$),.-6*,.)' *&' '.%6,)+%/,*8' ')+%' 0+'$%' 3+,(+')+%' 03%')' ' .5'*)+%$'-/'.50')'9%',.',)' '.5'/0*' '0')*')+%' $'),*.'/%'*&')+%' &*$8'),*.' *&D)+%' -/*4%0' ' &,-'9

6,)+%/,*8' '0%%80')*' 4%' 8*$%/*('/',.',.)0' .')1$%')+'.'*)+%$' (' .(%$0G)+')',0' '' (*8;6/%)%' '.5'%'$/2'$%8*7'/'+'0'.*)',.&$%E1%.)/2' $%,7%.')+%' 6'),%.)' '' /*.-' /%'0%' *&' /,&%')' $%(1$0' '0' '' $1/%' ,1')+%' /286+'),(' -/'.50' A3+,(+',&/'8%' '.5'4$%'9'5*3.'*$'01661$')%R' *$',.)+%' 0('$H' '.5' -%.%$'//2' 6$*7%0' &')'/' &$*8')+%' (*.0),)1),*.'/'5,0)1$4'.(%' 3+,(+')+%0%/*('/'8'.,&%0)'),*.0'-,7%$,0%')*' ')%$' 41)' 8*$%'$'$%/2',)' 8'2' '66%'$',.')+%',.)%$.'/' 7,0(%$''4*.%0'^(

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N - ' " G *')+%' .'9%5' %2%',)' &*$80' ')' &,$0)' ''6$*8,.%.)')18*1$',.')4%',.)%$,*$' *&' ''7,0(10'3+,(+'+'0' '')%.5%.(2' /,9%' *)+%$' (' .(%$0')*' 1/(%$')%' '.5',.7*/7%' 01$$*1.5,.-'),001%0'0*')+')')+%' 8'00' 8'2' $%'(+' .'%.*$8*10'0,C%' '.5'8'2'%7%.'8'9%' ,)0' '66%'$'.(%')+$*1-+')+%' 09,.' *')+%' .'9%5'%2%' '' 0%(),*.',0'-%.%$''//2'3+,),0+'.'.5' +'0' '' -$'.1/'$' '66%'$'.(%'3+,(+',0'-,7%.')*' ,)' 42')+%')141/%0' *&' 3+,(+')' ,0' 8'5%')' &$%E1%.)/2'(' 10%0' 5%')+' 42' *40)$1(),*.' *&')+%' 4*3%/H41)',&',)'/'0)'01&&,(,%.)/2'/*.-',)' $%(1$0',.')+%' /286+'),(' -/'.50' '.5')+%.',.')+%' 7,0(%$'' .5'*)+%$'6')0' *&')+%' 4*52')' ,0' .*)' 1.&$%E1%.)')*' &,.5'$%(1$%.(%0',.')+%' /,7%$' 3,)+' /,))/%' ,&' '.2',86+(''),*.' *&'/28 6+'),(' -/'.50' +%' $%(1$%.(%' $%6$*51(%0' 6$%(,0%/2')+%' 0)$1()1$%' *&')+%' *$,-,.'/)18*1$

' " ' G2 2/,.5$,('/' %6,)+%/,*8'' (*.0,0)0' %00%.),''//2' = ',$$%-1/'$

FIG. 7. Papilloma of Soft Palate.

FIG. 8. Epithelioma of Lip.

FIG. 9. Edge of Rodent Ulcer.

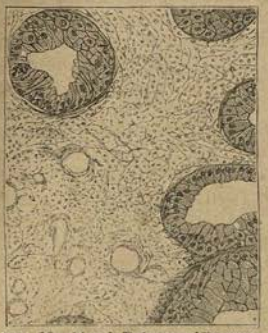

FIG. 10. Simple Polypus of Rectum.

FIG. 11. Columnar Epithelioma of Intestine.

FIG. 12. Colloid of Breast.

FIG. 13. Cancer of Liver (Scirrho-encephaloid).

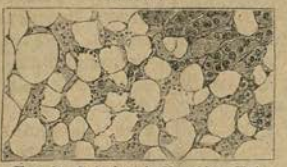

FIG. 14. Scirrhus infiltrating Fat.

FIG. 17 Scirrhus of Mamma.

FIG. 15. Encephaloid Cancer.

FIG. 16. Cicatrising Cancer.

FIG. 18. Adenoid of Upper Jaw (Benign).

FIG. 19. Adenoid of Breast (common type).

FIG. 22. Adenoid of Br (Adeno-sarcoma)

FIG. 20. Ulcerated Adenoid of Parotid (Malignant).

FIG. 21. Adenoid of Breast (epithelial element in excess).

Drawings illustrating a Series of Tumours of the Epithelial Type. All drawn to the same scale (× 87 diameters).

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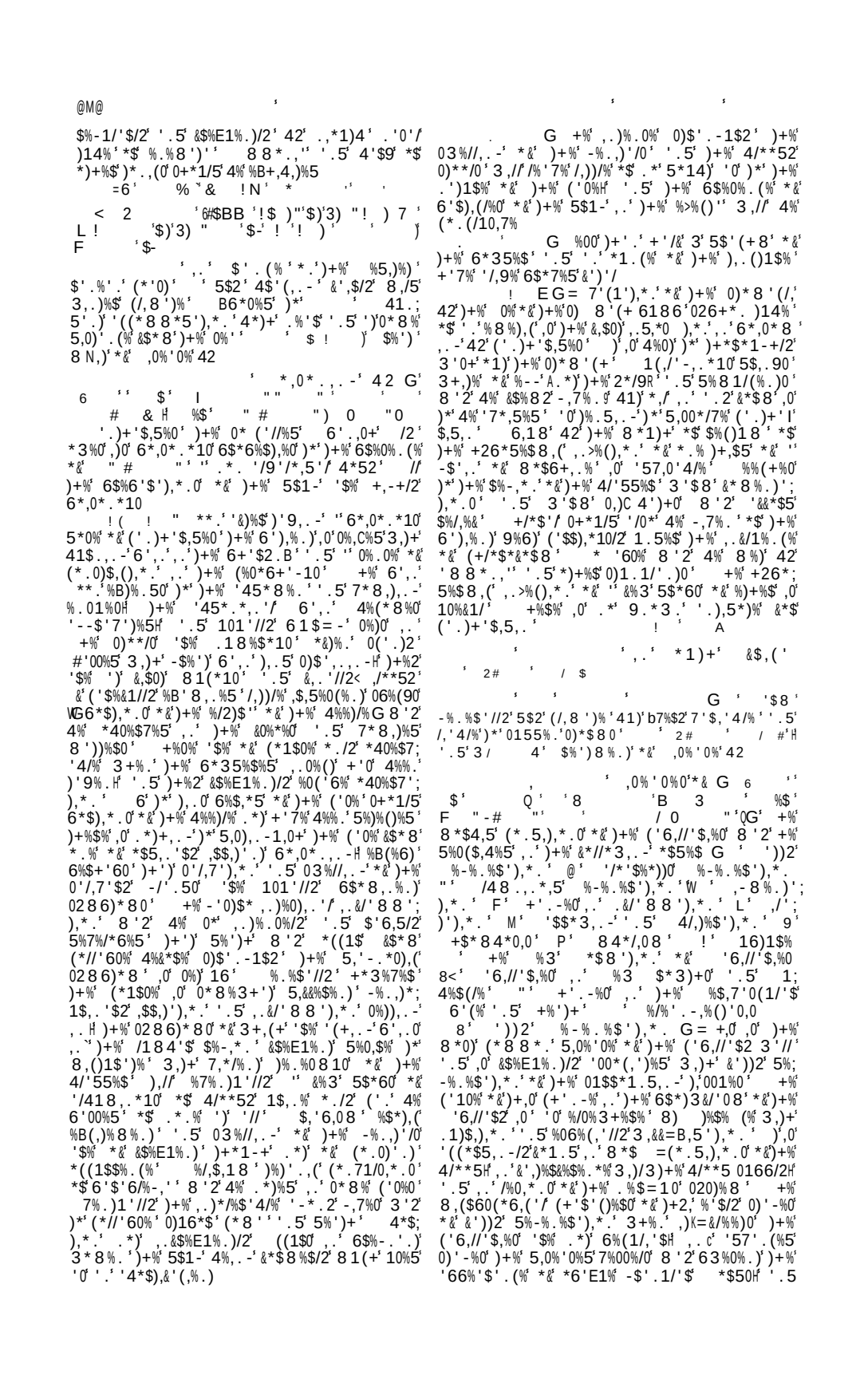

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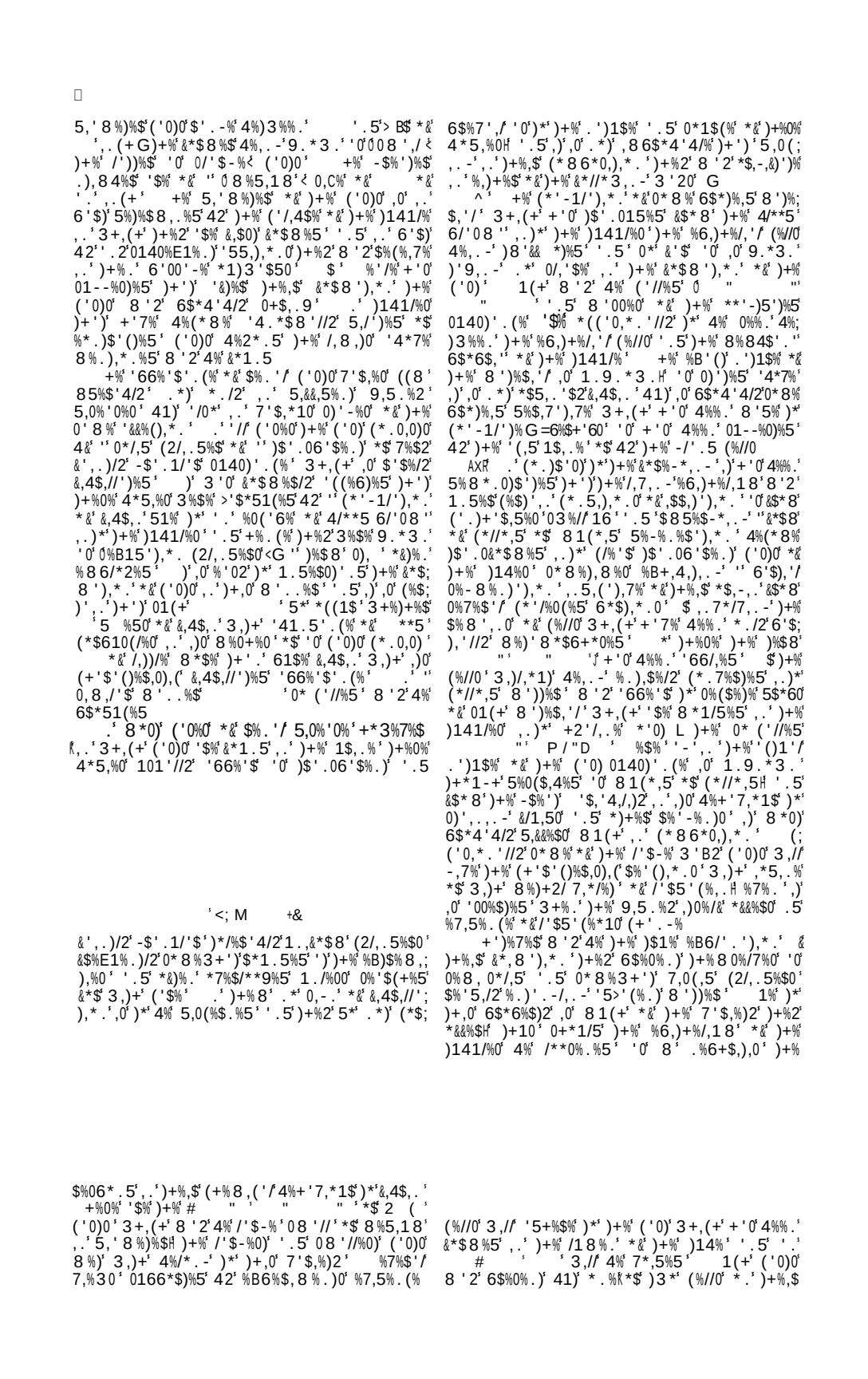
F' +'.-%0',.' .&/'88'),*. G +% (+'.-%0'*&')+%'('6,//'$,%0'*&'.',..&/'8%5'6'$)' (*.0),)1)%'.',86*$)'.)'&'()*$'*&')+%'6$*(%00' *&',.&/'88'),*. ' #$! !

L' ,/')'),*. G ,/')'),*.'*&'('6,//'$,%0' 3+,(+',0'*.%'*&')+%'(+'.-%0',.'6'00,7%7%.*10' (*.-%0),*.'.'.5',.&/'8%5'6'$)'*.'8'2'4%(*8% 6%$8'.%.)',&')+%'('10%6%$0,0)

+'.-%0',.')+%'.1)$,),*.'*&')+%'('6,>/',2' 7$'//'(*84,.%5'3,)+'5,01)1$4'.(%0'*&'3%'(,$; (1/'),*.'01(+'0',.(%%0*5'6$%001$%'6$*51(% /*('/5,/')'),*.'*$'.%1$208'*&')+%7%00%/0' '.5'0140%E1%.)'$16)1$%'+,0',0'*.%&*$8'*& ' '0>' %00%/0'*&'Y 0%'0%0'*& M' '$$*3,.-' '.5' 4/,)%$'),*.G= &))$5 3'$-'#/) '*"'+'*/$))"' ' - ** $%$)'/)* '-)$*'=>) '/) 4) '$)'-)$*')-) # '5 !'!' + $$7 4//"' &))$5 3' * "' /)$# 7' $' #$*/ '$+) $ 9' +$*84*0,0G= +$*84*0,0'$'$%/2'*(; (1$0',.'('6,//'$,%0' ' ! P' 84*/,08G +%'6+%.*8%.'*&'$5,.' '$2'%84*/,08',.''' -$%')'8%'01$%' '&&%()')+%' ('6,//'$,%0'(*$$%06*.5,.-'3,)+')+%'*40)$1()%5' '$)%$2' 1)'4%0,5%0')+,0'(+'.-%'('6,//'$,%0' '$%')+%80%/7%0'014>%()')*'%84*/,08'*$',8; 6'(),*.'*&'6'$),(/%0'3,)+,.')+%8' +%'6$*; 51()0'*&',.''.,8'),*.'*$'5%-%.%$'),*.'6,-8%.)6'$),(/%''*,'='5$*60'&$*8')+% W8'$$*3'*&$=)1$%5'4*.%0''*$-'.,080'.'5' 7'$,*10'0140)'.(='$),&,(,'2',.)$*51(%5',.)*')+%'(,$(1/'),*.'+'='4%%.'5,0(*7%$%5'*40)$1(); ,.-')+%'('6,//'$,%0',.'5,&&%$%.)',.0)'.(%0' //)+%'6*00,4/%$%01/)'*&'%84*/,08',.'/'$-%' 7%00%/0'8'2&*//E'('((*$5,.-')*'(,$(18; 0)'.(%0'4.)'&/-0&*8*0,0'4%,.-'7%$2'&$%%')+%2' '$%(*86'),7%/2',.0,-.,&,('.)'&1.(),*.'//2' 1./%00')+%'N0)$1(),*.'4%%B)%.0,7%H'.5',.')+%' ('0%*&')+(&(%$%4$'/7%00%/0'5%&,8)%0286)*80' '$%4%/,%7¢42'0*8%')*' $%01/)'01(+'0' 554,18'.5' (+*$%,(' * 8H' .6)'$k G +$%%'(,$(180)'.(%0'06%; (,'//2'5%)%$8,.%')+%'*((1$$%.(%'*&')+,0'/%0,*.' *&'('6,//'$,%0'+'8%/2'5,0%'0%'*&')+%'7%00%/' 3'//' ,.($%'0%'*&')+%'4/**5 6$%001$%'.5' '.5'' 0)%$8,.'/ 5,0)$,41),*.'*&')+%'4$'.(+%0'*&')+% '$)%$2')+')'016=%0'4%8' +%'8*0)'(*8; 8*.'5,0%'0%0'*&')+%'3'/' '$%&')) 2'5%-%.%$';),*.''.5'.%1$208' +%'4/**5 6$%001$%'$,0%0' 3,)+,.')+%'('6,//'$,%0'*&'.2'6')$',.'7%.)$,; (1/'$'+26%$)$*6+2',.',.($%'0%5')%.0,*.'*&')+% '$)%$,%0'L&'*)+%$' .5',.'7%.*10'*40)$1(;),*.' +%.''.')$)%$2',0'0)%$8,.'/ <)+')' ,0')86$*7,5%5'3,)+' *)+%$' .'0)*8*0%0')+'.')+$*1-+',)0'('6,//'$,%0'.*'/')%$'/'$%/,%&'('.' 4%'&)4$5%5',.'0155%.'.5'%B(%00,7%'$,0%0',.')+%'&*$(%'*&')+%'($(1/'),*.'*$')+%0% 0%7%$'/'$%'0*.0'$16)1$%'*&'('6,//'$,%0',0'8*0)' &$%E1%.)'3+&&/'')+%'7%00%/3'//0'+'7%'4%%.' 3%'9%.%5',.')+%'&')2'5%-%.%$'),*.''*&'0%.,/%' 5%('2',.'0%6),%0%8,''.&/'88'),*.'561$61$'' &%7%$'.5'0(1$72H,.'(+$*.,(' $,-+)<0'5,0; %'0%'3,)+',.($%'0%5'4/**5 6$%001$%H'.5',.' 01(+'*$-'.0''0')+%'(*$610'0)$,')18'$%),.'' 06/%%.'9,5.%2'7,//,''.5'09,.' ,0)1$4'.(%0' ,.')+%'6$%001$%'*&')+%',$'3,)+,.')+%'(+%0)' 6*3%$&)&//2',.&/1%.(%')+%'*((1$%.(%'*&'('6,/; /'$2$'6)1$%',.')+%'$%06,$')*$2')$'()'+%.' ''('6,//'$2 3'/'-,7%0'3'2')+%'4/**5',0'%B)$'' 7'0')%5'%,)+%$'*.'''&$%%'01$&'(%'(*.0),)1),.-' +=8*.5,'-%H,.)*')+%'0140)3%%'*&')+%),001%0''$*1.5H*$''/*.-')+%'/286+'),('0+%')+'*&')+%'$'6)1$%5'7%00%/'3+%$%',)'.,7%0' $,0%')*')+%'66%'$'.(%')+')'+0'4%%.'5%0($,4%5' 42'0*8%'1)+*$,),%0''0'' 0') " 2 ' %3' *$8')*.'*&' '6,//'$,%0 '6,//0.,%0'-$*3'*$'5%7%/*6',.'.%'$/2''// &*$80'*&'.%3-$*3)+0'3+%)+%$',.&/'88';)*$2'*$*)+%$3,0%'+%'2*1.-'(*6,//'$,%0'$% 5%$,7%5'%,)+%$'&$*8'(%//1/'$'4150'16*.'6$%; 7,*10'('6,//'$,%0'3+,(+'4%(*8%'+*//*3%5'42')+%'4/**5 6$%001$%H'&$*8'1'.'0)*8*0,.-'%B1; 5'),*.'(%//0'*$'(*..%(),7%),001%'(*$610(/%0H *$',.'0*8%'(*0%0'&$*8')+%'6'$'//%/5,06*0,),*.' *&'%B15'),*.(%0 8<' '6,//'$,%0',.', %3 /$*3)+0'.5' 14%$(/% G=+%('6,//'$2 3'//0'$%'4%+%7%5')*'6/'2'.',86*$)'.)'6'$)',.')+%'6$*51(),*.'*&' (%$)',.'&*$80'*&'.%3-$*3)+0' %!%'H '.5'% '$ "' +'.-%0' .')+%' %$,7'0(1/'$' 6'(%'.5' +%')+ G +%'6%$,7'0(1/'$'*$ /2286+'),(''0+%')+'3+,(+'6$*4'4/2'%.7%/*60' =''('6,//'$,%0',0'/,'4/%')*'(%$)',.'8*$4,5'(*.; 5,),*.0'3+,(+'$%'(+,%&/2'0%(*.5'$2')*'(+'.-%0' ,.')+%'7%00%/'3,)+,.',)' +10')+%'06'(%'8'2' 4%(*8%'&, %5'3,)+'4/**5'&$*8'%0('6%'*&')+% (*$610(/%0'42'$'6)1$%'*$')+%$3,0%H3,)+' /%1(*(2)%0',.',.&/'88'),*.'.H3,)+'*,/-/*41/%0' '.5'&')) 2'(*$610(/%0',.'5%-%.%$'),*.'*&')+% 3'//H'3,)/',6,-8%.)6'$),(/%0H*$'3,)+'0%$'8' ,.'5,0)1$4'.(%0'*&')+%'(,$(1/'),*.' +%'('/,4$% *&')+%'6%$,7'0(1/'$'('.'/'3+,(+'7'$,%0',.; 7%$0%/2'3,)+')+')'*&')+%'(*.)',.%5'('6,//'$2

>'(%.)' 09,. ' ,, (+' -,7%' %B,)')*' '' -/1),. *10' 61$1/%.)' 5,0(+'$-%' +,0'0,%7% /,9%' (*.5,),*.' L&')+%'1.5%$8,.%5',.)%-8.%.)' *&)%.' 6%$0,0)0')+$ -=,*1)'+%' (*1$0%' *&')+%' 5,0%'0%' ((' ' -,*.'//2'+*3%7%$' *3,.-')*')+%' 5%0)$1(),*.' *&')+%',.)%$7%.,.-' 09,.')+%'0%7%$'/' 6%$)1$%0' 8%$-%' ,.)*' '' 0,.-/%' /'$-%'$'--%5' *6%.,.-' '.5')+10' %B6*0%')+%' (+'$'()%$,0),(' '0+ -$%2' 0/, ,2$ 0/*1-+' 3+,(+' 0%6'$')%0' 0/*3/2' 42' 016' 6.&'),*.' /%'7,.-' .' ,$$%-1/'$' ('7,)2' 3,)+' 5%%6/2' 1.5%$8,.%5' %5-%0' +%' (,('))$,B' /%&)' '&)%$' +%'/,.-',0' 101'//2' 1.%7%.' ' .5' 8'2' 4%' 6%$8'.%.)/2' 5,0(*/*1$%5 .')+%' %'$/2'0)'-%' *&')+%' 5,0%'0%' 3+,/%')+%' ,.&/'88')*$2' *%5%8'' ,0' 0),/' %B)%.5,.-')+%' 6')%.)' -%.%$'//2' (*86/',.0' *&' '' 4$.8,.-')+$*44,.-'0%.0'),*.' ,.')+%' 6'$)' 3+,(+' 8'2' 4%(*8%' ,.)%.0%/2' 6',.&1/' 41)' *.')+%' &1/' %0,6*01$%' *&')+%' 0/*1-+')+%' 6',.' 5,8,.,0+%0' '.5',.')+%'/')%$' 0)'-%0',)' 8'2' (%'0%' %.),$%/2 b +%.')+%' ('$41.(/%',0' /'$-%'*$',.7*/7%0' '' 6*$),*.' *&')+%' 0('/6')+%$%' ,0' 101'//2' (*.; 0,5%$'4/%' (*.0),)1),*.'/' 5,0)1$4'.(%' *&'' .')+%' &(+%' ' '0)+%.,(')26%' %')+' 8'2')+%.'*('(1$'&$*8' %B+'10),*.' 3+,(+',0' 0*8%),8%0' '--$'7')%5' 42'&$%%' +0%8*$$+'-%'$%01/),.-'&$*8',.(,0,*.0H 41)')+%'8*0)'&$%E1%.)' ('10%'*&' '&')'/')%$8,; .'),*.',0'62'%8,' & ' G' '$41.(/% ,0' 5,0),.-1,0+%5' &$*8'4*,/'42')+%'0,C%'.5'%B)%.)'*&')+%'03%//; ,.-'.5'42',)0')%.5%.(2')*' 06$%'5H 42')+% 7/5'),.)'*&')+%'09,.'.5')+%'%'$/2'&*$8';),*.',.)'*&'8*$%')+'.'*.%'6%$)1$%H 42')+%' (+'$'()%$'*&')+%'0/*1-+'42')+%'0%7%$,)2'*&')+%'6',.''.5')+%'8'$9%5'(*.0),)1),*.'/'5,0;)1$4'.(%H'."'&,.'//2'42')+%'&'()')+')'('$'+1.%/%'1./,9%'4*,/'101' 2'*((1$0'0,.-/2 0 25 G,0'3,//'5%6%.5'(+,%&/2'16'*.')+%''-%'*&')+%'6'),%.)'.'.5'16'*.')+%'0%')'.5'%B)%.)'*&')+%' 5,0%'0%' 3+,(+' 6$*7%0' 8*0)'5'.-%$*10')*'/,&%'3+%.'0,)1')%5'*$'%.($*'(+' *.')+%' 0('/6'%06%(,'//2',.''6%$0*.'*7%$'&,=' +%'(*%B,0)%.(%'*&'/418,.1$,'' *$'(+$*.,('0'((+'$,.%5,'4%)%0',0''/3'20''-$'7%'(*86/,('),*. !)G +%' " ')$%')8%.)'.5')+%'8'.'-%8%.)'*&'6'),%.)0'3,)+'('$;41.(/%'$%'4%0)'(*.51()%5'*.'-.%$'/'6$,.;(,6/%0' .'*$5,.'$2'('0%0')+%'5,%)'0+*1/5'4%'*&'-**5'E1'/,)2''.5'01&&,(,%.)',.'E1'.),)2'3,)+''' 8*5%$')%''//*3'.(%'*&'0),81/'.)0'6$*6*$),*.')%')*' 6$%7,*10'+',4,)0' +*1/5')+%'6'),%.)0'0)0$%.-)+' .5')+%'0,)1'),*.'*&')+%'('$41.(/%''//*3'+,8')*' 8*7%'4*1')'+%'.%%5'.*)'4%'(*.&,.%5')*'+,0'$**8''.5'8'2'%7%.'4%''//*3%5'%B%$(,0%',')+%'*6%.'','$.')+%'8*$%'0%7%$%'&*$80'*&')+%'5,0%'0%'(%')+%'&$%E1%.'58.,0)$'),*.'*&'5,%)%),('0),81;/'.)0''.5'-**5'.*1$,0+8%.)',.'.''%'0,/2'00,8,/'4/%'&*$8',0'101'//2'.%(%00'$2' +%'4*3%/0',&')+%2'$%E1,$%'.)'0+*1/5'4%'(/%'$%5'*1)'42'0*8%'.*.,$$,)'),.-'6%$,%.)''.5')+%'6'),%.)'61)'<''')'(*1$0%'*&'E1,.,%'<)'4'$9'.5')+%'8,.%$'/'(,(50'6,18'*$'*)+%$0%5'),7%0'8'2'4%'$%E1,$%5'.')+%'%'$/,%$'0)'-%0')*'$%/,%7%')+%',.)%.0%'01&&%$,.-0'*&0*8%'6'),%.)0H 3+,/%',.')+%''&)%$(*1$0%'*&K)+%'5,0%'0%',)'8'2'4%'0*8%),8%0'.%%5%5')*'6$*(1$%'0/%%6 *$' ')$%')8%.)' '0 $ *$' " ' '#' '.''&&%(),*.'5,0;),.()'&$*8')+%' =,-.'.)' 10)1/%'5%0($,4%5'+"' *.),.%.)'/01$-%*.0' % %$) 2 $ 'H'.5'0 $ 1 $$!' U U A$'6)')+%'+%')H'.5' F '6','.R G '02.*.28' &*$' +%')41$.'*$,-.'),.-',''6*61/'$',86$%00,*.')+')',0'6',.&1/0%.0'),*.'3+,(+')'$)0'&$*8')+%'%6,;-'0)$,18',0'(*..%()%5'3,)+')+%'+%')' %5 3 4 '54 >' //,%' A+%'+%')H'.5' !6:' 3$,)%R G=+,0',0'.',.;0)$18.)'&*$$%^0)%$,..-'-$'6+,('//2')+%&*$8'*&')+%'+%')<0'8*7%8%.)0')'$%'//2'$%(*$50''')$'(,.-'*&')+%'('$5,'(',861/0%')+%'(1$7%0'*&')+%')$'(%'$%6$%0%.),.-')+%'(+'.-%0'*&6$%001$%'%B%$)%5'42')+%''6%B'*&')+%'+%')$'.')+%' (+%0)3%')//' %'*3%')+%',.7%.),.'*&'('$5,*-$'6+')*' '$%2'3+*',.'+,0'6+20,;*/*-,('/'$%0%'$(+%0'.')+%'(,$(1/'),.'*&')+%4/**5'*4)',.%5'42')+''&*//*3,.-'8%'.0')+%&*$8'*&'8*7%8%.)'*&')+%'(+',7),2'*&')+%+%')' %',.'.5'%/'0),(')14%0'3,)+')%$8,.'/' '861)%'*$)286'.''(*7%$%5'3,)+' %/'0),(' 8%84$'.%'*.'%'(+'*&'3+,(+'$%0)%5''/,-+)'/%7%$' +%'8*7%8%.)0'(*881.,(')%5'42')+%'+%')$')K)+%'(/*0%5'(*/18.'*&','$'3%$%' '86/,&,%5'42')+%'/%7%$0'.5'$%(*$5%5'42')+%8'*.''$%7*/7,.-'(2/,.5%$' .')+,0'3'2')$'(,.-0'*&')+%'&*$80'*&'8*7%8%.)'*&'%'(+'(7),)2'3%$%'*4)',.%5'.5'42'(*86'$,0*.'3,)+''')$'(,.-')'9%.'0,81/)'.%*10/2'*&')+%'%B;6*0%5''6%B8*7%8%.)'.5'.'%B6/'.'),*.'*&')+%'(*86%B'6%B)$'(,.-'3'0'$%.5%$%5'6*00,4/%' +%'('$5,*-$'6+'10%5'&*$'(/,.,('/$%0%'$(+',0''8*5,&,(')*.'*&')+%''4*7%''.5'(*.0,0)0'*&''+*//*3'(16'(*.)',.,.-''08'//06$,.-'3+,(+'('.'4%5%6$%00%5'42'8%'.0'*&''0($%3'0*''0')*'$%0)'&,$8/2'*.')+%)(+%0)3''3+%$%')+%',861/0%',0'&%/)' +%'(16'(*8,8,('%0'42'8%'.0'*&'.'%/'0),(')14%3,)+''')286'.18'(*7%$%5'7$,)+'%/'0),('8%84$'.%'('$$2,.-'.',)0'01$&'(%''/%7%$' +%.''66+%5')*')+%'(+%0)')+%'(16'+%8'%),('2'0%'/0')+%',$'(*/18.'3+,(+')$'.08,)0''03'7%0')+%'8*),*.'$%(%,7%5'42')+%'06$,.-')*)+%'/%7%$'$%0),.-'*.')+%')286'.18'+%8*7%8%.)0'$%'$%(*$5%5'42')+%'%.5'*&')+%/%7%$'%,)+%$'*.')+%'6/')%'*&''0>=+2-3*-$'6+'*$'*.''$%7*/7,.-'(2/,.5%$' c 2'8%'.0'*&')+,0'66'$')10'=7%$2'6%$&%()'$%6$%0%.)'),*.'*&')+%'('$5,'('847%8%+)0'('



0,,$&%(%'*$ 8 '2' '66%'$' '0',&' %*.0,0),..-'*6/2'*&'(*+%$%.)'%6,)+%/,'/ (%//0' +*1/5')+%' (%//0

,'7% 1.5%$-*.% &%))2'5%-%.%$'),*.')+%' ('0)' 3,//'4%6%$7'5%5'3,)+'*,/ -/*41/%0'*&''//'0,C%0'..*$%' *$ /%00' %0('6%5'&$*8' %6,)+%/,'/ (%//0'/'%(*$5,..-')*')+%'%B)%.)'*&')+%'5%-%.%$'),*.H)+,0'(*.0),)1)%0'4 ' ' %$2'&$%E1%.)/2')+%'('0)0'$%'&,.%/2'*$'(*'$0%/2'0 " ')+,0' '66%'$'.(% 4%,..-'6$*51(%5'42')+%',.7*/7%

J4H<9M2 '&

8 .)',.')+%'4'0% 0140)'.(%'*&'-$'.1/'$'8')')%$' Q5%$,7%5'&$*8'4$*+%. 5*3.'%6,)+%/,'/ (%//0'*$' 4/ *5 (*$610(/%0' 8*/%(1/'$' &')))2' 8'))%$'' 8*$6+*10'1$,..'$2'0'/)0'*$'8,($*'$-'.,0 8 0' Q $'.1/'$'('0)0'8'2'%B+,4,)''&',.)'2%//*3,0+

('<: M& ' ,' $ ' ' ' ') ' 0 0

W*4*3.,0+'),.)'5%6%.5,.-'*.')+%,$'(*.0),)1;),*.' .'*'' 0,8,/'$' '2'('0)0'8'2'4'&*1.5'(*.)',.,.-' '*&'*B'/')%0').6/%'6+*0;6+')%0'+0%8')*,5,.'0'/)0'*&'&,,))2''(,50'^( )',0'7%$2'(*8 8*./2')+%' ('0%')+')' 8*$%')+'.'*.%7'$,%)2'*&'('0)'*((1$0'..')+%'0'8%1$,.%G%6,)+%/8'' .5'+2'/,.%'*$'-$'.1/'$'.5'&'))2''*&)%.'(*%B,0),.-' *$$%06*.5,..-')*'')+%' ('0)0'..')+%' 8,.%'&$%E'%6,)+%/,'/ (%//0'4/**5''(*$610(/%0' ^)'-/*41/%0''.5' 0'/)0''8*$6+*10'*$ ($20)'//,.%''$%' '/3'20'&*1.5''.5''/8*0)' '/3'20'/4188,.')+*1-+'.*)'*&.%(%00,)2',0')+%$%'.2'(*$$%06*.5%.(%',.')+%'E1'.),)2'*&')+,0'0140)'.(%'.5')+%'.184%$'*&'('0)0' +%'%6,)+%/,'/ (%//0'3+%)+%$'&$%%'*$'$')+%'('0)''$%'$'$%/2'E1,)%'.*$8'/',.''66%'$'.(%' +%'6')+*/*-,('/ (+'.-%0'00*;(,')%5'3,)+')+%,$'5%0E1'8'),*.'+'7%')')+%'0'8%'),8%'/)%$%5')+%8'8*$%'*$ /%00' *)',.&$%E1%.)/2')+%' (%//0'*&'.'%6,)+%/,'/ ('0)'6$%0%.)'/'/)+%'8,($*0(*6,('(+'$'()%$0'*&'/%1;

(*(2)%0'6$*51(%5'42'.' '4.*$8'/'6$*/,&$';),*.'*&')+%'$%.'/%6,)+%/,18

' " " G '86/%0'*&'1$,.%'A)+$%%'*$'&*1$'*1.(%0'0106%()%5')*' (*.)',.'('0)0'5,*1/5'4%'//*3%5')*'0)'.5')'/%')0')+$%%'+*1$0'A'.5'/*.-%$',&')+%'1$,.%'4%'*&'7%$2'/*3'06%(,&,('-$'7,)2',..'6%$&%%),2'(/%'.'(*.,('/-/'00%0''.5''&%3'5$*60'0+*1/5'4%'$%8*7%5'&$*8')+%'4*))*8'3,)+'')6,6%))%''a5'(*7%$%5',.')+%'101'/'2'*.''-/'00'0/,5%' +%2'8'2'4%'0*'41.5'.)'0')*'&*$8''7,0 %'0%5,8%.)',.')+%' -/'00' *$' ' '6$'(),('/61$6*0%0'''& ,.' *4>%(),7%'-,7,.-'3,)+')+%'%2% 6,%(%''8'-.,==-'6*3%$'*&'4*1)'?F!'5,'8%)%$0',0'01&&,(,%.)' +%'+2'/,.%'('0)0'*$%'*&)%.'0*')$'.06'$%.)''0')*'%0('6%''.2'41)')+%'8*0)'('$%&&&,'*40%$7')',*.'.5')+%.'''/,))/%'5,/1)%'0)',.,.-'&,1,5',.)$*51(%5'4%.%'&&,,')+%'(*7%$'-/'00'81(+'&'(,/,)')%0')+%,$'5%)%(),*.H (1);),.-'*&&'0*8%'*&')+%')$'.08,))%5'&,-+)'+'0''0,$('/'$'%&&%()')',0')*'4%$%8%84%$%5')+')'('0)0'$%)','.')+%,$'(+'$')()%$,0),(0'('4%))%$',.''(,5')+''.''.5''/9'/,.%1$,.%H',')+%'/'))%$')+%2'$%'7%$2'6)')*'4$%'9'16''.5'5,0'66%'$'0''$1/%')+%$%',0'.*'8,0)'98-'''$%.'/')14%'('0)'41)'*((0,*.'//2''')$'.06'$%.)'*$'-$'.1;/'$'0)$%'9'8'2'4%'.*),(%5')+%'.')1$%'*&3+,(+'('..*)'4%6*0,),7%/2'0)')%5H0+$%50'*&'81(10'%06%(,'//2'3+%'.'8,B%5'16'3,)+'-$'.1/'$'8')))%$''$%')+%'(*88*.%0)'*4>%()0'3+,(+'0,81/')%'%'0)0''.5''$%'.*)',..&$%E1%.)',.'5,0%'0%'*&')+%'4/'55%$'*$'6$*0')%H)+%,$'5,0'66%'$'.(%'*.')+%'66/,(',(,(8H*&'/,E1*$6*)'00['.5''')/,))/%'+%')')*')+%'0/,5%'5%)%$;8,.%0')+%,$'(+'$')()%$

$ ' ' # ' ' G '/1'4/%'0',0')+%'%7,5%.(%'*&')+%'(+'.-%0',.')+%'$%.'/%6,)+%/,18'&&*$5%5'42')+%'5%)%(),*.'*&')+%0%4*5,%0',.')+%'.$,.%')+%,$'$%(*-.,),*.'.5'(*86$%+%.0,*.',0'.%7%$)+%/%00'41)'*.%'*&)+%8%'.0')*'4%'%86/*2%5',.')+%'0)152'*&'9,5.%25,0%'0%0'&')+%80%/7%0')+%2'&&*$5',.&*$;8'),*.'$'$%/2',&'%7%$'(*.(/10,7%3+%.')'9%.''/*.%' ,)+*1)'5*14)'(%$)','.'$%.'/5,0%'0%0'8'2'%B,0)''.5'8'2'(*.),.1%')+$*1-+*1)')+%,$(*1$0%'%,)+%$')*'$%(*7%$2'*$'5%')+'3,)+*1)')+%'*((1$%.(%'*&'*'0)0',.')+%'1$,.%H'.5'*.')+%'(*.)$'$2'('0)0'8'2'4%'&*.5'%.),$%/2',.5%6%.5%.)'*&'$%.'/5,0%'0%' 1)'&*$'//6$'(),('/61$6*0%0',)'8'2'4%'((%6)%5')+')3+%.'('0)0'5*'*((1$')+%2'-%.%$'//2',.5,(')%)+%'%B,0)%.(%'*&'5,0%'0%'*&')+%'9,5.%20'3+,(+',0'6*00,4/2',.(1$'4/%'(%$)',./2'0%$,*10' ,)+'*1$'6$%0%.)'9.*3/%5-%'*&')+' (*.5,$,*.0'1.5%$'3+,(+')+%2'*$%&*1.5',)'3*1/5'66%'$')+')'.)+%,$'6$%0%.(%'.)'',$'.')+%'1$,1%'5*%0'.*)'.%(%00'$,/2',86/2')+%'%B,0)%.(%'*&'.',.&/'8;8')*$2'0)')%'*&')+%'9,5.%2'&*$)+%2'8'2''((*86'.2'0,86/%'(*.-%0),*.')+%'-/'.5'014;0)'.(%'4%8-',.)'()H41)'5*14)/%00',.')+%'>*$,)2'*&'*'0%0')+%2'*$%'%7,5%.(%'*&''.%6+$,),0'(1)%'*$'(+$*.,('.5')+%'0140%;E1%.)'00*(,')%5'5%-%.%$')*.'%0,5%0')+%'7'/1%'*&'('0)0',.'5%)%$8,..-')+%'%B,0)%.(%'*&'9,5.%25,0%''%')+%2'*$%&$'$)+%$8*0)',8;6*$)'.)'',50',.'+%/6,.-')*'5,0),.-1,04'3+')

□ □

7'$,%)2$*$0)'-% *&5,0%'0%,)8 '2$4%'.5''/0*, .'8'9,.-*1)+% '()1'/ (*.5,),*.'*&)+% 9,5.%2'))+10 &1$.,0+,.-'7'/1'4/% 5')''*.' Q3+,(+)*'&*$8'''6$*-.*0,0''.5')*'01--%0)''' 6/'.'*&)$%')8%.)' ,)))/%',0')*'4% (*.(/15%5'+*3%7%$'&$*8'*.% %B'8,.'),*.' +,0'0+*1/5'4% 6%$&*$8%5'&$%E1%.)/2''0',')+')'3'2''/*.% ('.')+% 8*$4,5'6$*-$%00',.')+% 9,5.%2'4% $%(*-.,0%5

$*8'3+')'+'0'4%%.'0',5'*&')+%'.')1$%*&('0)0',)'0+*1/5'4% %B6%()%5)+')'0%7%$'/7'$,%;),%0'*&')+%0%*4*5,%0'*((1$''))+%'0'8%'),8%,.')+%'1$,.%')',0'$'$%&*$'.2'7'$,%)2')*' %B,0)' 0,.-/2''')'/%'0)'&*$'.2'),8%' .'01(+'('0%0')+%,$'0,-.,&,('.(%',0' '0(%$)',.%5'42' ('$%&1/ 0)152'*&'(*,.(,5%.)'4,$%180)'.(%0''.5'%0; 6%(,'//2'42''' &$%E1%.)'(*86'$,0*..'.,'*$5%$)*'5%)%$8,.%'3+,(+'7'$,%)2',0',.'%B(%00 +%'&'()')+')'('.2'0'8 6/%'*&8$,.%',0'3+,(+'7'$,%)2',0',.'%B(%00 +%'&'()')+')'('0)0' '$%'7%$2''41.5'.)',.' .2'0'8 6/%'*&8$,.%',0'.*)',.',)0%/&'*&'.%(%0; 0,)2''0%$,*10'0,-.' +10',.'0-$'.1/'$'9,5' +%2'<G*.%'*&')+% 8*0)'0%$,*10'*&'/'$%.'/ '&&%(),*.0G=)+%('0)0'8'2'4%''.5'101'//2''$% 7%$2'&%3''.5'$%E1,$%('$%&1/ /**9,-'&*$H 3+,/0)',.')+%'(*.7'/%0(%.(%'&&*8''(1)%'.%6+; $,),0')+%2'8'2'4%'%B)$%8%/2'.18%$*10' .' (+$*.,('.%6+$,),0'+*3%7%$')+% .184%$'4%; (*8%0''.',86*$)'.)'%/%8%.)',.')+%'(*.; 0,5%$'),*.

$ ''$%'5,'-.*0),(''&'+'%8*$$+'-% ,.)*')+%')141/%0'3+%)+%$')+')'4% 51%')* 3*1.50'*&')+%'$-'.'*$')*',.)%.0%'$)%$,'/ +26%$0%8,'''*$'7%.*1(''(*.-%0),*.G '10,.' %0('6%'*&'4/**5'&$*8')+%'('6,//'$,%0'*&')+% -/*8%$1/,

6 '8'2',.5,(')%')+% 41$0),.-'*&''' $%.'/'40(%00',.)*')+%)14%0''.5'(*'-1/'),*.' *&')+%%0('6%5'610H *$''5,&&10%01661$'),*.' *&')+%-/'.5'0140)'.(%

P " ' G +%/'$-%&*$80'*&')+,0' 7'$,%)2'(+,%&/2'*((1$',.'^*.,(' .%6+$,),0' '.5''$%')+%$%&*$%101'//2''-$'7%0,-.' $*; 51(%5',.')141/%0'3+,(+'+'7%'4%%.'5%.15%5' *&')+%,$ %6,)+%/,18'*$',.')+%$0')+')'+'7% 4%(*8%'5,/')%5'&,*8'(*.)$'(),*.0',.')+% ,.)%$)141/'$'0140)'.(%')+%2',.5,()%'.'5; 7'.(%5'(*.5,),*.'*&'5,0%'0%' B(%6),*.0')*')+,0'5*'((1$''.5'/'$-%+2'/,.%'(')0'8'24% &*1.5',.')'(1)%''.5'(1$'4/%'('0%0

8'/'+2'/,.%'(')0''$%&*$8%5',.'4*)+' (1)%''.5'(+$*.,(' &*$80'*&'$%.'/ 5,0%'0%' +%2')+%$%&*$%4%(*8%'7/1'4/%''0'8%'.0'*& 5,'-.*0,0'./2',.'(*.>1.(),*.'3,)+'*)+%$'0,-.0' 01(+'0')+%'+,0)*$2'*&')+%'('0%')+%'(+'$')(%$ *&')+% *)+%$'1$,.'$2'0%5,8%.)0' ^(' +%2' '$%'&$%E1%.)/2'0%%.',.''(1)%'.%6+$,),0'6'$;),(1/'$/2',.')+%'/')%$')'-%0'*&')+%'5,0%'0%' .5''$%')+%.'&*$8%5',.')14%0'3+,(+'+'7%'.*) 4%%.'0)$,66%5'*&')+%,$'%6,)+%/,'/'+.,.-' .' 0,86%'(*.-%0),*.'*&')+%'9,5.%2')+%2'8'2'4% &*$8%5'&,%*8'''(*'-1/'),*.'*&')+%'&,4$,.'*&')+% %&/ 10%5'6/'08''' b +%.'''00*(,')%5'3,)+')+% /'$-%'7'$,%)2')+%2'101'//2',.5,(')%''' (+$*.,(' .5''57'.(%5'0)'-%'4%,.-')+%.'&*1.5',.')141/%0')+')'+'7%4%(*8%'(*.)$')(%5' +%0%')3*'7'$,%),%0'*&'+2'/,.%'(')0''$%'(*88*.',.)+%'/'$5'(%*10'9,5.%2''.5'0,8,/'$'('0)0'+'7% 4%%.'8%)'3,)+',.')+%)141/%0',' (')0'*& 5,6+)+%$,'

A " ' G +%0,-.,&,(' .(%'*&')+%0% ,0'7%$2'7'$,'4/%' 0'+'0'4%%.'0',5')+% -$'.1/'$'('0)0'5,&&%$'81(+',.''.')1$%''.5'.*' 6*0,),7%'5,'-.*0,0'('.'4%'8'5%'16*.')+%8' '/*.%' +%2'8'2'*((1$',.'(*.>1.(),*.'3,)+' 4/**5('0)0'3+%$%)+%'(*$610(/%0'+'7%'4$*9%.' 5*3.''.5'3,')+%.'-%.%$'//2',.5,(')%''' (*88%.(,.-'$%(*7%$2'&%*8''.''(1)%')'-% '0,8,/'$',.)%$6$%)',*.'8'2'0'8%),8%0'4% 61)'*.'('0)0'3+*0%'-$'.1/'),*.',0'51%)*'&')' 8*/%%1/%0'$%01/),.-'&$*8')+%'5%-%.%$'),*.'*& ,.&/'88')*$2'6$*51()0' '$-%'5'$9''.5' (*'$0%/2'-$'.1/'$ '0)0'$%8 $%6'$),(1/'$/2' .*),(%5',.'0-$'.1/'$'9,5.%2<3+%$%',.5%%5')+%2'8'2'4%')+%*.//'(%//0'5,08)%-$')%' .'5'6$*51(% -$'8&/'$('0)0

'0)0'(*.0,0),.-'*&'8,*7*'*$-'.,080'%.;)'.-/%5',.''''4'0,('0140)'.(%'+'7%'4%%.'8%)' 3,)+',.'0%6),('&&%(),*.0'*&')+%'9,5.%2' +%2' '$%'&*$')+%'8*0)'6'$)'5,0),.-1,0+'4/%'&$*8' *)+%$'0-$'.1/'$'('0)0'<+2')+%,$'%0%)* 0))(+'$%'-8))0'0'.,)$,('(,5''.5'/,E1*$ 6*)'000%'3+,(+'5,00*/7%'16'8,.%$'/'-$'.1/'$ 8'))%$

P - ' G +%0%'$%'8*$%'%06%%,' '//>'8%)'7,5)+'.,')+%'%'$/,%$'0)'-%0'*&'.%6+; $,),0'51$,.-''(),7%'6$*/,&%$'),*.''.5'+%,$ 0,-.,&,('.(%'81(+'5%6%.50'*.')+%'(+'$'()%$ *&')+%'%6,)+%+18'(%//0'3+,(+'8'2'5,&&%$'41) 0/,-+)/2'&$*8')+%'.*$8'/''*$'8'2'4%'0* '/)%$%5''0')*'$%0%84/%/%1(*(2)%0',.''66%'$; '.(%'*$')+%2'8'2'4%/*'5%5'3,)+'^)' +%2' 8'2'4%'7%$2''41.5'.)''),'&,$0)H/')%$'*.' 3+%.')+%'+>$'+.%7'$,%)2'66%'$0',.')+% 1$,.%'4%(*8,.-'/%00'.18%$*10

. ' G $*4'4/2'.*'('0)0''$%0*' -%.%$'/',.')+%,$'*((1$$%.(%'0')+%&')2' +%,$' 6$%0%.(%'8'2'4%'*&')+%'-$'7%0)',86*$)' *$)+%2'8'2'4%)*9%.'**8 8%.*,.-'$%(*7%$2''.5' 8*$%')+'.''.2')+%$%&*$%'810)')+%2'4%'(*.; 0,5%$%5',.'(*..%B,*.'3,)+'*)+%$'(,$(18; 0)'.(%0' +%'('0)0')+')''$%'&*,85',.')+% /')%$'0)'-%0'&'(1)%'.%6+$,),0'51$,.-'(*.; 7'/%0(%.(%''$%',.'6'$)'&'))2' +%',.&/'88' `)*$2'6$*51()0'1.5%$-*,.-'),0'5%-%.%$'),*.' '$%')+*0%')+$*3.'*&&' 2'/,.%'('0)0'4*)+ /'$-%''.5'08''/'&$%E1%.)/2'6$%0%.)'''&%3'*,/' -/*41/%0'*.') %,$08&%(%' .'(%$)',.'&*$80' *&'(+$*.,(' .%6+$,),0')+%'('0)0'8'2''66%'$ '0',&'8'5%'16'*&',/-/*41/%0'*./2' .'01(+' ('0%''.''57'.(%5'0)'-%'*&'&'))2'5%-%.%$';),*.'*&')+%-/'.5',0'5,0),.()/2',.5,()%5''.5')+%'6%$0,0)%.(%'*&'&'))2'*'0)0',0'-%.%$'//2')'9%.')*'0,-.,&2')+%0'8%H)+*1-*01(+'*'0)0' +'7%'4%%.'9.*3.')*'(*.),.B,%',.'.184%$0' &*$0*8%'3%%90''.5')*'4%'&*//*3%5'42'$%; (*7%$2

'"'" " '1$,.%K= +%*(; (1$$%.(%'*&'$%.'/)14%('0)0',.'01(+'1$,.%',0' .*3'3%/'$%(*-.,0%5'4%,.-'(+,%&/2'8%)'3,)+

,.'('0%0'*&'6$*/*.-%5'>'..5,(%'/,)/),$,''*B'/$ 1$,''5,'4%)%0''.5' 8*$%' $'$%/2' &)%$' 7%$2' 0%7%$%' %B%$(,0%' +%2' '$%' *&')+%' +2'/,..%' 7'$,%)2''.5'6$*4'4/2'*3%')+%,$'*$,-,')*')+%' %6,)+%/,'/'(%//0' $')+%$')+'.')*')+%' %0('6%'*&' '.2',6')%$,'/'&$*8')+%'4/5*5'41)')+%,$'6')+*; -%.%0,0'('..')*'4%' %-'$5%5' '0'4%,..-')85%$' 0)**5' +%,$'%.),)$%' ,.5%6%.5%.(%'*&''/41; 8,.1$,''0+*1/5'.*)'4%')***'$%'5,/2''00188%5' &*$''6'$)'&$*8')+%'&'()')+')'),0'(*.5,),*.' 8'2'*./2'%B,0)'*'01(+''7%$2'0/,-+)'5%-$%%' '0'8,-+)'4%'*7%$/**9%5',)'8'2'4%')+')+%' 6$%0%.(%'*&''/418%.',0',.)%$8,))%.)')+%' ('0)0'4%,.-'7*,5%5',.')+%',.)%$7'/0 ',0''')%$8'-,7%.')*'(%$)',.' 06B15*.0'('0)0'*&''/*.-'&/'))%.%5'&,/'8%.)*10' (+'$')()%$'3+,(+'+'7%4%%.'&*1.5',.')+%'1$,.%' *&'0('$/%)'&%7%$''.5'(+*/%$''6'),%.)0''/0*',)' ,0'0',5'8*$%&$%E1%.)/2',.'+,/5$%.'+%)+%$')+%2''$%'$%.'/'.,.'*$,-,.',0'7%$2'1.(%$)',.' '.5''/+18,.1$,''5*%0'.*)''/3'20''((*86'.2')+%8 '&')+%'%8,.'/'141/%0G$' %'/%'+'0'6*,.)%5'*.)')+%'*((''0,*.'/'%B,0); %.(%',.'.$,.%'*&'('0)0'(*.)',.,.-'06%$8')*C*'' '&,-'@PR'+%'4'0%0.+0)'.(%'*&Q)+%0%' 4*5.%0',0''7,0(,5')%.'%,410'81(10''.5')+%2' '$%'101'//2'81(+'/'$-%$')+'.')+%'('0)0' 5%$,7%5'&$*8')+%'1$,.,&%$*10')141/%0'+%2' +'7%'.*)'4%%.'&*1.5''00*(,')%5'3,)+',.&/'8; 8')*$2'(*.5,),*.0'*&')+%')%0),(/%''.'5'5*.*)' (*$%06*.5'6')+*/*-,('//2')*')+%'$%.'/'('0)0' >10)'5%0($,4%5 8'&')+%'0)$,(' 141/%0G.',.>%//2/,9%'81(10''.5'%84%55%5'(%//0'((';, 0,*.'//2')+%2'$%)','.'*.')+%,$'0$&%(%')+%',8; 6$%00,*.'*&)+%'&*//,(/%0'0''((.,'),*.0''.5'*)+%$' 8%E1'/,),%0'*&')+%',.)%0),.'/'01$&'(%'%%' 6#'Q'7*/0',B''.5'BB,,,H$' 'O)"'??M'66'D M'.5'??@ &')+%'K$$,.'$2'/'55%$G'(*8; 6/%)%'%B&*/,'),*.'*&')+%'81(*10'8%84$'.%'*&')+%'4/'55%$'+'0'4%%.'*((''0,*.''//2'*40%$7%5',. 61%$6%$'/'3*8%.'')'5*%0'.*)''66%'$')*'4%' '/3'20')+%'$%01/)'*&',.&/'88'),*.''.5')+*1-+')+%'5%)'(+8%.)'8'2'4%'(*86/%)%'6%$&%()'$%; (*7%$2'8'2'&*//*3'.'0)$1()1$%'01(+'4*5,%0' (*.0,0)'*&'%6,)+%/,'/'(%//0',.'7'$2,.-')'-%0'*& 5%-%.%$'),*.'&%/)%5')*-%)+%$'42'81(10''.5' &,.%'-$'.1/'$'8')%$,'/'+%'01$&'(%',0'&$%; E1%.)/2')+,(9/2*')%5'3,)+'$,.'$2'0')0' +%'(*.5,),*.0'-,7,..'$,0%')*')+%,$'&*$8'),*.' '$%'E1,)%'1./(.*3')+*1-+'$%)%.),*.'*&1$,.%%' ,0''00*(,')%5'3,)+')+%,$'*((1$$%.(%' '.5''$%'*&'7'$,*10'9,.50'B(/10,7%'*&0*/,5' 8*1/50'*&')+%'('7,)2'&*$8%5'*&'(*=.&/')%5% 4/**5')+%'0)')%0'*&'6$%-.'.(2''.5'8%.0)$1'

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%8*),*.'/ 5,0)1$4'.(%' %06%(,'//2' $%/,-,*10' %B(,)%8%6)' *$ 0155%.'/'$8' *$' 4/*)70' *.'_&%3' 8,.1)%0' *$ 0%7%$'/ +*1$0' %(*7%$2',0')+%'+%'5' .5' 4'(9'*$%' &$%E1%.)',8 8%5,')%' ('10%0')'*(('0,*.'//2' '66%'$0',.')+%' (*1$0%' *&' 8%.)'/ '&&%(),*.0'%06%(,'//2' 8%/'.(+*/,'' '.5',0' 0',5')*' *((1$' '%' '.' %'$/2' 0286)*8' *&'%6,/%602'41)',)',0' 8 1(+' 8 *$%'/,9%/2')+')')+%'&,)0')+*1-+)')*' 4%' %6,/%6),(' 3%$%' $%' 2' +20)%$*,5' .'.',,8 6%$&%()'&*$8',)' +'0' '6; 6%'$%5')*' 4%' 51%',.' 0*, %' ('0%0')*'6'/15'/ 6*,0*.,.-' *$')*' *)+%$')*B0%8,(' 0)')%0' '0' (+/*&*$8 .'$(*0,0' .''&%3',.0)'.(%0'8%.' 8-.,)0' .'.5' *)+%$' *$-'.,(' (%$%4$'/ *$' 06,.'/ 5,='0%0'+'7%'('10%5''(')'/%6)*,5'(*.5,),*.H 41)')+%0%' ('0%0' '$%')*' $'$%' '.5' 5,7%$0%)*' '//*3'*&'.2',.&%$%.(%&$*8')+%8 !(! G ')'/%602',0' 101'//2'6'$*B20' 8'/' '))'(90' /'0),..-' +*1$0' *$' 5'20' 4%,.-' 0%6'$')%5' 42'6%$,*50' *&'&$%%5*8'H /%00'(*8; 8*.//2''0,.-/%'6$*/*.-%5' '))'(9' (*.0),)1)%0')+%' 3+*/%' '&&%(),*.' .'0*8%' ('0%0' +%'5; '(+%'-.55,.%00' *$' +,((*1-+' +'0' 6$%(%5%')+%' '))'(9' +%' *.0%)' *&')+%' 06%(,'/02 8 6;)*8 0',0' 101'//2'0155%.'(*8 8*./2' 3,)+'/*0' *&'(*.0(,*10.%00' +%' 3+*/%' *$'6'$)'*&')+%' 8 10(1/'$' 020)%8' 6'00%0' ,.)*' '' 0)')%' *&' $,-,5,)2' +%'/,8 40' $%8','.,'.)+%'6*0,),*.'.'3+,(+')+%2'8'2'4%6/'(%5' +%'$%0,0)'.(%')*'6'00,7%'8*7%8%.)',0'6%(1/,'$',)',0''0',&')+%'/,8 40'3%$%'8'5%'*&' 3'B'.5'+%.(%')+%'(*+5,),*.'+'0'4%%.')%$8%5' (+%'$,-,5,)2'(*.'8 ./2' 2,%/50'0/*3/2')*' -$'7,)'),*.' +%'(*1.)%' .'&$(%',0' 01'//2'%B6$%0=./%0' +%'$%06,; $')*$2' 8*7%8%.)0' '.5'+%')$)<0' '(),*.'' '$% 3%'9%.%5' 140)'.(%0'6/'(%5',.')+%'4'(9' *&')+%' 8*1)+' '$%' 03' *3%5' 41)'0/*3/2' +%'0)')%' *&'0%.0,4,/,)2'7'$,%0H ,.' 6$*&*1.5' (*.5,),*.0' *&' (')'/%602',)',0'/*0)')*')*1)(+' 6',.'.5' %/%()$,(,)2' '.5'.*' $%&/%B' 8*7%; 8%.)0'('.'4%',.51(%5'%7%.'42')*1(+,.-')+%' (*.>1.(),7''')0')%' *&'8%.)'/)$'.(%' 4%,.-' '00*(,')%5' .'*)+%$'('0%0'6'$),'/0%.0,4,/,)2' $%8',.0'.5' $%&/%B' 6+%.*8%.'' 8'2'4%' %B; (,)%5' .' $'$%' ,.0)'.(%0' +26%$0%0)+%0,'',0' 6$%0%.)' .',.51(%5'(')'/%602')+%$%',0'*&)%.' '' 6%(1/,'$'/*('/' %B')'),*.'*&' $%&/%B' ('),*.' '0*')+')0)$*9,.'*7%$' '016%$&,(,'/ 8 10(/%' ('10%0' '.',.($%'0%5' (*.)$')(),*.'*&' ,)' +,0' ,.7*/7%0' '' (+'.-%' *&' 6*0)1$%',.' (*.0%E1%.(%' *&' '' 5%&,.,)%' 0%.0*$2' ,8 6$%0; 0,*.' '.5' '.' '/*-*10' %&&%()' 8'2'4%' 6$*; 51(%5')+$*1-+')+%' 06%(,'/ 0%.0%0'%06%(,'//2' +% >>6-H ,&''),(9,.-'3')(+'4%' 4$*1-+)'.%'$')+%'014>%()0''%'$')+%'6*0)1$%',0'(+'.-%5'3,)+' ''0)'$)')+%' +%'5')1$.%5')*3'$50')+%'*4>%()' '.5')+%' %2%0',&'6$%7,*10/2'(/*0%5'8'2'4%' *6%.%5' '/)+*1-+')+%' ('))'/%6),(' (*.5,),*.' (*.),.1%0''0'4%&*$%' *.0(,*10.%00'*'/)+*1-+' 101'//2'/*0)'8'2'$%8','.'41)',)',0'0%/5*8' ,.)'()'4%,.-'-%.%$'//2',.'.'*40(1$%5'(*.5,;),*.' +%')%86%$')1$%',0'(*88*./2'/*3%$%5 ,.'''/*.-'0%,C1$%' +%' '))'(9'8'2'/'0)'''&%3'8,.1)%0'*$0%7%$'/ +*1$0' %(*7%$2',0' -$'51'/ *$'0155%.H 0*8%),8%0')+%'6'),%.)' ')'&,$0)',0'1.'4/%')*'06%'9' '0155%.'$%06,$';)*$2'0),8 1/10G01(+''0'4/*3,.-'*.')+%'&'(%G' 3,/ *&)%.')%$8,.')%' .''))'(9' *&',.51(%5' (')'/%602' *8%),8%0' ''0)$'.-%'6%$,*5,(,)2' 8'2'4%' *40%$7%5',.')+%' *((1$%.(%' *&')+%' 6'$*B20 8 0' .')+%' ,.)%$7'/0' 4%)3%.')+%' '))'(90' +%'5'(+%' -,55,.%00' *$' +20)%$,('/ 8'.,&%0)'),*.0 8'2'4%6$%0%.)'*$')+%'6'),%.)' 8'2'&%%/' .5'0%%8'6%$&%()/2'3% H 0< $ D;) $ #) 3' ! ' 4) '$-' ! ' 7 ' !) '! '+ '*4#!' / #4 $4'!4' 7 - ' $5 73 ')' * "' /)$+ + "' + '/ # 7' + 5 '$/4 / "' 7'!") ' ! ' # '$-' * 7 '+4'))' ! ')' ! ' ! ' -$)*) ' 7' ') 3)7 7' ! ' 4) ' $-' '#! -' 4) ',)' * "'+') 3)7 7' ' > "'< '$-' ! '*$ $)' 4' !) ' ' $' 7 #')-) #' 5 !' ! ' # 4 ' /)$# ' 7'))4/ $ '$-' ! '$5 * = $ ' + 5 ' ! '5 ' 7' '*$ $)'#) *' 0'2',)+,0' ,0' *./2')*' %B6$%00' *47,*10' &'()0',.'-%.%$'/)%$80''.5' '&&*$50'.*' %B6/'; .'),*.'*&')+%8 ' ('$%&1/ (*.0,5%$'),*.'*&')+%,$' .')1$%' 8'2'-,7%'.0' ')'/%'0)')+%' 8')%' $,'/&*$')+*1-+)' .')+%'014>%()' +%'3'B /,9% $,-,5,)2',0'.'%B(%00'*&')+%' '(),*.'42'3+,(+' 8 10(/%0''$%' *.0)'.)/2'5'6)%5')*'6*0)1$%' ')*')+%' 5,0)'.(%'4%)3%%.')+%,$' '))'(+8%.)0' '.5'2%)' 6$%0%$7%')+%' '8%'5%-$%%'*&'6+20,*; /*-,('/)*.%' +,0' ,0' %&&%()%5'42' ' $%&/%B' 6$*(%00')+%' '&&%$%.)',8 61/0%'&,&$'3+,(+'6$*; 4'4/2'(*8%0'&$*8')+%''&&%$%.)'8 10(/%'.%$7%0' '.5',0'-%.%$')%5'42')+%'0,1.'*&')+%' $%/')%5')%.0,*.''.5'(*86$%00,*.'*&')+%',.)%$0),),'/),001%',.'3+,(+')+%0%' .%$7%0'4%-,.'+%' 8*)*$'(%//0'A'.5')+%$%&*$%')+%' 8 10(1/'$' &,4$%0R'$%' '(),7%',.',.7%$0%' 6$*6*$),*.')*')+%0%',8 61/0%0'.5'=*')+%'*66*.%.)0'*&''' 6'00,7%'8*7%8%.)'$%/'B')+%'8 10(/%0'0+*$%).')+')'(*$%06*.5')*',',.')+%,$''(),*.H)+%2'' $%)+10''5'6)%5')*'6*0)1$%'.5',&')+,0'6$*(%00' ,0',.'%B(%00')+%'(')'/2),(' $,-,5,)2'8 10)'*& .%(%00,)2'%.01%' 1)',)',0'6$*4'4/% 4.'8'.2' -$*1.50')+')')+%' &&%$%.)',8 61/0%0'&$*8')+% 8 10(/%0'+'7%''5*14/%'(),*.G''/*3%$*.')+% 8*)*$(%.)$%0'*&)+%'06,.'/*(*$5''.5''+,-+%$')+$*1-+')+%'(%$%4% 8.'*.')+%'8*)*$(%.)$%0' *&)+%'(*$)%B'(%$%4$,' +%'6+%.*8%.''01--%0)')+')')+%''(),*.',0'0,8,/'$'*.'%'(+H 0,.(%)+% (*$),(/ (%//0'-*7%$.')+%'06,.'/ (%//0')+%,$' &1.(),*.'/ 0)')%0'8 10)'4%',.'$%/')%5'(*$%; 06*.5%.(%' +10')+%''&&%$=)',8 6,50%'')+')' $%-1/')%'5'6)',*.')*'6*0)1$%'8 10)'5*')+,0')+$*1-+'4*)+' (*$),(/'.5'06,.'/ (%.)$%0' 0,8./)'.%*10/2' +%'%B(%00,7%' '(),*.'*&' (')'/%602'8'2'4%',.')+%'(*$),(/ (%.)$%0'*&)+%' 06,.'/ 8%(+'.,08' +,0'3*1/5'%.'4/% 10')*'1.5%$0)'.5')+%'*)+%$3,0%0)$'.-%&%%)')+')')+%'(')'/%6),(' 0)')%' 8'2'4%',.51(%5'42' ,.&/1%.(%0''(),.-'*.')+%' 4$',.'0',')+% ,.51(%5'(')'/%602'*&' +20)%$,''+%' 8*)*$(*$),(/ (%.)$%0'3+%.(%')+%'62$'8,5'/&,4$%0' 6$*(%%5''$%6$*4'4/2')+%'/*3%0)'*&')+%'(%.)$%0

W%.5Ø ')')+%' %5-%Ø' *&')+%' 0%()*$0' '.5' %'(+'
0%()*$' +'Ø)3*' *&(,)Ø' %5-%Ø')*3'$5Ø')+%'
'.)%$,*$' '.5')3*')*3'$5Ø')+%'6*0)%$,*$'01$;
&'(%Ø'*&')+%'/%.0' +%'66*0,),*.'*&')+%'%5-%Ø'
&')+%' '5>,.,.-' 0%()*$Ø' /%'7%Ø'&,.%'$'5,');
,.-'&,001$%Ø'3+,(+' 8'9%' 16')+%'$'2Ø'*&')+%'
)%//'' %B,0),.-'')')+%' '.)%$,*$' 'Ø' 3%/' 'Ø')'
)+%'6*0)%$,*$01$&'(%'*&')+%'/%.0' +%'&,4$%Ø'
*&')+%'/%.Ø'$%Ø0*&)%0)')')+%,$'%.50' 3+%$%'
)+%2' '+1)' *.')+%' $'2Ø'*&')+%' 0)%// [' +%'
%.5*)+%/,18'(*.0,0)Ø'*&' '' 0,.-/%'/'2%$'*&'
.1(/%')%5' '.5>'.(/%*/')%5'(%//0'' '.5',Ø'101''//2'
/,8,)%5')*')+%' '.)%$,*$'A>'601/%' *3'$5Ø')+%'
8'$-,.'*$' T ' *&')+%' /%.Ø')+%0%' (%//Ø'
'((181/')%'%/*.-')%' '.5'4%(*3,%'-$'51''//2'
)$'.0&*$8%5',.)*'/%.0&,4$%0' ,.%'(+'..%/0'
((16,%5'42'/2866+' '.5')+%$'&/1,50'0%B,0)'
4%)3%%.')+%' %.5*)+%/,..,' '.5')+%' ('601/%'
'.5'4%)3%%.')+%' %.5*)+%/,18' '.5')+%' '.;
)%$,*$'/'2%$Ø'*&')+%' (*$)%B'6'00,.-')+%.(%'
)+$*1-+')+%'$'2Ø'*&')+%' 0)%//0%',.)*')+%' 014;
0)'.(%'*&')+%'/%.Ø' '.5'4%)3%%.',)Ø'0%7%$'/
/'2%$Ø' +%'('601/%'3+,(+',Ø'%/'0),(' '.5'
)$'.06'$%.)'(,0)Ø'*&')3*/'2%$Ø''5%/,('))%
,..%$'*.%'.5''')Ø$*.-%$*1)%$' .%'3+,(+',Ø'
&1$)+%$'0)$%.-)+%.%5'42'6$*/*.-'),*.Ø'*&')+%'
0106%.0*$2'/,-'8%.)G)+%'C*./,-''*&'V,..

I 0 G +%' '.(%0)$2' '.5'8*5%' *&'
*$,-,.'*&')+%'0%7%$'/'6')$Ø'*&')+%'/%.Ø'5%)%$;
8,.%')+%'6%(1/,'$,),%Ø'.*)*.//2'*&')+%'.*$8'/
.1)$,),*.'*&')+%/%.0'41)'/0*''*&,)Ø'6')+*/*-,('/
5%6'$)1$%Ø' =+%/%.0&,4$%Ø''.5')+%'%.5*)+%;
/,18'$%'5%0(%.5%5'&,(*8')+%'%B)%$.'/'/'2%$'*&'
)+%'4/'0)*5%$8G)+%'%6,4/'0)'' .5''$%')+%$%;
&*$%',8 8%5,')%/2'$%/')%5')*')+%'(1),(1/'$',),0;
01%0',.(/15,.-')+%'%.'8%/'*&')+%')%%)+'.5')+%'
%6,)+%/,18'*&')+%'0%.0%*$-'.0''.5'8*$%'$%;
8*)%/2')*')+%'(%$%4$*06,.'/020)%8'0'3,/'
4%'0%%.'/')%$')+,Ø'(*88*.'*$,-,.'&,$*8'''6$,8,;
),7%'0)*(9'*&'%6,4/'0),*'%/%8%.)Ø')+$*30'/,-+)'
16*.'8'.2'*&')+%'6')+*/*-,('/'00*(,'),*.Ø'
&'(.-%.,)'/'.5')*)+%$' ')'$')0' ((*5$,.-'
)*' $%(%.)' $%0%'$(+%0')+%' ('601/%'*&')+%'/%.Ø'
0%%8Ø')*'+'7%''5*14/%'*$,-,.')+%',..%$'/'2%$'
4%,.-'5%$,7%5'42''' 6$*(%00'*&'(1),*1/'$,0'),*.'
&,$*8')+%'/%.0 0140)'.(%')7+ %')+%'*1)%$',Ø')+%'
*&&06$,.-'*&')+%' 8%0*4/'0),(' %/%8%.)Ø'&$*8'
3+,(+')+%'&*%)'/'('601/* 6.6,//'$2'0'(')+%'
7,)$%*10'(+*$*,5' '.5',.)$'*(1/'$'4/**5;
7%00%/Ø'$%'5%$,7%5' %$%42')+%'('601/%',Ø',
,'5,$%()'+,0)*-.,(' $%/'),*.Ø'3,)+')+%'4*.%Ø'
810(/%0'4/**5 7%00%/0'.5'*)+%$'&,4$*7'0'
(1/'$'),001%Ø'5%$,7%5'&$*8')+%'8,55/%'/'2%$'
*&')+%'4/'0)*5%$8' +%0%'$%/')',*.Ø'8'2'Z50*'
5%)%$8,.%'6')+*/*-,(%/'8'.,&%0)'),*.Ø',.')+%'
('601/%''.5')+$*1-+',)Ø',.)%$8%5,18'3,)+,.'
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B 2 # G +%' &*%)'/' ($20)'//,.%'/%.Ø',Ø'
0*8%3+')'-/*41/'$',.'0+'6%''.5',)Ø'&,4$%Ø'
+'7%''.'.')%$*6*0)%$,*$'5,06*0,),*.''1)'
51$,.-'/')%$',.)$'1)%$,.%'/,&%''.5'0)'/8*$%'
'&)%$'4,$)+')+%'/%.Ø'/)%$Ø',)Ø'0+'6%'4%(*8,.-'
4$*'5%$''.5'$%/'),7%/2'&/'))%$'')'-$*30'42'
)+='66*0,),*.'*%,,0&,4$%0Ø16*.')+%'.1(/%10'
(+,%&/2'*4*1)')+%'%E1')*$'+%'&,4$%Ø')+%8'
&0%/7%Ø'$%'5%$,7%5'&$*8')+%=%.5E:+%/,:/;\% 0

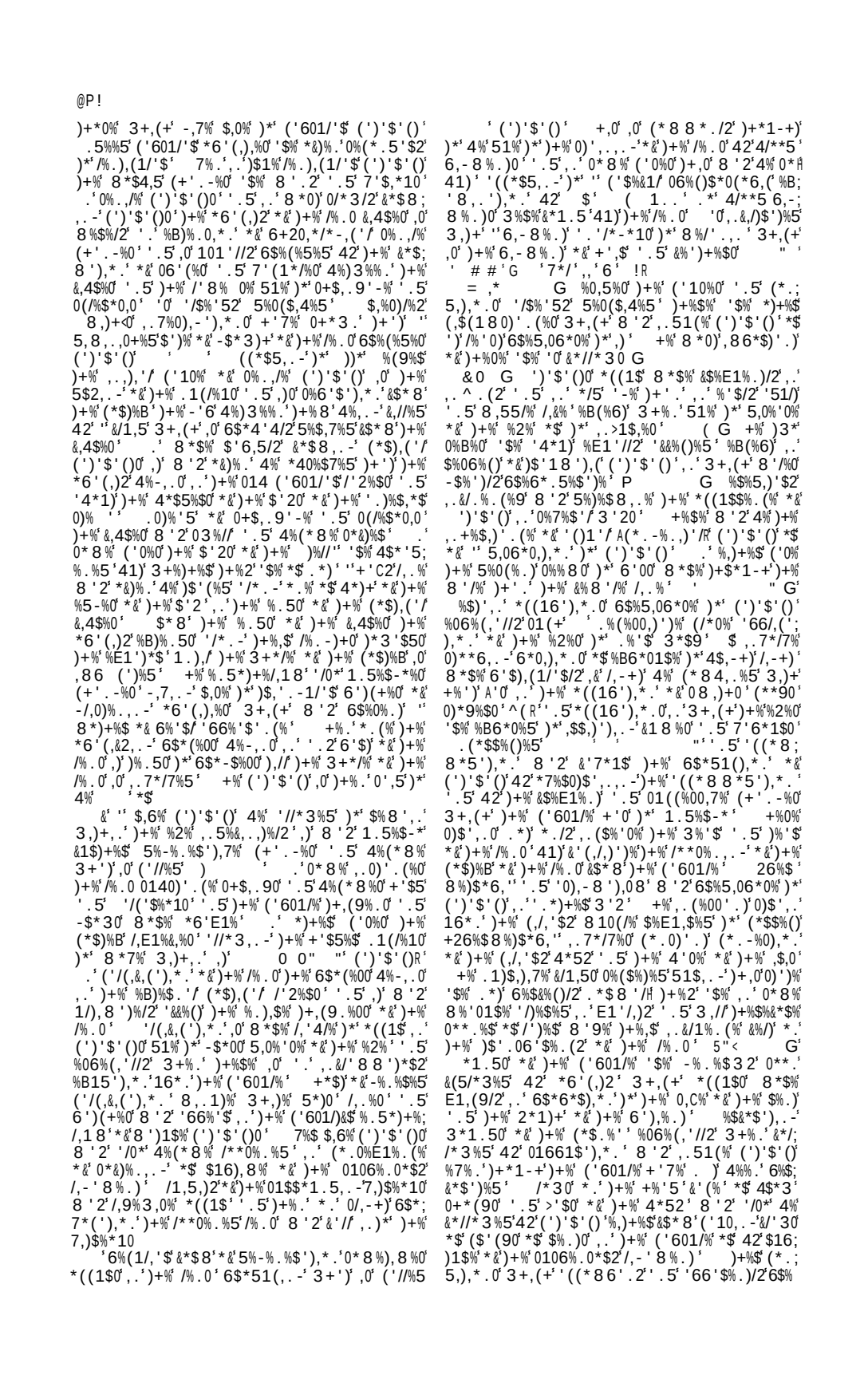
/,.,.-')+%' .)%$,*$'('601/%' +%0%'(%//Ø'
6$*+&%$')%'.5'-$'51''//2'0+,&)')*3'$5Ø')+%'
%E1')*$' 3+%$%')+%2' '((181/')%' '.5' '
'/$%'52'0)')%5'4%(*8%')$'.0&*$8%5',.)*'
&,4$%Ø' +%'&,4$%Ø'4%.5'$*1.5')+%'%E1')*$'
'.5'06$%'5''*1)',.'&$*.)' '.5'4%+,.5'0*' '
-$*51''//2')*' %.('0%' '.5'610+')*3'$5Ø')+%'
(%.)$%')+%'*/5%$'1.5%$/2,.-'/'2%$Ø' +%'
-$*3)+'*&')+%'/%.Ø'(*.),.1%Ø')+$*1-+*1)'/,&%'
'.5'5*%Ø'._=d,.'+%'/)+''(' '0%'3,)+')+%' ');
)',.8%.)'*&'5,5)'/,&%' $,%0)/%2' 8,)+'+'Ø'
&*1.5')+')')+%'7*/18%*&')+%'/%.Ø',.(,$%'0%Ø'
)+$*1-+'/,&%')+%'$')%*&'4*1)' F'(14,('
88'%'(+'2%'$',' ' # # ' '7*/',,,'
6'MPR

N " G +%'($20)'//,.%'/%.0'4%,.-''
.*.7'0%1/'$'4*52',Ø'.*1$,0+%'42',84,4,),*.'
&$*8'01$$*B85,.-'&/1,50'b +,(+'$%'(+,%&/2'
&1$.,0+%5'42')+%'(,/,'$2'4*52')+*1-+')+,Ø'
0*1$(%',Ø'0166/%8%.)%5'42'(*.)$,41),*.Ø'&$*8'
)+%'(+*$*,5')+%',$,0''.5'6%$+30'+%'$%),.''
)',Ø'6$*4'4/%')+')'+%0%'&/1,50'$%'8*5,&,%5'
42')+%,$'6'00'-%')+$*1-+')+%'7,)$%*10'
,Ø'.*)'9.*3.'%B')(/2'+*3'*$'3+%$%')+%0%'
&/1,50'-','.''((%0Ø')*')+%'/%.0 0140)'.(%'41)'
,)',Ø'%7,5%.)')+')'.)+%2'6'00')+$*1-+')+%'
('601/%''.5')+')',.')+%'6'00'-%')+%2'.5%$-*'
0*8%')/)%$'),*.H&*$',&')+%''.)%$,*$*$')+%'6*0;
)%$,*$('601/%'4%$16)1$%5')+%'/%.Ø'4%(*8%Ø'
*6'E1%' +%'01$$*1.5,.-'&/1,50')+%.'(*8%'
,.)*',88%5,')%'(*.)'()'3,)+')+%'&,4$%Ø'*&')+%'
/%+0'.5'4%,.-'1.8*5,&,%5'42')+%'5,'/2),('
6$*6%$),%Ø'*&')+%'('601/%'*$')+%'%/'4*$'),.-'
,.&/1%.(%Ø'*&')+%'%.5*)+%/,18')+%2'$%'1.;
01,)%5'&*$')+%'61$6*0%Ø'*&'.*$8'/.1)$,),*.'
.'+%'/)+''&)%$')+%'.1)$,),7%'&/1,50'+'7%'
8'5%')+%,$'3'2')+$*1-+')+%'('601/%')+%2'
6'00'&$*8')+%'6%$,6+%$2')*')+%'(%.)$%)+$*1-+'
)+%'0)%//')%'(/%&)Ø'.'5'*)+%$'(+'..%/Ø'3+,(+'
%B,0)')+$*,=+*1)')+%'/%.0' .')+,Ø'$%06%()'
)+%'/%.Ø'5,&&%$Ø'&$*8')+%$'(1),(1/'$'0)$1(;
)1$%0',.'3+,(+'3'0)%'6$*51()Ø'$%'0+%5'&$*8'
)+%'01$&'(%H3+,/%',.')+%/%+'3'0)%'6$*51()Ø'
'$%'66'$%.)/2'5$,7%.,.3'$5Ø')*')+%'(%.)$%'
)*' .5%$-*%/,8,.'),*.',.' '8'..%$'.*)'2%)'
&1//2',85%$0)**5

D+%'.1)$,),7%'(),7,)2'*&'$%/%.Ø''Ø'8'.,;
&%0)%5'42')+%'.184%$'*&'.1(/%,'Ø'>E#'
$%.)/2'-$%')%0)'')')+%'%E1')*$'.'.5',)',Ø')'
)+,Ø'6*,.)'4%)3%%.')+%'/'2%$Ø'*&')+%'0106%.;
0*$2'/,-'8%.)')+')'+%'(601/%'Ø',Ø',.'8*0)'
,88%5,')%'(*.)'()'3,)+')&/%'84,%.)'&/1,50'
.2'1)+*$,),%Ø'4%/,%7%')+')'+%'.1)$,),7%'
&/1,50'%.)%$')+%'/%.Ø'(+,%&/2',&'.*)'%.),$%/2''')'
)+,Ø'6/'(%''.5')+')+,Ø'$%-,'.',5Ø')+%'6$,.(,6'/
0%')'*&'(% -$*3)+' +%$%'('$%'+*3%7%$'
$%'0*.Ø'&*$')+,.9,.-')+')'.%,)+%$'%.5*08*0,Ø'
.*$'(%// 6$*/,&%$'),*.',Ø'8*0)')'(),7%'+%$%'
0*8%'5,0%'0%Ø'*&')+%'(+*$*,5'*$'%&')+%'$%),.''
.')+%'.%'+'.5''.5'*&')+%',$,Ø'*$'*&')+%'
(*$.%''*.')+%'*)+%$'*6'(),%Ø'*&')+%'/%.Ø'
&,$0)'8'.,&%0)')+%80%/7%Ø'.*)')')+%'%E1')*$'
41)')')+%'6*0)%$,*$'*$')+%'.)%$,*$'01$&'(%'
$%06(),7%/2')+')',Ø')')+')'6'$)'*&')+%'/%.Ø'
3+,(+',Ø' ')*')+%'5,0%'0%5'0)$1()1$%0'
'.5'3+,(+'4%'$Ø')+%'4$1.)'*&')+%'8*$4,5/2

@??

@P!



(5,06*0%') *' (')'$')(' '$%' 5%-. %$'),7%' (+' . -%0' , . ')+%' 4/**= 7%00%/0'%06%(, '//2'*&')+*0%' *&')+%' % '5' . .5' .%(9' . .5'*&')+%'%2%H 5,0%'0%0' &')+%' *$4,)'*$'(+' . -%0', . ')+0'*$4,)'/'7%00%/0H('$5,'(' 5,0%'0%'$%. '/'5,0%'0%'-*1)' ' . .5'5,'4%)%0')' ,0' 6$*4'4/%'+*3%7%$')+')')+%' , . &/1%. (%' *& 5,'4%)%0, . ')+%'6$*51(),*.'*&'(')'$')(')+'0'4%%. ' *7%$$')%5' +%' . 1 8 4%$'*&'5,'4%),(' 6%$0*. 0' 3+*'-%)'(')'$')(', 0' (*8 6'$'),7%/2'0 8 '//' ' . 5' 3+%. '(')'$')(' (*%B,0)0' 3,)+'-/2(*01$,'')+%$%' ,0' . *' . %(%00'$2'('10'/'$%/'),*. 0+,6' 4%)3%%. ')+%')3*')' +'0' 4%%. ' 0)')%5')+')' %$-*),0 8' *&)%. '/%'50')*' (')'$')(' A ' %2%$R $ # ' ?[')'$'()0' +'7%' 4%%. ' (/'00,&,%5', . ' 8 '. 2'3'20' '0' A8R' ((*$5,. -')*' 0 G(*. -%. ,)'/'>17%8/%'0%. ,/%H A<R')*' 0' G, . (,6,%.)'6$*-$%00,7%'0)'),*. '$2, 8 8 ')1$%' 8 ')1$%H A"R" " 0 '0*&)'+'$5''. 5' 8,B%5 /')+%0%'6/' . 0' 6*00%00'0*8%'(/, . ,('/'1),/,)2' 41)')+%2' '$%' . *)' 01&/,(,%.))2' (*86$%+%. 0,7%' *//*3, . -')+%' , .5,('),*. 0' '&&*$5%$7 42')+%' (*. 0,5%$*'),*.'*&')+%'6')+*/*-2' . .5'('10'),*. '*&' /%.),(1/'$' *6'(,),%0' (')'$')(')0' 8'2'4%' '$$' . -%5',.)*' &,7%' 8 ', . ' -$*160' '((*$5,. -' A8R' '0')+%2'' $%' 51%')*' 5%7%/*68%.)'/'4. *$; 8 '/,),%0 G g A<R' '0')+%2'*((1$', . ; 5%6%. 5%.)/2' *&'*47,*10' 5,0%'0%' *&')+%'%2%G' # A"R''0')+%2' %''00*(,')%5'3,)+'*4; 7,*10'5,0%'0%'*&')+%'%2%G # A R' 0')+%2'&*//*3' 3*1.50' *$', .>1$,%0' *&')+%' %2%' G 3 g '. 5'/'0)/2'AFR' '0')+%2''$%' 51%')*')+%'*6'(,&,('),*. '*&'/%. 0 8 ')) %$'$%8', . , . -' 3,)+, . '*$'*. ')+%'('601/%' ')+%'), 8%'*&'*6%$';), *. '&*$,)+%' $%8*7'/*&' (')'$'()'*$'*&'/%. 0' 8 '))%$'3+,(+'8'2'+'7%'-$*3. '0140%E1%.)/2' . 5')+%. '4%(*8%'*6'E1%? ' *)' 0140%E1%.)' " & # ' ' 01&&%$'/')%$M' '/%. ' '' S '& ',$',,,' %5' 1+. '7,,,' " R' < ,)+,. '*. %' *$'*)+%$'*&')+%0%'-$*160' '/')+%'7'$,%),%0'*&' (')'$')(' 8'2'4%' '$$' . -%5' '((*$5,. -' '0')+%2',8 6/,('))%'A8R')+%'. 1(/%10H i@R')+%'6%$,. 1(/%'$'$=*. ' A/' 8%//'$RH A"R')+%' 'B,0' A06,. 5/% 0+'6%5RH A R')+%'(*$)%B' '.)%$,*$' *$'6*0)%$,*$]'AFR')+%'%E1')*$H' ALR')+%'(601/%' '.)%$,*$'*$'6*0)%$,*$H AMR')+%'%B)%$. '/01$&'(%' W*&')+%'('601/% %B)$'('601/'$G=3+,(+' 8'2' 4%'(*. -%. ,)'/'*$''(E1,$%5 !(! G +%'(+,%&'014>%(),7%'02 8 6)*8' *&'0%. ,/%'. 5'*)+%$' '(E1,$%5' ()'$'()0',0', 8 ; 6',$8%.)' . 5'0&*--, . %00'<*&'0,-+)'%=(,' 2' &*$'5,0)' .)'*4>%()0' 0')+%'(')'$')(''57'. (%0')+,0'5,8 . %00', . ($%'0%0'1.),/)+%''66$%(,'),*. '*&'&*$8' . 5'(*/*1$ 8'2'4%'/*0)H 41)', . '%2%0' *)+%$3,0%'+%'/)+2')+%'6*3%$'*&'5,0(%$. , . -' /,-+)' '/3'20' $%8', . 0'%7%. ')+*1-+')+%'/%. 0' 4%' E1,)%' 6'E1%' . ' *$5,. '$2'5'2/,-+)')+%'%2%' 8'2'0), '4%' '4/%')*' 0(*1.)' &,. -%$0'<')'' 5,0)' . (%' *&'0,B')*')3%/7%', . (+%0' *$' 0%%')+%' 8*7%8%.)' *&' 0'2' '' +'. 5' ')' ' 5,0)' . (%' *&)3%/7%')*' %,-+)%%. ', . (+%0' A+' . 5 8*7%8%.)RH ' . 5', . ' '' 5'$9%. %5'$**8')+%' %2%' 0+*1/5'4%' '4/%' . *)' *. /2')*' 0%%' '' /,-+)%5' (' . 5/%' ')' '' 5,0)' . (%' *&')%. ')*' &,&)%%. '&%%)'41)'0+*1/5'4%' '4/%' '/0*' E1,(9/2')*', . 5,(')%',)0' 6*0.),*. ', . ' ℵ7'$,*10'6'$)0' *&')+%' &,%/5' *&'7,0,*. ' 3,)+*1) 8*7%8%.)' *&')+%' %2%0' *$'+%'5' +,0' 3*1/5', . 5,(')%')+')')+%$%' ,0' -**5' "' ' /,-+)' -**5' "' ' . 5' ' 0 ' ') " ' . ')+%' %'$/2'0)'-%0' *&' (')'$')()' %06%(, '//2' 3+%. ')+%' *6'(,)2' *((16,%0')+%' 616,//'$2' '$%''6'),%.)0' 8'2' 0%%' 4%))%$ 3+%. ')+%' %2%0' '$%' 0+'5%5')+%' 616,/' 4%,. -')+%$%42' 8'5%')*' 5,/')%H '' 4$,-+)' /,-+)' %8; 4'$$'00%0' . 5'5,0)$%00%0')+%,+' 10%0]'7*/, ')' .)%0' '$%' '/0*&)%. ' 0%%. H')+%0%' 8'2' 4%' 51%')*')+%' (*. -%0),*. ' *&')+%' (,/,'$2'4*52' . 5' (+*$*,5' 3+,(+' 8'2'+'7%' 6$%(%5%5' (')'$')()' *$')+%2' 8'2'4%')+%' $%01/)0' &')+%' 0)$',. , . -' %&&*$)0')*' 0%%')+$*1-+''+'C2'/%. 0' . *)+%$' (*8 8*. ' 02 8 6)*8', 0')+%' 8 1/),6/2, . -' *$' 06/,)), . -'*&*4>%()0'%06%(, '//2'*&/,-+)0'A8*. ' *6+)+'/8,(' 6*/2*6,'R' +%' '8*1.)' *&', 8; 6',$8%.)' *&'0,-+)',0' . *)' /3'20' . '6$*6*$),*. ')*')+%''8*1.)'*&'66$%(,'4/%'*6'(,)2H 5,&&10%5' +'C, . %00' '4*1)'+%' . 1(/%10' *$' '4*1)'+%' 616,//'$2'$%''',0' 8*$%'+' 8 6%$, . -')+' . '3%// 5%&, . %5'0)$,'%'*$'0%()*$0'3,)+'(/%'$', .)%$06'(%0' +%$%' 8'2'4%' 5%. %'*6'(,),%0' ')')+%'%E1')*$ 3,)+'6%$&%()' '(1)%. %00' *&'7,0,*. ' . ' (; ('0,*. '/' %'$/2'02 8 6)*8' *&' (')'$'()',0' '' (+'. -%', . ')+%' $%&$'(),*. '*&')+%'%2%'/%'5,. -')*'3+')'0*8%'6%$0*. 0' 5%0($,4%' 0' -%)),. -' ')+%' %(*. 5'0,-+)<2%0')+')'+'7%'$%E1,$%5')$*. -' ") (' -/'00%0'&*$' . %'$'3*$9'6$%&%$' 3%'9%$' *. '%H ' . 5')+*0%'3+*' +'7%'. %%5%5'(*. 7%B'-/'00%0'&*$'5,0)' . (%' 8'2' && . 5')+')')+%2'0%%' 4%))%$' 3,)+*1)'+%8' *$' % %. ' 3,)+'(*. ('7%' -/'00%0' +,0',0' ''6'00,. -')')%')+*1-+',)' 8'2'/'0)'&*$'3%%90' . 5'%7%. ' &%$' 8*.)+0H ,)',0' 51%%,)+%$')*')+%'03%//, . -' *&')+%'/%. 0'*$')*'0*8%'(+' . -%', . ',0)0$%&, '(),7%' , . 5%B' &)%$''),8%')+,0'(*. 5,),6. '6'00%0'*&' %. 5',0'&*//*3%5'42'6$*-$%00,7%'&', /1$%'*&'0,-+)' . '2' (+,/5$%. ' 3,)+'0*. 1/'$' (')'$')(' '$%')+*1-+)')*'4%'8%$%/2'0+*$) 0,-+)%5''. 5'*&%. ')+%2''$%'0+*$) 0,-+)%5'41)')+%')$1%'('10%'*&')+%'5%&%()',0'&$%E1%.)/2'. *)'5,0(*7%$%5'),/')+%'0 6),(,'.'<+'0'&',/%5')*'-%)'-**5'7,0,*. ' 42' 8%'. 0'*&'06%()'(/%0 5,0G .' '/' ('0%0'*&'&',/,. -'0,-+)' 3+%)+%$' *6'(,),%0' '$%')*'4%'0%%. ' *$' . *)' 42' 8%'. 0'*&'5,$%()'/,-+)' *$' 42' 0' ('//%5'&*('/' *$'*4/,E1%'/,//18, . '),*. ')+%'8%5,'' *&')+%'%2%' 0+*1/5'4%'%B'8, . %5'3,/ ')+%'*6+)+'/8*0(*6%' 3,. -')*')+,(9%. ,. -'*&')+%'/%. 0('601/%'^*' 616,/0'*&'*/5'6%$0*. 0' '$%' 0*8%),8%0' -$%2' , . 0)%'5'*&'4/'(9' . .5')+%'/%. 0%0' 8'2'0%%8')*'4%'*6'E1%'3+%. ')+%2''$%' . *)' $% /2'0*H ' . 5', . ' -/'1(*8')*'10' %2%0')+%'(+'. -%' *& (*/*1$3+,(+')'9%0'6/' %', . ')+%'(*6%''' . 5' /, -+)' '/3'20' $%8', . 0'%7%. ')+*1-+')+%'/%. 0' 4%' E1,)%' 6'E1%' . ' *$5,. '$2'5'2/,-+)')+%' %2%' 8'2'0), '4%' '4/%')*' 0(*1.)' &,. -%$0'<')'' 5,0)' . (%' *&'0,B')*')3%/7%', . (+%0' *$' 0%%')+%' 8*7%8%.)' *&' 0'2' '' +'. 5' ')' ' 5,0)' . (%' *&)3%/7%')*' %,-+)%%. ', . (+%0' A+' . 5 8*7%8%.)RH ' . 5', . ' '' 5'$9%. %5'$**8')+%' %2%' 0+*1/5'4%' '4/%' . *)' *. /2')*' 0%%' '' /,-+)%5' (' . 5/%' ')' '' 5,0)' . (%' *&')%. ')*' &,&)%%. '&%%)'41)'0+*1/5'4%' '4/%' '/0*' E1,(9/2')*', . 5,(')%',)0' 6*0.),*. ', . ' ℵ7'$,*10'6'$)0' *&')+%' &,%/5' *&'7,0,*. ' 3,)+*1) 8*7%8%.)' *&')+%' %2%0' *$'+%'5' +,0' 3*1/5', . 5,(')%')+')')+%$%' ,0' -**5' "' ' /,-+)' -**5' "' ' . 5' ' 0 ' ') " ' . ')+%' %'$/2'0)'-%0' *&' (')'$')()' %06%(, '//2' 3+%. ')+%' *6'(,)2' *((16,%0')+%' 616,//'$2' '$%''6'),%.)0' 8'2' 0%%' 4%))%$ 3+%. ')+%' %2%0' '$%' 0+'5%5')+%' 616,/' 4%,. -')+%$%42' 8'5%')*' 5,/')%H '' 4$,-+)' /,-+)' %8; 4'$$'00%0' . 5'5,0)$%00%0')+%,+' 10%0]'7*/, ')' .)%0' '$%' '/0*&)%. ' 0%%. H')+%0%' 8'2' 4%' 51%')*')+%' (*. -%0),*. ' *&')+%' (,/,'$2'4*52' . 5' (+*$*,5' 3+,(+' 8'2'+'7%' 6$%(%5%5' (')'$')()' *$')+%2' 8'2'4%')+%' $%01/)0' &')+%' 0)$',. , . -' %&&*$)0')*' 0%%')+$*1-+''+'C2'/%. 0' . *)+%$' (*8 8*. ' 02 8 6)*8', 0')+%' 8 1/),6/2, . -' *$' 06/,)), . -'*&*4>%()0'%06%(, '//2'*&/,-+)0'A8*. ' *6+)+'/8,(' 6*/2*6,'R' +%' '8*1.)' *&', 8; 6',$8%.)' *&'0,-+)',0' . *)' /3'20' . '6$*6*$),*. ')*')+%''8*1.)'*&'66$%(,'4/%'*6'(,)2H 5,&&10%5' +'C, . %00' '4*1)'+%' . 1(/%10' *$' '4*1)'+%' 616,//'$2'$%''',0' 8*$%'+' 8 6%$, . -')+' . '3%// 5%&, . %5'0)$,'%'*$'0%()*$0'3,)+'(/%'$', .)%$06'(%0' +%$%' 8'2'4%' 5%. %'*6'(,),%0' ')')+%'%E1')*$ 3,)+'6%$&%()' '(1)%. %00' *&'7,0,*. ' . ' (; ('0,*. '/' %'$/2'02 8 6)*8' *&' (')'$'()',0' '' (+'. -%', . ')+%' $%&$'(),*. '*&')+%'%2%'/%'5,. -')*'3+')'0*8%'6%$0*. 0' 5%0($,4%' 0' -%)),. -' ')+%' %(*. 5'0,-+)<2%0')+')'+'7%'$%E1,$%5')$*. -' ") (' -/'00%0'&*$' . %'$'3*$9'6$%&%$' 3%'9%$' *. '%H ' . 5')+*0%'3+*' +'7%'. %%5%5'(*. 7%B'-/'00%0'&*$'5,0)' . (%' 8'2' && . 5')+')')+%2'0%%' 4%))%$' 3,)+*1)'+%8' *$' % %. ' 3,)+'(*. ('7%' -/'00%0' +,0',0' ''6'00,. -')')%')+*1-+',)' 8'2'/'0)'&*$'3%%90' . 5'%7%. ' &%$' 8*.)+0H ,)',0' 51%%,)+%$')*')+%'03%//, . -' *&')+%'/%. 0'*$')*'0*8%'(+' . -%', . ',0)0$%&, '(),7%' , . 5%B' &)%$''),8%')+,0'(*. 5,),6. '6'00%0'*&' %. 5',0'&*//*3%5'42'6$*-$%00,7%'&', /1$%'*&'0,-+)' . '2' (+,/5$%. ' 3,)+'0*. 1/'$' (')'$')(' '$%')+*1-+)')*'4%'8%$%/2'0+*$) 0,-+)%5''. 5'*&%. ')+%2''$%'0+*$) 0,-+)%5'41)')+%')$1%'('10%'*&')+%'5%&%()',0'&$%E1%.)/2'. *)'5,0(*7%$%5'),/')+%'0 6),(,'.'<+'0'&',/%5')*'-%)'-**5'7,0,*. ' 42' 8%'. 0'*&'06%()'(/%0 5,0G .' '/' ('0%0'*&'&',/,. -'0,-+)' 3+%)+%$' *6'(,),%0' '$%')*'4%'0%%. ' *$' . *)' 42' 8%'. 0'*&'5,$%()'/,-+)' *$' 42' 0' ('//%5'&*('/' *$'*4/,E1%'/,//18, . '),*. ')+%'8%5,'' *&')+%'%2%' 0+*1/5'4%'%B'8, . %5'3,/ ')+%'*6+)+'/8*0(*6%' 3,. -')*')+,(9%. ,. -'*&')+%'/%. 0('601/%'^*' 616,/0'*&'*/5'6%$0*. 0' '$%' 0*8%),8%0' -$%2' , . 0)%'5'*&'4/'(9' . .5')+%'/%. 0%0' 8'2'0%%8')*'4%'*6'E1%'3+%. ')+%2''$%' . *)' $% /2'0*H ' . 5', . ' -/'1(*8')*'10' %2%0')+%'(+'. -%' *& (*/*1$3+,(+')'9%0'6/' %', . ')+%'(*6%''' . 5' /, -+)' '/3'20' $%8', . 0'%7%. ')+*1-+')+%'/%. 0' 4%' E1,)%' 6'E1%' . ' *$5,. '$2'5'2/,-+)')+%' %2%' 8'2'0), '4%' '4/%')*' 0(*1.)' &,. -%$0'<')'' 5,0)' . (%' *&'0,B')*')3%/7%', . (+%0' *$' 0%%')+%' 8*7%8%.)' *&' 0'2' '' +'. 5' ')' ' 5,0)' . (%' *&)3%/7%')*' %,-+)%%. ', . (+%0' A+' . 5 8*7%8%.)RH ' . 5', . ' '' 5'$9%. %5'$**8')+%' %2%' 0+*1/5'4%' '4/%' . *)' *. /2')*' 0%%' '' /,-+)%5' (' . 5/%' ')' '' 5,0)' . (%' *&')%. ')*' &,&)%%. '&%%)'41)'0+*1/5'4%' '4/%' '/0*' E1,(9/2')*', . 5,(')%',)0' 6*0.),*. ', . ' ℵ7'$,*10'6'$)0' *&')+%' &,%/5' *&'7,0,*. ' 3,)+*1) 8*7%8%.)' *&')+%' %2%0' *$'+%'5' +,0' 3*1/5', . 5,(')%')+')')+%$%' ,0' -**5' "' ' /,-+)' -**5' "' ' . 5' ' 0 ' ') " ' . ')+%' %'$/2'0)'-%0' *&' (')'$')()' %06%(, '//2' 3+%. ')+%' *6'(,)2' *((16,%0')+%' 616,//'$2' '$%''6'),%.)0' 8'2' 0%%' 4%))%$ 3+%. ')+%' %2%0' '$%' 0+'5%5')+%' 616,/' 4%,. -')+%$%42' 8'5%')*' 5,/')%H '' 4$,-+)' /,-+)' %8; 4'$$'00%0' . 5'5,0)$%00%0')+%,+' 10%0]'7*/, ')' .)%0' '$%' '/0*&)%. ' 0%%. H')+%0%' 8'2' 4%' 51%')*')+%' (*. -%0),*. ' *&')+%' (,/,'$2'4*52' . 5' (+*$*,5' 3+,(+' 8'2'+'7%' 6$%(%5%5' (')'$')()' *$')+%2' 8'2'4%')+%' $%01/)0' &')+%' 0)$',. , . -' %&&*$)0')*' 0%%')+$*1-+''+'C2'/%. 0' . *)+%$' (*8 8*. ' 02 8 6)*8', 0')+%' 8 1/),6/2, . -' *$' 06/,)), . -'*&*4>%()0'%06%(, '//2'*&/,-+)0'A8*. ' *6+)+'/8,(' 6*/2*6,'R' +%' '8*1.)' *&', 8; 6',$8%.)' *&'0,-+)',0' . *)' /3'20' . '6$*6*$),*. ')*')+%''8*1.)'*&'66$%(,'4/%'*6'(,)2H 5,&&10%5' +'C, . %00' '4*1)'+%' . 1(/%10' *$' '4*1)'+%' 616,//'$2'$%''',0' 8*$%'+' 8 6%$, . -')+' . '3%// 5%&, . %5'0)$,'%'*$'0%()*$0'3,)+'(/%'$', .)%$06'(%0' +%$%' 8'2'4%' 5%. %'*6'(,),%0' ')')+%'%E1')*$ 3,)+'6%$&%()' '(1)%. %00' *&'7,0,*. ' . ' (; ('0,*. '/' %'$/2'02 8 6)*8' *&' (')'$'()',0' '' (+'. -%', . ')+%' $%&$'(),*. '*&')+%'%2%'/%'5,. -')*'3+')'0*8%'6%$0*. 0' 5%0($,4%' 0' -%)),. -' ')+%' %(*. 5'0,-+)<2%0')+')'+'7%'$%E1,$%5')$*. -' ") (' -/'00%0'&*$' . %'$'3*$9'6$%&%$' 3%'9%$' *. '%H ' . 5')+*0%'3+*' +'7%'. %%5%5'(*. 7%B'-/'00%0'&*$'5,0)' . (%' 8'2' && . 5')+')')+%2'0%%' 4%))%$' 3,)+*1)'+%8' *$' % %. ' 3,)+'(*. ('7%' -/'00%0' +,0',0' ''6'00,. -')')%')+*1-+',)' 8'2'/'0)'&*$'3%%90' . 5'%7%. ' &%$' 8*.)+0H ,)',0' 51%%,)+%$')*')+%'03%//, . -' *&')+%'/%. 0'*$')*'0*8%'(+' . -%', . ',0)0$%&, '(),7%' , . 5%B' &)%$''),8%')+,0'(*. 5,),6. '6'00%0'*&' %. 5',0'&*//*3%5'42'6$*-$%00,7%'&', /1$%'*&'0,-+)' . '2' (+,/5$%. ' 3,)+'0*. 1/'$' (')'$')(' '$%')+*1-+)')*'4%'8%$%/2'0+*$) 0,-+)%5''. 5'*&%. ')+%2''$%'0+*$) 0,-+)%5'41)')+%')$1%'('10%'*&')+%'5%&%()',0'&$%E1%.)/2'. *)'5,0(*7%$%5'),/')+%'0 6),(,'.'<+'0'&',/%5')*'-%)'-**5'7,0,*. ' 42' 8%'. 0'*&'06%()'(/%0

<:<

8 ')1$%' '0')*')+%' ,=*06%(&0' *&' $%(*7%/2' *&' 0,-+)' '&)%$ *6%$'),*.' *8%' ('),'$')0' 8'2' $%8',.' 0)',*.'$2')+$*1-+*1)' '' /*.-' /,&%']01(+' '$%' '.)%$,*$' 6*/'$' '.)%$,*$' 62$'8,5'/' '.5' C(81/'$ (')'$')0')+%$0' 6$*-$%00' 0/*3/2' 01(+' '0' 6*0)%$,*$' (')',=)0' K *$),('/ (')'$')0' '0' '' 8,/%' '57'.(%' 8*$%' $'6,5/2')+'.' .1(/%'$* .%0' '.5'0*&)' (')'$')0' 8*$%' $'6,5/2')+'.' +'$5')',0' .*)'6*00,4/%',.' '// ('0%0')*' 5%(,5%' 3+%)+%$' '' (')'$')' (),0' /,9%/2')*'6$*-$%00' 0/*3/2' *$' E1,(9/2' A ' '//2')+%' 6$*-$%00' ,0' E1,(9%$')+%' %'$/,%$')+%' (')'$')' ()*((1$0' '.5')+%' (/*0%$',)0' '00*(,'),'.' 3,)+' 8*$4,5'0)')%0' *&')+%' %2%' *$' 3,)+',.>1$2' +%.' (')'$')0' '$%' 0+'$6/2'5%&,.%5'(*.&,.%5')*')+%' %E1')*$' *&')+%' /%.0' *$= 6$%0%.)' *./2' ' +'C%' *$4/1$',.' '4*1)')+%' .1(/%10'*$' 3+%.')+%' (*$),('/ 0)$,'% '$%' &%3' '.5'&,.%' '.5' %//' 5%&,.%5'3,)+' (/%'$',.)%$06'(%0' '.5')+%' %2%0' '$%' *)+%$3,0%' +%'/)+2' '.5')+%' 0,-+)' -**5')+%' 6$*-$%00' 3> '101' 2'4%' 0/*3 H 41)'3+%.')+%' *6'(,)2' *$ 3+%.')+%$%' ,0' *47,*10',$$,)',7%' *$' ,.&/'8 8')*$2'5,0%'0%' *&')+%' %2%' *$' 3+%.')+%$%' ,0' -$'7%'7,0(%$'/ *$' *)+%$' (*.0),)1),*.'/ 5,0%'0%'01(+' -*1)'5,'4%)%0'.%6+$,),0')+%.')+%' 6$*-$%00' 3,/' 6$*4'4/2'4%' $'6,5' 1)',)'0+*1/5'4%' $%8%8 4%$%5')+')' (')'$'()0' 3+,(+'8'2'+'7%' 4%%.'7%$2'0/*3/2'6$*-$%00,.-' 8'2')' '.2',)8%')'9%' '' 0155%.' '.5' $'6,5' 0)'$)' '.5' 6$*-$%00' E1,(9/2' +%' 101'/ (*1$0%',.' 0%./%' ('),'$')' ()',0' &,<' 8' *.%')*' &*1$' 2%'$0' *$' 8 *$%

0' $%-'$50' ' (')'$')' ()')+%' 6$*-.*0,0' ,.'$%&%$%.(%')*'*6%$')',*.',0'-**5',.'6$*6*$),*.' '0')+%' %2%',0' *)+%$3,0%' 0*1+5' '.5')+%'-%.%$'/ +%'/)+' -**5' +%$%')+%$%' ,0' '' +,0)*$2' *&' '))'(90' *&' 6',.'*$' *&' $%5.%00' ,.')+%' %2%' *$' 3+%$%')+%$%' '$%' 0,-.0' *&'6'0)'5,0%'0%'3+%/+%$',$,),0'<)(+*$*,5,),0' *$'$%),.,),0' *$' 3+%$%')+%$%',0' '+,-+'5%-$%%' *&'82*6,' ' *$' 3+%$%')+%' ,$,0',0' 5,0(*/*1$%5' '.5'/10)$%/%00' '.5'0/1--,0+' *$',8 8*4,/%' *$' 3+%$%',)',0')$%81/*10' *$' 3+%$%')+%' .')0%,*$' (+'84%$',0' 81(+' 5%%6%$')+' .')1$'/ *$' 81(+'0+'//*3%$' *$' 3+%$%')+%$%',0' '' (+$*.,(' (*.,1&,(),7,),0' (,/,'$2' 4/%6+'$,),0' *$' (')'$$+' *&')+%'/'($28'/0'(' *$' 3+%$%')+%')%.0,*.' *&')+%' %2%',0')** +,-+' *$')** /*3')+%' 6$*-.*0,0',0' 8*$%' *$' /%00' 1.&'7*1$'4/%' 20)'-810' 0E1,.)G%06%*,05/2' 5,7%$-%.)' Q0E1,.)G'$%' 1.&'7*1$'4/%' (*.(*8,)'.)0H '.5')+%' 6$*-.*0,0',0' *&' (*1$0%' /%00' &'7*1$'4/%' 3+%.',)',0'9.*3.')+')'+%$%' 3'0' '.)%(%5%.)' Q5,0%'0%' *&')+%' &1.510' *$' 3+%.' &',/8-')+,0' 9.*3/%5-%')+%' 6%$(%6),*.' *&' /,-+)' ,0' 6**$' '.5')+%' 6$*>%(),*.'4'5'' '.5')+%' &,%/5' *&'7,0,*.' (*.)$' ()%5' *$' ,$$%-1/'$' +%$%')+%$%' ,0' .* 6%$(%6),*.' *&' /,-+)')+%' 6$*-.*0,0' +*6%/%00 ! G $*8' '' 8%5,('/0)'.56*,.)')+%')$%')8%.)' *&' (')'$'()' ,)' $')+%$' 6$%7%.' 0),7%' .5'6'//,'),7%')+'.' *6%$'),7%

6) " " G $*8' '' (*.0,5%$'),*.' *&')+% ('10%0' .5'6')+*/*-2' *&'(')'$'()',)',0'%7,5%.)')+')' 3+,/%' 0*8%' %'0%0' '$%' 4%2*.5')+%' $%'(+' *&6$*6+2/'(),(0')+%$%' '$%' *)+%$0' 3+,(+'5*'&'/' 3,)+,.')+%' (')%-*$2' *&' 6$%7%.),4/%' 5,0%'0%0' .')+%' 6$%0%.)' 0)')%' *&' 9.*3/%5-%' .5')+%$';6%1),('/ '$)' /,))/%' (' .' 4%' 5*&,%' 5,$%()/2')*' 6$%7%.)' 8'.2' *&')+%' %84$2*.,(' &*$80' *&' (')'$'()' '.5')+*0%' *)+%$' (')'$'()0' 3+,(+' '$%' 51%')*' 0,86%' 5,8,.1),*.'*&')+%' T " '*&' .1)$,),*.'*&'3+,(+'61$%'0%./%' (')'$'%)',0')26%' 1$' (*.)$*/ *7%$')+%' 6$*(%00%0' *&' 5%7%/*68%.)' .5'*&'0%./%' 5%('2',0')' 4%0)' 0/,-+)' .5'/,8,)%5' .')+%' %)+%$'+'.5',)',0')'/%'0)',5%'//2'6*00,4/%')*' 6$%7%.)')+%'*(().' $%.*%'*&'8'.2'*&')+*0%' (')'$'()0' 3+,(+' '$%' 51%')*' /)%$'),*.0' *&' T ' *&' .1)$,),*.' 2')+%' 6$%7%.),*.'*$)+%' '7*,5'.(%'*&')+*0%' -%.%$'/ '.5'/*('/ (*.5,),*.0' '.5' 8*$4,5' 0)')%0' 3+,(+',.51(%')+%0%' E1'/,)','),7%' '/)%$';),*.0' *$' 42')+%,$' %'$/2' '.5'%&&%()1'/)$%');8%.)' "&2 ' '42'*4%5,%.(%')*%'/'30'*&'6%$0'.'/'.5'614/,(*+2-,.%'*+2'%*.'&*$8,.-')*')+%' $%E1,$%8%.)0' *&'+%' +2'0,-+)' 42')+%' 0(,%.),&,(' (*$$%(),*.' <-' %$$*$0' *&' $%;&$'(),*.'.5'((*8 8*5'),*.'42'5%E1')%6$*;)%(),*.'*&')+%' %2%0'51$,.-').*0%'*((16'),*.0'3+,(+' %.)',/' $,090' *&'6+02,('/')+%$8,*' *$(+%8,('/,.>1$,%0'('),$'()'8'2'*&)%.'4%'6$%;7%.)%5'*$',)0' 6$*-$%00' $$%0)%5',&'6%$(+'.(%,.),'/(+'.-%0'+'7%'/$%'52'4%-1.' *$')+%6%7%.),*.'*&'()'$')'()'0'3%//'0',.',)0'-%.%$'/)$%')8%.)')+%')3*&*/5' *$.-.' *&')+%' /%0'3+,(+'8'2'+'7%'4%%.'7%$2'0/*3/2'6$*-$%00,.-'8'2')' '.2',)8%')'9%' '' 0155%.' '.5' $'6,5'0)'$)' '.5' 6$*-$%00' E1,(9/2' +%' 101'/ (*1$0%',.' 0%./%' ('),'$')' ()',0' &,<' 8' *.%')*' &*1$' 2%'$0' *$' 8 *$%

0' $%-'$50' ' (')'$')' ()')+%' 6$*-.*0,0' ,.'$%&%$%.(%')*'*6%$')',*.',0'-**5',.'6$*6*$),*.' '0')+%' %2%',0' *)+%$3,0%' 0*1+5' '.5')+%'-%.%$'/ +%'/)+' -**5' +%$%')+%$%' ,0' '' +,0)*$2' *&' ')'(90' *&' 6',.'*$' *&' $%5.%00' ,.')+%' %2%' *$' 3+%$%')+%$%' '$%' 0,-.0' *&'6'0)'5,0%'0%'3+%/+%$',$,),0' <)(+*$*,5,),0' *$'$%),.,),0' *$' 3+%$%')+%$%',0' '+,-+'5%-$%%' *&'82*6,' ' *$' 3+%$%')+%' ,$,0',0' 5,0(*/*1$%5' '.5'/10)$%/%00' '.5'0/1--,0+' *$',8 8*4,/%' *$' 3+%$%',)',0')$%81/*10' *$' 3+%$%')+%' .')0%,*$' (+'84%$',0' 81(+' 5%%6%$')+' .')1$'/ *$' 81(+'0+'//*3%$' *$' 3+%$%')+%$%',0' '' (+$*.,(' (*.,1&,(),7,),0' (,/,'$2' 4/%6+'$,),0' *$' (')'$$+' *&')+%'/'($28'/0'(' *$' 3+%$%')+%')%.0,*.' *&')+%' %2%',0')** +,-+' *$')** /*3')+%' 6$*-.*0,0',0' 8*$%' *$' /%00' 1.&'7*1$'4/%' 20)'-810' 0E1,.)G%06%*,05/2' 5,7%$-%.)' Q0E1,.)G'$%' 1.&'7*1$'4/%' (*.(*8,)'.)0H '.5')+%' 6$*-.*0,0',0' *&' (*1$0%' /%00' &'7*1$'4/%' 3+%.',)',0'9.*3.')+')'+%$%' 3'0' '.)%(%5%.)' Q5,0%'0%' *&')+%' &1.510' *$' 3+%.' &',/8-')+,0' 9.*3/%5-%')+%' 6$*(%6),*.' *&' /,-+)' ,0' 6**$' '.5')+%' 6$*>%(),*.'4'5'' '.5')+%' &,%/5' *&'7,0,*.' (*.)$' ()%5' *$' ,$$%-1/'$' +%$%')+%$%' ,0' .* 6%$(%6),*.' *&' /,-+)')+%' 6$*-.*0,0' +*6%/%00 ! G $*8' '' 8%5,('/0)'.56*,.)')+%')$%')8%.)' *&' (')'$'()' ,)' $')+%$' 6$%7%.' 0),7%' .5'6'//,'),7%')+'.' *6%$'),7%

6) " " G $*8' '' (*.0,5%$'),*.' *&')+% ('10%0' .5'6')+*/*-2' *&'(')'$'()',)',0'%7,5%.)')+')' 3+,/%' 0*8%' %'0%0' '$%' 4%2*.5')+%' $%'(+' *&6$*6+2/'(),(0')+%$%' '$%' *)+%$0' 3+,(+'5*'&'/' 3,)+,.')+%' (')%-*$2' *&' 6$%7%.),4/%' 5,0%'0%0' .')+%' 6$%0%.)' 0)')%' *&' 9.*3/%5-%' .5')+%$';6%1),('/ '$)' /,))/%' (' .' 4%' 5*&,%' 5,$%()/2')*' 6$%7%.)' 8'.2' *&')+%' %84$2*.,(' &*$80' *&' (')'$'()' '.5')+*0%' *)+%$' (')'$'()0' 3+,(+' '$%' 51%')*' 0,86%' 5,8,.1),*.'*&')+%' T " '*

$%)'$5')+%6$*-$%0 *&)+%(')'$'() .'0*8%('0%0' 3+%$% 0/,-+)' %.5*)+%/,'/ '.5((*$),('/ *6'(,),%0 *((1$ 51$,.-')$'.0,)*$2 ,.&/'8 8';,*.'*&)+%(*$.%'' ,$,0'*$ (+*$*,5'*$ 51$,.-'%B'(%$4'),*.0 *&5,'4%)%0 '.5')+%$5,')+%),('5,0%'0%0')+% *6'(,),%0 8 2 -$'51'//2 5,0;'66%'$**.')+%$%0186),*.'*&'.*$8 '/ .1)$,),*.''&)%$)+%0140,5%.(% *&')+%',.&/'8 8'),*.'*$)+% 8%+*$'),*.'* &)+%-%.%$'/ +%')/)+ 1)'%B(%6) 3,)+,.')+%0% .'$$*3 /,8,)0 -%.1,.%(')'$'()*10 *6'(,),%0 '$% ,.(1$'4/% .5',$$%;8*7'4/% 42 .2 8%'.0 9.*3.')*' 6*0,),7%0(,%.(% *)+%$')+'.'*6%$'),*. *)3,)+0)'.5;,.-')+%'57'.(%8%.)* &8 %5,('/ 9.*3/%5-%'.5')+% ,.($%'0%5$%0*1$(%0 *&01$-,('/ $)')+%'%'$/,%0)'5,()18'$%(*$5%5',.8 %5,('/+)%$''1$% $%06%(),.-')+%(1$'4,/,)2 &'()'$'()0) /+*/50 -**5 %'$/2'.,.%)%%.'+1.5$%5 2%'$0'-* %/010'$% 8'$9%5'0 18'm01&/10,*f $%(%.0 ,.(,5,) 8%5,('8%.)>0 E1*E1%00%6%5,0(1),)1$H 0%5 14, 7%)10),*$&'()''%0)'8'.10 (1$'),*.%8'5%0,5%$')'< A % / /" '7,,'M "R .($%'0%5 9.*3/%5-%'&')+%'.')1$%'&'()'$'()/%00%.0 $')+%$')+'.',.($%'0%0')+%'+*6%'.5'%B6%()';,*.'*&5,06%$0,.-')+%*6'(,)2 42'/*('/'66/,(';),*.0*$',.)%$./ 8%5,('8%.)0H,.5%%5',)')%.50 8*$%'.5'8*$%)*'5%8*.0)$')%')+%'&1),+)2'*&'01(+ 6$%%.0,*.0'.5')) 86)0 %7%$)+%/%00)+% ,.(*.7%..%.(%0 3+,(+ '))%.5'6$*-$%00,.- ')'$'()'8'2 4%'6' ,')%5 42'/,%.'),.-'/*('/ ,$$,)'),*.' 42)+%10%'&'),.)%5 -/'00%0'42 0+'5,.-')+% %2%0 &$*8 4$,-+) &,-+)'42 (*$$%(),*.'*&'%$$*0'*$'42)+%10%'&'0)%.*60%,(6'00%0' +%.' (,)+%'6'(,)2'3+%)+%$(*.-%.,)'/*$'(E1,$%5',0 /,8,)%5')*')&,%'616,//'$2'$%''*&')+%/%.0'7,0,*.' 8'2 4%,86$*7%5 42 8*5%$')%5,/')'),*.'*&)+% 616,/'42'8%'.0*&'3%'9'0*/1),*.0*&')$*6,.%A-$'=')*' -$' ,.'.2'('0%',&')+%%2%0 4%*)+%$3,0%+%'/)+2'8*5%$')%10%*&')+%%2%0 8'2 4%',.51/-%5',.'0+*$)'*& 5,0(*8&*$)''.5'&'),-1%

' " G +%*6%$'),*.0 &*$)+% (1$%*&'()'$'()8'2'3,)+ 0*8%'//*3'.(%8'5%&*$5,&&%$%.(%0'&'/*('/(*.5),*.0'4%(*86'$%5 3,)+')+%$%% 6$*(%51$%0 %86/*2%5'&*$')+%$%8*7'/*&7%0,('/'/(1/10G.'8%/2'0,86/% ($10+,.-'3,)+ %0('6%'*&)+%&$'-8%.)0 ') ' " G/,)+*)$,)2H ($10+,.-' 3,)+',.0)'.)'$%8*7'/*&')+%'&$'-8%.)0 42'06,$''),*.=/,)+*/'6'B2H '.5'/'0)/2'%>,)$'(),*.'*&)+%'('/(1/10 "' G+)+*)*82'+%'(*$%);06*.5,.-'*6%$'),*.0&*$'('')$'()'$%' ,$0)' "'*$# " (,F K 'm(*$.%'fH ** > +@'6$,(9R',.'3+,(+')+%*'.)%$,*$'(' 601/% ,0')*8'42'',.%.%5/%'6'00%5')+$*1-+')+%$%(*$.%'' +%'/%.0 0140)'.(%K4%,.-')+%$%42 %B6*0%5')*')+%'5,0,.)%-$'),.-''(),*.'*&')+% 'E1%*10 +18*1$'-$'51''//2' E.%&,%0''.5',0 1/),8')%/2' %/,8,.')%5' 42)+%'40*$4%.)7%00%/0' %(*.5/2' "'3,)+') P "' +%'('601/%',0')*8' 0',.'5,0(,00,*.' 41)')+%/%.0',0' 8*$%'&$%%/2'4$*9%.'16' +%&$'-8%.)0'*$%')+%.'*$'3,)+,.' '' &%3'5'20'$%8*7%5'42'' -$**7%5' (1$%))%')+$*1-+' '. 8B*3' ,.%,0,*'' ,8 8%5,')%/2' 3,)+,.')+%'(*8%'/'8'$-,.'A&,.%'$%B)$'(),*.R'*$'3,)+;5$'3.'42'06,$'),*.')+$*1-+' ' &,.%')14%'A01(),*.R' +%')+,$5'*6%$'),*.',0' ("' ,.' 3+,(+' .',.(,0,*.',0' 8'5%')' *$'.%'$)+%'(*8%'/'8'$-,.')+%'('601/%'5,7,5%5'.'5')+%'/%.0'%B)$'5%5'42'-%.)/%'6$%001$%' .),/E1,)%'$%(%.)/2''6*$),*.')+$,$,0'3'0',.')+%'8%+*$')*.'*&)+%%%$%(%.)/2''6*$),*.'$%8*7%5'A,$,5%()*82R')+%'),8%'*&')+%'%B)$'(),*. *6%$'),*.'*$''&%3'3%%90'*$ 8*.)+0 6$%7,*152'A6$%/,8,.'$2',$,5%()*82R' 1)'0*8%'01$-%*.0 .*3')$2')*'5,06%.0%'3,)+')+%',$,5%()*82'*$*./2'5*',)'3+%.')+%'('))$'()'(.'..*)'*)+%$3,0%'4%'0'&%/2'.5'%&&,(,%.)/2'$%8*7%5' +%'&,$0)'.5'0%(*.5'*&')+%'*6%$'),*.0'4*7%'$%&%$$%5')*''$%'66/,*I''4/%')*'0 0*&)'<('))'$'()0'3+,/%'%B)$'(),*.',0'101''//2'$%0%$7%5'&*$0+'$5'<('))'$'()0' *&)'('))'$'()0 8'2'4%'*6%$')%5'*.'3+%.%7%$'4*)+'%2%0'$%'<'&&%()%5')+')'+%K6'),%.)',0'1.'4/%')*'$%'5 $5,.'='6$,.)'*$')*'&*//*3'+,0'*((16'),*.'*$'6$*&%00,*.)'8'2'+%$%'4%'$%8'$%9%5')+')' +%.'C*.1/'$('))'$'()',0'0/,-+)''.5'5*%0'.*)'('10%''66$%;(,'4/%',86',$8%.)'*&'0,-+)'*6%$'),*.'8'2'4%,.5%&,.,)%/2'5%&%$$%5' &'*.')+%'*)+%$'+.5')+%'*6'(,)2',0'8*$%'6$*.*1.(%5'.5')+%'5%-$%%'*&',86',$8%.)'*&'7,0,*.',0'01(+')+')'%51(')',*.'*$'*((16'),*.'('..*)'4%'(*8&*$);'4/2'61$01%5'*6%$'),7%',.)%$&%$%.(%',0'('//%5'&*$' +%'6$%(,0%'6$*(%51$%'3,//'5%6%.5'16*.'(,$(180)'.(%0' &')+%'('))'$'()'4%'08'//5%.]%'3,)+'5%&,.%5'8'$-,.0'.5'01$$*,85%5'42''4$*'5'(/%'>]'.%''08'//,$,5%()*82'5*3.3'$50'.5',.3'$50'A'$),&,(,'/616,/R'8'2'01&&,(%')*'-,7%'10%&1/7,0*.H41)',&',)'4%'/'$-%''.5'.*)'7%$2'*6'E1%'*$',&',)0'%5-%0'4%',//5%&,.%5''.5'4$*9%.'42'6$*>%(),.-'0)$,'%'.5')+%'01$$*1.5,.-'C*.%.'$$*3''.5'+'C2')+%.'5,0(,00,*.' ,)+'*$'3,)+*1)'%7'(1'),*.'3,//4%',.5,(')%5 +%.')+%%2%'+'0'$%(*7%$%5'&$*8')+%'%&&%()0H*&')+%'*6%$'),*.'06%()'(/%/%.0%0'$%'.%%5%5'*'(*$$%()'+%'%$$*$'&'$%&$'(),*.'51%')*')+%'40%.(%*&')+%'($20)'//,.%'#-'# B(%6)',.'7%$2'0+*$)0,-+)%5'%2%0'(*.7%B'/%.0%0'$%'$%E1,$%5' +%'/%.-)+'*&)+%'/%.0'3,//5%6%.5'16*.')+%'$%&$'(),*.'*&')+%'%2%'41)'*$5,.'$,/2'&*$'&&,0)'.(%''/%.0'*&'1*1)'!'5,*6)$%0'A ,.(+R',0'.%%5%5''.5'&*$'.%'$'3*$9'1*1)' ' A@ ,.(+R'&'0),-8'),08'AN%'E %&%()0'*&R4%'6$%0%.)')+%.'(2/,.5$,('/%.0%0'810)'4%'55%5')*')+%'06+%$,('/0'.''.2'('0%',)',0'5%0,$'4/%)+')'.'%2%'3+,(+'+'0'4%%.'*6%$')%5'*.'0+*1/5'.*)'4%'10%5')*'*0**.'.'.*$''),$0)'&*$'Q)**/*.-''),8%

*8%),8%0',)'+'66%.0'&)%$')+%'$%8*7'/*d''(')'$'()')+')'*3,.-')*')+%'6$%0%.(%'*&'+'C2'*$*6'E1%'/%.0('601/%3,)+,.')+%'616,/',)',0

. *)' 6*00,4/%')*' *4)' , .' 10%&1/' 7,0,* . ' 42')+%' 8 *0)' '((1$')%' *6), ('/' (*$%(), * . ')' 3 ,/!')+%. ' 4%' . %(%00'$2')*')%'$')+$*1-+')+%' 8%84$' . %' 3 ,)+' * . %' *$')3*' &, . %' . %%5/%0' ' . 5')+%$%42' %&&%()' '' (/%'$' *6%. , . -' *66*0,)%')+%' 616,/

')

UU ' ' 5*3 . H' ' . 5' "'5'&/*3R' 7 ' *$2C'H # ' A 1//%. RH B ' # ' ' A **5RH$ 2 ' $' ' # 9' 9' B (' * #9' #" " 6 , 8* G= +%')%$8' (')'$$+',0' '66/,%5' -%. %$'//2')*' , . &/' 8 8 '), * . ' *$' (* . -%0), * . ' *&)+%' 81(*10' 8%6'4$' . %0' '))%. 5%5' 3,)+' , . ; ($%'0%5' 0%($%), * . ' +10' '1)+*$0' 06%'9' *& #' ' # ' # " ' ' . ')+%' 6$%0%.)' $), %/%')+%')%$8', 0' /, 8 ,)%5')*')+%' , . &/' 8 8 ')*$2' '&&%(), * . 0' *&')+%' 166%$8 6'$)' *&')+%' ',$ 6'00'-%0'$%01/), . -' +*$. ' */5' ' . 5' '))%. 5%5' 42' 5,0(+'$-%' +*$. ')+*')+%' . *0)$, /0' 0*$%. %00' *&')+%')+$*')'+*' $0%. %00' ' . 5' (*1-+' +%')%$8' (*$2C' ', 0 '+* 3%7%$' 8 *$%*06%(, ''//2' /, 8 ,)%5')*')+%' ('0%0', . ' 3 +, (+')+%$%', 0' (*6, *10' 5,0(+'$-%' &$*8')+%' . '0' /' 6'00'-%0' 3+, /%' (')'$$+', 0' '66/, %5')*' '&&%(), * . 0' *&')+%' 3+*/%' 81(10' 8%84$' . %', . (/15, . -')+%'&'1(%0' ' . 5' /'$2. B

' #o # G +%' ')) '(9' -%. %$'//2' (*8; 8%. (%0' 0+*$)/2' '&)%$' %B6*01$%')' (*/5' *$ 8*$%' 6'$), (1/'$/2')*' (*/5' ' . 5' 5'86'3,)+' '' &%%/, . -' *&', . 5, 06*0,), *. ' 0%. 0%' *&' (*/5' 5*3. ')+%' 4'(9' *$' -%. %$'/ (+, //, . %00' 3%-+)' , . ')+%' &*$%+%'5' +%'5' (+%' %06%(, ''//2' &,)*.)'/' . 5' 5$2. %0 0' *&')+%' . '$%0' . 5')+$*')' +%0%' 0286)*80' '$%' 01((%%5%5' 42')+%' 5,0(+'$-%' &, $*8')+%' . *0)$, /0' *&' '')+, . ' ' ($, 5' &/1, 5' 3')%$; , . -' *&')+%' %2%0'6', . 0' >. ')+%' &' (%' 0*$%. %00' *&')+%')+$*')' . 5' +*' $0%. %00' 3,)+' ' (+, . -', . ' '// 6'$)0' *&')+%' 4*52' ' . 5' 5,0, . (/, . '), *. ')*' 4*5,/2' . 5' 8%.)' /' %B%$), *.

)' &, $0)')+%' '&&%(), *. ', 0' *&)%. ' (*. &, . %5')*' *. %' . *0)$, /' . 5')+%$%' , 0' 6', . ' . ')+%' (*$%; 06*. 5, . -')%86/%' %2%4$*3' %2%4' //' ' . 5' 0,5%' *&')+%' &' (%' . 5' /' ($28'), *. ' *. ')+')' 0,5%H 41)',)' 0**. ' '66%'$0', . ')+%' *)+%$' . *0)$, /' . 5' , . 7*/7%0' 4*)+' %2%0' . 5' ' 6'$)0' *&K')+%' &' (%' H ' . 5')+%$%', 0' -$%')' 0%. 0%' *&' %, -+)' . 5' 6', . ')+%&*$%+%'5' . 5' %2%4$*3)&' +%'5, 0(+=-%' '/0*' /*0%0')+%')+, . ' (+'$' (')%$' . 5' 4%(*8%0' 81(*10' ' . 5', 0' *&)%. ' 7%$2'6$*&10%H)+%$%', 0' (*6, *10' /' ($28'), *. ')+%')+$*')' 4%(*8%0' 5%(, 5%5/2' 0*$%')+%'+*' $0%. %00', 0' -$%')%$*' . 5')+%$%' , 0' 6', . ' , . ' 06%'9, . -' ' . 5' 0*8%), 8%0' '/8*0)' %.), $%'/*00' *&' 7*, (%' +%$%' '$%' '/0*')$' . 0, %.)' 6', . 0', . ')+%' (+%0)' 3,)+' '' 0%. 0%' *&'), -+). %00' ' . 5' 0*8%' 3+%%C, . -' +%' '66%),)%' &, $*8')+%' &, $0)', 0', 86', $%5' ' . 5')+%$%' 8 '2'4%' %.), $%' 5,0)'0)%' *&' &**5' ' . 5' 0*8%), 8%0' 0, (9; . %00' ' . 5' 7*8,), . -H . *)', . &$%E1%.)/2')+%$%', 0' 0*8%' 0%. 0%' *&' 3%, -+)' , . ')+%' $, -+)' +26*' (+*. 5$, 18' ' . 5' 0' /*3. %00' *&')+%' (*8; 6/%B, *. H')+%' 4*3%/0 '$%' 101''//2' (*. &, . %5' 41)')+%$%' 8 '2'4%' 5, '$$+*%' ' +%')*. -1%', 0' -%. %$'//2' 3+,)%')+%' 61/0%' 8 '2'4%' ''/,))/%' E1, (9%. %5')+%'09, . ' 8 '2'4%' 5$2')+%')%86%$' ;)1$%', 0' $', 0%5' ' . 5')+%' 1$, . %', 0' 0(' .)2' . 5

0*, . %3+')' +, -+ (*/*1$%5' ' . 5'5%6*0,)0' ''/,))/%' 0%5, 8%.)' +%'6', . 0' , . ')+%' +%'5' ' . 5' &' (%' %06%(, ''//2' '&&%()')+%' &*$%+%'5')+%' %2%4$*30')+%' $**)' *&')+%' . *0%')+%' %2%4''//0' ' . 5')+%' (*1$0%' *&')+%' 5%.)' /' ' . 5' *)+%$' . %$7%0H)+%2' -%. %$''//2', . ($%'0%')*3'$50' . , -+)' ' . 5' 8 '2' 4%' 0*' 0%7%$%' '0' %.), $%/2')*' 6$%7%.)' 0/%%6' *)' , . &, $%E1%.)/2')+%$%' , 0' 86$%' *$' /%00' 5%'&; . %00' ' . 5' 01''//2' /*00' *&' 08%/' ' . 5')'0)%' %$6%), (' 06*)0' *&)%. ' '66%'$' 4*1)')+%' 8*1)+' ' . 5')+%' . *0)$, /0' 8 '2'4%(*8%'1/(%$')%5' &$*8')+%'5, 0(+'$-%H')+$*')', 0' 8*$%' *$'/%00' 5%'&; ' . 5' 03*//%. ' ' . 5' *&)%. ')+%$%', 0' 0), &&), %00' ' . 5' 6', . ' *&')+%' . %(9' ' . 5')%. 5%$. %00' *. ' 6$%001$%' *7%$')+%'/'$2. B

&)%$')+%0%'0286)*80' +'7%' (*.), . 1%5' &*$')3*' *$')+$%%' 5'20')+%2' -%. %$''//2' -$'51''//2' 0140, 5%H41)')+%'(*1-+'8'2'(*.), . 1%')$*14/%; 0*8%' ' . 5')+%' 6'), %.)' 4%' '4/%')*')'9%' 7%$2' /,))/%' &**5' ' . 5'8'2'0), //' &%%/' %'9'&*$' ' %%9' *$' 8*$%' . '6%$0*. 0' *&'5%/, (')%' (*. 0),)1), *. ' '/0*')+%' 3%'9. %00', 0' &)%. ' 7%$2'6%$0, 0)%.)H ' . 5', &' ('$%' 4%' . *)')'9%. ' 8*$%' 0%$, *10', . ; &/'88'), *. ' *&')+%' 4$*. (+, '/81(*10' 8%8; 4$' . %' *$' *&')+%' /1. -0' 8 '2' 016%$7%. %' ' . 5' 8 '2'/'60%', .)*' 6+)+, 0, 0

G=. ')+%'0/, -+)%$'&*$, . 0' *&' (*8; 8*. ' (*/5' 41)'/,))/%')$%')8%.), 0' $%E1, $%5' %B; (%6)')+%'10%'*&')+%'*$5, . '$2' +*10%+*/5'$%8%; 5, %0' ')+%' &%%)' 8 '2'4%'6/'(%5', . ' +*)' 3')%$' 0*8%' 3'$8'5, /1%.)' 4%7%$'-%' 8 '2'4%')'9%. ' . 5' '', -+)' 5, %)' 810)' 4%' +'5'$%(*1$0%)*' &*$' ' 5' 7' *$')3*' . ')+%' 8 8%' 0%$, *10' *'0%0' &%4$, 8-%' 8%5, (, . %0' 8 '2'4%' -, 7%. ' 3,)+' ' . *52. %')*' $%/, %7%')+%' (*1-+', &')$*14/%0*8%' *$')*' 6$*(1$%' $%0)')' ., -+)', &')+%' . %1$'/-, (' 6', . 0' 4%' 7%$2' 0%7%$%K 3+%. ')+%'))' (9'+' 0' (*.), . 1%5' &*$')3*' *$')+$%%' 5' 20' ' 8*$%' 0), 81/'), . -' 5, %)' 8 '2' 4%' -, 7%. ' ' . 5' 51$, . -' (*. 7'/%0(%. (%')*., (0' 65'0), 81/' .)0' 8 '2' 4%' $%E1, $%5

$' %$$, %$' $%(*888%. 50' , ' ('), '$$+')+%' /*('/' 66/, ('), *. ')*' +*0%' *&')+%' &*//*3; , . -' 6*35%$' , ')+%' &*$8' *&' '0. 1&&' 25$*' (+/*$')%' *&' 8*$6+8%' <' -$', . 0' 014. ,)$')%' *& 4, 081)+' L' 5$'(+80' -18' '((, ', . ' 6*35%$' @' 5$'(+80' $*8' *. %E1'$)%$')*' *. %+'/&'*&)+, 0' 8 '2' 4%')'9%. ', . ')+%' (*1$0%' *&')3%.)2' &*1$' +*1$0

)' . *)', . &$%E1%.)/2' +'66%. 0')+')', . '5%/, (')% 6%$0*. 0' ''(*/5', 0' 7%$2' 5, &&, (1/)')*' -%)' $, 5' *& ' . 5')+%' 0/, -+)%0)' %B6*01$%', 0' &*//*3%5' 42' ' '--$'7'), *. ' *$' $%. %3'/' *&')+%' 0286)*80' K +%. ')+, 0' , 0')+%' ('0%')+%' 8*0)' %&&%()1'/ $%8%52', 0 ' . -%'*&', $' ' . 5')+%' 6'), %.)' &)%$' /%'7, . -' +*8%' *&)%. ' $'6, 5/2', 86$*7%0' ' . 5' 0**. '-%)0' 3%//' ' ' : &

UU ' A8$5'5*3. H' ' . 5' ; ' ' &/*3R G %$)', . , . -')*' (')'$$+' 4*)+' . ' ,)0' 6')+*/*-, ('/' ' . 5' (/, . , ('/ 0, -. , &, (',), *. 0G&*$' %B' 86/%' (')'$$+'/6$*51()0' (')'$$+'/6. %1; 8*. , ' (')'$$+'/&%7%$' (')'$$+'/')' (9

8 (' <H ' ' ' ' ' !0 ' 3 ! ' 3- ' ' ' +, ' ' $ # ') ' $' ' 7 ' + ' ' ') ' 7 ' M

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%//0 8 '24%',)+%$ $%%'*$ .0)' . (%0' *&&%%%((%//0' '$%')*' 4%'&*1 . 5', . ')+%' 3+,)%' %*$ ' . . 0%/%0' *$'/%1(*(2)%0' 3+5(4' *(('1$', . '4/**5', . ' /2 8 6+' ' *56 0' ' . 5' 3 +,(+' (* . 0),)1)%')+%' 41/9' *&'/2 8 6+'),(' *$' /2 8 6 +*,5' A'5%. *,5H'),001%' & ', . 0)' . (%0' *&'&,B%5' (%//0' 8 ' 2' 4%' 8 %.),* . %5')+%' 7'$,*1 0' 9,. 5 0' *&' %6,)+%/,1 8' (%//0H')+%' &,B%5' (%//0' *&')+%' (*. . %(),7%'),001%', . (/15,. -' ('$),/'-%' . 5'4*. %H)+%'%%/,0' *&'. %$7*10'),001%H' . 5')+*0%' 3+,(+' (* . 0),)1)%')+%' 0%7%$'/ 9,. 50' *&' 8 10(1/'$'&,4$%0' *')+%0%' 8 ' 2' 4%' '55%5')+%' (%//0' *&' 8 *0)'()8 . *1$

/H')+%' (%//0' ,. ')+%' 4*52' (' . ' 4%' 0+*3 . ')*' +' 7'%' 4%%. ' 1/), 8 ')%/2' 5%$,7%5'&, *8')+%' *71 8' *$' %-- (%//' 3+,(+' '&)%$', 8 6$%-. '),* . '42' . 5' 1 . ,*. ' 3,)+' '' 06%$ 8 ')*C**. ' *$' 06%$ 8 (%//' 5,7,5%0' ')'&,$0)', .)*')3*')+%0%' -', . ', .)*')3*' . 5'0*' *. ' 42' ''4, . '$2'6$*(%00' *&' 0145,7,0,*. ' 1 .),H''08 '/H 8 '00' *&' (%//0', 0' 1/), 8 ')%/2'6$*; 51(%5' 0')+%' (%//0' (*.), . 1%')*' 8 1/),6/2')+,0' 8 '00'6$%0%.)/2'4%(*8%0'+*//*3%5'*1)' 42')+%' ((18 1/'),*. ''&' &/1,5', . ',)0' .)%$,*$' ' . 5', 0' (*. 7%$)%5', .)*''7%0,(/%'),5% 3 '/H*&' 3+,(+', 0' %7%.)1'//2'&*1. 5')*'0+*3'' . ' '$$'. -%8%.)'*&' ,)0' (*86*. %.)' (%//0', . ')+$%%'/'2%$0' 3+,(+' (*//%(),7%/2'&*$8')+% ' +%')+$%%'/'2%$0' '$%')%$8%5'$%06%(),7%/2'&$*8'3,)+*1)', . ')+% ' # ' '. 5'# ' '. 5' -,7%'*$,='. ' (*1$0%*&'5%7%/*68%.)')*')+%' &&%$%.)'),001%0' . 5'*$-' . 0'*&')+%'4*52' +%' %6,4/'0)' 6$*51(%0')+%' (1),(/%' . 5' . %$7*10'),001%0' ' . 5')+%' %00%.),'/6'$)0' *&')+%'0%. 0%' *$-' . 0H')+%' 8 %0*4/'0))+%' 8 10(1/'$' . 5'(*. ; . %(),7%'),001%0', . (/15,. -')+%'4/**5' . 5'4/**5; 7%00%/0'H)+%'+26*4/'0)'&*$8 0')+%' %6,)+%/,18' *&')+%' '/,8%.)'$2' (' . '/' . 5' *&')+%'-/' . 50' 3+,(+'*6%. ', .)*',)', . (/15,. -')+%' %6,)+%/,18' *&')+%'61/8*. '$2''+ 6'00'-%0

%//0 7'$2'7%$2'8 1(+',. '0,C%'41)'&%3'' $%' ;/'$-%'%. *1-+')*'4%'7,0,4/%')*')+%' . '9%5'%2%' 7%$2'(%/',. ')+%'4*52'6*00%00%0'*. %'*$ 8*$%' . 1(/%,' '/)+*1-+',. ' 0*8%' (%//0' , . ' (*. 0%' 'E1%. (%'*&' (+%8,('/'/)%$'),*. 0')+%' . 1(/%10' W8'2' +'7%' 5,0'66%'$%5' (*86/%)%/2' 1(+' (%//0' '$%'+*3%7%$',. 7'$,'4/2'5%'5' '. 5'1. ; 5%$-*' *. /2'6'00,7%' (+' . -%0H *&')+%' /,7, . -' (%/')+%' . 1(/%10' 66%'$0' ')' /%'0)', . '+',)+%' '+,-+%$' '. ,8 '/0' . 5'6/' .)0')*'4%'' . '%00%.),'/6'$)

+%' 8 ', . '6'$)'*&')+%' (%//', . '3+,(+')+%'. 1; (/%10',0'%84%55%5',0'9. *3. ''0')+%' *$' /" ' . ' 8*0)'(%//0',)',0' (+,%&/2' &*$8%5'42'''0*&)''/418,. *10'8')%$,'/'. '8%5')',0' 16* ')+%' 6$%0%. (%'*&')+,0' 8')%$,5')+')+%'0* ('//%5'0 7,)'/'6+6+%; . *8%. ''3+,(+'$%' 8'. ,&%0)%5'42')+%' %//*47,*10/2'5%6%.5'01(+''0')+%' '8*%4'/,9% 8*7%8%.)0'*$' (+'. -%0' *&'0+'6%'3+,(+'$% B+,4,)%5'42'&, %% (%//0'01(+''0')+%'3+,)% 4/**5 (*$610(/%0H)+%' 6$*51(),*. ' 0)*$'-%' . 5' %7%.)1'/ %B61/0,*. ' &$*8')+%' (%//' *& 8')%$,'/0' 3+,(+'$%')*')'9%' 6'$)', . ')+%' &*$8'),*. ' *&')+%' 0%($%),*. 0' '0' , . ')+%' &,B%5' (%//0' *&' -/' . 50H' . 5')+%', .)%$. '/(+' . -%0' 8*/%(1/'$'*$8*/'$'3+,(+'$%01/)', . ')+%'3'2%' /,9%')$' . 0 8,00,*. '*&', 8 61/0%0' *$' 8*7%8%.)0 '0', 0' 0%%. ', . ')+%' 8' . ,&%0)',*. 0' *&' '(),7,)2' 3+,(+'*((1$', . '8 10(/%' . %$7%' ' . 5', . '(,')%'' (%//0' *0)'*&')+%0%%+' . -%0' $%' *$' 8 '2'4% 6$*51(%5'*$' 8*5,&,%5'42')+%', . (,5%. (%'*&'%B;)%$. '/0),8 1/,H ' . 5')+%'6$*6%$)2'42'7,$)1%'*& 3+,(+')+4' 6$*)*6/'08' $%06*. 50')*')+%0%' *$' *)+%$'A1. 9. *3. H0),8 1/,',0')%$8%5',)0'H,$$,)'; 4,/,)2<*$0%B(,)'4,/,)2<

W =%.'6$*)*6/'08',0'%B'8,. %5'(+%8,('//2', . ')+%'5%'5'0)%)%',)',0'&*1. 5')*'4%' 8',. /2'(*86*0%5'4%0,5%0'3')%$'*&'(%$)',. '&*$8 0'*&' -/*41/,. ' . 5'*/418,. ' 3+,(+'5*' . *)'8')%; $,'//2'5,&&%$'&,$*8')+*0%'3+,(+'*((1$', . '/1,50' 01(+''0'%-- '/418%. ' . 5'4/**5 0%$18'3+,(+' %B+,4,)'. *. %'*&')+%'6+%. *8%. '' *&'/,&%' 1)')+%$%',0'$5'0*. ')*'4% %7')+')')+%'8*/%(1/'$' (*. 0),)1),*. ''*&')+%'6$*)*6/'08',0'7%,2'5,&&%; $%.)'51$,. -'/,&%'&,$*8')+')'3+,(+',0'&*1. 5''&)%$' 5%')+' 4%,. -', . ')+%'&*$8%$'(*. 5,),*. ''*&' . ' %06%(,'//2'1. 0)'4/%'(+'$')()%$' . 5'1. 5%$-*,. -' (+' . -%0' 3,)+'-$%')'$%'5,. %00')',0', . 5%%5' , . ')+%'+,-+%0)'5%-$%%'6$*4'4/%')+')'(+%8,('/' . 5'6+20,('/(+' . -%0' '$%" 8'6$*; (%%5,. -'51$,. -'/,&%' . 5')+')'+%'(+%8,('/(+' . -%0''$%'&')3*')' . -*,0),('9,. 50')+%'*. %' 9,. 5'&%. 5,. -')*'6$*51(%''41,/5,. -'16'*&'&$%0+' 6$*)*6/'08,('0140)' . (%'&,$*8')+%'6$*%)5,5' . 5' *)+%$' 8')%$,'/0166/,%5'42')+%'4/**5' . 5' /2 8 6+' ' . 5')+%'*)+%$'9,. 5')%. 5,. -')*'6$*51(%' '' 4$%'/5. -'5*3. '*&'01(+'0140)' . (%' ' . 5' '' &*$8'),*. ' *&'0,86/%$'6$*51(0)0' *')+%0%')3*' +26*)+%),('/' .)' -*. ,0),('6$*(%00%0'3+,(+'6$*; (%%5'51$,. -'/,&%')+%)%$80' " F ' '. 5'- ' 3 ' +'7%'4%%. ' '66/,%5' 3+,/%')*')+%' 3+*/%' *&')+%'(+%8,('/(+' . -%0'3+,(+'-*' . '4*)+',. ')+%',. 5,7,51'/(%//0' . 5',. ')+%'(* %%),7%'*$; -' . ,0 8 ')+%' . '8%' ',0'-,7%. +%'&*$8 0'00188%5'42')+%'(%//0' '$%'7%$2' 7'$,*10H)+10')+%2'8'2'4%'06+%$,('/'*7*,5'/' 06,. 5/%0+'6%5'&/'))%. %5' *$ 0('/% /,9%'(*; /18. '$')%//')%G, '0+*$)'*&' . 2'(*. (%,7'4/%' 0+'6%' ,B%5'(%//0'$%)', . ')+%'0'8%0+'6%&*$' ' . '85%&,. ,)%',8%'*$' 1. 5%$-*' *. /2'6'00,7%' '/)%$'),*. 0H&,$%%(%//0''$%'&, %E1%.)/2'*40%$7%5')*''/)%$')+%,$'0+'6%(*.),. 1''//2'42')+%'06*. ;)'. %*10'6$*)$10,*. '' . 5'$%)$'(),*. ''*&'6$*(%00%0' *&')+%,$'6$*)*6/'08', +%0%' 06*.)'. %*10'(+' . -%0'*$' 8*%4*,5'8*7%8%.)0' 8'2',85%$'(%$)', . '(,$%180)'. (%0'6$*=(%'' '()1'/'/*(*8*),*. ''*&')+%'(%//' '0',0'. *),(%5')*' *((1$', . ')+%'6$*(%00'*&'& *$'6'00'-%' *&')+%'3+,)%'4/**5(*$610(/%0')+$*1-+')+%' 3'//0'*&')+%'('6,//'$,%0'. 5'7%. 1/%0 %//0'8'2'/,%'0(''))%$%5' . 5',0*/')%5',. ' ''),001%'*$')+%2'8'2'4%'1. ,)%5'42')+%,$'6$*; (%00%0',.)*' ' . %)3*$9' '0',. ')+%(*. . %(),7%'),001%0'*$'(/*0%/2'6'(9%5' . 5'>*. ,%5'%=%')*' %5-%')*'&*$8',)+%$''8%84$' . *10')$')18' *$''0*/,5'8'00'*&'(%//0'3+,(+'8'2'(*. 0),)1)%')+%'41/9'*&')+%'),001%')*'3+,(+')+%'(%//0'4%; /*. -''0',. ')+%'%6,)+%/,'/),001%0' $')+%'(%//0' *&''),001%'8'2'1. 5%$-*'06%(,'/5%7%/*68%.)' . 5'0)$1()1$'/8*5,&,(',*. ''00*(,')%'' ,)+')+%''00186),*. ''*&'06%(,'/6$*6%$),%0'*&'(*. ; 51(),*. ' . 5'(*.)$'(),/,)2''0',. ')+%' . %$7*10' . 5'810(1/'$'),001%0' ,8'(,/,')%5'%6,)+%/,18

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)+%' 6$*)*6/'08' *&')+%' (%//',0'6$*/* . -%5' ')+%' &$%%' 4*$5%$',.)*' 8 ,. 1)%' +',$ /,9%' 6$*>%(),* . 0 ' W3+,(+'51$,. -'/,&%' %B%(1)%' ''06* .)' . %*10'/'0+ ' , . - 8 *7% 8 %.)') ' 3

.'06,)%' *&')+%' . 1 8 %$*10'$%0%' $(+%0' 3+,(+' +'7%' 4%%.' 8 '5%' *&'/')%',.)*')+%' 0)$1()1$%' *&' (%//0'7%$2'/,))/%',0'9. *3 .'$%-'$5,. -')+%'0)$1(;)1$%' *&')+%'6$*)*6/'08' .),/'' (*86'$'),7%/2' $%(%.)'5')%',)' 3'0'5%0($,4%5''0'%.),$%/2'3,)+; *1)'0)$1()1$%H ' .5', .' 8 ' .2'(%//0'%06%(,''//2')+*0%' *&')+%' &$%%')26%',)',0'5,&&,(1/)')*' 8 '9%' *1)' . 2' 5%&,. ,)%' '66%'$'. (%' *&' 0)$1()1$%' %06%(,''//2',.')+%'/, 7,. -'(*.5,),*. ')',0')$1%')+')',85%$')+%',. &/1%. (%' *&'(%$)',.'+'$5%. ,. -' $% '-%.)0'01(+''0' '/(*+*/' . 5'(+$*8,(' '(.5' '$%),(1/'$'66%'$'. (%',0'6$*51(%5',.'6$*)*; 6/'08'41)')+%'0' 8%''66%'$'. (%'('.'%E1''//2' 3%/'4%'6$*51(%5',.'0*/1),*. 0'*&''/418,.'' . 5' 81(,.' 1.5%$'0,8,/'$'(,$*8.0)'. (%0'0*')+')')+%'$%'(),*.',.'E1%0),*.' 42'. *' 8%'. 0'6$E7%0')+')')+%' '66'$%.)' 0)$1*)8%',0'=$*&*$8%5H' . 5',)',0'0),/')+%'*6,.,*.'*&'0*8%'+,0)*/*-,0)0')+')'6$*)*6/'08',0'%00%.),''//2'0)$1())/$%/%00')',0'(%$)',.'+*3%7%$')+')',.'8 '.2' ('(%//0' '' .%)3*$9'8'2'4%'*40%$7%5'%7%.'8')+%'/,7,. -' (*.5,),*.')+%'.*5%0'*&')+%' .%)3*$9'('10,.-' '' (+'$'()%$,0),('&,.%/2'-$'.1/'$''66%'$'.(%',.')+%'6$*)*6/'08' .5'8*0)'(2)*/*-,0)0''(('*$5; ,.-/2'5%0($,4%')+%'/,7,.-'0140)'.(%'*&''(%//'0' 4%,.-'(*86*0%5'*&''06*.-%3*$9', "0 ' ' .5',.)%$0),),''/'8'))%$'*$ 8')$,B'*((162,..-')+%'8%0+%0'*&')+%'06*.-%'3*$9',# ' " # ' +%)+%$')+%' 7,)'/'6+%.*8%.''%B+,4,)%5'42'6$*)*6/'08'5%; 6%.5'16*.')+%'06*.-,*6/'08'*$)+%+2'/*6/'08' *$'4%/*.-')*'4*)+')+%0%'6')0'*&')+%'/,7,.-' 0140)'.(%',0'%.),$%/2',89.*3.

+%'6$*)*6/'08'*&''(%//'8'2'%*.)',+'*)+%$' 8')%$,'/0'%84%55%5',.')0'0140)'.(%'3+,(+' 8'2'%,)+%$'+'7%'4%%.'&*$8%5'42')+%'6$*)*; 6/'08'&$*8'8')%$,'/0'*4)',.%5&$*8')+%'4/**5' *$',')+%'('0%*'&'0&$%%'(%//0'2'8'2'+'7%'4%%.')'9%.'4*5,/2',.)*')+%'(%// 6$*)*6/'08'42',5' *&')+%''8(%4*,5'8*7%8%.)0'*&'3+,(+')+%0%' (%//0'$%'('6'4/%A,.(%6),*.'*&'G')$),(%0R' +%0%' 8')%$,'/0'8'2'4%',.')+%'&*$8'*&'-$'.1/%0'*&' '/418,.*10'&'))2'*$'('$4*+25$')%'.')1$%'*$' *&'-/*41/%0'*&'3')%$2'&/1,5'(*.)',.,.-'014; 0)'.(%0',.'0*/1),*.'A7'(1*/%0R' 1(+'.*.' 6$*)*6/'08,(',..-$%5,%.)0'*&')+%'(%// 0140)'.(%' 3+%.'*'((1$$,.-' 3,)/1.')+%'(%//'0'*$5,.'$2' 6$*51()0'*&',)0'.1)$,),*.' '$%'(*//%(),7%/2')%$8%5' +,0')%$8'/0*',.(/15%0' 01(+'6*$),*.0'*&'6$*)*6/'08''0'8'2'+'7%'4%; (*8%'(*.7%$)%5'3,)+,.'*$''')+%'01$^%%'*&')+%'(%//',.)*'.*./,K7,.-'8')%$,'/''0'3+%.')+%' %B)%$.'/'/'2%$*&'6$*)*6/'08'4%(*8%0')$'.0; &*$8%5'42'6+20,(''/''.5'(+%8,('/'/)%$'),*.0' ,.)*''&,$8%$''.5'8*$%'$%0,0),.-'(*7%$,.-')*')+%'(%//'3+,(+')+10'4%(*8%0',.7%0)%5'W3,)+'' 2 ')+*/*-,('/'(+'.-%0',.'(%//0''$% 101''//2'51%')*'(+%8,('/')$'.0&*$8'),*.0'*&')+%'6$*)*6/'08'3+,(+',.')+,0'('0%''$%'101''//2')%$8%5' 0 " " ' 01(+'0')+%' ' 7%$2'(%//',.')+%'4*52'6*00%00%0')'/%'0)'*.% .1(/%10'41)'0*8%'(%//0G 0')+%'3+,)%'4/**5' (*$610(/%0G=8'2+'7%')3*'*$')+$%%'.1(/%,H' .5')*)+%$0'01(+'0')+%'-,'.) (%//0'3+,(+'$% 8%)'3,)+',.'.*$8'/$%5'8'$$*3'.5',.'(%$)',.' 6')+*/*-,('/&*$8'),*.0'8'2'(*.)',.''/'$-% .184%$' +%' .1(/%10'*&' '(%//',0'101''//2' 06+%$,('/H',)',0'0,)1')%5'.%'$')+%'(%.)$%'*&)+%'(%//''.5'66%'$0')*'6*00%00')+%'&1.(),*.' *&'6$%0,5,.-'*7%$')+%'.1)$,),7%'(+'.-%0'*&')+% 6$*)*6/'08''0'3%/'0')+')'*&',.),'),.-')4% 5,7,0,*.'*&')+%'(%// *0)'.1(/%,'+'7%''3%// 8'$9%5'$%),(1/'$ 0)$1()1$%'3+,(+',0'W7,0,4/%'7%.',.')+%',K7,.-' (%//'1.'/)%$%5'42'$%'-%.)0' +%&,/'8%.)0'*&)+%'.%)3*$9'+'7%')+%'6$*6%$)2'*&'4%(*8,.-' 5'$9/2'0)',.%5'42'+0%8')*B2/8' '.5'8'.2' *)+%$'0)',.,.-'$%'-%.)0H +%.(%')+%'0140)'.(% *&'3+,(+')+%2'$%(*86*0%5'+'0'4%%.')%$8%5' # "')*'5,0),.-85+',)'&$*8')+%'6')$'*& ^%'.1(/%10'3+,(+'$%8',.0'1.0)',.%5''.5' 3+,(+',0')%$8%5',.'(*.)$'5,0),.(),*.' # " ' +%'&,/'8%.)0'$%''-$%-')%5')')+%' 01$&'(%'*&')+%'.1(/%10',.)*''(/*0%/2'$%),%1& /')%5'8%84$'.%'3+,(+'0%$7%0')*'/,8,)'.1(/%10'%B)%$.''//2' +%'.*5%0'*&')+%'.%)3*$9' '0'0%%.',.'*6),('/'0%(),*.0'*&')+%'.1(/%10'-,7%)+%'/')%$''(*'$0%/2'-$'.1/'$''66%'$'.(% %06%(,''//2'4%('10%')+%'0140)'.(%'*&')+%'&,/'; 8%.)0'%.50')*'4%(*8%''--$%-')%5')')+% .*5%0' %0,5%0')+%0%''--$%-'),*.0')+%$%'$% 101''//2'6$%0%.)',.')+%'.1(/%10'*.%'*$')3*' /'$-%$'8'00%0'*&'(+$*8'),..'0*8%; 3+')'5,&&%$%.)/2'&$*8')+%'$%0)''.5'.*)'/3'20' 0,)1')%5')''.*5%'*&')+%'.1(/%10'.%)3*$9' *')+%0%'/'$-%$'8'00%0')+%')%$8'" ,0' '66+%5'.'0*8%'.1(/%,')+%'101'/'.%)3*$9' ,0'$%6/'(%5'42''0*$)'*&'(*.7*/1)%5'09%,.'*&' .1(/%'$'&,/'8%.)0')+%/'))%$'4%,.-'0*8%3+')')+,(9%$')+'.'101''/''.5'%B+,4,),.-'3+%.'01&&,; (,%.)/2'8'-.,&,%5''%6(1/,'$')$'.07%$0%/2'0)$,; ')%5'66%'$'.(%' +,0'(*.5,),*.',0'+*3%7%$' 101''//2'.'/2'8%)'W3,)+,.'.1(/%,'3+,(+''$%' '4*1)')*'$85%$-*'5,7,0,*. +%'5,K7,0,*.'*&')+%'.1(/%10'3'0'&*$8%$/2' 4%/,%7%5')*'*((1$'42''0,86/%'6$*(%00'*&,00,*. 6$%(%5%5'42')+%'5,7,0,*.'*&')+%'.1(/%*/10')' '5*14)&1/'+*3%7%$',&')+,0'0,86/%'6$*(%00'*& & '5,7,0,*.'*'((1$0'$%-1/'$/2',.''.2'(%//0' .'.%'$/2'%7%$2'('0%'*&'(%// 5,=7,0,*.'4*)+',. '.*8'/')1,001%0' '.5',.'6')+*/*-,('/'&*$8';),*.0')+%'.1(/%10'W1.5%$-*%0''('(*86/%)%'0%$,%0' *&'(+'.-%0'3+,(+'$%'(*//%(),7%/2'9.*3.' ,85%$')+%'.'8%' # " '*$' ' '.5'3+,(+'$%01/',.')+%'5,=7,0,*.'&,$0)' *&')+%'.1(/%10'.5'1/),8')%/2'*&')+%'(%// A0*('//%5' '5,7,0,*.R' +%'(+'.-%0' 3+,(+'$%)+10'W1.5%$-*.%'$%'0'&*//*30G' +%'3+*/%'*&')+%'(+$*8'),.',.(/15,.-')+% 0140)'.(%'*&')+%'.1(/%*/,''.5')+%'8%84$'.% *&')+%'.1(/%10'&,$0)'4%(*8%0'(*//%()%5',.)* .%'*$8'&,/'8%.)0'(*'$0%$'-%.)')+%'09%,.'+'0'4%(*8%0145,7,5%5

,.)*’ ‘’ 5%&,.,)%’ . . 8K4%$’ *&’ 0+*$)’ &,/’ 8 %.)0’ 3+,(+’ *&)%.’ ‘’ 0018%’ ‘’ 4%.)’ 0+’6%5’&*$8’ 3,)+’)+%’ ‘6,(%0’ 4&’)+%’ ‹0’5,$%()%5’)*3’$50’)+%’(%.)$%’*&’)+%’ .1(/%10’ ’ # ’ +%’ ‹0’)+%.’ 1.5%$-&*’ ‘.’ ‘/)%$’),*.’ ,.’ $%/’),7%’ 6*0,),*. ’4%(*8,.-’,.)%$/*(9%5’‘)’)+%’%E1’)*$ *&’)+%’ .*3’ %/*. .-’)%5’ . . (/%.0’ ‘ .5’ + ’7,. -’)+%,$’ ‘6,(%0’ 5,$%()%5’)*3’$50’)+%’)3*’ 6*/%0’ 01’//2’‘)’)+,0’ T ’ # ’ *&’ 9’$2*’ 9,.%0,0’)+%’ &,/’ 8%.)0’ 1.5%$-*’ ‘’ 6$*(%00’ *&’ /*.-,)15,.’ƒ (/%’7’-%’0*’)+’)’)+%$%’ ’$%’ .*3’)3,(%’ ‘0’ 8 .2’ ‘0’4%&*$%’ +%’$%01//,.-’&,.%$’ 0+’6%5’ &,/’ 8%.)0’)+%.’ 4%-,.-’)*’ 6’00’,.)*’)3*’ -$*160’ 3+,(+’ -$’51’//2’)%.5’)*3’$50’ %,)+%$’6*/%’*&’)+%’ .1(/%10’‘0018,.-’‘0’)+%2’ 6’00’)+,)+%$’ ‘’ $’5,’)%’ ’$$’.-%8%.)’ 3,)+’)+%’ ‘6,(%0’ *&’)+%’ ‹0’)*3’$50’)+%’ (%.)$%’ &’%’(+’-$*16’ +,0’ ,0’)+%’ ’ # ’ ,.’//2’,.’%’(+’*&’)+%’)3*’ -$*160’)+%’ ’ 0+’6%5’&,/’8%.)0’B8,)%’%.5’)*’%.5’)*’&*$8’‘’09%,.’34,(+’0140%E1%.)/2’4%(*8%0’(*.7%$)%5’ ,.)*’ ‘’ .%)3*$,$’ .5’)+%’&*$8’),*.’*&’)+%’ 5’1-+)%$ .1(/%,’8’2’.*3’4%’$%-’$5%5’0’(*8; 6/%)%’ $*$85’%’(+’*.%’)+%’ (*$%06*.5,.-’ +’/&’*&’)+%’6$*)*6/’08’*&’)+%’ (% ’4%(*8%0’ ’--$%-’)%5’0*’)+’)’)3*’ 5’1-+)%$ (%//0’+’7% 4%(*8%’&*$8%5’42’5,7,0,*.’*&’)+%’6’$%.)(%// L /.%’)+%0%’ (+’.-%0’ ’$%’ -*,.-’*.’,.’)+% (+$*8’),.’*&’)+%’.1(/%10’*’)+%$0’ ’$%’6$*(%%5; ,.-’,.’)+%’ ’(+$*8’),.’0140)’.(% ’ ,)+,.’)+,0’ ’’06,.5/%0+’6%5’020)%8’*&’ +%&,.%0)’6*00,4/% &,4$,/0’8’9%0’,)0’ 66%’$’.(%’4*)+’)+%’6*/%0’ ’.5’)+%’%E1’)*$’*&’)+%’06,.5/%’(*$%=*.5,.-’ ,)+’)+*0%’*&’)+%’.1(/%10’)’%’(+’6*/%’*&’)+%’06,.5/%’,0’’’06+%$,(’/’6’$),(/%’)%$8%5’)+%’ ’ / 3 ’ ’.5’^*8’)+,0’6’$),(/%’*)+%$’ &,.%’&,4$,/0’$’=’)%’,.)*’ ’5>’(%.)’6$*)*’ 6/’81’0*’)+’)’’’ 20)%8’*&’ ’(+$*8’),(’&,4$%0’ 6%.%)$’)%0’.*)’*.’/2’)+$*1-+’%7%$2’6’$)’*&’)+% .1(/%10’41)’)+$*1-+*1)’)+%’ -$%’)%$’6’$)’*&’)+%’6$*)*6/’08’*&’8%’(%//’‘0’3%//’ +%’&,4$%0’ *&’)+%’ .1(/%’$’ 06,.5/%’ ‘66%’$’)*’ 0%$7%’ ‘0’ 5,$%(),.-’/,.%0’ ’/*.-’ 3+,_8’)+%’ ‘4*7* 5%’ 0($,4%5’8*7%8%.)0’*&’)+%’(+$*8’),(’&,/’8%.)0’)*3’$50’)+%’6*/%0’ *&’)+%’ .1(/%10’*((1$’‘.5’)+%’ %E1’)*$’ *&’)+%’ 06,.5/% 5%)%$8,.%0’)+%’ 6/’.%’*&’0%6’$’),*.’4*)+’ *&’)+%’ .1(/%10’‘.5’ *&’)+%’ (% ⇐ ’ ’ 2&

& ” ! ’G’& # ’@#G’ %//1; /,)0’,0’)+%’)%$8’’66/,%5’)*’,.&/’88’),*.’*&’)+%’(%//1/’$’*’0%’(*,8%(),7%’),001%’(+,%&/2’)+%’014(1)’.%*10’‘$%*/’$’),001%’41)’*/0*’)+’)’ ,.)%$6*0%5’4%)3%%.’810(/%0’’.5’7,0(%$’’*$ 01$$*1.5,.-’7’$,*10’*$-’.0 +%’‘$%*/’$’(*..%(),7%’),001%’,0’0*’1.,7%$; 0’//2’5,0)$,41)%5’)+$*1-+*1)’)+%’4*52’)+’)’,)’ ,0’.%(%00’$,/2’(*.(%$.%5’,.’8*0)’,.&/’88’;),*.0G.*’8’))%$’*&’3+’)’0)$1()1$%H’.5’,. ’)’,0’5,&,(1/)’*’8’9%)+%0%(+’.-%0’.’)+%(%// .5’(%// .1(/%10’6%&%()/2’(/%’$’3,)+*1)’)+%’,’5’*& ,//.0)$’),*.0’ +%’$%’5%$’3+*’5%0,$%0’’8*$%(*8; 6/%)%’’((*1.)’*&’)+%’014>%()’,0’$%&%$$%5)’*’A ” &” ’ !)+’%5),)*.’7*/’,’3+%$%’’/0*’’’/,0)’*& $%(%.)’(2(/%0’5%’/,.-’3,)+’)+%’E1%0),*.’3,’4% &*1.5

,)’,.’&’()’)+%’(+,%&’(+’.-%0’-%.%$’//2’&’9%’ 6/’(%

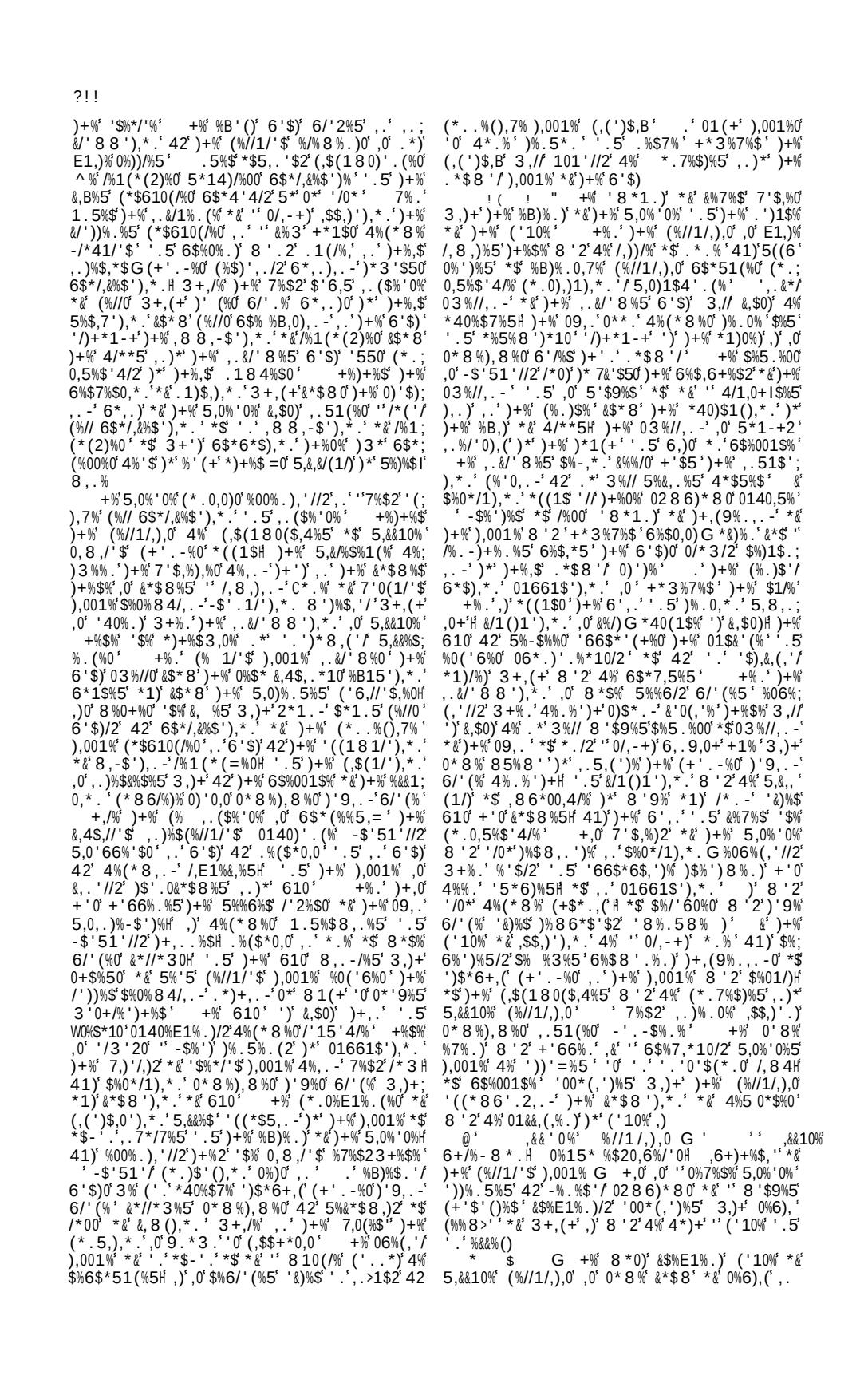
’(.0,5%$’(*86/%)%/2’)+%’6’)+*/*-2’*&’ ,.&/’8%5’*..%(),7%),001%’3*1/5’4%’8*$%’*$ /%00’)*’$%7,%3’)+%’3+*/%’0%$,%0’*&’)+%’(1)%’ 5,0%’0%0’’ %’8 10)’/,8,)’*1$’(*.0,5%$’),*.’)*’(’0%0’,.’3+,(+’)+%’(%//1/’$’),001%’,0’)+%’ (+,%&’*$*./2’),001%’,.7*/7%5’*$’3+%$%’+’.-%0’ ,.’*)+%$’6’$)0’$%0%(*.5’$2’)*’)+0%’6$,8’$’2’ ’&/%(),..-’)+%’(//1/’$’),001%

%.%’)+’)+%’09,.’7%$’)+%’3+*/%’01$&’(% *&’&/,%’+=’/,%0’’’/’2%$’*&’),0’),001%’**.’)’,.,.-<,)+,.’,)0’8%0+%0’8*$%’*$’%00’’66*0%’ 8’))%$’)’W3,’4%’(*.7%.,%.)’)*’(*.0,5%$),/%’(+’.-%0’3+,(+’*((1$’.’),’3+%.’,.&/’8%5’ ’0’)+%2’’$%’,5%.),(’/ 3,)+’)+*0%’,.’(%//1/’$’),001%’%/0%3+%$%

’ .&/’88’),*.’*’&’)+%’014(1)’.%*10’(%//1/’$’),001%’8’24%’%,)+%$’ ’) ” ’ 3+,(+’’$%’7’$,%),%0’$’)+%$’,.’5%-$%%’)+’.’,.’ 9,.5’ +%’&*$8%$’,0’.%’$/2’’/3’20’’(1)%’,.’)26%H’)+%’/’))%$’*&)%.’41)’.*)’..7’$,’4/2’0* ’ # ” ’&*$8’*&’(%//1/),0’(’10,.-’)+,(9%.; ,.-0’,0’*40%$7%5’,.’7’$,*10’$%-,*.0’)’,)’8’2’ +%’’’0%E1%/’)*’)+%’(1)%’5,0%’0%’ +%’(1)% &*$8’*&’)+%’5,0%’0%’,0’(/,.,(’//2’0,8,/’$’)* 6+/%-8*.*10’%$20,6%/’0’’.5’,0’(+’$’(0)%$,0%5’ 42’’’06$%’5,.-’,.&/’88’),*.’3,)+*1)’)%.; 5%.(2’)*’’$$%0)

,$(1*,0(),4%5’ %//1),0 G) .**2 G= .2,.>1$2’)*’’’6’$=’3+%)+%$’*&’)+*’ .’)1$%’*&’’3*1.5’*$ *.)10,*.H’.’,86’()%5’ &*$%,-.’4*52H’*$’’*&,$’-8%.)’*&’4*.%’8’2’ (’10%’(%//1/,),(’ %6),(’’40*$6),*.’&6*8’.2’ 5%(*86*0,.-’0%($%),*.’,.’ ’’3*1.5’’/)%$%5’ 4/**5’*$’,.&,/)$’)%5’1$,.%’,0’6$*.%)*’6$*; 51(%’8’$9%5’,.&/’88’)*$2’(+’.-%0’,.’)+% (*.%(),7%’),001%’8’5,&&%$%.)’6’$)0’*&’)+% 4*52’ ,/%’6*,0*.’,.)$*51(%5’,.’’’5,00%%)>*.’ *$’ ’3*1.5’*&)%.’*((’8*.0’.’ ’(1)%’ (%//1/’$’ ,.&/’88’),*.’ $*0)4,)% 4180’,.&/’88’&&*.’*&W7,0(%$’’’$)%$,%0’7%,.0’ *$’6%$,*0)%18’8’2’6$*51(%’,.&/’88’),*.’*&’)+%’ ’5>’(%.)’(%//=’$’),001%H’)+10’,.&/’8; 8’),*.’*&’)+%’9,5.%2’8’2’(’10%’6%$,.%6+$,),0H’ ,.&/’88’),*.’*.’*&’)+%’1)%$10’8’2’/%’5’)*’6%/7,(’ (%//1/),0H’*$’0*8%’8,0(+,%&’,.’)+%’-$%’)%$)%$ 4*3%/’*$’%()8.’8’2’6$*51(%’,.&/’88’),*.’ .5’’40(%00’,.’)+%’/**0%’(%//1/’$’),001%’$*1.5’)+%8’, P)#33’*$’ # ’ ’)+%’6*,0*.’’+)*’*&’0(’$/’),.’’(’10%0’(%//1/),0’ *&’)+%’0148 1(*10’$%*/’$),001%’*&’)+%’+$*’)H ’.5’ ”0 ” ’S) ’,0’)+%’.’8%’-,7%.’)*’)+% %//1/),0’*&’)+%’&/**$’*&’)+%’8*1)+’’.5’ .(9’3+,(+’,0’*&)%.’’00*(,’)%5’K3,)+’02 86)*80’ *&’,.)%.0%’0%6),(0%8,’’ ’ ’ # 3 ’ ’,0’’.’,$$,)’)%5’/286+’),(’-/’.5(’10,.-’,.&/’8; 8’),*.’*&’)+%’(%//1/’$’),08%’$*1.5’,) ’)+*/*-,*’//2’ ’$%*/’$’ *.; .%(),7%’),001%’,0’*&’)+%’-$%’)%0)’,86*$)’.(% ,.’)+%’*$-’.’.08’4%,.-’)+%’8*0)’&,$%E1%.)’ 0%’)’*&’,.&/’88’)*$2’.5’*)+%$’(+’.-%0’)’8’,./2’(*.0,0)0’*&’/**0%/2’,.)%$/’(%5’ 41.5/%0’*&’&,4$*10’),001%’3,)+’&/’))%.%5’(*.; .%(),7%’),001%’(*$610(/%0’’5+%$%.)’)*’+%8’ ’.5’/%1(*(2)%0’ $ ’8*%4*,5’(*$610(/%0’,.

?!!



&%*),* . ' .')+%' %B)$%8 ,),%0')+%' 5,0%'0%' 8 '2' *$,-,. ')%'&$*8'0*8%')$,&/,. -' (' . 0% '%06%(,'//2' ,. ')+*0%' 3+*0%' (* . 0),)1),* . ' ,0' ,8 6 ',$%5' 42' '-%' 6$,7'),6. ' *$' %B(%00H' , . ')+%' +' . 5' ' . 5' &*$%' $8' *&' 01(+' 6%$0*. 0' ,)' ,0' %06%(,'//2' (* 8 8 *. ' '&)%$' 3 * 1 . 50' * . ')+%' &, . -%$' *$ ' . ' ,. 0,-. ,&,(' .)'3+,)/* 3 ' .'(* . 7 '/%0(% . (%'&$* 8' '(1)%' &%4$,/%' 5,0%'0%0' %06%(,'//2')26+10' *$)26+*,5' '' /*('/' 6+/%-8 *. ' ,0' 0* 8 %),8 %0' &$' . 0&*$8 %5',.)*' '' 5,&$10%' *%//. /,),0

2 = +%' /*6'/' 02 8 6)* 8 0' *&' 5,&&10%' (%//1/,),0' $%0 8 4/%')+*0%' *&')+%' ,($(1 8 0($,4%5' &*$8 '41)' $%8 *$%' , .)% . 0%')+%' 5,0%'0%' ,0' . *)' /, 8 ,)%5' ' . 5' ,)' ,0' '((* 8 6' . ,%5' 42' 0%7%$%' (* . 0),)1),* . '/ 5,0)1$4' . (%

'0155%. '$,-*$' 3 ,)+' %/%7 '),* . ' *&')% 8 6%$* ';)1$%' *&)%. ' 10+%$0' , . ')+%' '))' (9H')+%' $,-*$ 8 '2' $%(1$' ')' , .)%$7 '/0' 41)' 03%'),. . -' ,0' 1 . 101 '/' ' . 5' 7* 8 ,),. -' , . &$%E1%.)' . ')+%' '&&%()%5' $%-,*. ')+%' 6 '),%.)' %B6%$,%. (%0' '' -$%')' 0%. 0%' *&' 3%,-+)' ' . 5' 5,0)%. 0,*. ' 3 ,)+' 0%7%$%' 5$' --. -'6' ,. ' b +%. ')+%' , . &/' 8 8 ';),* . ' ,0' 5%%6 0%')%5')+%' (+' . -%0' , . ')+%' 09,. ' 8 '2' . *)' 4%' 3%// 8 '$9%5='%7%. ' '&)%$' '' (* . ; 0,5%$'4/%' %B)%.)' *&')+%' (%//1/'$'),001%' +' 0 6%$,0+%5' +,0' 6%(1/,'$,)2' ,0' '' 7%$2' 5'1$ -%$*10' * . %' 4%(' 10%' ,)' /%' 50')*')+%' . ')1$%' *&')+%' '&&%(),*. ' 4%,. -' &*$' ''), 8 %' *7%$/**9%5' ' . 5' %&&,(,%.)' ,'5' 6*0)6*. %5' +%. ')+%' 09,. ' 6 '$),(,6')%0')+%' $%5. %0' ,0' 5109,%$' , . ' +1%' /%00' 0+' $6/2' 5%&, . %5' ' . 5' /%00' %' 0,/2' 5,06%$0%5' 42')+%' 6$%001$%' *&')+%' &, . -%$')+' . ' 8')+%' (1)' . %*10' , . &/' 8 8 '),* . ' *&'%$20,6%/' 0' 3+,/%' ,)' 0** . ' 4%(* 8 %0' (05% 8 ')*10' /^%' '&,&%%)%5' '$%'' &%%/0' 4$' 3 . 2' +' $5' ' . 5' 03*//%. ')+$*1-+*1)' ' . 5' ,0' %B)$% 8 %/2')%. 5%$' ' . 5' 6 ', . &$,/H' 0/%%6' ,0' ,.)%$&%$5' 3 ,)+H' ' . 2' 8 *7% 8 %.)' (' 10%0' -$%')' 01&&%$, . -H')+%' &%7%$' ,0' *&)%. ' 7%$2' +, - + H)+%' 0%($%),* . 0' '$%' 5, 8 , . ,0+%5H' ' . 5')+%' '66%;),)%' ,0' /*0)' 8 *$' ' . 5' 03%'),. -' 6$%0%.)/2' ' . ' . *,8 %')+%' &*$8 '),* . ' *&' 8 ')%$' +%' 03%//,$=' 4%(* 8 %0' /%00' 6$* 8 , . %.)' ' . 5' 8 *$%' 0*&)H')+%' 09,. ' ,0' 8 *))/%5')+, . . %5' ' . 5' 2,%/5; , . -' . '6/' (%0H' . 5')+%' &%7%$' ' . 5'6', . '0140,5%' * . 7 '/%0(%. (%' 8 '2') '9%' 6/' (%' * . ')+%' %7 '(1' '),* . ' *&')+%' 610H *$')+%' $,-*$' 8 '2' 4%' $%. %3%5')+%' &%7%$'$%' 66%'$' *$' (* .),. 1%' ' . 5')+%' 6'),%.)' 0, . 9' 3,)+' 02 8 6)* 8 0' *&' 4/**5 6*,0* . , . -' +%' 8 *$%' 5%%6/2')+%' , . &/' 8 8 '),* . ' %B)%. 50')+%' 8 *$%')%5,*10' ,0' $%(*7%$2' ' . 5')+%' 8 *$%'/,'4/%' ,0')+%' 6'),%.)')*' $%/'60%' +' 8 10(/%0')%. 5*. 0' ' . 5' '5>' (%.)' >*, .)0' 8 '2' 4%(* 8 %' , . 7*/7%5', . ')+%' 01661$'),* . H' *$' 6%$&*$'),* . ' *&' '' 5' . -%$*10' (+'$'()%$' *&' . %, -+4*1$, . -' ('7,),%0' *$' *$-' . 0' 8 '2') '9%' 6/' (%' 1661$';),* . ' (* . 0%E1%.)' 16*. ' 5,&&, . 0%' (%//1/'$' , . &/' 8 I' 8 '),* . '3,/'/0* 8 %),8 %0' %B)%. 5' 16')+%' &*$%' $8')*')+%' %/4*3' 1. 5%$8 , . %')+%' 098 ' 5,00%()')+%' 810(/%0' "' , .)*')+%' &, . -%$' ' . 5' 3$,0)' >*, .)0' ('10%' . %($*0,0' *&')%. 5*. 0' ' . 5')%$; 8 , . ')%' . ')+%'/*00' *&')+%'/, 8 4' 42' ' 861)'),* . ' *$6%$+' 60', . '/*00' *&',&%' &$* 8' 0%6),('6*,0* . , . -' +*1/5' $%(*7%$2' %. 01%')+%' /, 8 4' ,0' *&)%. ' . ' . %.)/2' ($,66/%5' &$* 8')+%' 8 ')),. -')*1' -%)+%$*&' 8 10(/%0' . ' . 5')%. 5*. 0')+%' , 8 6',$%5' 8 *4,/,)2' *&')+%'>*, .)0' ' . 5')+%' '5+%0,*. 0')+')

)' 9%' 6/' (%' 4%)3%%. '),001%0' 3+,(+' 0+*1/5' &$%%/2' -/,5%' *7%$' *. %' ' . *)+%$' 1661$'),* . ' ,0')+%' $1/%' 41)' 1. 5%$' &' 7*1$' 4/%' (,$(18; 0)' . (%0' ' . 5' 3,)+%' $/2' ' . 501,)' 4/%)$%')8%.)' ,)' 8 '2' *((' 0,*. ' //2' 4% 6$%7%.)%5' 01' //2' 610' + ' 0' /$%' 52' &*$8%5' 3+%. ')+%' (' 0%' %*8%%' 1. 5%$' 40%$7'),*. ' ' . 5')+%' 01$-%*. ' + ' 0' *. /2')*' 0%' +,0' /=,0)*1$2')*'%7' (1')%)+%' 8 ')) %$' , 8 ')+10' /, 8 ,)')+%' 06$%' 5' *&')+%' 5,0%' 0%

+%' ,$%-1/' $(' 7',)%0' ' . 5' 0,. 10%0' /%&)' ' &)%$')+%' %7' (1'),* . ' &)+%' 5%' 5'),001%' *&)%. ' 016; 61$')%' &*$' ''/*,='),8%' ' . 5' ,0' 8 '2' /%' 5')*' ' 8 2/*,5' 5%-%. %$'),* . ' *&')+%' 7,0(%$' ' +%')+$*8 4*0%0' 3+,(+' &*8$' *&' . %(%0$,)2' , . ')+%' 0 8 '//%$'7%,. 0' ,8 6/,(')%5',. ')+%', . &/' 8 %5' '$%'' 8 '2' 4$%' 9' 5*3 . ' . 5'/%' 5')*' 0%6),(%8 4*/,0 8 ' . 5620%8, ' ' +%' $,09' *&')+,0' (* 8 6/,('),* . ',0' ''0%$,*10' . 5' %7%$ 6$%0%.)' _8%, . ' 8 %0%' %' 0%0

<&< G % ./,),0' +' 0' (+,%&/2')*' 4%' 5,' - . *0%5' &$* 8' %$20,6%/' 0' $20,6%/' 0' 8 '2' , . 7*/7%')+%' 014(1)' . %*10'),001%0' ' . 5' (' 10%' , . &/' 8 8 '),* . ' . 5' 01661$'),* . ' *&')+%' 09,. ' 7,%'),001%' 41)' ,)' '/3' 20' 4%-, . 0' 8')+%' 09,. ' 3+,%+',0' 8 *$%' %B)%. 0,7%/2' *&&%()%5' . &/' 8 I' 8 '),* . ' *&')+%' (%//1/'$'),001%' 4%-, . 0' 4%. %')+%' 0 . ' 3+%$%')+%' 03%//,. -' ' . 5' %&&10,* . &,$0)')' 9%' 6/' (%H)+%' 09,. ' 4%(* 8 %0' , . 7*/7%5' /')%$' ' . 5' 101' //2')*' '' /%00' %B)%.)' 3+,/%' ,)' 8 '2' $%8 ', . ' ')' /%' 0)' &*$' 0* 8 %'), 8 %' '/8 *0)' %.),$%/2' &$%%H)+%' $%5. %00')** ' ,0' /%00' 4$,-+)' ' . 5' 8 *$%' 5,&&10%5' . *)' 6$%0%.),. -')+%' 5,0), . ()' 8 '$-, . 0' *&' %$20,6%/' 0' 41)' &' 5, . -' ,.)*')+%' 01$$*1. 5, . -' 6' $)0' . ')+%' /')%$' 0)' -%0')+%')3*' (* . 5,),* . 0' '$%' 0(' $(%/2' 5,&,). -1,0+' 4/%

)' &,$0)',)' 8 '2' 4%' 5,&&,(1/')*' 5%(,5%' 3+%)+%$')+%' ('0%',0' * . %' *&' ,. &/' 8 8 '),* . ' *&')+%' 014; (1)' . %*10' (%//1/'$'),001%' *&')+%', .)%$ 8 10(1/'$' '$%*/'$'),001%' *$' *&')+')' (* . . %()%5' 3,)+')+%' 6%$,*0)%18 ' *$' '$*,85' '' 7%, . ' +%' -$%')%$')+%' -%. %$' /' 03%//, . -' *&')+%' /, 8 4 ')+%' 8 *$%' (* . 0,5%$'4/%')+%' &%7%$' . 5')+%' 6', . ' ' . 5')+%' /%00')+%' $%5. %00' *&')+%' 09,. ')+%' 8 *$%' 6$*4'4/%' ,0' ,)')+')+%' , . &/' 8 8 '),* . ' ' &&%()0')+%' 8 *$%' 5%%6/2' 0%')%5' 0)$1()1$%0

" +% 6$*-. *0,0' *&'(%//1/,),0' 5%' 68,50' *. ')+%' %B)%.)' . 5' 0%7%$,)2' *&')+%' 5,0%' 0%' . 5')+%' (* . 0),)1),* . ' ,&/' 8 8 '),* . ' ' 6')+,)

1. ,) G +%' /*(' /' (' 10%' 0+*)&,5' 4%' $%8 *7%5' ' 0' &' $' 0' 6$' (),(' 4/%' &')+%' 3*1. 5' 4%' , . ' '*&*1/' (* . 5,),* . ' , .)' 0+*1/5' +%' $%. 5%$%5' 0%6),(' 40*/1)%' $%0)')*') + %' , . &/' 8 %5' 6' $)0' 0' *&' -$%')' , 8 6*$)' . (%' *' /* . -' ' 0' 01661$';),* . ' + ' 0' . *)' *(((1$$%5' $%0*/1),* . ' ,0' 6*00,4/%' $' 51')%5' 6$%001$%' (' . ' $' $%/2' 4%')*/%$')%5' /,0)%$,. -',0' . *)' %86/*2%5', . ')+%' ' (1)%' &*$8 ' 41)' 8 ' 2' 4%' 10%8*/, . ' $%8 *7, . -' 8 *$%' (+$*. ,(' (+' . -%0' */5' 66/,('),* . 0' ' . 5', (%' 8 ' 2' ' 4')%' 6', . ' ' . 5', . &/' 8 8 '),* . ' 41)' , . ' 8 ' . 2' ('0%0' 3' $8' &*8%.)'),* . 0' ' . 5' 6*1/),(%0' . ,7%' $%/,%&' . ')+%' 8 *$%' '57' . (%5' 0)' -%0' %06%' (, ' //2' 3+%. ')+%2')%. 5')*' 4%(* 8 %' (+*. ,(' (*/5' ,0' 10%/%00' *$' %7%. ' 5' . -%$*10' &$* 8' /, '4,/,2')' ('10%' -' . -$%. %', . '5%4,/,)')%5' 014>%()0' *(' /' 4/**5 /%)),. -' 5*%0' . *)' 6$%7%.)' 01661$'),* . ' . 5', 0' 101' //2' (* .)$' , . 5,(')%5' 42')+%' 3%' 9' 0)')%' *&')+%' 6'),%.)' +%. ' 610' &*$80' *$

,. - '*$')*' 6$%0%$7%')+%' %E),,/,4$,)1 .H '. 5'+' % . * . %' *&')+%' 6$%(,6,)')%',$$%-1/'$' '. 5'06$'3/; ,. -' (+')'()%$' 0%%.',.' ')'B2' +%2'$%' .*)' 06%(,'//2',..)%. 0,&,%5' *. ' (/*01$%' *&')+%' %2%0' 3+,(+' ' 01(+' '' 8 '$9%5' &%')1$%' ,.' ')'B2' *$' '$%')+%2' '((*86'. ,%5' 42' . 2' *&')+%' 0%. 0*$2' '&&%(),*. 0' *&' ')'B2' 3+%)+%$' , .')+%' &*$8' *&'6', . 0' *$' '. %0)+%0,'

+%$%', 0', . *')$1%' 8 *)*$' 6 '$'/20,0', . ' (%$%; 4%//'$ 5,0%'0%' '0' 01(+' '. 5')+%' 7'$,*10' 7*+),*. '/ 8*7%8%.)0' *&')+%' /, 8 40' (' .' 4%(' $$,%5' *1)' 6%$&%()/2' 3%//', . ')+%' $%(184%.)' 6*0)1$%' %. 0'),*. ' -%. %$' /' . 5' 06%(,'/', 0' . *)' 5,$%()/2' '&&%()%5', . ' (%$%4%//'$ 5,0%'0%' 20)'-8 10' . 5' 0)$'4,0 8 10' +'7%' 4%%. ' *4; 0%$7%5' 8 *$%' 6'$),(1/'$/2', . ' (*. . %B,*. ' 3,)+' /%0,*. ' *&')+%' (%$%4%//'$' 6%51. (/%0' %&%()0' *&' '$),(1/'),*. ' +'7%' 4%%. ' . *),(%5'41)' ,)' ,0' 7%$2' 5*14)&1/' 3+%)+%$')+%2' 0+*,55' 4%' $%; -'$5%5' 0' 5,$%()'02 8 6)* 8 0

%0,*. 0' *&')+%' (%$%4%//8 . ' 8 '2' 4%%.),$%/2' /')%.)'*&')+%' ('10%' . 2'7%$2' *47,*10' 02 8 6;)* 8 0' 51$,. -' /,&%' +,0' +'0' 4%%. ' *40%$7%5' , . ' ('0%0' *&' (*. -%. ,)'/')$*6+2'*$' 3+%. ')+%' 5,0%'0%' +'0' 4%%. ' *&' '' 0/*3/2' 6$*-$%00,7%' (+'$')(%$'*$'/, 8 ,)%5')*' *. %' /*4%' &&%(),*. 0' *&')+%' 8 ,55/%'/*4%' '$%' 06%(,''//2' ('/(1/')%5')*' , . 51(%')+%' (+'$')(%$,0),(' J1. 6)* 8 0

' ' !(! ? 6 ' "' < ' # ' 8 *$%' 6'$),(1/'$/2' ')')+%' 4'(9')+*1-+' . *)' Q *. 0)' .)/2'0,)1')%5')+%$%', 0' &$%E1%.)/2' '00*; (,')%5'3,)+' *,=-'.,(5,0%'0%'*&')+%' (%$%4%//18 8 "0',0' /0*'7%$2'&$%E1%.)/2' *40%$7%5' 6%$+'60' 8*$%' (*. 0)'.)/2')+'. ',. ' (*. . %B,*. ' ,)+' /%' 0%0' *&' *)+%$' 6')0' *&')+%' 4$',. ' +%$%', 0'+*3%7%$'. *' $%'0*. ')*' $%=5')+,0' '0' 51%)*'(%$%4%//'$5,0%'0%' '0' 01(+')', 0'6$*; 4'4/2' 51%)*', . 5,$%()'%&&%()0' *. ')+%' 8%51//'' 0' '' -%. %$'/' $1/%' 5,0%'0%0')%. 5,. -')*' %. ; ($*'(+='*. ')+%' 06'(%' *&')+%' 6*0)%$,*$' &*00''*$')*' , . ($%'0%')+%' 6$%001$%' 8 ')+,0' $%-,*. ' +'7%' '0,8,/'$'%&&%()

P -0 ',0' . *)')8(*88*. ' , . ' (*. ; . %B,*. '3,)+'(%$%4%//'$5,0%'0%' '. 5' 8*$%'6'$;),(1/'$/2', . ' ('0%0' *&')18*1$' *$' +0%8*$$+'-%' , . ')+%' /')%$'/' /*4%' *&')+%' (%$%4%//18 ' +%' +%8,6/%-,'', 0' *. ')+%' 0,5%' *66*0,)%')+%' /%0,*. ' W +,0' 5*%0' . *)' 6$*7%')+')')+%' +%8,6/%-,'', 0' 51%')*')+%' 5%0)$'(),*. ' *&')+%' (%$%4%//'$' /*4%' Q*$')+')')+%' (%$%4%//'$' /*4%0' +'7%' ($ 00' $%/';),*. 0' 3,)+')+%' /, 8 40' B6%$,8%.)'/6+20,*; /*-2' '. 5' '. ')* 8,('/,. 7%0),-'),*. 0')%. 5')*' 0+*3')+')')+%' (%$%4%//'$' /*4%0' '$%' &)8(),*. ' . 2' $%/')%5')*')+%' 8*)*$')$')()0' *. ')+%' 0' 8%' 0,5%' +,0',0' '/0*'4*$. %*1)'# ')+%' &+()')+')')$*6+2' *&')+%' (%$%4%//'$' /*4%' &')+%' 6,1'8,50' +%' &')')+')',)' ((1$0' (+,%&/2'3+%. ')+%' 5,0%'0%',0'/,8,)%5')*')+%' /')%$'/'/*. %',0'3+')' 8,-+)'4%' %=%()%5'*. ' '. ')* 8,('/-$*1.50

& " ' ' " " ' (*88*. ' '. 5 06%(,'/'+'7%' 4%%. '*40%$7%5', . ' ('0%0'*&'(%$%; 4%//'$' 5,0%'0%' , 8, . 1),*. '*&')'(),/%'0%. 0':), *. '*. ')+%'*66*0,)%' 0,5%'*&')+%' 4*52' 3+%. ')+%' 5,0%'0%',0'0,)1')%5', . ')+%' /')%$'/'/*4%',0')*' 4%' ((*1.)%5'&*$', . ')+%' 0' 8%' 3'2' 0')+%' 8*)*$' 6'$'/20,0' 0' $%-'$50')+%' 06%(,'/ 0%. 0%0' '&&%(),*. 0'*&' 0,-+)' +'7%' 4%%. ' 8*0)' &$%E1%.)/2' . *)' 5' ,-+)' ,0' (%$)'. /2' . *)' '4*/,0+%5'42' 5%0)$1(),*. ' &')+%' (%$%4%//18', . ')+%' /*3%$' ', 8'/0' '. 5' 3+%. ' 4/, . 5. %00' *((1$0', . ' 8 ' . ', . ' (*. . %B,*. ' 3,)4' 5,0%'0%0' *&')+,0' . $-' . ',)' 51%'%,)+%$')*' , 8 6+*'),*. ' E&')+%' (*$6*$'' E1'5$,-%8,. ' ' &'. (),*. '+2' *$' *$-' . ,('//2'*&')*' 0%(*. 5'$2'5%-%. %$'),*. ', . ')+%' *6),(')$')0' '0')+%'$%01/)' *&'. %1$,),0

'06%(,'/ &%')1$%' *&'))/ ' *&')+%' (%$%; 4%//18 ' 8*$% = %(,'//2' *&')+%' 8,55/%'/*4%' ,0' '')*. ,('$,-,5,)2'*&')+%' 8 10(/%0' *&')+%' 4'(9' *&')+%'. %(9'3,)+'$%)$'(),*. ' *&')+%'+%'5' '00*; (,')%5'&$%E1%.)/2'3,)+'&/%B,*. '*&')+%'&*$%' . . 0' ' . 5' %B)%. 0,*. ' *&')+%' /*3%$' %B)$%8,),%0' '. 5' 6*,.),. -' *&')+%' (*0%0' '/0*' 602(+,('/' &&%(),*. 0' 8*$%'6'$),(1/'$/2'8%.)'/ +%4%)15%' *$' 0)16*$' *((1$' '0')+%' $%01/)' *&' 0%(*. 5'$2'5$*602'*&')+%'7%.)$,(/%0' ('10%5'42' 6$%001$%' *. ')+%' 7%, . 0' *&' '/%. ' + ' 02 8 6;)* 8 0')+%. '4%(*8%)+*0%' &+25$*(%6+'/10

0%8*$$+'-%' , .)*')+%' 8,55/%' /*4%' *&')+%' (%$%4%//18', . ' '55,),*. ')*')+%'*$5, . '$2'02 8 6;)* 8 0' *&' '6*6/%B2'+'0' 4%%. '&$%E1%.)/2'&*B85')*' ('10%' 7'0(1/'$' %B(,)%8%.)' *&')+%' -%. ,)'/ *$-'. 0 8, . ')+%' *&' 3+,(+'0%7%$'/' ('0%0' 3%$%' &,$0)' $%6*$)%5' 42' %$$%0' /%5')+,0' *40%$7%$')* 8*5,&2')+%'7,%3'*&' ' ')+')+%' (%$%4%//18 ' '0' '' 3+*/%'3'0'$%/')%5')*')+%' 0%91'/, . 0), . ()' . 5')*'$%-'$5')+%' 8,55/%'/*4%'*. /2' '0'+'7, . -' . 2' 015,'&1. (),*. ' +%'&%()0'+*3%7%$' '$%' 010(%6),4/%' *&' '')*)'//2' 5,&%$%.)' .)%$6$%)';),*. ' '. 5' *. %' 8*$%', . ' +'$8*. 2' 3,)+' *)+%$' 5')'' *&' 6+20,*/*-2' '. 5' 6')+*/*-2')' +'0' 4%%. ' &*1. 5'%B6%$,8%.)'//2'42' %-'/'0' . 5' 42' (9+'$5')+')', $$,)'),*. ' *&')+%' 6*0)%$,*$' 01$' ^(%' *&')+%' 8%51//'' '. 5' 6*. 0' -,7%0' $,0%')*' 7'0(1/'$' %B(,)%8%.)' *&')+%' -%. %$'),7%'*$-'. 0' ' . 5'+%. (%')+%'02 8 6)* 8 0', . ' ('0%0' *&'+%8*$; $+'-%', .)*')+%' 8,55/%'/*4%'$%')*'4%' 0($,4%5')*', $$,)'),*. ' &')+,0' $%-,*. ' +,0' '/0*' %B; 6/', . 0')+%' 40%. (%' *&')+%' 02 8 6)* 8 0' 3+%. ' ^%'+0%8*$$+'-%'*((8 0' 8)*')+%'/')%$'/'/*4%0' +%$%',0' 40*/1)%/2'. *%7,5%. (%'*&')+%0/,-+)%0)' 7'/1%', . ' 0166*$)' *&' '//<0'+26*)+%0,0' "+%' &**)0' *&'(/, . ('/ 8 5,(, . 5' -*' '(*. 0,5%$'4/%' 3'2', . ' 5,' 8%)$,('/ *66*0,),*. ')*',)', &')+%2' '$%'. *)')+%8 0%/7%0' 01&&,(,%.)'%.),$%/2')*'*7%$;)+$*3',)

%$'54%//'$' %51. (/%0 G %06%(),. -'+%' %&&%()0' *&' 5,0%'0%' *&')+%' $%0),&*$8')$'()0' *$' , . &%$,*$' (%$%4%//'$' 6%51. (/%0' 3%' +'7%' . *' 5%&, .),)%'9. *3/%5-%

'0%0' +*3%7%$' '$%' .' $%(*$5' ' 3+,(+' /%0, *. 0' +'7%' 4%%. ' &*1. 5', . 7*/7, . -'6$, . (, 6'//2' %,)+%$')+%' 016%$,*$' *$' 8,55/%' (%$%4%//'$' 6%51. (/%0' +%' 02 8 6)* 8 0' , . ')+%' 8', . ' '-$%%' 3,)+')+*0%' *40%$7%5' 42' &'-%. 5,%' *. ' 0%(),*. ' *&')+%' 8,55/%' 6%51. (/%', . ')+%' /*3%$

,.' $%/35',)' +'0 .0),''//2'6$%7',/%5',.'3,.)%$'
'.5'%'$/2'06$,,,>&
B " ' " ' " " G)' 0%%80)*'4%/% 0,.&/1%.(%5')+'.'8*0)'*)+%$'%6,5%8,('
'&&%(),*.0'42'-%.%$'/'0'.,)'$2'(*.5,),*.0
" ,0'-%.%$'//2'4%/,%7%5'.*)')*'4%(*.)'-,*10' '&%3'5*14)&1/('(0%0'*&'(*.)'-,*.'+'7%'4%%.'$%(*$5%5H %B(%6)'+*3%7%$'3+%$%',)'+'0'66%'$%5'0'.'%6,;5%8,(' 8*.-'$%($1,)0')+%$%' '$%'(*86$';),7%/2'&%3',.0)'.(%0'*&'8*$%')+'.'*.%'('0%'$,0,.-'.'2'6')$),(1/'$'+*10%'*$'(,$%18'0($,4%5'/*('/,)2
I '5" " G +%'5,0%'0%',0'1.;5*14)%5/2'%6,5%8,(',.',)0'(+'$')(%$
O"2 ' . G)'+'0'4%%.'01--%0)%5')+')'(%$%4$*06,.'/'&%7%$'*3%0',)0'*$,-,.')*'+'10%'*&'4$%'50)1&&0'8'5%'&$*8'5,0%'0%5'-$',.'41)')+%$%',0'1*'6$**&'*&'01(+'4%,.-')+%'('0%
! ' $' 0 - ' '5'7%$,('$,-,;5,)2',0'3%// 8'$9%5' '$-%'61$61$,('6')(+%0'*&'$8'&)%$'5%')+'%7%.',.'%'0%0'3+%$%')+%$%'3%$%'.*'61$61$,('02886)*80'51$,.-'+&%H ,.'0*8%('0%0')+%'3+*/%'4*52'+'0')1$.%5'4/'(9'.',.(,0,*.'.''/'$-%'E1'.),)2'*&'5'$9')'$$2'/**9,.-'4/**5'%B15%0H)+%'810(/%0'$%'5'$9%$')+'.'101'/'.'5',.'6$*/*.-%5'(' 0%0 81(+'3%'9%.%5'.'5'30)%5' +%$%',0',.($%'0%5'70;(1/'$,)2'*&')+%'0('/6H)+%'(%$%4$'/0,.10%0'$%'81(+'5,0)%.5%5'3,)+'5'$9'4/*45H '.5'0%$18'0'&*1.5',.')+%'$'(+.*,5'06'(%0'.5'7%.;)$,(/%0' /')+%'8%84$'.%0'*&'8%'4$',.'8'2'4%'8*$%'*$/%00'(*.-%0)%5')+%'$'(+.*,5'4%,.-''/3'20'%B)$%8%/2' '0(1/'$'.5'*6'E1%'&$*85%6*0,)0'*&'/2866+G)+,0'*6'(,)2'7'$,%0'&$*80/,-+)'8,/9,.%00')*')+,(9'.5'5%.0%'5%6*0,)0'+%'8*0)'8'$9%5',.)$'($'.,'/%0,*.',0')+%'3+,)%2% *3,0+'*$'2%//*3,0+-$%%.'0&,4$,.*'61$1/%.)5%6*0,)'&*1.5''))+%'4'0%'*&')+%'4$',.' +,0'5%6*0,)'7'$,%0'0*8%3+')'3,)+')+%'51$'),*.'*&')+%'5,0%'0%'.,.'('0%0'3+,(+'5,%'$/2')+%'5%6*0,)',0'01'//2'0/,-+)'3+,),0+'.5'0*&)H ,.')+*0%'3+,(+'7%'&*$'*'3%%9'*$'0*',)',0'2%//*3,0+'*$'-$%%.,0+H ,.'6$*;/*.-%5''0%0')+%'5%6*0,)',0'8*$%'3+,)%'.5'61$%')+%'%&&10%5'0%$18'-$%')%$',.'E1'.),)2'.5')+%'7'0(1/'$&1/.%00'/%00' +%'*$,-,.0'*&)+%'.%$7%0'0%%8')'4%'41$,%5',.''.5'(*8;6$%00%5'42')+%'5%6*0,)' +%'4$',.0140)'.(%',)0%/&',0'8*$%'70(1/'$')+'.'.*$8'/'41)'.*)'*)+%$3,0%'/)%$%5' .')+%'06,.'/'(*5')+%'/%0,*.0'$%'0,8,/'$)*')+*0%'&*1.5',.')+%'4$',.'.5',)0'8%84$'.%0' .'0*8%'('0%0'61$1/%.)',.&,/)$'),*.'*&')+% %2%4'//'.('%&&10,*.',.)*')+%'>*,.)0'+'7%'4%%.'8%)'3,)+' +%'/1.-0'7%$''.5'06/%%.'+'7%'4%%.'&*1.5'81(+'(*.;-%0)%5''.5'0*&)%.%5',.'8'.2'('0%0(*.71/0%5H)+%'/,840'4%(*8%$,-,5'.'$%(*7%$,.-'&$*8')+%'(*'60%')+%'6'),%.)(*86/',.0'*&'-$%')'6',.0')+%'+%'5'4'(9'*&'.%(9''.5''/*.-')+%'6,.%H)+%'+%'5',0'55'3.'4'(9'!''0')*'4%'/8*0)'')'!'$,-+)''.-/%'3,)+')+%'06,.%H)+%'3+*/%'4'(9',0'0*8%),8%0''$(+%5''0',.')%)'.10H)+%'810(/%0'4%(*8%$,-,5''.5')+%'09,.'%B(%00,7%/2'0%.0,),7%'H .%1''$$&-,('6',.0''$%'/0*('86/'.%5'*&','//6'$)0'*&')+%'4*52' .'8*0)'*&')+%'0%7%$%'('0%0'%$16),*.0'66%'$'3,)+,.')+%'&,$0)'3%.)2&*1$'+*1$0¢ +%'%$16),*.'101'//2''66%'$0'&,$0)'*.')+%'/%-0''.5',0'&$%E1%.)/2'(*.&,.%5')*')+%'/*3%$'%B)$%8,),%0' +%'06*)0''$%'101'//2'4/'(9'$',0%5'*41)'('5'&%%/'/,9%''-$',.'*&'0+*)'1.5%$')+%'09,.'8%),8%0')+%0%'$',0%5'06*)0''$%'01$$*1.5%5'42''5'$9'61$6 0+'$%*/'H ,.'8*0)'('0%0'/'$-%'61$61$,('6')(+%0'*&'8'.2',.(+%0',.'%B)%.)'&*$8'*.'7'$,;*10'6'$)0H 0*8%),8%0')+%2'(*'/%0(%''.5'(*7%$')+%'%.),$%'4*52' %0,(1/'$'%$%16),*.0'$%'/0*'(*88*.H)+%0%'101'//2'+'7%')+%'(+'$')()%$'*&'+%$6%0'.5'$%'8*0)'&$%E1%.)'*.')+%'&'(%'.%(9'.5'0+*1/5%$0' +%'+%$6%),('%$16),*.0'$%'8%)'3,)+'0'&$%E1%.)/2',.5/5'0',.'0%7%$%'('0%0' %86+,-10'0*8%),8%0'66%'$0',.')+%'57'.(%5'0)'-%0'*&')+%'5,0%'0%' +%.'$%'(),*.'0%)0'',.')+%)%86%$')1$%',0'&*1.5')*'+'7%'$,0%.')*' &$*8' !!g')*' !"g' ' g' '.5',.'0*8%'%'0%0'+'0'$%'(+%5' !Mg' .'8'.2'('0%0')+%)%86%$')1$%'.%7%$'$,0%0''.5')+%'6'),%.)'5,%0',.')+%'0)'-%'*&'(*'60%'H)+%'$%06,$'),*.'4%(*8%0'*&''5 0,-+,.-'(+'$'()%$'H)+%'61/0%$,0%0')*'4*1)'8<H'.5'+'0''6%(1/,'$>%$98-'(+'$')()%$'-,7,.-''0+'$6'160)8*9%')*''06+2-).*-$'6+,(')$'(,.-
+%'&*$%-*,..-'0.1.6)*80'$%'7%$2'7'$,'4/%'.2'*.%''*$'%7%.''(*.0,5%$'4/%'.184%$'*&)+%8'8'2'4%'40%.')+$*1-+*1)'+%'3+*/%(*1$0%'*&')+%'('0%
!(' % $7 " *86/,%''),*.0'(*.%()%5'3,)+')+%'.%$7*10'020)%8''$%'/,840',0'*8 8*.'+%8,6/%-,('(+'$')()%'.5'810)'&$%E1%.)/2'))''(9,.-')+%'$8'%'&.%00',0'.*)'7%$2'(*88*.'41)'+'0'4%%.'8%)'3,)+','0%7%$'/'('0%0'0*8%),8%0'4%;(*8,.-'6%$8'.%.)' +%'%2%(*86/,('),* '$%'8*.-')+%'8*0)'&$%E1%.)'.5'8*0)'0%$,*10' +%'%2%'8'2'+%''))'(9%5'3,)+''/*3'&*$8'*&',.&/'88'),*.')%$8,.'),.-',.'61$1/%.)',.&,/)$'),*.'*&')+%'3+*/%'*$'6')$'*&')+%'*-'.H)+%'(*$.''',0'8*$%'&$%E1%.)/2',.7*/7%5')+'.'.2'*)+%$6*$),*.H '.5')+,0'0*8%),8%0'-,7,.-'2')+%'3+*/%'(*.)%.)0'*&')+%'-/*4%'%0('6%'('10,.-'+*6%/%00'/*00'*&')+%'%2%' +%'0,-+)',0'/0*'*&)%.'6%$8'.%.)/2',86',$%5'42',$,),0'*$'*6'(,)2_[&)+%'(*$.%''.'8'.2'('0%0'+*3%7%$')+%',.&/'88'),*.'(*88%)%/2'0140,5%0')',0'$%8'$9'4/%)+')',)',0')+%'$,-+)'%2%'3+,(+',0'.0.)5/2'*')'(9%5')+')'4*)+'%2%0'$'0%/5*8'' &&%()%5''.5$'$%/2')+%'/%&)'%2%'/*.%' (1)%',.&/'88';),*.'*&')+%'/'$-%$'>*,.)0',0''&$%E1%.)'(*86(',*.',.'0*8%%6,5%8,(0H)+,0'*&)%.')%$8,.')%0',.'61$1/%.)',1)$''$),(1/'$%&&1;0,*.'%8*$$+'-%0''$%'&$%E1%.)',.')+%'8*$%'8'-.'.)'&*..0''.5''$%''/8*0)

U K & ' +! 5 3 ' (' * 5

'/3 '20 6$%0% .)',.' ('0%0 3+%$%)+% 61$61$,(' 4/*)(+%0 '$% *&' /'$-% %B)% .)H)+%0% +0% 8 *$ '$+'-%0 +'7% *((1$$%5 &$* 8')+%' .*0% '1)%$10 '4* 3%/0'9,5 .%20' '.5 %'$0 , .' '4*1)')+%& *$%; -*,.-'*$5%$ *&'&$%E1%.(2' '.-$%.%',0 *((' ' 0,*.= 2 8 %)' 3,)+' '.5')+% ('0%0',.' 3+,(+',) *((1$0 '$% 101 '//2 &')'/H '/)+*1-+')*%0 +'7% 4%%.' /*0)' '.5 2%)')+%' 6'),%.)' +'0 $%(*7%$%5' +% 61$61$,(' 6')(+%0 +'7% '/0*' 0/*1-+%5' 3,)+*1)' 0%$,*10 5'.-%$')*')+%' 6'),%.)<0 /,&%

& G %$%4$* 06,.'/ &%7%$,0 /,'4/%')*'4% (*.&*1.5%5'3,)+')26+10 &%7%$'*.''((*1.)' *&)+%' 6%)%(+,'/ $'0+' 41)' ,0 5,0),.-1,0+%5' &$* 8',)' 42')+% %$16),*.' '66% '$,.-' 0155% /2' 3,)+*1)' '.2' 6$%7,*10 8*))/,.-' *&)+% 09,.' +% .%$7*10 02 8 6)* 8 0 '/0*' 5,0),.-1,0+' ,) &$* 8')26+10' '/)+*1-+' ,.' '' ('0% *&') 26+10 (* 8 6/,('))%5' 3,)+' (%$%4$* 06,.'/ 8 %.,.-,),0)+%$5,'-.*0,0 ,0 %B)$% 8 %/2' 5,&&,(1/)' '.5' 8 '2' 4%',8 6*00,4/%')',0' 5,0),.-1,0+%5' &$* 8'

D ' # 0 ' 42')+%' ,.)% .0,)2'*&)+% &%7%$' '.5')+%' /*('+0%5' .%$7*10 02 8 6)* 8 0' +% 8 '/,-.'.)' ('0%0' '$% 8 *$% /,9%/2')*' 4% 8 ,0)'9%.'&*$ 8 '/,-.'.)'0('$/'),.')+&,.&*$' .2' *)+%$'5,0%'0%'' .5'8 10)'4% 5,0),.-1,0+%5')+%$%; &$* 8' 42')+% $'0+' 0*$%)+$*')' '.5' .%$7*10' '&&%(),*.0% ' ,.' 0* 8 %' *0%0')+%') 3*' 5,0; %'0%0'+'7% 4%%.' ,.5,0),.-1,0+'4/%' &$* 8 %'('+' *)+%$'%06%(,'//2'3+%$% 5%')+' *((1$%5' 3,)+,.')3%.)2 &*1$' +*1$0' '.5' 4*)+' 3%$%' %6,5% 8 ,(' ')')+%'),8 %' .'*)+%$' ('0%0' 8 '/,-.'.)'0 8 '//; 6*B' +'0' 4%%.' 8,0)'9%.'&*$')+,0' 5,0%'0%

' &% ' ! ' '

$ G +%' 6$*-.*0,0' 51$'),(8' ^(''*& (%$%4$* 06,.'/ &%7%$' 5%6%.5' 8 1(+' 16*.')+%' &*$ 8')+%' '&&%(),*.' '0018 %0' '.5' &*$' (*.; 7%..%.(%' 3%' 8 '2' 5,7,5%',)',.)*')+%' &*//*3,.-' &*$ 8 0 G

0)' '0%0' *& '' 7%$2' 8 ,/5'&*$ 8')%$ 8,.'),.-',.'$%(*7%$2 H)+%' 51$'),*.'4%,.-'101'//2'&$* 8' *.*)*')+$%%' 3%%90

@.5' '0%0' *& '' 7%$2' 0%7%$%' &*$ 8' 0%)),.-',.' 0155% /2 H)+% 02 8 6)* 8 0' 4%,.-' 7%$2' 7,*/%.)' '.5' 3%// 8 '$9%5' '((*8 6'.,%5' 42' 61$61$,('06*)0' '.5' 4/*)(+%0' 3,)+' '')%.5%.(2')*' +% 8 *$$+'-%0' 3,)+' 5%%6' (*//'60%' '.5' (* 8 'H 101'//2')%$ 8,.'),.-' &')'//2',.' &$* 8' ''&%3'+*1$0')*')+$%%' 5'20

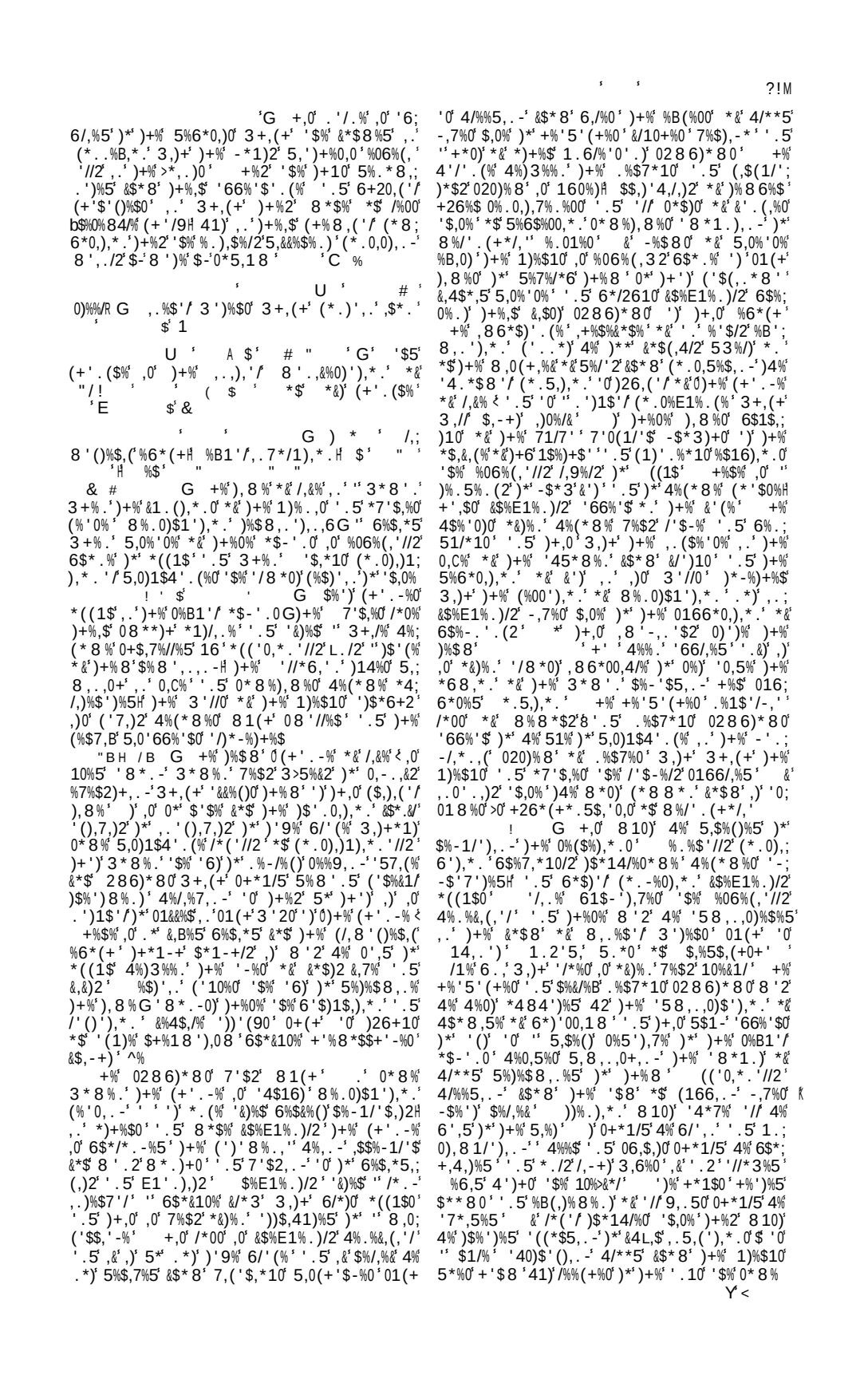
"$5' '0%0' *& 8 %5,1 8' 0%7%$,)2' 3+%$%' '//)+%' .%$7*10' 02 8 6)* 8 0' 0%)' ,.' 3,)+' /%00' 0155% . .%00')+' .' ,.')+%' 0%(*.5' (/'00' *& ('0%0' 61$61$,(' 4/*)(+%0' .*)' 4%,.-' 101'//2' 6$%0%.)'.5' .*'40% 8 *$$+'-%0' +%0% 101'//2' 2,%/5')*')$%')8%.)'.'.5')%$ 8,.')%',.'$%(*7%$2' ,.'&$* 8')3*')*'0,B' 3%%90

)+' '0%0' 3+,(+' 0%)' ,.' %,)+%$' ,.' '' +,,/5' *$' ,.' '' 0%7%$%' &*$ 8' 41)' ,.' 3+,(+' *.')+% 0140,5%.(%' *&)+%' &%7%$')+%' 0)$%.-)+' 5*%0' .*)' $%)1$.'(*.7'/%0(%.(%' ,0' $%)'$5%5'*$' '$$%0)%5' ')*-%)+%$' '.5')+%' 6'),%.)' &'//0' ,.)*' '' -%.%$'/' ')$*6+,(' (*.5,).*.'.'5'101'//2'5,%0' ,.'&$* 8')+$%%')*'0,B' 8*.)+0' *& 8 '$'0 8 10

2'5%(,5,.-')*'3+,(+'*&)+%' 4*7%'(/'00%0')+%' ('0%' 4%/*.-0')+%' 6$*-.*0,0' 3,/' 4%')*' '' -$%')' %B)%.)' 5%)%$ 8,.%5' +%' (+,%&',.5,(';),*.'*&'5'.-%$',0')+%' %'$/2'66%'$'.(%*&'61$

61$,(' '.5'+'%8*$$+'-,(' (*.5,),*.0' '),%.)0' 3+*' +'7%' &*$ &$* 8')%.' 5'20')*' '' &*$).,-+)' %0('6%5'0%$,*10' (*8 6/,(',*.0'101'//2'$%(*7%$ +%' 8*$)'/,)2',.' (%$%4$* 06,.'/ &%7%$',0 7%$2' +,-+=6$*4'4/2'*.' '.' '7%$'-%' '4*1)' D!' 6%$' (%.)' .' 0* 8 %' *&')+%' =%$,('.' %6,5% 8,(0',)',0' 6/'(%5''0'+,-+' 0' MF' 6%$' (%.)' 8*.-')+%' $,0+' (*.0)'41/'$2',)' $%'(+%5' ?!' 6%$' (%.)' ,9%' *)+%$' %6,5% 8,(' 5,0%'0%0')+% 8*$)'/,)2',0' +,-+%0)' ')')+%' (* 8 8%.(% 8%.)' *&)+%' %6,5% 8,(')',0' 8*0)' &')' /' '4*1)')+%' '-% *&')3%.)2' '.5'/%00' 0*' 1.5%$' &,&)%%.' 2%' $0

! " +%')$%')8%.)' ,.')+%' %'$/2 0)'-%' 8 10)' 4%' 5,$%()%5')*' $%(*7%$,.-')+% 6'),%.)' &$* 8')+%' (*//'60%' +,0',0' 4%0)' 5*.% 42')+%' '66/,(',*.' *&'+%')')+%' '58,.,0$'),*.' *&' 0 8 '/' E1'.),),%0' *&' 0),8 1/'.)0' *$' 0),81; /'),.-'%.%8')''.5')+%' '66/,(',*.' *&' 0,.'; 6,0 8 0' *7%$')+%' (+%0)' '.5' 4'(9' .')+%' .%B)' 0)'-%' *&')+%' 5,0%'0%' '))%.),*.' 8 10)' 4%' /8*0)' '/)*-%)+%$' 5,$%()%5')*' '//'2,.-')+%' 06,.'/ ,$$,)'),*.' '/#5' 6$*8*),.-')+%' '40*$6),*.' *& ,.5%$' 8' 3 ,// 2,%/5' 4%0)')*' &$%E1%.)' '.5' (*.0,5%$'4/%' 5*0%0' *& *6,18 H ,.5%%5' 8' .2'6+20,(',.0' +'7%' $%/,%5' '/)*-%)+%$' *.' *6,18' '0')+%' (1$')',7%' -%.)' +/*$'/' +25$')%' +'0' 6$*7%5' 4%.%&,(,'/',.' (*.>1.(),*.'3,)+' 4$* 8,5%0',.' '//'2,.-' $%0); /%00.%00' '.5' 6$*(1$,.-' 0/%%6' ,)+' ''7,%3' *& 6$* 8 *),.-' '40*$6),*.' *&)+%' %&&10%5' 8');)%$0' 8 %$(1$2' '.5',*5,5%' *& 6*)'00,18' +'7% 4%%.' (+,%&/2' $%/,%5' 16*.' ' .')+%' 8*$% 0)+%.,(' ('0%0' ('/*8/ 8 '2' 4%' %86/*2%5' 3,)+' 4%.%&,)' ,.' 08 '/' .5' $%6%')%5' 5*0%0' +% 5,0%'0%' 4%,.-' 101'//2' *& ' .' '0)+%.,(')26%' 8%$(1$2' 3,&,' 0%/5*8' 4%' 3%/' +*8%' '.5' ,*5,5%' *& 6*)'00,18' 0+*1/5' 4%' 6$%&%$$%5' %%(+%0' '66/,%5')*')+%' 4'(9' *&)+%' .%(9' 4%+,.5')+%' %'$0' *$')*')+%')% 8 6/%0' 6$*51(% -$%')' $%/,%&' *&)+%' B(%00,7%' 6',.'.')+%' +%'5' .5'166%$'6')$'*&')+%' 06,.%' +%' '66/,(',*.' *&,(%')*')+%+%'5' .5'06,.%')% 8 6*$'$,/2''//'20' 6',.'41)')+%$%,0'/,))/%'7,5%.(%' *& 6%$ 8' .%.)' 4%.%&,)' 4%,.-' 5%$,7%5')+%$%&$*$+' .' 6$*; /*.-%5'('0%0'4/,0)%$0' '66/,%5' '/*.-')+%' 06,.% +'7% 4%%.' &'7*1$'4/2'06*9%.' *&' +%' /*('/ (* 8 6/,(',*.0' 8 10)'4%')%5' 0')+%2' $,0%' .5'((*$5,.-')*'-%.%$'/'*&'5'.-%$',0')+%' %'$/2'66%'$'.(%*&'61$ %.(20)%5')18*1$'*&')+% %2%/,50'(*/*1$/%00'.5')$'.06'$%.)'0*8%3+')'$%0%8 4/,.-''+',/0)*.%



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(*.0,0)0',.'6$*)%(),*.'&$*8')+%''))8*06+%$%Ħ
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09,.''.5'0,.9,.-')*''0,85'$'%B)%.)',.)*')+%
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7%/*6%5'42''08**)+')$'.06'$%.)'6,.9,0+'
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0,.9'4%)3%%.')+%'80+%0'*&')+%&,4$*10'0)$1(;
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(*88*./2' 8%)'3,)+'*.')+%'0)%$.18'.5'
8%'01$,.-'0%7%$'/',.(+%0',.'5,'8%)%$')+%$%
3,//'-%.%$'//2'4%*40%$7%5''&%3'0('))%$%5'
9.*)0' +%0%'$%'5%7%/*6%5',.')+%'&,4$*10'
0+%')+'*&')+%'$)%$,%0')'0*')$'5,0)'.(%
&$*8')+%'8'00''.5'4%,.-')+10'/,.9%5')*')+%'
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)+%'&*(10'*&')+%')18*1$' .5')+%'5%7%/*6;
8%.)'*&')+%'0*('//%5'0$**)0'<,0'%B6/',.%5'42'
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&,4$%0''$%'0%%.'$1...-'*4/,E1%/2'41)'+%2'
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01$$*1.5%5'42'0('$'),001%' +%/*,5''/0*',.'
7'5%0')+%'+%')+2'(*6,18',.')+%'.%,-+4*1$;
+**5''.5',.')+,0'$%06%()'5,&&%$0''/)*-%)+%$'
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.'8%'&$*8',)0'+'4,)'&')+$*3,.-'*1)'061$0'
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,.''$*1.5'*7'/'*$*4/*.-')14%$(/%'*$'9.*)'
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0*8%),8%0'42''(/10)%$'*&')+$%%'*$&*1$' +%.'
)3*'*&')+0%'9.*/0'$%'0,)1')%5''/''0+*$)'5,0;
)'.(%''6'$)')+%2''$%''6')'*'4%(*8%'(*..%()%5
42''(*$5'*&')+%'0'8%'0)$1()1$%''0')+%80%/7%0'
'.5')'*'-,7%'$,0%')'*'3+')'+'0'4%%.'('//%5''
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.%'$')*-%)+%$')+%2''$%'5,06*0%5')*'4%(*8%'
4/%.5%5'42'-$*3)+''.5'6$*51(%''.'*7'/'*$'
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%B)%.50'&$*8')+%0%/'))%$',.)*')+%'01$$*$85,.-'
,.)%-18%.)')+%'66%'$'.(%'5%.*8,.')%5' '
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)*''')%.5%.(2' *7%$-$*3)+'*$'+26%$6/'0,''
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'66%'$*.'0%7%$'/6')0'*&')+%',.)%-18%.)')'
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,)'-%.%$'//2'($*00%0')$'.07%$0%/2')',0'*&)%.'
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-,7%0'$,0%')*'81(+',.(*.7%..%.(%'*$')),.0'
'.2'(*.0,5%$'4/%'8'-.,)15%' +%.'/%&)')*'Q
,)0%/&',)'6$*-$%00%0'7%$2'0/*3/2'*$'$%8',.0'
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'.5',)'+'0'4%%.'9.*3.')*'5,0'66%'$'06*.;
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Ò ! 3+%/*,5' 3 +,(/,' &*$ 8 0' ,. ' 0('$'),001%' 0+*1/5' .%7%$' 4%' $% 8 *7%5' 42')+%' 9 .,&%' *&' ('10),(0' '0',)' '/8 *0)' '/3 '20'$%)1$ .0' E1,(9/2' W'&)%$'$% 8 *7'/')'+ '0' ·')%. 5%. (2')*' 1 .5%$-·*' 0/* 3' ')$*6+,(' (+' . -%0' ,&' /%&)')*' ,)0%/&' ' .5')+%0%' (+' . -%0' '$%' &' 7*1$%5' 42')+%' 6$%001$%' Q*&' '' 6/' 0)%$' +%' 8 %$(8 ,' /' 6/' 0)%$' ,0' '' 7%$2' 01,)' 4/%' * .%

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& % ! *' ' ')+ % G * *3,. -')+%' 6/' .' '5*6)%5',. ')+%' -%. %$' /' '$),(/%* .')+%' ! ' ,)' ,0' 6$*6*0%5',. ')+%' &,$0)' 6/' (%')*' -,7%' ' .' *1)/,. %' *&')+%' 5,0%' 0%0' *&')+%' (+%0)H ' .5')+%. ')*' ,.5,(')%')+%' 6$,. (,6' /' 6*,.)0' +%' $,. -' *. ')+%,$' (/, . ,(' /' . .7%0),-'),*.

C $' %! ! G +%' 7 ' $-' ! ' # ; ' * "' + ' #$. "' 7 . 7 7' $' #)> ' -$*160' * " G

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' ,0%' 0%0' *&' %,)+%$' *&')+%' ,8 6*$)' .)' . %$7%0')$' 7%$0,. -')+%' (+%0)

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Y ' ,0%' 0%0' %. ($*' (+,. -' 16*. ')+%')+*$' (,(' W('7,)2' &, *8')+%' '45*8%. ' *$' &$* 8')+%' . %(9

+%' 6')$),(1/'$ 5,0%' 0%0' (* 8 6$%+%. 5%5' 3,)+,. ' 8 *0)' *&')+%' -$*160' >10)' 8 %.),*. %5' '$%' 7%$2' . 18 %$*10' . 5')+%2' 3, ' 4%' &*1. 5' 5%' Q0($,4%5',. ')+%,$' $%06(),7%' '$),(/%0' &&%(),*. 0' W(* . .%()%5' 3,)+')+%' (+%0)' (* . 0),)1)%' '' /' $-%' 6$*6*$),*. ' *&')+%' ('0%0' 3+,(+' (* 8 %' 1. 5%$' *40%$7'),*. ' ,. ' 6$' (),(%' +,0' ,// 4%' $%' 5,/2' 1. 5%$0)*' 5' 3+%. ' 3%' $%8%84%$')+')')+%')+*$' B' %. (/*0%0' *$-' . 0' %00%.),' /')*' /,&%' 3+,(+' '$%' . %7%$' ')' $%0)' ' . 5' 3+,(+' '$%' (* . 0)' .)/2' =*$%' *$' /%00' %B6*0%5')*' , . &/1%. (%0' /,' 4/%')*' , .>1$%')+%8 ' +%2' 8 '2' 4%') ' " ' ' . 5')*')+%0%')+%' $)' ,0' %06%(,' //2K W6$*. %H 41)' 0%$,*10' 0 " ' ' (' '/0*' %B(%%5,. -/2' (* 8 8 *. ' ' . 5' $' . 9' 7%$2' +,-+' '0' ('10%0' *&' 5%')+' *$%*7%$')+%2' 8 '2' %,)+%$' *8%1. 5%$')+%' (')%-*$2' *&' ' '&&%(),*. 0

)+*1-+' %7%. ')+%. ')+%2' &$%E1%.)/2' 5%6%. 5' 16*. ' 0* 8%' (' 10%' '(),. -')+$*1-+')+%' -%. %$' /' 020)%8 ' 01(+' '0' %B6*01$%')*' (*/5' *$' 3 %)H *$')+%2' '$,0%' , . ')+%' (*1$0%' *&' 0* 8%' 0 " ' 8 '/' 52' *$' . 0)' . (%' 61/8 * . '$2' (* 8 6 (' '),*. 0' '$%' *&' (* 8 8 *. ' *((1$$%. (%' , . ' (* . . %B,*. ' 3,)+' &%7%$0' . 5' 7' $,*10' *)+%$' 5,0%' 0%0H)+%' +%' $)' ,0' , 8 6/,(')%5' , . ' '' /' $-%' 6$*6*$),*. ' *&' (' 0%0' *&' $+%1 8 '),(' &%7%$H ' . 5' 8 '/,-. ' .)' 5,0; %' 0%' ,0' . *)' , . &$%E1%.)/2' 8 ' . ,&%0)%5' 42' ''/*(' /' 5%7%/*6 8 %.)' *&' (' . (%$' , . ' (* . . %B,*. ' 3,)+' (%$)' , . ' *&')+%')+*$' (,(' (* .)%.)0' +%' 0)$1*$')1$%0' 3,)+,. ')+%' (+%0)' + '7%' . ' , 8 6*$)' .)' 8 1)1' /' , . &/1%. (%' 16*. ' %' (+' *)+%$H ' . 5')+%2' 8 '2' '/0*' 4%' '&&%()%5' %,)+%$' 5,$%()/2' *$' , . ; 5,$%()/2' , . ' (* . . %B,*. ' 3,)+' /*(' /' 5,0%' 0%0' , . ; 7*/7, . -' *)+%$' 6')$0' *&')+%' 4*52' 01(+' '0')+%' '45*8%. ' *$')+%' (%.)$' /' . %$7*10' 020)%8 $ ' $' A G)' 8 '2' 4%' (* 8 ' &,5%.)/2' '& $8%5')+')')+%' 8 %' . 0' 3+,(+' LV . *3' 6*00%00' &*$' , . 7%0),-'), . -' 5,0%' 0%0' (* . ; . %()%5' 3,)+')+%' (+%0)' '$%' 0*' '5%E1')%' . '5' 6$%(,0%')+')' ' . 2* . %' 6*00%00, . -')+%' $%E1,0,)%' 9 . *3/%5-%' ' . 5' 09,//' ' . 5' 3+*' ('$$,%0' *1)')+%' (/, . ,('/'%B' 8 , . '),*. '6$*6%$/2' (' . ' , . ')+%' 7%,2' /' $-%' 8 '>*$,)2' *&' ('0%0' '$$,7%' ')' '' 5,' - . *0,I' 3,)+' (%$)' , .)2' . 5' 6$' (),(' /' ((1$' (2')')+%' 0' 8%' ,8 %' ,)' 8 10)' 4%$%8 4%$%5')+')' %7%$2' (* 8 6/' , .)' $%&%$%5')*')+,0' $%-,*. ' +*3%7%$')$,7,' /' ,)' 8 '2' '66%' $')*' +%' 5*%0' $%E1,$%' 020)%8 '),(' ' . 5')+*$*1-+' , . 7%0),-')*. ' *)+%$; 3,0%' 7%$2' 0%$,*10' 8 ,0)' 9%0' '$%' (* . 0)' .)/2' +' 4/%')*' 4%' 8 ' 5%' *$%*7%$' (+%0) (' 0%0' 5*' (* 8%' 1. 5%$' *40%$7')*. ' *((' 0,*. ' //2' 3+,(+' '$%' *40(1$%' ' . 5' 3+,(+' 8 '2' (' //' &*$' $%6%')%5' %B' 8 8 '),*. ' 4%&*$%' '' (*$$%()5,' - . *0,0' (' . ' 4%' &*$ 8 %5H ' . 5' %B(%6),*. ' /' , . 0)' . (%0' *((1$' , . 3+,(+' . *' 0'),0&%(&*$2' (* . (/10,*. ' (' . ' +%' '$; $,7%5' ')' +%' 6$%7,*10' -%. %$' /' (* . 5,),*. ' *&')+%' 6')%.)')+%' +%$%5,)' $2' +,0)*$2' ' . 5')+%' ((*1.)' -,7%. ' *&')+%' *$,-8' ' . 5' 6$*-$%00' *&')+%' ,// . %00' *&)%. ' '&&*$5' 0,-. ' /' ', 5')+%' 5,' - . *0,0' *&' (+%0) '&&%(),*. 0' ' . 5' *1-+)' . %7%$')*' 4%' *7%$/**9%5' +%' 02 8 6)*8 0')*' 3+,(+')+%0%' '&&%(),*. 0' -,7%' $,0%' '$%' . %(%00' $,/2' 7' $,*10' ' ,. ' *$' *)+%$' 8 *$4,5' 0%. 0'),*. 0' '$%' 7%$2' (* 8 8 *. /2' (* 8 6/' ,. %5' *&' 41)' . /2' ,. ' '' (* 8 ; 6' $'),7%/2' &% 3' ,. 0)' . (%0' '$%')+%0%')' '// 0,-' . ,&,%' .)' . 5' 3')+%2' ('. ' . %7%$' +%' 6*0,),7%/2' $%/,%5' 16*. ' ,. ' 8 '9,. -' '' 5,' - . *0,0' 3+,/%')+%2' '$%' *&)%. ' '40%.)' ,. ' 5,0%' 0%0' *&')+%' 8 *0)' 0%$,*10' (+' $' ()%$' +%' , 8 6*$)' .)' *$-' . 0' . ' 8 %/2')+%' /1 . -0' ' . 5' +%' $)' 101' //2' 6$%0%.)' 8 *$%' *$' /%00' 5,0)1$4' . (%' *&')+%,$' &1. (),*. 0' 3+%. ')+%2' '$%' '&&%()%5' 41)' -$' 7%' 5,0%' 0%0' 8 '2' %B,0)' 3,)+*1)' ' . 2' 01(+' %7,5%. (%' +%' 5,&&%$%.)' 0)$1()1$%0' 3,)+,. ')+%' (+%0)' + '7%' ' 8 1)1' /' , . &/1%. (%' 16*. ' %' (+' *)+%$' ' . 5')+10' *)+%$' 02 8 6)*8 0' 4%0,5%0')+*0%' (* . . %()%5' 3,)+')+%' 6')' ()1' //2' 5,0%' 0%5' '$%' *&)%. ' '66' $%.) *$' , . 0)' . (%')+%' /1 . -0' ' . 5' +%' $)' '$%')+10' 7%$2' , .), 8 ')%/2' '00*(, ')%5H 3+,/%' . %1$2 80' *$-$*3)+0' *&)%. '5,0)1$4')+%0%*$-' . 0' 0%$,*10/2' *$' , .)%$&%$%' 3,)+')+%' ,$)14%0' . %$7%0' 7%, . 0' ' . 5' *)+%$' 0)$1()1$%0' . ' (* . 0%E1%. (%' *&' 8 *$%' *$' /%00' , .)%$&%$%. (%' 3,)+'),,%' (,$(1/'),*.

7'$,*10' 02 8 6)* 8 0' , .' 6 '$)0' $% 8 *)%' &$* 8 ')+%' (+%0)' '$%' &$%E1%.)/2' *$, -, . ')%5H ' . 5' 5,0)' .)' *$- ' . 0' 8 ' 2' 4%(* 8 %')+%' 0% ')' *&' *$- ' . ,('/%0,* . 0' '0')+%' $%01/)' *&' /* . - (* .), . 1%5' 8 %(+' . ,('/(* . -%0),* . ' '' . %3')$', .' *&' 02 8 6)* 8 0' 4%, . -')+10' 0%)' 16' +%' -%. %$ ' /' 020)% 8 ' 8 ' 2' 4%' , . W)+,0' 8 ' . .%$' '&&%()%5H 3+,/0)' 62$%B, ' ' 3 ')0); , . -' . 5' *)+%$' -%. %$ ' /' 02 8 6)* 8 0' '$%' *&)%. W '00*(, ')%5' 3,)+' (+%0) 5,0%' 0%0' '0)/2' 8 *$' 4,5' (* . 5,), * . 0' 3,)+, . ')+%')+*$' B' 8 ' 2' 5,$%()/2' b' '&&%()')+%' '45* 8, . ' /' *$- ' . 0H' *$' 8 ' 2' ' ()1' //2 8 ' 9%')+%,$' 3 ' 2')+$*1-+')+%' 5,'6+$' - 8', .)*')+%' '45* 8, . ' /' (' 7,)2

6 # ' (" "' (* . 0),)1)%0' . ' %0; 0%.),' /' . 5' 8 *0)', 8 6*$)' .)' 6' $)' *&')+%' (/, . ,(' /' , . 7%0),- '),*. ' *&')+%' (+%0)' . 5' ,)0' (* .)%.)0' . 5%%5' 3,)+*1)' 01(+' %B' 8 , . '),*. ' . *' (%$)', . ' . 5' %B' ()' 5, '- . *0,0' (' . '%7%$' 4%' 8 '5%' +,0' 014>%()', 0' &1//2' 5,0(100%5', . ' *)+%$' '66$*6$, ')%' $),(/%0' ' . 5' +%$%' ,)' . %%5' * . /2' 4%' 8 %.),*. %5')+ ')')+%' 8 %)+*50' *&' %B' 8 , . '),*. ' 3+,(+' '$%' 101' //2' $%E1,$%5' ' . 5' 3+,(+' 0+*1/5', . ' %7%$2' ('0%' 4%' 6$' (),0%5' '$% G ' 5" " ' V' 6 " "' 6 " ; ' & ")+%$' 8 *5%0' 3+,(+' 8 ' 2' 4%' ('//%5' &*$' , . ; (/15%' G F' " A . *)' 1 . (* 8 8 * . /2R' L' " M' +%' 10%' *&' ' " 7 " ' 5,$%()%5') *')+%' , . 7%0), - '), *. ' *&' 6'$'), (1/'$' *$- ' . 0' 01(+' '0')+%' 06,$* 8 %)%$')+%' 0)%)+* 8 %)%$' ('$5,*-$'6+'06+2- 8 *-$'6+' '0' 6,$')%1$' *%0*6+' -%' / 4*1-,%' ^(' ' 2 ' $' * , ! 'H' . 5')+%' '$),(/%0' $%/'), . -')*')+%' 0%7%$' / *$- ' . 0

4 '5' ' *

' %&*$ 8 ,),%0' * & G . 5%$')+,0' +%'5' '$%' , . (/15%5' '// 5%7, '), *. 0' , . ' 0+'6%' &$* 8')+%' . *$ 8 ' / (+%0)

%7, '), *. 0' &$* 8')+%' 0+'6%' *&')+%')26, (' /)+*$' B' '$%' '66$%(, '4/%' 42' ('$%&1/ 6+20, (' / %B' 8 , . '), *. ' &')+%' 7' $, *10' 8 %)+*50' %8 ; 6/*2%5' &*$')+, 0' 61$6*0%'42' &'$')+%' 8 *0)' 7' /1; '4/%' '$%', . 06%(), *. ' . 5' 6 '/6'), *. ' /)+*1-+' , . ' 0* 8 %' &%3' ('0%0' ,)' 8 ' 2' 4%', 8 6*$)' .)')*' 5%)%$ 8 , . %')+%$%' 'B' ()' 8 *1 .)' *&' 5%&*$ 8 ,)2' 42' 8 %. 01$'), *. ')+%$%' '$%' 7%$2' &%3' 5%7, '), *. 0' , . ' 0+'6%' *$' 0, C%' *&')+%')+*$' B')+%' 5%-$%%' *&' 3+,(+' ('. *)' 4%' 01&&, (, %.)/2' %0), 8 ')%5' &*$' (/, . , ('/ 61$6*0%0' 42')+%' %2%' . 5' +' . 5' 3,)+*1)')+%' ,5' *&' . 2' 06%(, '/ , . 0)$1 8 %.)0' &*$' 8 %'01$, . -

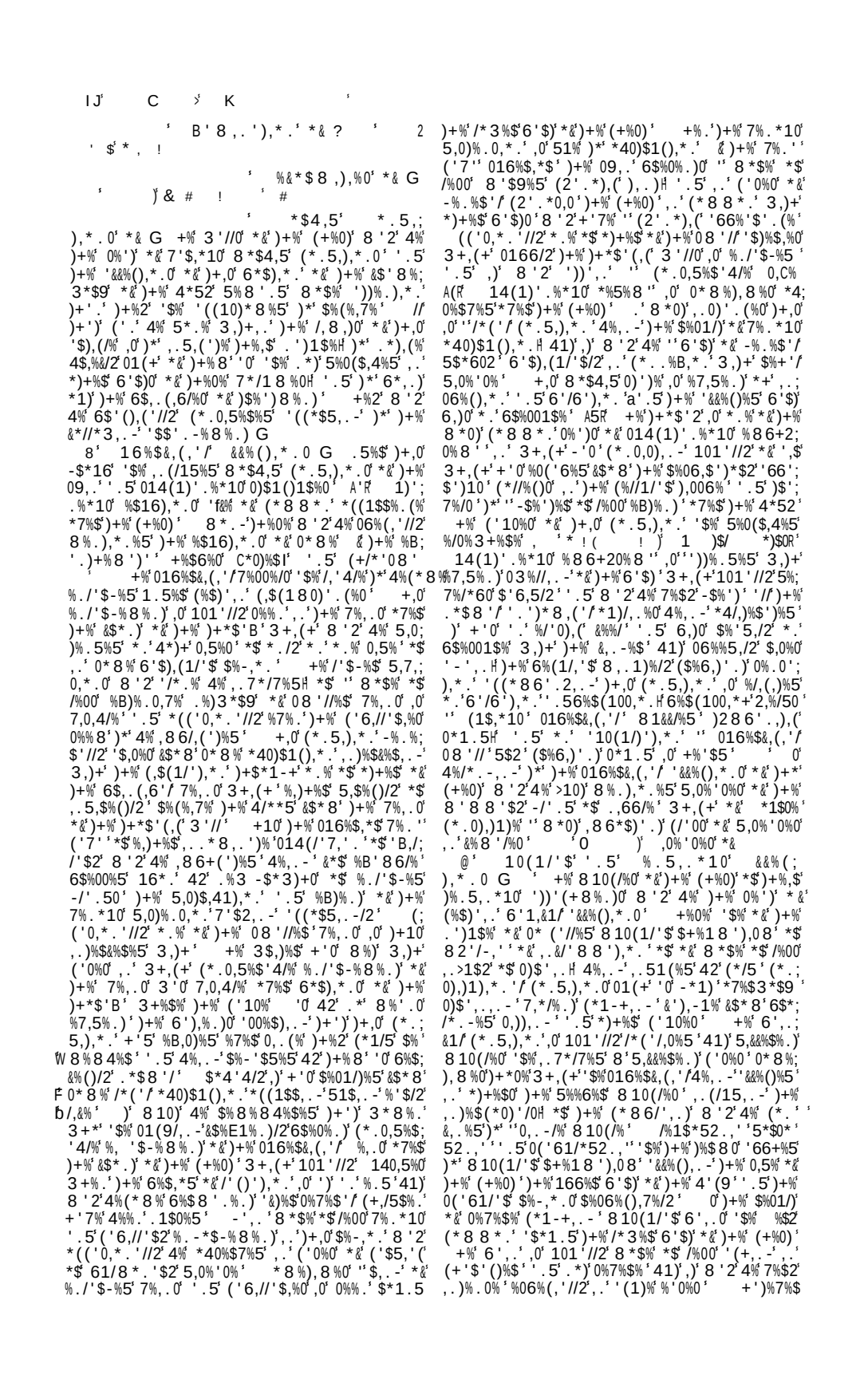
%&*$ 8 ,),%0' *&')+%' (+%0)' 8 ' 2' 4%' 51%' %,)+%$')*' '4 . *$ 8 ,)2' *&')+%' 6' $, %)%0' *$')*' 5,0%' 0%' & , .)%$. '/ 0)$1()1$%0

& ' (`` %7, '), *. 0' &$* 8')+%' &*$ 8 *$' 0, C%' *&')+%')26, (' /)+*$' B' 8 ' 2' 4%' %,)+%$' 0 " '*$' ? # &', 0')+%' '4 . *$ 8 ,)2' 8 ' 2' , . 7*/7%')+%' 3+*/%')+*$' B' *$' ''6' $)' * . /2

' %. %$' / ' %&*$ 8 ,), %0 G ' B " ' 6 " G +%' (+%0)' 8 ' 2' 4%')**' 08 '//G')+')', 0' 5, 8, . , 0+%5', . ' '// ,)0' 5, ' 8 %)%$0' 3,)+; *1)' 4%, . -', . '*)+%$' $%06%()0' 5%*$ 8 %5' , 8, ; . 1), *. ' *&')+%')+*$' B' 0, 8 1/)' . %*10/2' . 5' , 8, &*$ 8 /2', . ',)0' ' .)%$* 6*0)%$, *$' ' . 5' /')%$' /5, ' 8 %)%$0', 0' %&&%()%5' 8 %(+' . , ('//2' 42' ' . ', . ($%' 0%' , . ')+%' *4/, E1,)2' *&')+%' $, 40' +%

0 8 '//%$')+%' (+%0)' A+' 7, . -' $%-' $5')*')+%' +%, -+)' *&')+%' 6%$0*. R')+%' 8 *$%' *4/, E1%/2' '$%')+%' $, 40' '$$' . -%5' ' . 5')+%' 8 *$%' (1)%')+%' ' . -/%' &*$ 8 %5' 4%) 3%%. ' %' (+' *&')+%')$1%' $, 40' A%B(%6), . -')+%' &, $0)R' . 5' ,)0' ('$), /'-%' +%' , .)%$(*0)' /' 06' (%0' *&')+%')$1%' $, 40' '$%' 3, 5%. %5' '4*1)')+%' 1 . (), *. ' *&')+%' $, 40' 3,)+')+%, $' ('$), /'-%0' . ' . 5' ')')+%' 0' 8 %'), 8 %')+%' $, 40' 6*0)%$, *$/2' '$%' '66$*B, 8 ')%5' 8 *$%' (/*0%/2')*' %' (+' *)+%$')+%' (/*0%. %00' *&')+%' '66$*B, 8 ';), *. ' 4%, . -' . ' 6$*6*$), *. ')*')+%' 5, 8 8 1), *. ', .)+%' 0, C%' *&')+%')+*$' B' +%' 7%$), ('/ 5, ' 8 %)%$' *&')+%')+*$' B' ,0' /00%. %5' 42' ' . ', . ($%' 0%', . ')+%' +%, -+)' *&')+%' '$(+' *&')+%' 5, '6+$' - 8 ' +%' 7%$2' *4/, E1%' 6*0,), *. ' *&')+%' &' /0%' $, 40' ' . 5')+%' +%, -+)')*' 3+, (+')+%' 5, '6+$' - 8 '$, 0%0' , .)*')+%' +%0)' (' 10%' 0%7%$' / <-')+%' &' /0%' $, 40')*' /, %' . ' (*.)' ()' 3,)+')+%' 5, '6+$' - 8 ' . 5')+10' . *' 6*$), *. ' *&' /1 . -', 0' , 8 5%$')+%0%' $, 40' +%2' '$%' 6$' (), (''//2' 06%' 9, . -' . *' /* . -%$' 6 '$)' *&')+%' (+ 0) 3)80' +%' (*0)' / ' . -/%0' '$%' 5, 8, . , 0+%5', . ' 6$*6*$), *. ')*')+%' 5, 8, . 1;), *. ' *&')+%' 0, C%' *&')+%')+*$' BG)+')' , 0')*')+%' */, %' . ' (*.)' ()' 3,)+')+%' 5, '6+$' - 8 ' . 5')+10' . *' 6*$), *. ' *&' /1 . -', 0' , 8 5%$')+%0%' $, 40' +%' */4/, E1,)2' *&')+%' $, 40' '/0*' ('10%0')+%' 0+*1/5%$0' . 5')+%' 0)%$. '/ %. 50' *&')+%' (/'7, (/%0')*' 5$**6' . 5' ')')+%' 0' 8 %')8 %')*' , . (/, . %' &*$ 3' $50H')+%' 166%$' 6 ',)' *&')+%' 0(' 61/''', 0' ('$$, %5' 42')+%' 0+*1/' %$' &*$ 3 '$5')+%' , . &%$, *$'), /)%5' 4' (93' $5

%. %$' / ' . 5' 02 8 8 %)$, ('/ 5, 8, . 1), *. ', 1')+%' 0, C%' *&')+%')+*$' B' +' 0' *. %' ' . 5' *. /2' *. %' ('10%' . ' 8 %/2' 0 8 '// 0, C%' *&')+%' /, 8 -0' 8 '// 1 . -0' 8 ' 2' 4%' (*. -%.)/' 51%')*' *$, -, . ' / (*. &*$ 8 '), *. ' *$')+%' (*. 0%E1%. (%' *&')$*6+, (' 5%-%. %$'), 7%' (+' . -%0' , . (, 5%.)')*' '-%' . ' 4*)+')+%0%' ('0%0')+%' /1 . -0' '$%' 8 ' $%/'), *. ')*')+%' /%. -)+' *&')+%' $, 40' 5, 06$*6*$), *. ')%/2' 0 8 '// ' . 5' '0' '. %(%00' $2' (*. 0%E1%. (%')+%' $%/'), 7%/2')*' * /* . -' $, 40' '$%' '$$' . -%5' 8 *$%' *4/, E1%/2')+' . ')+%2' '$%', . ' ' 3%// &*$ 8 %5' (+%0)' ' . 5')+%' 5, '6+$' - 8 ', 0' 610+%5' 42')+%' '45* 8, . ' /' *$- ' . 0' +, -+%$', .)*')+%')+*$' B' +%. ')+%' 0 8 '// 0, C%' *&')+%' /, 8 -0', 0' 51%')*' ')$*6+2')+%' 016$' (/' 7, (1/'$' &*000%' $%' 5%%6%. %5' ' . 5')+%' 7%$), ('/ 5, ' 8 %)%$' *&')+%' (+%0)' 6$*6*$), *. ')%/2' 5, 8, . , 0+%5' . ' 57' . (%5' /, &%')+%' (*. -%.)' //2' 0 8 '// 1 . -0' '$%' &$%E1%.)/2' $%51(%5' 0), // &1$)+%$', . ' 0, C%' 42')+%' 016%$7%.), *. ' *&')$*6+*10' %8 6+20%8 ' ' +%' (*. -%.)' //2' 0 8 '// 1 . -0' 3,)+')+%' (*. 0%; E1%.)/2' 0 8 '// (+%0)', 0' *. %' *&')+%' (+' $' ()%$, 0;), (0' *&')14%$(1/*0, 0 G)+')', 0' *&')+')' (*. -%.)' /' *$- ' . , 0'), *. ' . ' 3+, (+')14%$((/%', 0' /, 9%/2', . ' 0140%E1%.)'6%$, *50' *&/, &%')*' *((1$')$*6+*10' %8 6+20%8 '', 0' %06%(, ''//2' (* 8 8 *. ' . ')+*0%' 3+*' +' 7%' %,)+%$' 8 ' . , &%0)%5' 0286)* 8 0' *&')14%$(/%', . ')+%>$' 2*1)+' *$' 4%/*. -')*')14%$; (1/'$' & ' 8, /, %0')', 0')+%' (*. -%.)' //2' 0 8 '// /1 . -0' *&' (+, /5+**5' 3+, (+' '$%' 6$* . %)*' 4%(* 8 %')+%' 0%')' *&')14%$(/%', . ' 2*1)+' ' . 5')+%' 014>%()0' *&')$*6+*10' %8 6+20%8 '', . ' */5' '-% @' B " ' I " 0 " ? 5# ')+*$' B' 8 ' 2' 4%')**' /' $-%' , . ($%' 0%5' , . ' // ,)0' 5, ' 8 %)%$0' 3,)+*1)' 4%, . -' *)+%$3, 0%' 5%&*$ 8 %5')' , 0' 0, 8 6/2' 4, -- %$')+' . ' ,)' 0+*1/5' 4%' +' 7, . -H' $%-' $5')*')+%' +%, -+)' *&')+%' 014>%()



4$,.-0)+% &&%()%5 8 '0(/%0 ,.)* 6/'2 '--$';
7')%0)+%01&&%$,.- 01(+ '0 8 *7,.-')+% '$8 0
*$ 0+*1/5%$0 3+%.')+%0 16%$&,(.'/ 8 10(/%0 '$%
'&&%()%5 (*1-+,.- 0.%%C0,.- . 5'0,8,/0'$ '(;
),*.0 .'0* 8 %',.0)' .(%0)+%6 ,.' ,0 .*) &%/)
3+%.')+% '&&%()%5 0)$1()1$%0 '$% 9%6) E1,)%
') $%0) +%$% 8 2'4* /*('/)%.5%$.%00 *.'
6$%001$%'*$ 5,&&10%5'6$%001$% 8 2'-,7% $%/,%&H
3+,/% 6*0)1$% *&)%.',.&/1%.(%0)+% 0%.0'),*.0
%B6%$,%.(%5'01(+ '0 K +%)+%$)+%6'),%.)'0;
018 0)+% $%(18 4%.) *$ 0,)),.-'6*0)1$% *$
 0*.'*.% *$ *)+%$ 0,5% '),-1% -%.%$'//2
,.($%'0%0)+% 6',.' 10(1/'$ &&%(),*.0'(*.;
.%()%5 3,)+')+% (+%0)'$% .*) .%(%00 $,/2 '(;
(*86'.,%5 3,)+''.2'*)+%$ /*('/ 0286)*8 0H
'.5 6+20,('/ %B 8,.'),*.' $%7%'/0 .*)+,.-'
%B(%6))+') 6%$+'60)+% '() *& 4$%')+,.-',0
7*/1.)'$,/2 $%0)$',.%5'*.''((*1.)'*&')+% 6',.'
)+10',.51(%5 ALR +% 8 10(/%0 *&)+% (+%0)
8 2'4% '&&%()%5'*.')+%*.%'+'.5'3,)+'06'08'
$ ($' 8 6H.')+%*)+%$'3,)+'6'$'/20,0' +%
&*$ 8 %$',0' '))%.5%5 3,)+ 8 *$*'/%00 6',.'
101''//2'/*('/,0%5 3+,(+ 8 '2 4% 7%$2 0%7%$%H
)+%/')) %$',0',.5,(')%5 42'/*00 *& 6*3%$',.')+%
8 10(/%0',.7*/7%5' +%0% 5,0*$5%$0-%.%$'//2
5%6%.5'*.'0*8 %/%0,*.'*&')+% (%.)$'/'.%$7*10
020)% 8 ' 41)' 8 '2' $%01/)' &,$*8'/*('/ .%$7%'
d0%'0%' 10(1/'$ ($' 86' 8 '2''$,0%' &$*8'''
0155%.')3,0)'*&')+% 4*52''.5',)' ,0' 101''//2
0166*0%5')*'4%')+%('10%*&')+% 00),)(+'ξ,.')+%
0,5% 4$*1-+)*.'42'$1.,.,-'41)')+,0',0'5*14);
&1/' .'(0%0*&'+%8,6/%-,''&$*8' %$%4$'/.,,0'
(+,%&')+% 8 10(/%0*&')+%)+*$'B*.')+%'&&%()%5
0,5% '$% *&)%.')%8 6*$'$,/2 3%'9%.%5'41)'
)+%2'101''//2'0140%E1%.)/2'0**.'$%-'.')+%,$
6*3%$' +%.')+% 166%$ 6')$'*&')+% 06,.'/
(*$5',0',.>1$%5'*$ 5,0%'0%5''('(%$)',.'6*.,)'
 ')+% 8 10(/%0*&')+% (+%0)'4%(*8%'6'$'/20%5'
3+,(+',0''7%$2'0%$,*10 8'))%$'*'0'$%06,$',*.'
'.5')+%''()0'(*..%()%5')+%$%3,)+'('..*)' 4%'
('$$,%5'*.'%B(%6)'42')+%'5,'6+$'-8''.5'(*.;
0%E1%.)/2')+/**5',0' ,8 6%$&%()/2''%$')%5'
0%($%),*.0''((181/')%',.')+% /1.-0'$%06,$';
)*$2'6'$'/20,0'&*//*30''.5')+%'6'),%.)'5,%0
&'6.%'' A(R)$*6+2'*$'5%-%.%$'),*.'8'2'
,.7*/7% 8*$%*$/% 0'*&')+%)+*$'(,('8 10(/%0'
.'(' 0%0'*&'61/8*.'$2'6+)+,0,0'%,)+%$')+%'
3+*/%'*&)+%0% 8 10(/%0'*$ (%$)','.'*&')+% 8''$%
.*)'1.(*8 8*./2'3'0)%5'*1)'*&'6$*6*$),*.')*'
)+%'-%.%$'/'%&.'(,'),*.' +%2' 8'2''/0*' 4%
,8 6 %')%5',.'6$*-$%00,7% 8 10(1/'$'')$*6+2H
'.5'*(('0,*.'//2''0,.-/%' 8 10(/%'1.5%$-*%0'
8'$9%5'3'0),.-' +%' W3$,)%$ +'0'0%%.'''
0)$,9,.-'%B'86/%'*&')+,0'/*('/ ')$*6+2',.'
(*..%B,*.'K3,)+')+%'6%*)*$'/,0'8'>*$'41)')+%'
0%$$')10'8'-.$$0'*$'*)+%$' 8 10(/%0'8'2'4%
,8 6/,('0%5' +%'3'0),.-',0'6$*4'4/2',.'8*0)'
('0%0'51%')*' 5,0%'0%*&')+%'.%$7%0'0166/2,.-'
)+%'&&%()%5'8 10(/%0')',0'E1,)%'%7,5%.)'*.'
%B'8,.'),*.''.5')+%'8*7%8%.)0' +,(+'$%
101''//2'6%$&*$8%5'42')+%',.7*/7%5'0)$1()1$%0
('.*)'4%'%B%(1)%5'6$*6%$/2' .')+%
*)+%$'+'.5')+%'(+%0) 8 10(/%0'8'2'4%(*8%
+26%$)$*6+,%5' +,0'8'2'4%''.')1$'/'$%'
0)'*&')+/%),('%B%$(,0%0''.5')$',.,.-H'*$
,)'8'2'*((1$',.'(*.0%E1%.(%'*&')+%,$'4%,.-

('//%5'16*.'%,)+%$'+'4,)1'//2'*$')',.)%$7'/0'
)*''()'%B(%00,7%/2''0',.'('0%0'*&'%8 6+20%8'
$'0)+8' .'%B(%6),.'/,.0)'.(%0')+%'(*.;
5,),*.'9.*36'0'60%15* +26%$)$*6+,(' 8 10;
(1/'$ 6'$'/20,0'+'0'%B)%.5%5'16')*')+%'(+%0)'
  +%')+*$'(,(' 8 10(/%0'.*)'1.(*8 8*./2'
6$%0%.)'8'$9%5',$$,)'4,/,)2'1.5%$'6%$(100,*.'
*$'&,.(),*.' +,0'+'0'4%%.'$%-'$5%5'0'.'
,86*$)'.)'0,-.'*&'6+)+,0,0H 41)')+%'3$,)%$'
+'0'*&)%.'&*1.5',)'%E1'//2',&'.*)'8*$%'%7,'
5%.)',.'('0%0'3+%$%')+%/1.-0'3%$%'6%$&%()/2'
+%'/)+2'A R'0')+%$%01/)'6&',.>1$2''.5*)+%$'
('10%0'0*8%'6*$),*.'*&')+%'8 10(1/'$'0)$1(;
)1$%0'*&')+%'(+%0)'8'2'4%'/'(%$')%5'$16)1$%5'
$'6%$&$')%5'%,)+%$'/*.%'*$'/*.-'3,)+')+%$'
0)$1()1$%0'b +,0'(*.5,),*.'3,'4%'&1$)+%$'
'//15%5')*'6$%0%.)/2 K
 "' %$7*10'&,&%(),*.0 G ' %1$'/-,''
,0'7%$2'(*886.',.'5,&&%$%.)'6'$)0'*&')+%'
(+%0)'%06%(,'//2',.')+%0,5%''.5'6'$),(1/'$/2'
)+%'/%&)'0,5%G&1)%$(*0)')' O ' +%'
6',.',0'/*('/,0%5'4%,.-'101''//2'$%&%$%5')*''
6*,.)'3+%$%''4$'.(+'*&.%$7%'4%(*8%0'016%$;
&,(,'/')',0'8*$%'*$'/%00'(*.0)'.)',.'0*8%
'0%0'4%,.-'')),8%0'7%$2'0%7%$%')'&)%.'
6$%(%5%0'*$&*//*30''.%$16),*.''*&'+%$6%0')'
8'2'4%',.(%'0%5'42'5%%6'4$%')+),.-'*$('*1-+;
,.-'41)',0'.*)''0''1$/%'0*'8 1(+'%&&%()%5'42'
)+%0%''.5'0,8,/'$''(),*.0''0''%*)+%$'6',.&1/
(+%0)'&&%(),.0' +**),.-''.5'5'$),.-'0%.0';
),*.0'*&)%.'$'5,')%&,$*8')+%'6$,.(,6'/6*,.)2'
'.5' %$)',.'(G 8'2'4%$%(*-.,0%5'AO%%/ / >
; %5 $ 3' HR3 .)%$(*0)'/'.%1$,)0',0'*(;
('0,*.'//2' 8%)'3,)+''.5')+,0''&&%(),*.',0'
'))%.5%5'3,)+'-$%')'6',.'/'*('/,0%5''.5'$'5,');
,.-'3,)+'81(+')%.5%$.%00')+%01&&%$,.-'4%,.-'
'--$'7')%5'42'3+')%7%$'('10%0''.2'/*('/5,0'
)84'.(%')',0'6$*4'4/%)+')')+%'0%7%$%'6',.0'
%B6%$,%.(%5',.'0*8%' .0)'.(%0' +%$%')+%'
(*86/',.)',0'0166*0%5')*'4%'8 10(1/'$''$%'
51%')*'4$'.(+%0'*&'.%,$7%'4%,.-',.&/'8%5'
 %7%$%'6',.'*&)%.'6$%(%5%0'*$&*//*30'+%$6%0'
*0)%$''.5')+,0'6$*4'4/2'5%6%.50'16*.''()1'/
.%$7%(+'.-%0')'8'2''/0*'4%'&.%.),*.%5'
+%$%')+')'6',.0' '$*1.5')+% 0,5%0'8'2'4%'
'00*(,')%5'3,)+'5,0%'0%'*&')+%'06,.'%'$'*&'
)+%'06,.'/'(*$5'A(R *8%',.5,7,51'/0'%0'
6%(,'/,2'&%8'/%0'%B+,4,)'''$%8'$9'4/%'016%$;
&,(,'/')%.5%$.%00'*$ +26%$0%0)+%0,''*7%$')+*'
)+*'B'*$',.'6')$0'*&')+,0'$%-,*.'%06%(,'//2'
)+%'.)%$,*$'.5'166%$'6*$),*.0' +%0/,-+)%0)'
)*1(+',0'$%0%.)%5''.5')+% 8*0)'5%+(')%'6%$;
(100,*.'('..*)'4%'4*$.%' +,0'(*.5,),*.'
8'2'%B,0)'3,)+*1)''.2''()1'/5,0%'0%'*$',)'
,0'0*8%),8%0'*40%$7%5',.'6+)+,0,('/'('0%0'
, %.0'),*.'8'2'4%'8*$%'*$'/%00',86',$%5'
7%$')+%'(+%0)''*$,./,8,)%5'6$),*.0'%,)+%$',.'
(*..%B,*.'3,)+'(%.)$'/'*$/*('/.%$7*10 5,0;
%'0%''*$',.'+20)%$,('/''.5'.%1$*),('6%$0*.0'
 '$,*10'6'$0%0)+%0,0%'$%''/0*'&$%E1%.)/2'$%;
&%$%5')*')+,0'$%-,*.'42')/'(//00'*&',.5,7,51'/0'
>10)'8%.),*)*%5
  ' ,0%'0%0'*&')+%' *.%0'*$' '$),'
/'-%0 = +%'8*$4,5'(*.5,),*.0'3+,(+'.,'2'
4%'$%&%$%5')*')+%'4*.2''.5'('$)),/'-,.*10

&$' 8%3*$9 *&')+%')+*$'B ' $%' '0 &*//*30 ' +%(+%0) 3'//0 '$%' *&)%.'1.51/2'$,-,5' '.5' &,. . ' *3,. -')*' '.' %B(%00,7%' 5%6*0,)' *&' (' /; ('$%*10 8')))%$',.')+%' 0)%$.18' '.5'$,40'3,)+' *00,&,(',*.' *$ 6%)$,&'(),*.' *&')+%' ('$),/'-%0' +,0 ,0 '' .*$8 /' (*.5,),*.' ,.' */5' 6%*6/%' 4%,.-' *.%' *&')+%' 5%-%.%$'),7%' (+'.-%0)*' 3+,(+')+%2' '$%'+'4/%' 41}' ,)' '/0*' *((1$0 .*)' $8(*88*./2',.' 2*1.-%$' ,.5,7,51'/0' '0)+%' $%01/)' *&' +'$5' 3*$9' *$ %B(%00,7%' ')+/%),('%B%$(,0%0' *$,.' (*.%B,*.' 3,)+' (%$)','61/;8*.'$2' 5,0%'0%$' +,0 0)'%' *&' $,-.5,)2',.;)%$&%$%0 8*$%' *$ /%00 3,)+')+%' $%06,$')*$2' 8*7%8%.)0' '.5' .*)' ,.&$%E1%.)/2' ('10%0 0%$,*10 %84'$$'008%.)' ALR .')+%' *)+%$' +'.5')+%' $,40 '.5'('$),/'-%0 8'2 4%'5%&,(,%.)' ,.' &,$8.%00' '.5' (*.0%E1%.)/2')**' 2,%/5,.-' '.5'%/'0),(' +,0 ,0*40%$7%5' ,.' (+,/^%.' '.5' 2*,8-' 6%$0*.0 3+*' '$%' ,// .*1$,0+%5' 41}' %06%(,'//2' ,.' (*..%B,*.' 3,)+' $,(%9)0' '.5' ,)' 4%(*8%0 '' (*.5,),*.' *&' -$%')' 8*8%.)' 3+%.' '.2' 5,0%'0%$ 0%)0' ,.' 3+,(+' (*10%0' *40)$1()/%5' '(*.5,),*.' *&' -$%')' 8*8%.)' 3+%.')*')+%'%.)$'.(%' *&' ,$',.)*')+%' /1.-0'01(+' '0 4$*.(+,),0' +%' (+%0) 3'//0' '$%')+%.' /,'4/%')*' &'// ,.' 8*$%' *$ /%00' 51$,.-')+%' '()' *& ,.06,$'),*.' '.5' 8'2' 4%(*8%' 6%$8'.%.)/2' 5%&*$8%5' 06,-%*. 4$%'0)<ƒ 0$),(9%)2 ' .5')+%$' 4.*$8'ƒ &*$8 0' 4%,..-')+10' *$,-,.')%5' , ' ' %&*$8,),%0' *&R ' (1)%' *$ (+$*.,(' 6%$,*0),),0' *$' 6%$,(+*.5$,),0',0' 0*8%;),8%0' *40%$7%5' ,.' (*..%B,*.' $%06%(),7%/2' 3,)+')+%' 0)%$.18' *$' $,40' *&' 3,)+')+%' ('$;),/'-%0' +%' (1)%' '&&%(),*.' -,7%0' $,0%')*' /,8,)%5'6',.' '.5')%.5%$.%00' 3+,(+' 8'2' 4%' '((*86'.,%5' 3,)+' 016%$&,(,'/ $%5. 00' '.5' 03%//,.-' '.5' 8'2' 0,81/')%' 0*8%' 8*$%0%$,;*10 5,0%'0%' +%' (+$*.,(' (*86/',.)' 101'//2' '0018%0')+%' &*$8'*&' '.*5%'4%,.-')+%' $%01/)' *&' 026+,/,0' +%' 3$,)%$'+'0' *((',0,*.'//2' *4; 0%$7%5' '08'//03% ,.-'')')+%'>1.(),*.'*&'*.%' *&')+%' $,40' 3,)+',)0' ('$),/'-%'6',./%00' 1.; '((*86'.,%5'3,)+' $%5.%00' 41}' 3,)+' &/1()1',);),*.' A5R +%'4*.2'.5'('$),/'-,.*10' 0)$1(;)1$%0')+%80%/7%0' 8'2' 4%')+%' 0%')' *&' 5,0%'0%' ,.'0*8%'6'$)' *&')+%' (+%0)''.5' +%$%' 810)' 4%' ,.(/15%5')+%' 6*$),*.' *&')+%' 06,.'/ (*/18.' 3+,(+'/,8,)0')+,0' $%-,*.' 6*0)%$,*$/2' +10')+%$%' 8'2' 4%' '(1)%' ,.&/'88'),*.' ('$,%0' .%($*0,0' *$' 0*(' %5' 0($*&1/*10' 5,0%'0%' 8*.-')+%' 8*$%' ,86*$)'.)' ('10%0' 3+,(+' 8'2' *$,-,.')%')+%00%' (*.5,),*.0' '$%' ,.>1$2' 026+,/,0' 0($*&1/'' %862%8'' *6%.,.-'*&' .' %862%8'' ,.)*')+%'),001%0H)*' 01661$'),*.' %B)%.5,.-' '.5' 41$$*3,.-' &$*8')+%' 'B,//'' *$' *)+%$ 6')0H *$')*'620%8,'' &'5%%6 0%')%5''.'4; 0(%00' 8'2' 4%'5,&&,(1/)'*'5%)%()'3,)+'(%$),.)2' 41)' 101''//2')+%' 0,-.0' *&')+,0' (*.5,),*.' 4%; (*8%'01&&,(,%.)/2'*47,*10' ,.10%0'*$&,0)1/['8'2'4%'/%&)' '0'' (*.0%E1%.(%'*&'01661$'),*.',.')+%' (+%0) 3'//'%06%(,''//2'3+%.'610'8'9%0',)0'3'2'*1)3'$50'&$*8'3,)+,. L' ' '.5' %) '2) M' +%0%' 8*$4,5' (*.5,),*.0' /0*' 5%8'.5'4$,%&.*),(%' +%2'8'2'4%'(*..%()%5'3,)+''.2'*&)+%')0)$1()1$%0'*&')+%' (+%0) 3'//0' '.5' '$%'*& 7'$,*10'9,.50H'8*.-')+*0%'3+,(+'+'7%'(*8% 1.5%$')+%'3$,)%$0'.*),(%'8'2'4%'8%.),*.%5' $.*//.0(18' &'))2'-$*3)+0'(20),(')18*1$0' %./'$-%5'0%4'(%*10'-/'.50''.5',.&/)$')%5' ('$(,.*8'' 18*1$0'8'2'8'9%')+%,$'3'2' ,.3'$50'&$*8')+%' (+%0) 3'//0'%.*$*'(+,.-' 6*.')+%' ('7,)2'*&')+%')+*$'BH *$'*.')+% *)+%$'+'.5')+%' 3'//0'8'2'4%',.7*/7%5'42' -$*3)+0'%B)%.5,.-'&$*8' 3,)+,.' .%%5' 0('$(%/2' 4%' 8%.),*.%5')+')' 8'88'$2')18*1$0'(*.0),)1)%''5,0),.()''.5'42'&'$')+% 8*0)' ,86*$)'.)' -$*16' '00*(,')%5'3,)+')+% 0)$*()1$%0'(*7%$,.-')+%' (+%0)' 1 ' # ' ,0%'0%0'*& M' %$&*$',*.0' '.5'U16)1$%0 G +% 810(1/'$0)$1()1$%0'*&')+%')+*$'(,('3'//'8'2' 8H 8*$%' *$' /%00' 5%0)$*2%5',.' 0*8%' 6'$)' %,)+%$'42'0155%.'$16)1$%' *$'-$'51'//2''//*3;,.-''+%$..,'/6$*)$10,*.' *&')+%'+8-')*')'9%' 6/'(%4%)3%%.')+%' $,40' 0'/$%'52'.*),(%5' %862%8'' 8'2' 8'9%',)0' 3'2' %B)%$.'//2')+$*1-+')+%' (+%0) 3'//' .%1$2080' '.5')18*1$0'%B)%.5,.-'*1)3'$50'&$*8',)+,.')+%)+*'B' &$%E1%.)/2'('10%'0%$,*10'5%0)$1(),*.' *&')+%' ,001%0',.(/15,.-')+%'4*.2''.5'('$), /'-,.*10''0'3%//'0')+%'0*&)'0)$1()1$%0' +,0' 5%0)$1(),7%' 6$*(%00',0' *&)%.'))%.5%5' 3,)+' 0%7%$%' 6',.''.5'01&&%$,.-''.5'/%'50')*'-$'7% 8,0(+,%&' *.-%.,)'/ (/%&)0' *$' 8*$%' %B)%.; 0,7%' 5%&,(,%.(,%0' '$%' 0*8%),8%0' 8%)' 3,)+',.')+%' 0)%$.18' *$' *)+%$' 6')0' *&')+%')+*$'(,(' 3'//0 9' '$,'),*.0' ,.' *$8' '.5' ,C% G +%(+%0)'*&)%.'6$%0%.)0'5%7,'),*.0'&$*8')+% .*$8'/ 0+'6%' '.5' 0,C%' '.5')+%0%' '$% 0* ,86*$)'.)' +')')+%2' 5%8'.5' %6'$')%' (*.; 0,5%$'),*.' ' ' %&*$8,),%0' *& ! '' .' 8'.2' ('0%0' 3+%$%')+% (+%0) 3'//0' '$%',.'' 8*$4,5'0)'%')+%2'%,)+%$ 5*' .*)' .%%5' '.2' 06%(,'/)$%')8%.)' *$' .*)$%')8%.)' ('.' 4%' *&' '.2' '7',/' +%' (+,%& (,$(180)'.(%0'1.5%$' 3+,(+')+%' 6$'(),),*.%$ 8'2' 4%' ('//%5' 16*.' *' ,.)%$&%$' '.5')+% 8%'01$%0')*' 4%' 5*6)%5' 8' 2'4%' 4$,%&/2',.; 5,(')%5' '0'&*//*30 G A*0R ',.&1/' '&&%(),*.0' *&')+%' (+%0) 3'//0' 5%6%.5,.-'16*.' *.5,),*.0' *&')+%' 810(/%0'*$.%$7%0'&$%E1%.)/2'5%8'.5'/*('/'66/,(',*.0

$)/>3' $%/,%&' +10' ,.' 5,&&%$%.)' ('0%0',)' 8'2'4%'$%E1,0,)%')' %8 6/*2'+*)'&*8%.)'),*.0'5$2'+%')'*$ (*/5' '66/,(',*.0',.')+%' &*$8' *&' 3%)'$'I0'&$%E1%.)/2' (+'.-%5',(%'*$'%7'6*$');,.-'/*),*.0H *$')*' 10%' '.*52.%' '66/,(',*.0'*&'7'$,*10'9,.50'01(+' '0' 4%//'5*..'' 6/'0)%$'*$/,..8%.)'*6,1 8'6/'0)%$'*$'/,..8%.)'*/%')%'*& 8*$6+,.%'),.()1$%' *$'/,..8%.)'*&' (*.,)%' *$' *,.)8%.)' *&' (*.,),.%' *$' *)1$6%.),.%' *$',// 5%&,.%5' 8 10(1/'$'6',.0'*1)')+%' (+%0)'3+,(+' $%' &$%E1%.)/2' (*8;6/',.%5' *&' &$%%' 5*1(+,.-' 3,)+' (*/5' 3')%$'%7%$2' 8*$.,.-' &*//*3%5' 42' &$,(),*.' 3,)+' '$*1-+')*3%/',0'*&)%.'4,-+/>&'%%&,('(,*10' +%.'6',.',0'/*('/,0%5''.5'*40),.')%' 8 1(+'4%.%&,)'8 '2',.'8'.2'('0%0'4%'5%$,7%5'&$*8')+%''66/,;('),*.'*&' '' 0,.'6,0 8'8 10)'$5 /%'&'*$%'7%.'' 08 '/'4+0)%$' .'*)+%$',.0)'.(%0')+%$',+0' 10%'*&')+%'%)+%$ 06$'2',0'0%$7,(%'4/%'$%6%')%5' 8*$%'*$'/%00'&$%E1%.)/2H *$'0*8%),8%0' 8 1(+'$%/,%&' 8'2'+%'*4)',.%5'&$*8'*'66/2,.-'*7%$' '' 6',.;&1/'06)'' 8,.B)1$%'*&'%E1'/'6')$0'*&'(+/*$*;&*$8'.5'4%//'5*..'' /,.,8%.)' H '/7'.,08',0'.*)+%$'-%.)'3+,(+'8'2'4%'*&')+%'-$%')%0)'0%$7,(%',.'$%/,%7,..'6',.&)5'0%.0'),*.0'*1)'+%'(+%0)'3+%)+%$'(*..%()%5'3,)+')+%'8 10(/%0'*$'.%$'1(%00,7%'($*60'' $%5'06*)0'3+,(+','.)+%'(*1$0%'*&''4*1)'' 3%%9'6'00')+$*1-+')+%'0)'-%0'*&'6,8 6/%'7%0,(/%'.5'0('4,.&%),*1 0'.*28'.)',0'(%$)',.')+')',)''$,0%0'&$*8'(*.)'-,*..'.5')+')'(+,/5+**5',0',)0'6$%5,0;6*0,.-'('10%')'*((1$0',.'(+,/5$%.')+%'4$%'0)'.5',0'0%.'3,)+',.(,$%'0%5'&$%E1%.(2'16')*')+%'&*1$)+'2%'$'')'3+,(+'6%$,*5',)';).',.0',)0'8'B,8 1 8'')',0'/%00'*&)%.'&*1.5'4%)3%%.'&*1$'.5')3%/7%'.'.5''&)%$')3%/7%',)'8'2'+*'0',5')*'5,0'66%'$'/)+*1-+',)',0'*((0,*.'//2'0%%.',.'51/)0

!(! G +%',//.%00'(*8 8%.(%0'3,)+'*1)'.2'*$'3,)+'41)'0+-+)/2 8'$9%5'6$%;8*.,)*$2'0>1.6)*80' +%$%',0'101'//2'0*8%&%%/,.-'*&'/'00,)15%'.5')+%'6'),%.)'-*%0')*'W4%5'%'$/,%$')+'.'101'/' ,)+,.''&%3'+*1$0'.'%$16),*.'.'66%'$0'-%.%$'//2'*.'0*8%'6'$)'*&K)+%'4'(9'*$'(+%0)'41)'+%$%'$%'8'.2'%B(%6;),*.0')*')+,0'$1/%')'8'2'(*8 8%.(%'*.')+%&'(%'.%(9'(+%0)'*45*8%8'*$'%B)$%8,),%0'*$16*.'0%7%$'/'*&')+%0%'6'$0')')+%'0'8%),8%'+%%$16),*.'(*.0,0)0'*&'08'//'&',.)/2'6'61/'$*0% 06*)0'7'$2,.-',.'.18 4%$'&$*8')3%.)2')*'*.%'*$')3*'+1.5$%5' +%0%',.')+%'(*1$0%'*&'%,-+)')3%/7%'*$'')')+%'8*0)')3%.)2&*1$'+*1$0'&$*8')+%,$'66%'$'.(%'(+'.-%',.)*I

$)/>3' $%/,%&' +10' ,.' 5,&&%$%.)' ('0%0',)' 8'2'4%'$%E1,0,)%')' %8 6/*2'+*)'&*8%.)'),*.0'5$2'+%')'*$ (*/5' '66/,(',*.0',.')+%' &*$8' *&' 3%)'$'I0'&$%E1%.)/2' (+'.-%5',(%'*$'%7'6*$');,.-'/*),*.0H *$')*' 10%' '.*52.%' '66/,(',*.0'*&'7'$,*10'9,.50'01(+' '0' 4%//'5*..'' 6/'0)%$'*$/,..8%.)'*6,1 8'6/'0)%$'*$'/,..8%.)'*/%')%'*& 8*$6+,.%'),.()1$%' *$'/,..8%.)'*&' (*.,)%' *$' *,.)8%.)' *&' (*.,),.%' *$' *)1$6%.),.%' *$',// 5%&,.%5' 8 10(1/'$'6',.0'*1)')+%' (+%0)'3+,(+' $%' &$%E1%.)/2' (*8;6/',.%5' *&' &$%%' 5*1(+,.-' 3,)+' (*/5' 3')%$'%7%$2' 8*$.,.-' &*//*3%5' 42' &$,(),*.' 3,)+' '$*1-+')*3%/',0'*&)%.'4,-+/>&'%%&,('(,*10' +%.'6',.',0'/*('/,0%5''.5'*40),.')%' 8 1(+'4%.%&,)'8 '2',.'8'.2'('0%0'4%'5%$,7%5'&$*8')+%''66/,;('),*.'*&' '' 0,.'6,0 8'8 10)'$5 /%'&'*$%'7%.'' 08 '/'4+0)%$' .'*)+%$',.0)'.(%0')+%'10%'*&')+%'%)+%$ 06$'2',0'0%$7,(%'4/%'$%6%')%5' 8*$%'*$'/%00'&$%E1%.)/2H *$'0*8%),8%0' 8 1(+'$%/,%&' 8'2'+%'*4)',.%5'&$*8'*'66/2,.-'*7%$' '' 6',.;&1/'06)'' 8,.B)1$%'*&'%E1'/'6')$0'*&'(+/*$*;&*$8'.5'4%//'5*..'' /,.,8%.)' H '/7'.,08',0'.*)+%$'-%.)'3+,(+'8'2'4%'*&')+%'-$%')%0)'0%$7,(%',.'$%/,%7,..'6',.&)5'0%.0'),*.0'*1)'+%'(+%0)'3+%)+%$'(*..%()%5'3,)+')+%'8 10(/%0'*$'.%$'1(%00,7%'($*60'' $%5'06*)0'3+,(+','.)+%'(*1$0%'*&''4*1)'' 3%%9'6'00')+$*1-+')+%'0)'-%0'*&'6,8 6/%'7%0,(/%'.5'0('4,.&%),*1 0'.*28'.)',0'(%$)',.')+')',)''$,0%0'&$*8'(*.)'-,*..'.5')+')'(+,/5+**5',0',)0'6$%5,0;6*0,.-'('10%')'*((1$0',.'(+,/5$%.')+%'4$%'0)'.5',0'0%.'3,)+',.(,$%'0%5'&$%E1%.(2'16')*')+%'&*1$)+'2%'$'')'3+,(+'6%$,*5',)';).',.0',)0'8'B,8 1 8'')',0'/%00'*&)%.'&*1.5'4%)3%%.'&*1$'.5')3%/7%'.'.5''&)%$')3%/7%',)'8'2'+*'0',5')*'5,0'66%'$'/)+*1-+',)',0'*((0,*.'//2'0%%.',.'51/)0

!(! G +%',//.%00'(*8 8%.(%0'3,)+'*1)'.2'*$'3,)+'41)'0+-+)/2 8'$9%5'6$%;8*.,)*$2'0>1.6)*80' +%$%',0'101'//2'0*8%&%%/,.-'*&'/'00,)15%'.5')+%'6'),%.)'-*%0')*'W4%5'%'$/,%$')+'.'101'/' ,)+,.''&%3'+*1$0'.'%$16),*.'.'66%'$0'-%.%$'//2'*.'0*8%'6'$)'*&K)+%'4'(9'*$'(+%0)'41)'+%$%'$%'8'.2'%B(%6;),*.0')*')+,0'$1/%')'8'2'(*8 8%.(%'*.')+%&'(%'.%(9'(+%0)'*45*8%8'*$'%B)$%8,),%0'*$16*.'0%7%$'/'*&')+%0%'6'$0')')+%'0'8%),8%'+%%$16),*.'(*.0,0)0'*&'08'//'&',.)/2'6'61/'$*0% 06*)0'7'$2,.-',.'.18 4%$'&$*8')3%.)2')*'*.%'*$')3*'+1.5$%5' +%0%',.')+%'(*1$0%'*&'%,-+)')3%/7%'*$'')')+%'8*0)')3%.)2&*1$'+*1$0'&$*8')+%,$'66%'$'.(%'(+'.-%',.)*I

7%0,(/%0' 3+,(+' ')' &,$0)' 0 8 '//' ,.' 0,C%' .'5' (/%'$' '0')*')+%,$' (*.)%.)0' 4%(*8%' E1,(9/2' 0 ' -/*41/'$' *$' 0%8, *7*,5' ,.' &*$8'H)$'.0/1(%.)' -/,0)%.,.-' .'5' *6'/%0(%.)' ,.' '66%'$'.(%H' .'5' 01$$*1.5%5' 3,)+' '' &',.)' '$%*/' ' *3'$50')+%'%.5' &')+%' 0%(*.5'5'2' *&',//.%00')+%' 7%0,(/%0' '))',.' (*86/%)%' 5%; 7%/*68%.)' '.'5' '4*1)')+,0'),8%' '' &%3' 8 '2' 4%' 0%%.' *.')+%' 0,5%0' *&')+%')*.-1%' *.')+%' +60' (+%%9' *$' 6'/')%' '.5' 0*8%),8%0' 16*.')+%' 81(*10' 8%84$'.%' *&')+%' -%.,)'/0' 4*1)')+%'),$5' 5'2' '' &%3' *&')+%' 7%0,(/%0' 8 '2'+'7%' '610)1/'$' '66%'$'.(%' '.5' 0*8%;),8%0' '' &%3'610)1/%0' '$%' 0%%.H41)'$%-'$5,.')+%' %$16),*.' '0' '' 3+*/%' 610)1/'),*.' &*$80' '.',.(,5%.)' $')+%$')+'.' '.' %00%.),'/&%')1$%' ,.' ,)0' 6$*-$%00' .')+%' &*1$)+' 5'2')+%' 7%0,(/%0' 4%-,.')*' 5$2' 16' '.5' 42')+%' 0,B)+' (*86/%)%' 0('40' '$%' &*$8%5' +%0%' &'//' *&&',.' '' &%3'5'20'/%'7,.-',.')+%,$'6/'(%'&',.)/2' $%5' 06*)0' '.5' 0*8%),8%0' '' &%!'6,)0' ,.-/%'($*6'*&'%$16),*.' 8 '2'4%' 0',5')*' (*8; 6/%)%',)0%/&',.' &,7%' *$' 0,B' 5'20H '.5' 0')3*' *$')+$%%'($*60' '66%'$' .' '0' 8 '.2'01((%00,7%' 5'20')+%',//.%0' 3,/' /'0)'$')+%$' 8*$%')+'.' ' 3%%9' .')+%'%7%.)'+*3%7%$'*&')+%$%'4%,.-' &*1$' *$' &,7%' ($*60',)' 8 '2'4%' 6$*/*.-%5' &*$' .*)+%$' 3%%9'41)',0',0'1.101'/' ,)+')+%' '66%'$'.(%'*&')+%' %$16),*.')+%')%86%$')1$%' $,0%0')3*')+$%%' *$' %7%.' 8*$%' 5%-$%%0'' .5')+,0'$,0%' $%(1$0'3,)+' %'(+' 01((%00,7%'($*6'*&' 06*)0' +%' 61/0%',0'0*8%),8%0'0+-+)/2',+' ($%'0%5',.' &$%E1%.(2H')+%')*.-1%',0'8*,0)' .5'0*8%),8%0'(*7%$%5'),)+' '&,-+)'&1$' 0' '$1/%'+*3%7%$')+%$%',0'41)'/,))/%'(*.0),)1;),*.'/'5,0)1$4'.(%''/)+*1-+',)',0'*((0,*.''//2' 0%7%$%

*,, G +,(9%.6*B',0'51%')*')+%' %%%6),*.'*&''06%(,&,(' 6*,0*.'3+,(+''&)%$'.' ,.(14'),*.'*&''4*1)')+,$)%%.'5'20'0+*30',); 0%/&'42'.'%$16),*.'16*.')+%'09,.' +')')+,0' 6*,0*.',0'+*3',)'%.)%$0')+%' 4*52'.'5'3+')' ,&'.2'(+'.-%0',)'6$*51(%0'16*.')+%',1)%$.'/' *$-'.0')+%'6$%0%.)'0)')%'*&'*1$9.*3/%5-%' 5*%0'.*)'%.'4/%'10')*'0'2')' '&&%()0')+%' 0'8%'..5,7,51'/'*.(%'*./2'.'5',)',0'6%$; &%()/2'5,0),.()'&$*8'8*5,&,%5'08'// 6*B''0')+%'&*//*3'.-'(*.0,5%$'),*.0'3,//'0+*3' G ' +,(9%.6*B,0'(+'$'()%$,0%5'# # 3,)+' 3+,(+',)'$1.0')+$*1-+',)0'0)'-%0H 8*5,&,%5' 08'// 6*B'*.')+%' (*.)$'$2'.0' W(+'$'()%$,0%5'42'.',.)%$$16),*.',.')+%' (*1$0%'*&')+%'5,0%'0%'')'*.%'*$*)+%$'*&')+$%%'6*,.)0G)+%'6'61/'$')+%'7%0,(1/'$'*$')+%'610)1/'$'@' +%'K(+,(9%.6*B'%$16),*.' '))',.0'(*86/%)%'5%7%/*68%.)'42')+%'%.5'*&')+%')+,$5'5'2H',.'8*5,&,%5'08' 6*B'0+*1/5')+%'%16),*.'')',.'(*86/%)%' 5%7%/*68%.)')+,0'3,/'.*)'*((1$'4%&*$%')+%'.,.)+'5'2' +*3%7%$'81(+')+%'5,0%'0%'8'2'4%'8*5,&,%5 "' .'8*5,&,%5'08' 6*B')+%'6$%8*.,)*$2' 0286)*8 0'$%'101'//2'3%// 8'$9%5'*&)%.'E1,)%' '0'0%7%$%'0',.')+%'.')1$'/'5,0%'0%'.'5')+%0%' /'0)'&*$)2%,-+)'+*)10''&)%$'3+,(+')+%$%',0'.' %$16),*.'*&'08'//'+'$5'6'61/%0'*.')+%'&*$%; +%'5'&'(%''.5'3$,0)0'&*//*3%5'42''' ' *&)%86%$')1$%' .' (+,(9%.6*B')+%'6$%8*8')*$,%0' '$%' 8*0)'*&)%.'3'.),.-''.5'3+%.' 6$%0%.)'$%0/,-+)/2'8'$9%5''.5')+%'%$16),*.' ,0'&*//*3%5'42''' ',.')+%')%86%$')1$%' '66%'$0'8*$%*7%$'16*.'.'2'6'$)'*&')+%'4*52' ,.5,0($,8,.')%/2''.5'/%00'&$%E1%.)/2'*.')+%' &'(%')+'.'*.')+%$'6')0H''.5'3,)+,.''&%3' +*1$0G')')+%'8*0)'3,))..')2&*1$G,)' +'0'4%(*8%'7%0,(1/'$H'3+%$%'0',.'8*5,&,%5' 08'// 6*B')+%'7%0,(1/'$'0)'-%',0'*./2'$%'(+%5' &*$)2%,-+)'+*1$0''&)%$')+%''66%'$'.(%'*& %$16),*.''0'+%'7%0,(&*0'*&'(+,(9%.6*B''$% -/*41/'$'*$*7*.5,.'&*$8'3,)+*1)'.2'(%.)$'/ 5%6$%00,*.H-/,0)%.,.-'*$')$'.0/1(%.)',.'6; 6%'$'.(%'H'.5'1.,(%//1/'$',.'0)$1()1$%' +%2' (*//'60%'*.'6$,(9,..-H'.5'))',.')+%,$'8'B,; 8 1 8'5%7%/*68%.)',.'&$*.'')3%/7%')*'%,-+)%%.' +*1$0' *5,&,%5''.5' .')1$'/'08=6*B' 7%0,(/%0'$%'&/')'.5'(,$(,*/'$',.'&*$8''/3'20' 5%6$%00%5',.')+%'(%.)$%''.5'0*8%),8%0'18' 4,(')%5'*&'.'*6'E1%'5>$)2'3+,)%'(*/*1$' '.5'81/),(%//1/'$',.'0)$1()1$%' +%2'5*.*)' (*//'60%'*.'6$,(9,..-'.5')')',.')+%,$'8'B,; 8 1 8'5%7%/*68%.)'')',.')+%'%.5'*&')+%')+,$5' 5'2'&$*8')+%,$'*$,-,.' F' 8' 6*B',0''.',.*%1/'4/%''&&%(),*.H(+,(9%.6*B''((*$5,.-')*'$%/,'4/%''1)+*$,)2',0'.*)' L'b +%.'('0%0' '$,0%'3+,(+''' '$%(*-.,0%')*'4%'8*5,&,%5'08'//; 6*B')+%2''$%'/3'20'((*86'.%5'42')+%$0' 3+,(+''$%'8*$%'0%7%$%H''.5',.'%6,5%8,(0')+%0%/'))%$'-$'51' 2'4%(*8%'8*$%'.18%$*10' 16')*''' 6*,.)'*&'8'B,818',.)%.0,)2K3+%.')+%2'5%(/,.%''.5')+%'8*5,&,%5'&*$80'66%'$' .'(+,(9%.6*B')+%$%',0'.*' 01(+'-$'51'/',.; ($%'0%',.')+%',.)%.0,)2'*&', .%00''.5'.%,)+%$' 0%$,*10'.*$'&')'/'('0%0'&*$8'6')'*&',)0' %6,5%8,(0'3+,(+'6$%7',/',.5%6%.5%.)/2'*& 08' 6*B'M' 8' 6*B''.5'7'((.,.'''$%' *&)%.'%'$/2'&*3%5',.')+%'0'8%',.5,7,51'/' 0'2'3,)+,.')3*'*$')+$%%'2%'$0'42'(+,(9%.' 6*B''.5')'9'+,(9%.6*B'7'(; (,.,''.5'08' 6*B'+'7%'4%%.'9.*3.')*' &*'*3',.',8 8%5,')%'01((%00,*.',.')+%'0'8%' ,.5,7,51'/

% ! 'G0 '$,(%//'' '/3'20'$1.0''&'7*1$'4/%(*1$0%')'+'0'.*' 0%E1%/'%

- G=J0+*1/5'+%'+*8%'K,.'8,.5')+')''01$%'5,'-.*0,0'('.*)'4%'8'5%',.'/%00')+'.'&*$)2%,-+)'+*1$0' +%'66%'$'.(%' +*3%7%$'*&''($*6'*&'7%0,(/%0'&* *3%5'*.')+%'.%B)'5'2'42''0%(*.5'($*6'6*,.)0'/*8*0)' (%$)',.(/2')*'(+,(9%.6*B'))%.),*.')*')+,0' '.5')*')+%'6*,.)0'.*)%5' .5%$')+%'+%'5'*&' ')+*/*-2'*1-+)')*'8'9%'')+%'5,'-.*0,0' %'02

; " +,0',0''/3'20'&'7*1$'4/% ! " +%'6')%.)'+0'*1/5'4%(*.; &,.%5')*'+,0'$**8'6%$+'60',.')+%'8*$% 8'$9%5'('0%0')*'+,0'4%5' ,0'&**5'0+*1/5' 4%')+')'3+,(+',0'%'02'*&'5,-%0),*.H''.5' '/)+*1-+'.*'6+20,(,'.'+'0'$%(*$5%5''&')/' ('0%''(+,/5'3+*0%')%86%$')1$%$*0%')*')+$%%' &*1$'*$'0,B'5%-$%%0'4*7%'.*$8'/0+*1/5'4% %B'8,.%5'3,)+'('$%

$,' $$

G‘& ‘ (" +%‘ +,-*% ,0‘ ‘“ 8,.1)%‘ 6‘$‘0,),(‘ ,.0%()‘ (*8 8*.‘ ,.‘ +%‘ %0)‘ .5,%0‘ ‘.5‘ .*$)+%$.‘ 6‘$)0‘ *&‘ *1)+‘ 8%$,(‘ ’)‘,0‘ ‘/0_†6*61/‘$/2‘9.*3.‘ ‘0‘)+%‘O 00 ‘*$‘ " ‘ ’ +*1-+‘&*$8%$/2‘ $%-‘$5%5‘‘0‘ .‘ ‘(‘$10‘ *$‘ 8,)%‘,)‘,0‘ .*3‘ Q-&%.%$‘//2‘$%(*-.,0%5‘‘0‘ ‘)$1%‘&/%‘‘4%/*.-,..‘)*‘)+%‘-%.10‘ 1/%B‘A ‘ " " ‘ 41)‘0%7%$‘/‘ %.)*8*/*-,0)0‘ +‘7%‘ ‘57‘.(%5‘ 0*/,5‘ $%‘0*.0‘ &*$‘ 0%6‘$‘),.-‘,)‘ &$*8‘)+%‘ *$5,.‘$2‘ &/%‘0‘ +10‘ %0)3**5‘)%$80‘,)‘)+%‘ &/%0+ &/%‘ ‘ *$‘ ‘ " ‘ 3+,/0)‘ 1 ,.‘&*. .%5‘)+%‘-%.10‘C # ‘&*$‘,)0‘ $%(%6),*.‘ $‘(),(‘//2‘)+%0%‘ 5,0),.(),*.0‘ ‘$%‘ *&‘ /,))/%‘ 8*8%.) +% +,-*%‘ *$5,.‘$,/2‘ /,7%0‘ ,.‘ 5$2‘ ‘.5‘ 0‘.52‘0,)1‘),*.0‘3+%$%‘,)‘ 8 1/),6/,%0‘)*‘ ‘‘6$*; 5,-,*10‘%B)%.)‘)‘ ‘))‘(90‘+*3%7%$‘)+%‘&%%)‘ Q(+,%&/2‘1.(%8%‘)+‘)+%‘.‘,/0‘‘.5‘4%)3%%.‘)+%‘)*%0Ĥ)+%‘,86$%-.‘)%5‘&%8‘/%0‘41$2,.-‘)+%8; 0%/7%0‘4%.%‘)+‘)+%‘09,.‘ %$%‘)+%‘‘45*8%.‘ Q*&‘)+%‘6‘$‘0,)%‘03%//0‘)*‘)+%‘0,C%‘*&‘‘‘6%‘Ĥ Q‘.5‘1./%00‘$%8*7%5‘42‘*6%$‘),*.‘-,7%0‘ $,0%‘)*‘‘(1)%/*(‘/‘,.&/‘88‘),*.‘)%$8,.‘),..‘ ,.‘01661$‘),*.‘‘.5‘0*8%),8%0‘,.‘%B)%.0,7%‘ 1/(%$‘),*.‘ 3,)+‘ %7%.‘&‘)‘/‘ $%01/)0‘)*‘)+%‘ 6‘),%.)‘ *-0‘ /0*‘ 01&&%$‘%B(1(,‘),.-‘)*$; 8%.)‘&$*8‘)+%‘4,)%0‘‘.5‘,88,-$‘),*.‘*&‘)+%‘ $ # ‘ ‘ # ‘3+,(+‘ +*3%7%$‘ *+/‘.5‘ */)%‘$%-‘$5‘‘0‘5,0),.()‘&$*8‘)+%‘+18‘.‘ >,--%$‘ $ # ‘ ‘ ‘ %‘)+‘)‘7,%3‘(*, %()‘ *$‘.*)‘,)‘3*1/5‘‘66%‘$‘&$*8‘)+%‘*40%$7‘),0‘ *&‘ *50(+,/5‘‘.5‘ %0)3**5‘)+‘)‘)+%‘/‘&7%‘ Q*&)+%‘+18‘.‘(+,-*%‘‘$%‘+‘)(+%5‘,.‘)+%‘*6%.‘ 3*1.50‘ $1/(%$0‘3+,%+‘0*8%),8%0‘%B)%.5‘ ,.3‘$50‘0*‘‘)*‘,.7*/7%‘)+%‘4*.%0‘)+%80%/7%0‘ .‘4‘5‘(‘0%0‘,861)‘),*.‘*&‘)+%‘)*%0‘‘.5‘5; >‘(%.)‘6‘$)0‘4%(*8%0‘.%(%00‘$2‘ %&)‘)*‘)+%80%/7%0‘)+%‘/‘$7‘% %0(‘6%‘&$*8‘)+%,$‘+*0)‘ ‘.5‘6$*4‘4/2‘‘&)%$‘)+%‘ 8‘..%$‘*&‘4*)0‘‘.5‘ *)+%$‘6‘$‘0,),(‘,.0%()0‘6%.%)$‘)%‘)+%‘0*,/‘&*$‘)+%‘61$6*0%‘*&‘‘(E1,$,..-‘)+%‘616‘/‘0)=%*&‘ -$*3)+‘ .‘ 1$*6%‘./‘6$‘(),(%%‘0%0‘*&‘>,--%$‘ ‘$%‘$‘$%/2‘0%%.Ĥ.%7%$)+%/%00‘)+%‘3$,)%$‘+‘0‘ $%(*$5%5‘‘.‘,.0)‘.(%‘,.‘3+,(+‘0)$*.-‘8%.)‘/‘ 5%/10,*.0‘&*//*3%5‘)+%‘)*$)1$%‘6$*51(%5‘42‘)+%0%‘($%‘)1$%0‘ +%‘6‘),%.)‘‘‘8,55/%‘‘-%5‘ 8‘$$,%5‘/‘52‘+‘5‘01&&%$%5‘0%7%$%/2‘51$,.-‘ +%$‘$%0,5%.(%‘,.‘)+%‘ %0)‘ .5,%0‘ /)+*1-+‘ 0+%‘+‘5‘-*)‘$,5‘*&‘)+%‘6‘$‘0,)%0‘0+%‘(*.; 0)‘.)/2‘+‘$6**.%5‘+%$‘*3.‘&%%)‘,.‘)+%‘+*6%‘ *&‘5%0)$*2,.-‘)+%‘2*1.-‘>,--%$0‘3+,(+‘0+%‘&%/)‘ 01$%‘3%$%‘0),//‘48$*3,.-‘4%.%‘)+‘)+%‘09,. ! " 0‘$%-‘$50‘)$%‘)8%.)‘)+%‘,.; 5,(‘),*.0‘‘$%‘0,86/%‘ +%‘6‘$‘0,)%‘0+*1/5‘ 4%‘$%8*7%5‘3,)+‘)+%‘1)8*0)‘(‘$%‘ +%$%‘)+,0‘+‘0‘.*)‘4%%.‘5*.%‘‘.5‘3+%$%‘‘0‘‘(‘(*.,‘ 0%E1%.(%‘*6%.‘0*$%0‘%B,0)‘&$%E1%.)‘3‘0+,.-0‘ 3,)+‘)%6,5‘3‘)%$‘&*//*3%5‘42‘)+%‘‘66/,(‘),*.‘ *&‘(‘$4*/,(‘(‘(,5‘/*),*.0‘A)3%.)2‘*$)+,$)2‘-$‘,.0‘)*‘)+%*1.(%‘*$‘*&‘*,.)8%.)0‘A*.%‘5$‘(+8‘)*‘*.%‘*1.(%‘*&4%.C*‘)%5‘/‘$5‘3,//‘4%&*1.5‘ 8*0)‘01,)‘4/%‘ $‘‘-‘,.‘)+%‘(‘$4*/,(‘(‘(,5‘ 61))2‘‘0‘0*/5‘,.‘0+*60‘*$‘)+%‘‘66/,(‘),*.‘*&‘ *.%‘6‘$)‘*&‘)+%‘‘(,5‘6$%7,*10/2‘8,B%5‘3,)+‘)%.‘*$)3%/7%‘6‘$)0‘*&‘0,86/%‘*/,7%‘*,/‘3, ,.‘‘//‘/,9%/,+**5‘4%‘01&&,(,%.)‘)*‘(‘10%‘)+%‘ 5%0)$1(),*.‘*&‘.2‘/‘$7‘%)+‘)‘8,-+)‘$%8‘,.‘ ‘0$,2‘,)‘0%%80‘/8*0)‘.%%5/%00‘)*‘0‘2‘)+‘)‘$%0,5%.)0‘.5‘)$‘7%//%$0‘,.‘1,.‘‘ $‘C,/‘‘.5‘,.‘)+%‘ %0)‘.5,%0‘-%.%$‘//2‘0+*1/5‘+‘7%‘)+%,$‘&%%)‘6$*6%$/2‘6$*)%()%5 ‘ ‘ * *.. G 7 ‘ /4%Ĥ6 " ‘ $‘I"0)/ Ĥ %$‘6 & # " ‘0)‘)%‘*&‘,.&/‘88‘),*.‘*&‘‘ 6‘$)‘*&‘)+%‘09,.‘,.51(%5‘42‘(*/5 =* " +,/4/‘,.0‘‘$%‘ (*88*.‘ ,‘ (+,/5$%.‘‘.5‘2*1.-‘6%$0*.0‘‘.5‘‘$%‘ 8*$%‘ &$%E1%.)‘,.‘-,$/0‘)+‘&$‘ 4*20‘ +%2‘*((1$‘ W(+,%&/2‘,.‘)+*0%‘*&‘‘/2 8 6+‘),(‘(*.0),)1),*.‘ ‘.5‘ 8‘2‘4%‘(*.0,5%$%5‘‘0‘‘.‘,.5,()*.‘*&‘ 5%4,/,)2‘‘.5‘5%&,(,%.)‘7,)‘/‘6*3%$‘ .‘‘51/)‘ ‘-%‘)+%2‘‘$%‘$‘$%‘‘.5‘‘$%‘*./2‘8%)‘3,)+‘ 3+%.‘)+%‘6*3%$0‘*&‘)+%‘(*.0),)1),*.‘‘$%‘$%; 51(%5‘ +%,$‘*((1$$%.(%‘,0‘,.&/1%.(%5‘8*$% 42‘)+%‘0)$%.-)+‘*&‘)+%‘,.5,7,51‘/‘)+‘.‘42‘)+%‘5%-$%%‘*&‘(*/5‘‘.5‘)+%2‘(*.),.1%‘,‘0*8% 6%$0*.0‘)+$*1-+*1)‘)+%%.),$%2%‘$‘ +%,$‘)%.; 5%.(2‘,0‘)*‘(%‘0%‘3,)+‘)+%‘&1/‘5%7%/*68%.)‘ *&‘)+%‘020)%8‘‘.5‘)+%2‘$%‘66%‘$*((‘0,*.‘//2‘ ,.‘‘57‘.(%5‘/,&% & ‘(" +%‘$%-,*.0‘*&‘)+%‘4*52‘ 101‘//2‘‘&%%()%5‘3,)+‘(+,/4/‘,.0‘‘$%‘)+%‘&%%)‘ ‘.5‘+‘.50‘)*‘3+,(+‘‘$%‘0*8%),8%%‘‘55%5‘)+%‘%‘$0‘‘.5‘.*0%‘‘ ‘(+,/4/‘,.‘6$%0%.)0‘)+$%%‘ 0)‘-%0‘*3%5%-$%%0‘*&‘0%7%$,)2‘.‘8%/2‘ # 7 ‘ ‘ ‘.5‘0 0 " ‘ ‘.5‘,)‘ 8‘2‘4%‘‘$$%0)%5‘‘)‘)+%‘&,$0)‘*$‘0%(*.5‘0)‘-%‘ 42‘)+%‘3,)+5$‘3‘/‘*&‘)+%‘(‘10%‘ +%‘ # 7 ‘ 0)‘-%‘,0‘$%0)$,()%5‘)*‘ +26%$)%8,‘‘ 03%//,.-‘‘.5‘0%7%$%‘41$.,.-‘‘.5‘,)(+,..‘)+%‘ ,)(+,.-‘4%,.-‘,.(‘$%‘0%5‘42‘+%‘)‘‘0‘42‘)+‘)‘*&)+%‘&,$%‘*$‘)+‘)‘,.51(%5‘42‘%B%$(,0%‘ +%‘ (*.-%0)%5‘06*)‘,0‘(,$(1/‘$‘,.‘&,-1$%‘0*8%3+‘)‘)18,5‘4$=+)/2‘$%5‘)‘&,$0)‘41)‘/‘)%$‘*.‘ $*0%‘)%‘($,80*.‘61$6/%‘*$‘,7,5‘,.‘(*/*1$‘ +%‘0%(*.5‘*$‘ ‘0)‘-%‘%B+,4,)0‘)+%‘ 4/‘,.‘*$‘4/,0)%$‘$%01/),.-‘&$*8‘%&&10,*.‘*&‘ 0%$18‘4%.%‘)+‘)+%‘(1),(/%Ĥ)+%‘6%$8‘.%.)‘ (*/*1$‘*&‘)+%‘03%‘,.-‘,0‘.*3‘61$6/%‘*$‘/,7,5Ĥ ‘.5‘)+%‘*.)%.)0‘*&‘)+%‘4/,0)0%$‘‘/,86,5‘0%$18‘ -%.%$‘//2‘$%55%.%5‘3,)+‘4/**5G0*8%),8%0‘ ,.5%%5‘)+%‘&/1,5‘*&‘)+%‘4/,0)0%$‘8‘2‘4%‘0%8,‘ 61$1/%.)‘ .‘)+%‘0 "0 " ‘ 0)‘-%‘)+% 4/,0)%$‘,0‘4$*9%.‘)+%‘01$&‘(%‘*&‘)+%‘5%$8‘‘,0‘ ,.‘‘0)‘)%‘*&‘-‘.-$%.%‘‘.5‘)+%‘-‘.-$%.*10‘ /‘2%$‘,0‘0140%E1%.)/2‘$%8*7%5‘‘0‘‘‘0/*1-+‘42‘ 1/(%$‘),*. ! G +%‘)%‘)8%.)‘*&‘(+,/4/‘,.‘ $%E1,$%0‘)*‘4%‘8*5,./%5‘)*‘01,)‘,)0‘5,&&%$%.)‘ 5%-$%%0‘ .‘)+%‘&,$0)‘)+%‘,.5,()‘.‘)‘0‘(*.5,)‘*‘ $%0)*$%‘.*$8‘/‘(,$(1/‘),*.‘42‘-%.)/%‘&$,()‘.‘ ‘.5‘3+%.‘)+%‘6‘$)‘,0‘0%7%$%/2‘(+,//%5‘,)‘,0‘ 101‘/‘)*‘$14‘,)‘3,)+‘0.*3‘)+%.‘0*8%‘0**)+; ,.-‘/,..8%.)‘8‘2‘4%‘%86/*2%5Ĥ‘.5‘&,.‘//2‘ ‘‘0),81/‘),.-‘/,.8%.)‘(*7%$,.-‘)+%‘6‘$)‘ ‘&)%$3‘$50‘3,)+‘C,.(‘*,.)8%.)‘‘.5‘(*))*.; 3**/‘*$‘0+,%/5,.-‘,)‘3,)+‘/%‘5‘*$‘*6,18‘ 6/‘0)%$‘06$%‘5‘*.‘3‘0+/%‘)+%$‘ +%‘‘66/,(‘;),*.0‘8*0)‘,.‘&‘7*1$&*$‘)+,0‘61$6*0%‘‘$%‘)+%

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8 '2' 4%' $%(*- . ,0%5' 42')+%' &*//* 3 , . -' (+ '$' (;)%$0' 3+,(+' '$%' 7 '$,*10/2' '00*(, ')%5' , .' 5,&; &%$%.)' ('0%0 G ,8 , .1),7%' 0)')1$%Ĥ ,8 6%$; &%()' 0%B1 'ƒ 5%7%/*6 8 %.)Ĥ '' +,0)*$2' *&' 6%(1; /, '$' . '%8,'' , .' (+,/5+**5' *&' . '%8,'' 3 ,)+' 8 %. 0)$1 'ƒ ,$$%-1/ '$,)2')' 614%$)2' ' . 5' *&' 6$%; 7,*10' '))' (90' *&' 0286)* 8 0' *&' (+/*$*0,0Ĥ %7, ; 5%. (%' *&' ('$5, ' ('%./ '$-%8%.)' *$' 8 ,)$' ƒ 5,0%' 0%' , .')+%' '40%. (%' *&' '/ƒ')+%' *$5, . '$2' ('10%0' *&')+%0%Ĥ)+%' *((1$$%. (%' *&' %. 5*(' $5,),0' 51$, . -' 6$%- . '. (2' *$' ' / 2 Ĥ ' . 5')+%' 6$%0%. (%' *&' ' . 2' *&')+%' 5,0%' 0%0' 3+, (+' 3 ,// 4%' $%&%$$%5')*' 1. 5%$')+%' +%' 5' *&' *8 6+('), *. 0

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+%' (*8 8%. (%8%.)' *&' (+/*$*0,0' ,0' -%. %$' //2' -$' 51' /' 41)' 8 '2' 4%' 0155%. ')0' *$5, . '$2' (*8 0%', 0')*3' $50' (*. &,$8%5' . 0%8, ' ', . '3+, (+' ,)' 8 '2')%$8, . ')%')+%' /, E1*$' 0' . -1, . ,0' 4%(*8; , . -' ' &&%()%5' ' . 5' 3 '0), . -' ' . 5' *%5%8 '' 4%, . -' '55%5')*')+%' 6$%7, *10' 0286)*8 0' 3+, (+' '$% '/0*' ' --$' 7')%5')' ,0' &*$')+, 0' $%' 0*. ')+')' 61$%' (+/*$*0,0' ,0' '' $' $%5, 0%' 0%' 3+, /%' . ' [, . , '' '00*(, ')%5' 3 ,)+')+%' (+/*$*), (' 5, ')+%0, 0' ,0' (*86' $'), 7%/2' (*8 8*. ' +%' 51$'), *. ' *&')+%' 5,0%' 0%' ,0' 7' $, ' 4/%Ĥ ,)' $' $%/2' 5%(/, . %0' B8), ƒ)+%' 5%)%$8, . , . -' (, $(180)' . (%0' +' 7%' 4%%. ' $%8*7%5' . ' . 5')+%' 6'), %.)' 014>%()%5')*' ('$%&1ƒ)$%')8%.)' +/*$*0,0' 8 '2' $%' 66%' $' . ')+%' 014>%()' *&')+%' 5, ')+%0,0' . 5')+')' 8*$%')+' . '*. (%Ĥ 41)')+%' 6$*4' 4, /,)2' *&',)0' $%)1$. ' ,0' 08 '/ƒ '&)%$')+%' '-%' *&')+, $)2' %06%(, '//2' , . ')+%' 8 '$$, %5' 3*8 ' . %')+' &$*8' (+/*$*0,0' 5, $%()/2' ,0' %B(%00, 7%/2' $' $%

! ($' ' ' % $7 G ((*$5, . -')*' , $(+*3' 0%$, *10' 7' /71/' $' 5,0%' 0%' . 5' ('$5, ' (%. /' $-%8%.)' 8 '2' 4%')$' (%5' , . ' 0*8%' *&')+%' 3*$0)' (' 0%0' *&' (+/*$*0,0')*')+%' '00*(, ; ')%5' 7' 0(1/' $' (*. 5,), *. Ĥ ' . 5')+%' 8,)$' ƒ 7' /7%' , 0' 6%(1/, '$/2' +' 4/%')*' 4%' '))' (9%5' 42' %. 5*; ('$5,), 0' , . ' $+%18'), (' 61%$6%$' /' *$' 0%6), (' &%7%$' '08*$$+' -%0' -' 0)$, (' 1/(%$' ' . 5' %B; *6+)+' /8, (' -',)$%' '$%4%+%7%5')*' +((1$' 3,)+' (*86' $'), 7%' &$%E1%. (2' , . ' 6%$0*. 0' *&')+%' (+/*$*), (' 5, ')+%0, 0

$ G +%' 5%&, (,%. (2' *&')+%' , . 5, ; 7,51' ƒ $%5' (*$610(/%' , . ' , '%8*-/*4, . ' ' . 5')+%' 5%&, (,%. (2' *&')+%' 4/**5' , . ' $%5' ' . 5' 3+,)%' (*$610(/%0' , . 5, (')%' ' . ' , 86%$&%()' -$*3)+' *&')+%' $%5' (*$610(/%0' ' . 5' ' . ' , 86%$&%()' 6$*51(;), *. ' *&')+%' (%//1/' $' %/%8%.)0' *&')+%' 4/**5' ,)+')+, 0' 4/**5 0)')%')+%$%' , 0' 1. 5*14)%5/2' '00*(, ')%5' '' +26*6/'0), (' *$' 53' $&, 0+' (*. 5, ;), *. ' *&')+%' 4/**5 7%00%/0' . ')+%' %84$2*')+%' 4/**5' ' . 5' 4/**5 7%00%/0' '$%' 5%7%/*6%5' &, *8')+%' 0' 8%' %/%8%.)0')+%' &*$8%$' 8 '9, . -' , 0' '66%' $' . (%3,)+, . ')+%' (%//0' 3+, (+' 6$*51(%')+%' /')%$' ')0' +, -+/2' 6$*4' 4/%')+%$%&*$%')+')')+%' . '*8 '/2' *&' 4/**5' ' . 5')+%' . '*8 '/2' *&' 7%00%/0' '$%')*' 4%' (*. 0, 5%$%5' '0')*-%)+%$' . '%B6$%00, *. ' *&' 0*8%' (*. -%. ,)' ƒ 5%&%()' *&')+%' 4/**5 7' 0(1/' $' 020)%8')+10' ' . *8 '/*10' /' 4*1$0' 1. 5%$' '' 6%(1/, '$5, ')+%0, 0' *$' 5%4, /,)2' *&')+%' (*$610(/%0' ' . 5' (, $(1/')*$2' 020)%8' ' . 5' , 0' 0', 5')*' 4%' '' #

< ' *$')*' 6*00%00' # ' # ' " 7

"' ' #

&')+%' *)+%$' 020)%8 0' *&')+%' 4*52' '$%' &1//' 0, C%5' A3+, (+' , 0' . *)' '/3 '20')+%' ('0%R')+%' 53' $&, 0+' (*. 5,), *. ' *&')+%' '$)%$, %0' *&')+%' (+/*$*), (' 014>%()' ' . 5')+%' 0(' .)2' 0166/2' *)' +' %8*-/*4, . ' 8 '2' +' 7%' 0*8%' 5, &&, (1/)2' , . ' 0'), 0&2, . -')+%' *$5, . '$2' 5%8' . 50' &*$' 4/**5' ' . 5' %06%(, '//2' &*$' *B2-%. ' +, 0' 5, &&, (1/)2' *&')+%' 4/**5 2' 0(1/' $' 020)%8' 3 ,// 4%(*8%' '' 4$%' 95*3. ' 3+%. ')+%' 6$*(%00%0' *&' '/, ; 8%.)'), *. ' '$%' 5%$' . -%5' &$*8' 3+, (+')+%' 4/**5' 5%$, 7%0')+%' 8')%$, '/0' &*$' ,)0' 8' , .)%; . ' . (%' *$' 3+%. ')+%' 4/**5' , 0' 3' 0)%5' 42')+%' %B(%00, 7%' 5%8' . 50' *&' -$*3)+' 5%7%/*68%.)' *$' +' %8*$$+' -%' 1(+' ' $%01/)' , 0' 8*$%' /, 9%/2')*' +' 66%. ')' 6%$, *50' *&' %B)$' *$5, . '$2' 5%; 8' . 5' 3,)+, . ')+%' %(*. *82' *&' 3+, (+')+%' %0)' 4/, 0+8%.)' *&' 8%. 0)$1'), *. ' , 0')+%' (+, %&')' , 0' . ')+, 0' 3' 2')+')' %B6*01$%')*')+%' (' 10%0' $%&%$$%5')*' , 0' 01&&, (, %.)')*' 6$*51(%')+%' 0286;)*8 0' *&' (+/*$*0,0' 3+%. ')+%2' 8 , -+)' . *)' '&&%()')+%' 4/**5' *&' ' . ' *$5, . '$2' A. *. (+/*$*), (Ĥ , . ' 5, 7, 51' /

+%' 0286)*8 0' *&' 1. (*86/, (')%5' (+/*$*0, 0' '$%' 51%')*' ' -/*41/, 08' *$' 5%&, (,%. (2' *&' B2-%. ' , . ')+%' 020)%8', ' 0$ ĵ *$4, 5' *. 5,), *. 0' <- ' 8 , %. ' (+/*$*0, 0' '57' . (%0')*' (*86/%)%' . '%8, ''42')+%', 86/, (', *. ' *&')+%' 6/'08' ' ' ' . %3' 0%$, %0' *&' 6+%. *8%. '' 6$%0%.)')+%80%/7%0' 6$*8, . %.)' 8 *. -' 3+, (+' '$%' /*00' *&' &/%0+' ' . 5 *%5%8 '' *&')+%' %B)$%8,), %0

+%' ('$5, ' (' %. /' $-%8%.)' ' . 5' 7' /71/' $' 5, 0; %' 0%' '$%' 5, $%()/2' $%&%$' 4/%')*')+%' 7' 0(1/' $' +26*6/' 0, ' ')+')', 0')*')+%' *40)$1(), *. ' ('10%5' 42')+%' . '$$*3' (' /, 4$%' *&')+%' '*$)' ' +%' (*. ; . %B, *. ' 4%)3%%. ')+%' 4/**5 7' 0(1/' $' (*. 5,), *. ' ' . 5')+')' *&')+%' -%. %$'), 7%' *$-' . 0' , 0' 8*$%' (*86/%B' . ')+%' *. %' +' . 5')+%' (+/*$*), (' 5, ')+%0, 0' *$' ' ()1' ƒ (+/*$*0, 0' , .)%$&%$%0' 3,)+')+%' 5%7%/*68%.)' ' . 5' ' (), 7,)2' *&')+%' *7' $, %0' ' . 5' 1)%$10Ĥ *. ')+%' *)+%$' +' . 5' 5, 0*$5%$0' *&')+%' 0%B1 'ƒ &1. (), *. 0' '$%' *((' 0, *. ' //2' %B(,), . -' ('10%0' *&' -/*41/, 08

' 7' $, %)2' *&' 01--%0), *. 0' +' 7%' 4%%. ' *&&%$%5' 0')*')+%' 8' . . %$' , . ' 3+, (+' 5%$' . -%8%.)' *&')+%' ' /, 8%.)' $2' 6$*(%00%0' , . ')+%' 4*3%/0' , 8; 6*7%$, 0+%0')+%' 4/**5' , . ' (+/*$*), (' 014>%()0' , $' . 5$%3' /' $9' 8 ', .)', . 0')+')' 3+%. ')+%' 4*3%/0' '$%' , . ' 5%E1')%/2' $%/, %7%5' 6)*8', . %0' ' . 5' /%1(*8', . %0' '$%' 6$*51(%5' 3,)+, . ')+%' , . ;)%0), . %' ' . 5' '40*$4%5' , .)*')+%' 4/**5' 0 3+%$%)+%2' *$, -8')%' , . ' -, $/0' *&' '' . %$7*10')26%' *&' *$-' . , 0'), *. ')+*0%' /)%$'), *. 0' *&')+%' (*. 0), ;)1), *. ' *&')+%' 4/**5' 3+, (+' (*. 0),)1)%')+%)$1%6')+*-%. 2' *&'), 0' . 0%8, ' ‹ . *)+%$' 01--%0;), *. ', 0')+')' 01/6+1$%))%5' +25$*-%. '-%. $')%5' , . ')+%' 4*3%/0' 5%0)$*20')+%' *$-' . , (' (*86*1. 50' *&' , $*. ' 3+, (+' -*')*' &*$8' +0%8*-/*4, . ' (; (*$5, . -')*' '')+, $5' 01--%0), *. ' 0140)' . (%0' (*.)' , . , . -' ' . , 8 ' ƒ -18 ' 3+, (+' '$%' 5%7%/*6%5' , . ' %B(%00' 3,)+, . ')+%' '/, 8%.)' $2' (' . ' /*&')+%' -, $/*$' 3*8 ' . ' 4%, . -' $%E1, $%5' &*$')+%' '&)%$. *1$, 0+8%.)' *&')+%' %84$2*' ')' , . ; >1$, *10/2' *. ')+%' +0%8*-/*4, . ' 8*/%(1/%'), ' ' . *)+%$')+%*$2' , 0')+')' &, *. BĤ ' ' 5%&, (,%. (2' *&

)+%' /,7%$' 0+*1/5' .*)' 4%' &*$-*))%.Ĥ .*$' '/0*')+%'&'()')+')'+%' 4,/%' ,0' .%'*8'//2'*.%'*&')+%' 8*0)',86*$)'.)'(+'..%/0'3+%$%42')*B,(' 014; 0)'.(%0' '$%' %/,8,.')%5'&$*8')+%' *$-'.,08' 3+%)+%$')+%0%' 4%' 6*,0*.0' ,.)$*51(%5'&$*8' 3,)+*1)' *$' 5%7%/*6%5',.')+%' /,7%$' *$' *)+%$'),001%' 0' $%01/)0'*&8*$4,5'8%)'4*/,08' +%' 0166$%00,*.'*&')+%' 4 ,'$2' 0%($%),*.' *$' ,)0' *40)$1()%5'%B($%),*.'$%'5,/2'%B6/',.0'+*3'' 4/**5 6*,0*.,.-' 8'2'4%' %.-%.5%$%5')+*1-+')+%' %B'()' 0*1$(%' '.5'.')1$%' *&')+%' 6*,0*.' 8'2'.*)'0'2%)'4%'((1$')%/2'9.*3.' .*)+%$ %B6/'.'),*.'*&')+%0%' 0286)*8 0'+'0'4%%.'61)' &*$3'$5'42' *+.+%,8'3+*'(*86'$,.-')+%8')*')+%' 5%/,$,18' *&)%.' 0%%.' ')' .5' '&)%$')+%' ($,0,0' *&' '(1)%' 5,0%'0%0' '))$,41)%5')+%8'*' (%$%4$'/',.',.),*.'(*16/%5'3,)+'.'.'%B(%00,7%' '/418,.*10'5,0,.)%-$'),*.',.')+%',001%0

! G +,0' 101''//2' $%0*/7%0' ,)0%/&' ,.)*'$%8*7,.-')+%'('10%'*&')+%'4,/%$%)%.),*.Ĥ 3+%.'.*)+,0' ,8 6*00,4/%'41)'+))/%'('.'4%' 5*.%&*$')+%'$%01/),..-'0286)*80'+%',)(+; ,.-'*&')+%'09,.'8'2'0*8%),8%0'4%'(*.0,5%$; '4/2''//'2%5'42''/9'/,.%'4')+0'*$'42'('10,.-' 6$*&10%'03%'),.-'42'6,/*('$6,.%'*$'+')',$' 4')+0')'*&)%.'0140,5%0'..5%6%.5%.)/2'*&')$%')8%.)')*'$%(),$'-',.'3,)+',.(8%'0%5'0%7%; $,)2'%06%(,'//2')' .,-+)' +%',.)%$.'/'5; 8,.,0)$'),*.'*&'4,('$4*.')%' *&'6*)'00,18'' 8%)+*5'(*88*./2''5*6)%5',.'>'1.5,(%&$*8' 8*0)'('10%0''/0*'%/,%7%0')+%'6$1$,)10' (),7%' 5,'6+*$%0,0'3,)+'' 4$,09'61$-%'.5'4/,0)%$0')*')+%'.'6%' *&')+%'.%(9''$%',.5,(')%5'&*$)+%' (%$%4$'/02 86)*80' %$2'/,))/%'4%.%&,)'6; 6%'$0')*'&*//*3'01(+'$%8%5,%0'0')+%'4$*8,5%0' ,&'-,7%'&*$)+%'(*.71/0,7%'0%,C1$%0'41)' /%%(+%0')*')+%)86%0'$%'&'((0,*.'/'0%$; 7,(%',&',.5,(')%5' ' ' $$'

'A2*Y='4 %Ĥ '.5'52*R' 8*7%R "'& # G 140)'.(%0'3+,(+' /%00%.')+%'8*1.)'*&'4,/%',.')+%'4/**5

* ! G +%'6$,.(,6'/(+*/'-*-1%0' '$%' %$(1$2'.5',)0'6$%6'$'),*.0G%06%(,'//2' '/*8%/'.5' /1%' ,//Ĥ *5*6+2//18'.5' *5*6+2 ,.Ĥ 1*.28,.' $,58Ĥ 6%('(1; '.+''Ĥ /*%0Ĥ +14'$4Ĥ *5,18' '+*2/')%' *5,18' +*06+')%''.5' *5,18' 1/6+')%

' ' ' 6 G +%'+7%$'+'0'')3*; &*/5''(),*.G,)' '4+%'3+,(+',0'6*1$%5' ,.)*')+%' 51*5%.18Ĥ '.5',)' '/0*' (')+%'4,/%'3+,(+'+'0'4%%.'$%'40*$4%5'&$*8')+%' 51*5%.18'.5'('$$,%5'4'(9')*')+%'/,7%$'42')+%'6*$)'/',($(1/'),*.' 1(+'4,/%')+10'(,$; (1/')%0'(*.)81'//2'4%)3%%.')+%' /,7%$' .5' 51*5%.18' 3+,/%'6')' ,0'('$$,%5'5*3.')+%' ,.)%0),.%'3,)+')+%'&'%(%0''.5',)0'6/'(%'016; 6/,%5'42'.%3/2'&*$8%5'4%'K =%.')+%' E1'.),)2'(,$(1/'),.-',.')+,0'3'2',0')*'-$%')')*'4%'(*86/%)%/2'%B($%)%5'42')+%'/,7%$',)' %.)%$0')+%'-%.%$'/'(,$(1/'),*.'d85'6$*51(%0' 0286)*80'*&' " +%0%'$%'$%8*7%5' 42')+%'0*('%5'(+*/'-*-1%0'3+,(+'6$*4'4/2' '()'42' "0')+%'51*5%.18''.5')+10' ('$$2,.-')+%'4,/%'0*'&'$'5*3.')+%',.)%0),.%' '0')*'+,)%$&%$%'3,)+'$% '40*$6),*.' 8*.-0)

)+%'4%0)'(+*/'-*-1%0''$%')+%'6$%6'$'),*.0'*& 8%$(1$2'3+,(+'3,)+')+%'%B(%6),*.'*&')+%' 6%$(+/*$,5%'5*'.*)'8($%'0%')+%'0%($%),.-' 6*3%$'*&')+%'+7%$'.*$'1-8%.)')+%'E1'.),)2' *&'4,/%'&*$8%5'42',)' +%,$'1),/,)2',0'-$%')/2' 8($%'0%5'42'(*84,.'),*.'3,)+'' 0'/,.% 61$-'),7%'3+,(+'0),/'&1$)+%$'(/%'$0'*1)')+%' 8)%0)8%'.5'(*86/%)%/2'6$%7%.)0'.2'$%; '40*$6),*.'*&'45%')+%$'(+*/'-*-1%0'01(+' '0'6*5*6+2//,.'$+14'$4'.5''/*%0''()1'//2' ,.($%'0%')+%'0%($%),*.'*&'4,/%'42')+%'+7%$')')+%'0'8%'),8%')+%2'6$*4'4/2'6$%7%.)',)0 $%'40*$6),*.'8''0,8,/'$'3'2')*'8%$(1$,'/0' '.5'0'/,.%0' % 5'0 %

6"$M;'+ % 7' Y,5*0' $ ' !'#$7 $'$-' " *' > $# 7'5 !'3 $ 'C $$: ;*

U G' 2)$* 6,5%8,('6'08*5,('*$' '/,-.')' +*/%$'H $' # & T 'g %$' & # ' # Ĥ)'/' '&

& # G= 0,'),(' (+*/%$'' ,0' '' 06%(,&,(' 5,0%'0%' (+'$')()%$,0%5'42'7,*/%.)'7*8,),.-' .5'61$-8-'3,)+'$,(%3')%$' %7'(1'),*.0' ($'8601'6$*0)$'),*.'('*//'60%'.5')%.5,.-')*' $1.''' $'6,5/2'&')'/'(*1$0%')',0'('6'4/%'*& 4%8-'(*888,8,(')%5')*'6%$0*.0'*)+%$3,0%,.' 0*,85'+%'/)+')+$*1-+')+%'5%>%()''*&'6'),%.)0' 01&&%$8-'&$*8')+%'5,0%'0%' +%0%'%B($%)''$% 8*0)'(*88*./2'5,00%8,.')%5''8*.-''(*8; 81.,)2''.5')'9%.'8)*')+%'020)%8'42'8%'.0' *&'5$,.9,.-3')%$'*$' ,.'&')'42'.2)+,.-' 03'//*3%5'3+,(+'(*.)',.0'')+%'06%(,&,(''*$; -'.,080'6'00%5'&$*8'(+*/%$''6'),%.)0' 6' 4'5/2'7%.),/')%5'$**80')+%')8*06+%$%8'2' 4%(*8%0*&1 2'(+'$-%5'3,)+')+%'%B+'/'),*.0' &$*8'6'),%.)0'01&&%$,.-'&$*8'(+*/%$''0')* 6*,0*.'6%$0*.0%86/*2%5',.'.1$0,.-')+%0,(9' .')+%'0'8%3'2'6%*6/%'%.-'-%5',.'('$$2,.-')+%'4*5,%0'*&')+*0%'3+*'+'7%'5,%5'&$*8' (+*/%$''&*41,'/'*$',.'3'0+,..-')+%,$'0*,%5' /,.%.'8'2'(*.)$')()+%'8'/'52'.''5$,%5' (*.5,),*.')+%'$-'.,08 0'(*.)',.%5',.'(+*/%$'' %B($%)''8'2'$%)',.')+%,$'5'.-%$*10'6$*6%.'),%0'&*$''(*.0,5%$'4/%6%$,*5

0,'),(' (+*/%$'',0'%.5%8,(',.'(%$)',.'6'$)0' *&'$,),0+'.5,''3+%$%'&$*8'),8%')*'),8%',)' '0018%0'.'%6,5%8,(' (+'$')()%$'' .5',0'6')+%.')*'8%.0'4*7%' ,.5,(')%5''/*.-')+%'(+,%&'/,.%0'*&'+18'.' ,.)%$(*1$0%''.5'0*')*'%B)%.5'*7%$')+%3*$/5

G ,.(%')+%'5'20'*&',66*($')%0' 85,('/6$'()),*.%$0'$%0,5,.-',.'7'$,*10'6$)0' *&'1$*6%'+'7%'5%0($,4%5''' 5,0%'0%'3+,(+')+%2'('//%5'(+*/%$''+%'.*0*/*-2'*&')+,0' '&&%(),*.'3'0'+'$5/2''' 8'))%$'*&'5*14)'3,)+')+%8''.5',)',0'*./2',.'8A>5%$.'),8%0')+')')+%'E1%0),*.'+'0''$,0%.''='*3+%)+%$')+%' (+*/%$''(*88*./2'8%)'3,)+'' 8*.-'10',0' ,5%.),('/',.',)0' .')1$%'3,)/=' 0,'),(' (+*/%$'' *14)/%00',&'3%'(*86'$%'i,0*/')%5'('0%0'3%' 8'2'&,.5')+')')+%'0286)*80'3+,(+')+%0%' '&&%(),*.0',.51(%''$%'7%$2'0,8,/'$Ĥ 41)')+*0%' 3+*'+'7%'/,7%5'4%2*.5')+%'%.5%8,('$%''*&

0,'),(' (+*/%$'' '.5' 3')(+%5')+%' 5,0%'0%' 06$%'5&$*8' .5,''*7%$' 1$*6%''.5' 8%$,(''
W(.'0('$(%/Z 8,0)'9%')+,0' 8'/,-.'.)' 8'/'52' &*$' 0,86/%' (+*/%$'' 0,'),(' (+*/%$'' 3'0'
Q'+9.*3.',.' 1$*6%'4%&*$%')+%'2%'$' ?@P "!' '/)+*1-+',)' +'0' %B,0)%5',.' .5,'' &*$' 8'.2'
(%.)1$,%0')',0')$1%' 3%+'7%'.*' '((*1.)0'*&' (+*/%$'' %B)%.5,.-')+$*1-+*1)')+%' 3+*/%' *&'
.510)'.'6$,*$')*')+%' 2%'$' ? M'41)')+,0' '$,0%0'&$*8')+%' (,$(180)'.(%')+')',)'3'0'*./2'
')')+%' (*88%.(%8%.)'*&')+%' 6$%0%.)'(%.)1$2')+')')+%' $,),0+' *7%$.8%.)'4%-'.')*'4,.5'
)+%'+%)%$*-%.%*10'6$,.(,6'+),%0'*&' .5,'',.)*' 1.,*.''.5')+10' $%.5%$',)' 6*00,4/%'&*$' 10')*'
-')+%$')*-%)+%$' '1)+%.),(' 5%)','/0' $%-'$5,.-')+% 5,0%'0%' '0',)' 06$%'5'&$*8'*.%' 6$*7,.(%'
)*' '.*)+%$
%' ('..*)'+%$%' &1//2'(*.0,5%$')+%'$%/'),*.0' 3+,(+' 1.E1%0),*.'4/2' %B,0)' 4%)3%%.')+%'
$'6,5,)2'*&')+%'5,&&10,*.'*&' (+*/%$'' &$*8')+%' '0)'*7%$' 1$*6%''.5')+%',.($%'0%5'&'(,/,),%0'
*&' (*881,.(''),*.')'+'7%' $%.)/2'4%.'%0)'4/,0+%5'4%)3%%.' .5,'' '.5' %$0,'' '.5'
$'4,''/0*' &$*8' ,.510)'.')*' 100,'' '.5')+%' 0+*$%0' *&')+%' %5,)%$$'.%'.' *$'
,.0)'.(%'0,B)2' 2%'$0' '-*')+%' 6'00'-%' &$*8'
*84'2' 16')+%' $'4,'.' '.5' %$0,'.'
W 1/&0'(*1/5'*./2'4%'1.5%$)'9%.''')'(%$)',.'
0%'0*.0'*&')+%' 2%'$' 3+%.')+%' 3,.50' %$%&'7*1$'4/%'.'.5'%7%.')+%.')+%' 7*2'-%' 3'0'
Q5,&&,(1/)')*' '((*86/,0+ .*3'/'$-%'0)%'8%$0'$1.'%7%$2'3%%9'&$*8' *84'2')*' '00*$'+'
'.5')+%',.)%$8%5,')%'6*$)0'/*.-')+% %$0,'.'
1/&'.5')+)+%$0'6'00' 3,)+' %E1'/'$'6,5,)2')*'
)+%' 7'$,*10')*3.0' 4*$5%$,.-')+% %5' %''
1)'/)+*1-+' 3%'('..*)'%.)%$'&1$)+%$',.)*'
)+,0'014>%()'3%'810)',.'*$5%$')*' 66$%(,')%'
)+% .')1$%'*&' (+*/%$''-/'.(%'')')+%'(+$*.*;
/*-,('/' *$5%$' *&'0*8%'*&')+%' 6$,.(,6'/*1);
41$0)0'*&')+%' 5,0%'0%'3+,(+'+'7%'4%4.'5,0;
0%8,.')%5'&$*8' $,),0+' .5,''*7%$')+%' 3*$/5
.' ? M'(+*/%$'' 6$%'5'$'6,5/2')+$*),-+*1)'
%.-'/' %B)%.5,.-' 51$,.-')+%' &*//*3,.-'
2%'$'*7%$')+%'-$%')%$'6'$)'*&' ,.510)'.''.5'
&$*8')+%.(%)*' %2/*.' 1$8'+''.5' +,.''
+%'5,0%'0%'3'0'(*881.,(')%5'&$*8'*84'2'
)')+%' %0,'1/&',.' ?@! @ '' .5')$'7%//%5'
.*$)+3'$5'41)'5,5'.*)'%B)%.5',.)*' 1$*6%
1$,.-')+%'2%'$' ?@D' (+*/%$''-',.'4$*9%*
*1)'*7%$' %.-'/' .5'6'00,.-')+$*1-+')+%'
1.>'14',)'%.)%$%5' '41/',.' ?@?'.5'&$*8'
W)+%.(%%B)%.5%5')*' %$0,'' .5'0*')*' U100,''
51$,.-')+%'2%'$0' ?@P ?!'' .5'*7%$')+%' 3+*/%'
*&' ,1(*6%'.5')+%'-$%')%$'6'$)'*&' 8%$,('
.' ? ! '(+*/%$'' '((*86.,%5'' $,),0+'
&*$(%'5%06')(+%5'&$*8' '/(1))'')*' +,.'H ,)'
4$*9%'*1)'8*.-'*1$)$**60'*.')+%,$'7*2'-%'
)*')+')'(*1.)$2''.5'+'7,.-'06$%'5')+$*1-+;
*1)')+% +,.%0%' .5' 1$8%0%' %86,$%0' ,)'
b6'00%5',.' ? ? ')+$*1-+' '0+-'$')*' *9;
+'$'''.5'0*)*' '41/' $*8' &-+'.,0)'.')+%'
5,0%'0%'%B)%.5%5'0*1)+',.)*' (,.5%''.5'3%0);
3'$5',.' ? F D')+$*1-+' %$0,'')*' U100,''
'.5' 1$*6%'$%'(+,.-' 8%$,('',.' ? ?
.' ? P'(+*/%$''3'0'7%$2'&')'/*7%$' %.-'/H
]'.5'51$,.-')+%'0%'0*.'*&' ?F F@',)'3'0'(*)E

81.,(')%5')+$*1-+')+%' 1.>'14''.5' *841'2'
$%06%(),7%/2')*' %$0,'' '.5' $'4,'H '.5',.'
?F" F',)' 06$%'5') ' U100,'' '.5' -26)'
3,)+'&$,-+)&1/7,$1/%.(%')+$*1-+*1)' 1$*6%'
'.5' 8%$,('
1$,.-')+%'2%'$0' ?D! D D@'(+*/%$''6$%;
7',/%5')*' '.' '/'$8,.-'%B)%.)')+$*1-+*1)'
%.-'/' '.5')+%' %.)$'/ $*7,.(%0'.5'.'
?DK DF',.' *841'2'.5' '/*.-')+%' 0+*$%0'*&'
)+%'U%5' %'H)+%.(%',)'6'00%5' 3,)+6,/-$,80'
&$*8' %((''),*' -26)''.5'0*')*' 1$*6%''.5'
&*$')+%'&*1$))+'),8%')*' 8%$,('')',0'3%/F)*'
&,B'*1$'))%.),*.'.')+%'/%00*.0')*'4%'/%'$.)'
&$*8''('$%&1/0)152'*&')+%'+,0)*$2'*&')+%0%'
%'$/2'%6,5%8,(0'*&' 0,'),('(+*/%$'H 4%('10%'
0140%E1%./2')*' ?DF')+%' $'6,5'.5'(*8;
6/,(')%5'8%'.0'*&')$'.0,)'4%)3%%.'.5,''.5'
1$*6%'+'0'$%.5%$%5',)'5,&&,(1/)',&'.*)',8;
6*00,4/%')*')$'(%')+%' 06$%'5'*&')+%' 5,0%'0%'
3%0)3'$5')+$*1-+')+%' %5' %''$*1)%
! '$4+4) $-' / 7 * #!$) '5)'
) *) +'' 477 ' !) 7 '#$ >
7) + ' 4*+)'$-/ $/ ' ' ! ' -- # 7'
$# '''+ 3' # 7'+''' ! '7 '5 ! '
'-5'7 ''-)' //) 7' *$ 3' ! *'
! '* 7''' *$ ' .) + ''7 7'$4'-)$*'
*$ 3' ! ' ! + '$-' #$4)''4 7)'
' -4 #'74) 3' ! '#$7' $ '$-' !'
')' $') //)'$' ! ' //)$ #!'$-' 4**)'
' 3))4 ' ! '7 '5 *$'
7 7''74) 3' ! '-) '')'$-' ! ' / 7 * #%'
'7#) 7' . $ #' ! #$7' $ '
7' ! ' 3) 74 ''' 7 //) 7' 7$*'
/) . 3' ''' $ '$# ! ''-$)' *$) ' ! '
!) '#$ #4 . '')
K $ BG +%'8*$%'3%'0)152')+%'%'$/2'
+,0)*$2'*&' 0,'),(' (+*/%$''')+%'4%))%$'0+'/'/'3%'
1.5%$0)'.5')+')'%7%$2'*1)41$0)'*&')+%'5,0%'0%'
3+,(+'*((1$$%5'4%2*.5')+%'(*.&,.%0'*&' .5,''
8,-+)',.7'$,'4/2'4%')$'(%5'4' 9')+$*1-+''
0%$,%0'*&'('0%0')*')+')'(*1.)$2' +%'5,0%'0%'
+'0'.%7%$'4$*9%.'*1)'06*.)'.%*10/2',.'.2'
6'$)'*&')+%'3*$/5G.*''8*1.)'*&'&,/)+''*&'4'5'
&**5''*$ (/,8'),(' ,.&/1%.(%0' +'0' 16')*')+%'
6$%0%.)',8%,.51(%5''3,5%06$%'5'%6,5%8,('
&' (+/%$''''.)'+'0',.7'$,'4/2'06$%'5'&$*8',)0'
%.5%8,(' '$%''*7%$')+%'3*$/5' +%',.+'4,;
)'.)0'*&' (*$8)$,%0'&'$' $%8*7%5'&$*8' ,.;
510)''.''.5'+'7,.-'+8,)%5' (*881.,(''),*.'
3,)+')+')'%86,$%'01(+''0' 10)$'+''+'7%'.*)'
%B6%$,%.(%5')+%'5,0%'0%H 3+%$%'0'0)')%0'..'
6$*6*$),*.''0')+%2''$%'4$*1-+),.)*',.),8')%'
$%/'),*.'3,)+' .5,''4%(*8%'014>%()')*'*1);
4$%'90'*&'(>,*/%$'
'.2'*&')+%'%'$/,%0)' .-/* .5,'.''1)+*$0'
5%(/'$%5')+%,$' (*.7,(),*.')+')')+%'5,0%'0%'
3'0'(*.)'-,*10H *)+%$0'5,061)%5')+,0',5%'H
41)'//'-$%%5')+')'(+*/%$''3+%8'%B)%.5,.-'
*7%$''(*1.)$2'*&)%.'0%))/%5'*.')+%',.+'4,;
)'.)0'*&'/*3/2,.-'&,/5$',.%5''.5'*7%$;
($*35%5'/*('/,),%0''.5')+')',)'&$%E1%.)/2'/%&)'
1.+'$8%5'6%*6/%'$%0,5,.-'4%2*.5')+%'&;
&%()%5''$%''/)+*1-+')+%2'8,-+)'+'7%'4%%.'
%86/*2%5',.'))%.58-'6'),%.)0'01&&%$,.-'&,$*8'
)+%'5,0%'0%')'$%8',.%5'&*$' $' .*3',.'
?F ')*'%B6/',.')+,0''66'$%.)' 820)%$2''.5

)*' 5%8*.0)$')%' '0' +%' 5,5' 42' 8%'.0' *&')+%'
$*'5')$%%)' ('0%K')+')')+%' 6*,0*.' 3+,(+'
('10%0' (+*/%$'' ,0' (*.)',.%5' ,.')+%' %B($%;
8%.)0' *&')+*0%' 01,&%$,.-' &$*8')+%' 5,0%'0%'
'.5'0')+')' ,&' 42' /%'9'-%'0*'9'-%' &$*8' (%00;
6**/0' *$' 5$',.0'*$')+$*1-+' $%(9/%00' ('0),.-'
*1)' *& 0/*60' '.5'3'0+ 3')%$'.' .2')',.)'+*3;
%7%$' 08'//' *&')+%',.&%(),7%' 8')%$,'/ -%)0'
'((%00')*' 3% 0''.5'*)+%$'0*1$(%0' *&'5$,.9,.-'
3')%$',)' ,86'$)0')*' %.*$8*10' 7*/18%0' *&'
3')%$')+%'6*3%$' *&'6$*6'-'),.-')+%'5,0%'0%'
A ,8*.R' +*/%$'' 6'),%.)0' ('..*)',.' &'()'
(*8 8 1.,(')%')+%' '&&%(),*.')*' *)+%$0'1./%00'
42'8%'.0' *&')+%'5,0(+'$-%0'3+,(+')+%2'6'00'
%$0*.0' '))%.5,.-')+%8' $1.'.*' $,09' *&'(*.'
)$'(),.-')+%' 5,0%'0%'6$*7,5%5')+%2' '$%' 6$*;
)%()%5' &$*8' 03'//*3,..-')+%' *$-'.,(' 8')))%$'
6'00%5' 42')+%' 0,(9H 41)',.'4'5/2'7%.),/')%5'
$**80'),.0' 8')%$,'/'+'7,.-'4%%.'5,00%8,;
.')%5')+$*1-+')+%')8*06+%$%'8'2'4%')'9%.'
,.)*')+%' 020)%8' 42''))%.5'.)0' '.5'0*'6*,0*6'
)+%8

,$' K5/,'8' ,)9%.'*40%$7%0')+')')+%' %7,'
5%.(%',.' &'7*1$'*&')+%'(*8 8 1.,('4,/,)2'*&'
(+*/%$'' 42' 8%'.0'*&' 3')%$' *$' &***5' (*.I'
)'8,.')%5' 3,)+' (+*/%$'' 5%>%()'' +'0' 0,.(%'
?F' 4%(*8%' '/8*0)' *7%$3+%/8,.-' ' $%;
8'$9'4/%',.0)'.(%'*&')+%' 9,.5'$%6*$)%5' 42'
)+%' /')%' $' %))%.' '5(+&&%')**9' 6/'(%',.'
'0)' *.5*.' 51$,.-')+%' 2%'$' ?DD'H '.5'
6$%7,*10')*')+,0')8%')+%' (,$(180)'.(%0' *&'
'' ('0%' ('8%' 1.5%$')+%' 3$,)%$<0'.*),(%',.'
3+,(+' '' 08'/F E1'.),)2'*&' '' &$%0+'$,(% 3')%$'
0)**/' 6'00%5' 42' '' 6'),%.)' 01&&%$,.-' &$*8'
(+*/%$'' 3'0' '((,5%.)'//2' 8,B%5' 3,)+' 0*8%'
&*1$' *$ &,7%' -'//*.0' *&' 3')%$'' .5')+%' 8,B;
)1$%' %B6*0%5')*')+%=$'20' *&')+%')$*6,('/
01.' &*$)3%/7%' +*1$0' '$/2')+%' &*//*3,.-'
8*$.,.-' .,.%)%%.' 6%*6/%' %'(+' 03'//*3%5'
'4*1)' '.' *1.(%' *&')+,0' (*.)'8,.')%5' 3')%$'
G)+%2' *./2' 6')**9' *&',)' *.(%G41)' 3,)+,.'
)+,$)2 0,B' +*1$0'&,7%' *&')+%0%'.,.%)%%.'6%$0*.0'
3%$%' 0%,C%5' 3,)+' (+*/%$'' .')+,0',.0)'.(%'
)+%' (+*/%$',(' %7'(1'),*.'5,5'.*)')*1(+')+%'
0*,/' '0',)' 3'0' 6'00%5'0*' 3'0',)' 03'//*3%5H
41)'A'.5')+,0',0'8*0)',86*$)'.)')*'$%8%84%$R'
,)'+'5'4%%.'/'$-%/2'5,/1)%5'3,)+',861$%'3')%$'
'.5')+%'8,B)1$%'+'5'4%%.'%B6*0%5')*')+%'+-+)'
'.5'+%')'*&'')$*6,('/01.'&*$')3%/7%'+*1$0
$*&%00*$' %))%.9*&%$' +*/50')+')' ,&')+%'
%B($%)''&$*8'6'),%.)0'01&&%$,.-'&$*8'(+*/%$''
6'00',.)*')+%'%',5+')+%2'8'2')+%$%'1.5%$'
6%(1/,'$'(*.5,),*.0'*&')+%'0*,/'8*,0)1$%''.5'
+%')' .5%$-*' (+'.-%0''.5'+'7,.-'$,0%.''0'
'' 8,'08'',.)*')+%' ,$'4%' '40*$4%5' '.5'
'()' '0'' 6*.0*.'*.' 6%$0*.0' 6$%5,06*0%5')*'
)+%'5,0%'0%')' '66%'$0'(%$)',.')+')'(+*/%$''
-%$80'('..*)' 81/),6/2'1./%00'%B6*0%5')*'
'' 5%&,.,)%'$'.-%'*&')%86%$')1$%H)+%2' '/0*
$%E1,$%'8*,0)1$%'(*.)',.,.-'(%$)',.'(+%8,('/
0140)'.(%0'&*$)+%,$'5%7%/*68%.)'.5'-$*3)+'
+%'%7,5%.(%'4$*1-+)')*-%)+%$'42' $*&%00*$

' "' ! '7 #$.)"' ! '),4 '$-')37 # -#
. 3 $ 'F)' $5') 7)7' ' * * ')>
.#'$'* 75 #!' ! ' $'+ ') #$3 7' '
&1//2' ' ' !$4 7+ ' (

' *(+'.5' ' '&&92',.')+%,$'58,$'4/%
$%6*$)'*.'(+*/%$'',.' -26)' '.5',.'.5,'',.
??"'614/,0+%5',.' %$/,.' ??M',0'01&,,(,%.)'
)*'(*.7,.(%')+%'3$,)%$')+')')+%'-%$80'*&' 0,;
'),(' (+*/%$'' (*.0,0)' *&' '' 06%(,&,(' 4'(,//10'
+,0'8,($*'$-'.,08',0'&*1.5',.')+%'(*.)%.)0'
*&')+%',.)%0),.'/' ('.'/' .5',.')+%' 8'))%$'
6'00%5' 42' 6%$0*.0' 01&&%$,.-' &$*8' (+*/%$''
%' 9.*3')+')' ,&'01(+' %B($%)'' -',.'((%00'
)+$*1-+'3')%$'*$&**5')*')+%',.)%0),.'/'('.'/
&'6%$0.0'6$%5,06*0%5')*' (+*/%$''))+%2'8'2'
4%(*8%''&&%()%5'3,)+')+%'5,0%'0%''.5'0*'3%
(*.(/15%')+')')+%'02 8 6)*8 0'(+'$')(%$,0),('*&'
0,'),(' (+*/%$'' $%' ,.'0*8%'3'2'5%6%.5%.)'
.')+%'')(),.'+*&')+%' (+*/%$''4'(,//10' $*8'
)+%'$%0%'$(+%0'*&' $' '$)3$,-+)' **5' $*;
&%00*$' 1%66%'.5'*)+%$' '1)+*$,),%0'3%
/%'$.')+')',.&%(),*10'*$-'.,080'$%' ('6'4/%
&'06/,)),.-'16')+%'6'$),(/%0'&'/,7,.-'/41;
8%.5')')+%')%86%$')1$%'*&')+%'4*52'.5'
)+')')+%0%'5,00*(,')%5'%/%8%.)0'8'2'(*84,.%
)*'&*$8'06%(,&,('4'0,(' 6*,0*.0'*$-'.,080'
(*.0),)1),.-''5%&,.,)%'06%(,%0'6$*51(%')4%
6*,0*.'*&'(+*/%$''.5'%B,0)')''')8,%0',.'
)+%'0*,/')+$*1-+*1)')+%'%.5%8,('$%'*&')+%
5,0%'0%H41)',.')+,0',)0'0'6$*6+2),('&*$8')+%
8,($*4%'+'0'41)'&%%4/%'(),*.'*./7,.-'/41;
8%.H ,)'8'2'+*3%7%$'1.5%$'(%$)',.'(*.5,;
),*.0'*&')+%'0*,/')%86%$')1$%''.5'0*'*.'
4%(*.>%'%B(%%5,.-/2'7,-*$*10',.'&'()'6'$';
0,),('.5')+%.,)'('.'4$%'9'16'/7,.-''/41;
8,.*,5'%/%8%.)0',.)*'(*84,.'),*.0'6*00%00;
,.-')*B,('6$*6%$),%0' %'8'2')+10'&*$8'
0*8%',5%''0')*')+%'$%/'),*.')+')'%B,0)0'4%;
)3%%.'%.5%8,('.5%6,5%8,('0,'),('(+*/%$''
.5''((*1.)'&*$')+%'8'..%$',.'3+,(+')+%
5,0%'0%5%7%/*60',.'(%$)',.'/*(/,),%0''.5'&$*8'
)+%.(%'06$%'50')',8%0'*7%$')+%'3*$/5'/*.-'
)+%'/,.%0'*&'+18'.',.)%$(*1$0%' 0' $'
**5'$%8'$90',0'6*00,4/%')+')'(,.')+%
('0%'*&' '0)%1$<0'7'((,.%0')+%'(+*/%$''8,;
($*4%'3+%.',.',)0'0'6$*6+2),('&*$8'8'2'6$*H
%()'+18'.'4%,.-0'014>%()')*',)0',.&/1%.(%&$*8'
)+%'8*$%'5%'5/2'(),*.'*&')+%'0'8%'*$-'.,08'
3+%.',)'+'0'41$0)'&*$)+',.)*'6'$'0,),('-$*3)+'
'.5',&'01(+'4%')+%'('0%'8'2'3%'.*)'+*6%)*'
5,0(*7%$'8%'.0'3+%$%42'+18'.'4%,.-0'('.'4%
6$%0%$7%5'&$*8')+%'%&&%()0'*&' 0,'),('(+*/%$''
$0' 2% 8,)+' .5' '15%$' $1.)*.'&$*8'
%B6%$,8%1)0'8'5%'3,)+'(+*/%$','(' 5,0(+'$-%0'
'$%',.(/,.-5')*')+,.9')+')'+*1)6*1$,.-'
*&'&/1,5'&$*8')+%'-/'.50'*&')+%',.)%0),.'/
('.'/',.')+,0'5,0%'0%''50'*')*'6'$'/20,0'
&')+%'8%0%.)%$,('.%$7%0',.'(..%B,*.'3,)+'
-'./,''5%$,7%5'&$*8')+%'0*/'$'6/%B10'')'8'2'
4%')+')')+%'6*,0*.'6$*51(%5'42')+%'(+*/%$''
4'(,//10'+'0'0*8%'01(+'%&&%()H 41)',)',0''/*.-
0)%6'&,<*8')+%'&')')+')'8,($*4%0''$%'('6'4/%
*&'6$*51(,.-'(%$)',.')*B,('(*86*1.50')*')+%
6$**&')+')' 0,'),('(+*/%$''5%6%.50'*.')+%',.&/1;
%.(%'*&')+,0'6*.0'*.')+%'8%0%.)%$,('.%$7%0
6 /0' G 0'&$'4'(9'0'?DP'
,.'''3*$9'614/,0+%5'42')+%'3$,)%$'*.' 0,'),('
(+*/%$'')+%'&*//*3,.-'*40%$7'),*.0'*((1$'
A6'@!R G ,)+')+%'B(%6),*.'*&')+%'06%(,&,('
(+*/%$' ,.&%(),.-'8'))%$'' %.),$%/2',-.*$%'//

*)+%$ ‘10%0‘ *$‘ (*84,. ‘),*.‘ *&‘ (‘10%0‘ ‘0‘ (‘6‘4/%‘*&‘6$*51(,. -‘)+,0‘ 5,0% ‘0% ‘ +%‘ (,$; (180)‘.(%0‘ 1.5%$‘ 3+,*+‘ 6%*6/%‘₩,7%‘ 8‘2‘ 6$%5,06*0%‘)+% 8‘)*‘)+%‘ ‘(),*.‘ *&‘)+%‘ *$; -‘.08‘Ⓗ 41)‘ .%,)+%$‘ ‘,$‘ 3‘)%$‘ .*$‘ .‘2‘ *)+%$‘-%.(2‘(‘.‘,.51(%‘ ‘.‘‘))‘(+‘*&‘(+*/%$‘‘)+*1-+‘ 8‘.2‘*&‘)+%8‘ 8‘2‘0%$7%‘ ‘0‘ 8%5,‘‘ 42‘3+,*+‘)+%‘,.&%(),.-‘ 8‘))%$‘,]‘ (*.7%2%5‘ ,.)*‘)+%‘,.)%0),.%0 ‹ >6‘ 999‘ ‘.5‘6‘ !@ G‘ 0 $*8‘$%0%‘$(+%0‘ ‘+‘7%‘,.0),1)%5‘,.)*‘)+,0‘ 8‘))%$‘)+%$%‘,0‘ $%‘0*.‘)*‘ 4%/,%7%‘)+‘)‘)+%‘ ‘(,50‘ *&‘ ‘‘ +%‘/)+2‘ 0)*8‘(+‘ 5%0)$*2‘)+%‘ *$-‘.,(‘ 8*/%(1/‘$‘ 8‘))%$‘ ,.‘ 5%(*86*0,.-‘ (+*/%$‘,(‘5%>%()‘‘0*‘)+‘)‘3+%.‘03‘//*3%5‘,.‘ ‘‘(*.(%.)$‘)%5‘&*$8‘)+%2‘8‘2‘4%‘0*‘ ()%5‘*.‘ 42‘)+%‘-‘0)$,(‘>1,(%‘‘0‘)*‘+‘7%‘)+%,$‘,.&%(),.-‘ 6*3%$‘ 5%0)$*2%5Ⓗ 41)‘ 3+%.‘03‘//*3%5‘ 5,; /1)%5‘3,)+‘3‘)%$‘‘‘ 6*$),*.‘*&‘)+%‘ &/1,5‘6$*; 4‘4/2‘6‘00%0‘‘)‘*.(%‘)+$*1-+‘)+%‘ 0)*8‘(+‘ ‘.5‘ $%‘(+,.-‘)+%‘ ‘/9‘/,.%‘ (*.)%.)0‘ *&‘)+%‘ 08‘ ‘,.)%0),.%0‘4%-,.0‘,)0‘ 3*$9‘*&‘5%0)$1(;),*.‘ 16*.‘)+%‘ %6,)+%/,18 ‹ 0 %$0*.0‘ ,.‘ 4‘5‘+%‘/)+‘ 3+%)+%$‘ 01&,K%$,.-‘ &$*8‘ ‘()1‘/ 5,0%‘0%‘*$,..‘)+%‘/%00 5%&,.%5‘, +%‘/)+‘3+,(+‘ $%01/)0‘ &$*8‘,86%$&%()‘+2-.%.,(‘(*.5),*.0‘ ‘$%‘)+*0%‘8*0)‘‘6‘)*‘4%‘‘))‘(9%5‘42‘(+*/%$‘‘ +,0‘,0‘)+%‘ (‘0%‘ 3,)+‘)+%‘ 6**$‘ &‘ *1$‘/‘$-%)*3.0‘3+,*+‘‘$%‘-%.%$‘//2‘0,)1‘)%5‘*.‘‘//1; 7,‘/0*5‘ ‘2‘.*)‘)+,0‘4%‘51%)*‘)+%‘ 3‘.)‘ *&‘1‘+%‘/)+2‘(,5‘0%($%),*.‘&$68‘)+%‘3‘//0‘*&)+%‘ 0)*8‘(+‘ 3+,(+‘)+%,$‘ 8*$%‘ 7,-*$*10‘ .%,-+4*1$0‘$%‘4/%00%5‘3,)+‘]‘‹ U%(%.)‘,.7%0;),-‘),*.0‘+‘7%‘ ‘55%5‘/,))/%‘ 4%2*.5‘)+,0‘)*‘ *1$‘9.*3/%-%*&‘)+%‘ 6$%5,06*0,.-‘(‘10%0‘*& 0,‘),(‘(+*/%$‘‘

! ‘ 0 5 G +%‘ %B)%$.‘/‘ ‘66%‘$‘.(%0‘*&‘)+%‘4*5,%0‘*&‘)+*0%‘3+*‘+‘7%‘ 5,%5‘ *&‘(+*/%$‘‘ ,.(/15%‘)+%‘ 8*))/%5‘09,.‘ 0+$1.9%.‘‘.5‘+7,5‘‘66%‘$‘.(%‘*&‘)+%‘/,840‘ ‘.5‘*)+%$‘&%‘)1$%0‘ +%$%‘&)%$‘5%0($,4%5‘ ‘0‘ (+‘$‘()%$,0),(‘*&‘)+%‘5,0%‘0%‘51$,..-‘)+%‘0)‘-%‘ *&‘(* ‘60%‘ +%‘)%86%$‘)1$%‘ *&‘)+%‘4*52‘ $,0%0‘‘&)%$‘5%‘)+‘ ‘.5‘,)‘$%8‘,.0‘3‘$8‘&*$ 0*8%‘),8%‘ U,-*$‘8*$),0‘0%)0‘,.‘06 %5,/2‘ ‘.5‘,0‘0*8%),8%0‘ ‘((*86‘.,%5‘3,)+‘810(1; /‘$‘(*.)$‘(),*.0‘3+,*+‘5,06/‘(%‘)+%‘/,840‘*&)+%‘ (*$60%

&)%$‘5%‘)+‘,.‘)+%‘0)‘-%‘*&‘(*//‘60%‘&$*8‘ 0,‘),(‘(+*/%$‘‘)+%‘ *.(2‘ ‘/)%$‘),*.‘)*‘ 4% 5,0(*7%$%5‘,.‘)+%‘),001%0‘ ‘.5‘)+%‘4/**5‘,0‘)*‘ 4%‘ ‘((*1.)%5‘&*$‘42‘)+%‘$‘6,5‘5$‘,.‘*&‘3‘)%$‘ ,.)*‘)+%‘,.)%0),.‘/‘(‘.‘/‘3+,(+‘+‘0‘*((1$$%5‘ 51$,.-‘+&%‘ 8.(*10‘01$&‘(%‘*&‘)+%‘)%.5%.(2‘*&‘)+%‘5,0%‘0% 0)*8‘(+‘ ‘.5‘08‘ ‘,.)%0),.%0‘,0‘ ,.>%()%5‘ ‘.5‘03*//%.‘‘.5‘,)0‘%6,)+%/,18‘,0‘0+%5‘51$; ,.-‘/,&%‘‘.5‘5$*60‘*&&$*8‘)+%‘81(*10‘8%8; 4$‘.%‘,.‘/‘$-%‘6‘)(+%5‘3,)+,.‘.‘‘.‘+1$‘ ‘.5‘ ‘‘+‘/&‘&)%$‘5%‘)+‘ $‘ *(+‘0)‘)%0‘)+‘)‘)+% (+*/%$‘‘ 4‘(,//10‘ ,.‘ 8‘.2‘(‘0%0‘,0‘&*1.5‘ 4%)3%%.‘)+%‘%6,)+%/,18‘ ‘.5‘)+%‘ 4‘0%8%.)‘ 8%84$‘.%‘ ‘.5‘ ‘/0*‘ 3,)+,.‘)+%‘)141/‘$ -/‘.50Ⓗ 0,)‘/0*‘0%))/%0‘,.‘/‘$-%‘.184%$0‘*.‘)+%‘ 1$&‘(%‘*&‘)+%‘7,//,‘*&‘)+%‘,.)%0),.%0‘‘.5‘ *&)%.‘+‘5‘6%.%)$‘)%5‘,.)*‘)+%,$‘),001%‘‘.5‘,.‘ 0*8%‘,.0)‘.(%0‘+‘5‘6‘00%5‘‘0‘&‘$‘0‘)+%‘810; (1/‘$‘/‘2%$0‘*&‘)+%‘,.)%0),.%‹ +%‘%#,)+%/,‘/

(%//0‘/,.,.-‘)+%‘9,5.%2)141/%0‘4/‘55%$‘‘.5‘ *)+%$‘*$-‘.0‘ $%‘ &*1.5‘5%)‘(+%5‘&$*8‘)+%‘ 4‘0%8%.)‘8%84$‘.%‘41)‘)+%2‘/,9%‘)+%‘4/**5‘ 5*‘.*)‘(*.)‘,.‘)+%‘(+*/%$‘‘4‘(,//10

4.*$8‘U),%0‘*&‘‘‘06%(,&,(‘.‘)1$%‘%06%; (,‘//2‘3,)+‘$%&%$%.(%‘)*‘)+%‘‘8*1.)‘*&‘4/**5‘ (*.)‘,.%5‘,.‘)+%‘$,-+)‘0,5%‘*&‘)+%‘+%‘$)‘ ‘.5‘/1.-0‘+‘7%‘4%%.‘5%0($,4%5‘42‘6‘)+*/*; -,0)0‘0‘4%,.-‘(+‘$‘()%$,0),(‘*&‘0,‘),(‘(+*/%$‘Ⓗ ‘.5‘,.‘8‘.2‘,.0)‘.(%0‘&)%$‘5%‘)+‘&$*8‘)+,0‘ 5,0%‘0%‘,&‘)+%‘ %B‘8,.‘),‘*.‘,0‘ 5%/‘2%5‘&*$‘‘&%3‘+*1$0‘)+%‘$,-+)‘ ,5%‘*&‘)+%‘ +%‘$)‘3,/‘4%‘&*1.5‘&1/‘*&‘4/**5‘)*-%)+%$‘ 3,)+‘)+%‘61/8*.‘$2‘‘$)%$2‘.5‘,0)‘5,7,0,*.0‘ 3+,/%‘)+%‘7/.-0‘‘$%‘(*//‘60%5‘‘.5‘4/**5/%00‘ 1)‘)+%$%‘‘$%‘.18%$*10‘%B(%6),*.0‘)*‘)+,0‘ 0)‘)%‘*&‘)+%+%‘$)‘‘.5‘/1.-0‘‘.5‘)+%‘(*.5,),*.‘ ‘4*7%‘5%0($,4%5‘,0‘.*),.&$%E1%.)/2‘51%‘ ‘ 7 ‘(+‘.-%0Ⓗ&*$‘,&‘)+%‘4*5,%0‘*&‘)+*0%‘ 3+*‘+‘7%‘5,%5‘*&‘(+*/%$‘‘4%‘%B‘8,.%5‘,$+8%‘ 5,‘)%/2‘‘&)%$‘5%‘)+‘)+%‘/%&)‘0,5%‘*&‘)+%‘+%‘$)‘ 3,/‘*&)%.‘4%‘&*1.5‘‘0‘&1‘‘*&‘7,0(,5‘4/**5‘ ‘0‘)+%‘$,-+)‘0,5%‘ ‘6%(1/,‘$‘0+$1.9%.‘(*.‘ 5,).*.‘*&‘)+%‘/1.-0‘%B,0)0‘5%6%.5,.-‘*.‘)+% 5$2‘‘.5‘%86)2‘0)‘)%‘*&‘)+%‘4$*.(+,‘3+,(+‘ ‘//*30‘)+%‘%/‘0),(,)2‘*&‘)+%‘*$-‘.0‘)*‘5$,7%)+%‘ ‘,$‘*1)‘*&‘)+%8‘8*$%‘(*86/%)%/2‘)+‘.‘101‘/ ‘&)%$‘)+%‘(+%0)‘,0‘*6%.%5 I‘ .‘)+%‘ *)+%$* +‘.5‘3+%.‘5%‘)+‘+‘0‘*((1$$%5‘51$,.-‘$%‘(;),*.‘)+%‘08‘ %$‘)14%0‘‘$%‘*&)%.‘&*1.5‘&1/‘*& 6 0‘‘.5‘6‘$)0‘*&‘)+%‘/1.-0‘8‘2‘4% *05%8‘‘)*10‘ *$‘ %7%.‘,.‘ ‘‘ 0)‘)%‘ *&‘4$*.(+* 6.%1; 8*.,‘‘A ‘--%‘ # ‘6 " ‘ " ‘6 ‘ ‘ " ‘6‘@?MR

‘#0 # 2L 0,‘),(‘(+/%$‘‘,0‘8*0)‘5%‘5/2‘ ‘)‘)+%‘(*88%.(%8%.)‘*&‘‘.‘%6,5%8,(‘‘.5‘)+%.‘ 101‘//2‘4%-,.0‘ 3,)+*1)‘ 6$%8*8‹)*$2‘ 0286)*80‘ +%‘‗6‘),%.)‘ &%%/0‘ K%// 6)*‘ 3,)+,.‘‘&%3‘+*1$0‘*&‘)+%‘))‘(9‘*$‘,)‘8‘2‘ 4%‘-*%0‘)*‘4%5‘.5‘0/%%60‘0*1.5/2‘)+$*1-+‘)+%‘.,-+)‘‘.5‘,8 8%5,‘)%/2‘*.‘$,0,.-‘,.‘)+% 8*$.,.-‘,0‘0%,C%5‘3,)+‘7,*/%.)‘61$-,.-‘‘.5‘ 7*8,),..-‘ &)%$‘)+%‘&,$0)‘*1)41$0)‘*&‘)+% 5,0%‘0%‘‘0‘‘‘$1/%‘(+*/%$‘‘(*88%.(%0‘3,)+‘ 5,‘$$+*%‘‘)+%‘ 0)**/0‘ 4%,.-‘(*6,*10‘‘.5‘ 3‘)%$2‘&*//*3%5‘42‘-$%‘)‘6$*0)$‘),*.‘*&‘ 0)$%.-)+‘3,)+‘‘‘6%(1/,‘$‘&%%/,.-*&‘%B+‘10;),*.‘‘)‘)+%‘6,)‘*&‘)+%‘0)*8‘(+Ⓗ)+%‘0,(9‘ 6%$0*.‘01&&%$0‘&$*8‘.‘10%‘‘41)‘0%/5*8‘&$*8‘ ‘()1‘/‘7*8,.-‘*$‘6‘,.‘‘)‘)+%‘*1)0%)‘*&‘)+% ‘))‘(9‘ &‘>15,(,*10/2‘)$%‘)%5‘8‘.2‘6‘),%.)0‘ $%(*7%$‘&$*8‘)+,0‘)+% 0‘*&‘(+*/%$‘Ⓗ 41)‘,&‘.%-/%()%5‘)+%‘)%.5%.(2‘*&‘)+%‘5,0%‘0% ,0‘)*‘-$*3‘$‘6,5/2‘3*$0%‘ +%‘0)**/0‘4%; (*8%‘7%$2‘&$%E1%.)‘‘.5‘$%0%84/%‘,.‘‘66%‘$; ‘.(%‘‘.5‘(*.0,0)%.(2‘)+%‘3‘)%$‘,.‘3+,(+ $,(%‘+‘0‘4%%.‘4*‘%5‘ +%0%‘/,E1,5‘%7‘(1‘;),*.0‘&/*3‘‘3‘2‘&$*8‘)+%‘0,(9‘6%$0*.‘3,)+‘‘‘ 0%.0%‘*&‘$%/,%&‘$‘)+%$‘)+‘.‘*)+%$3,0%‘ 1)‘)+%‘6‘),%.)‘.*3‘(*88%.(%0‘)*‘7*8,)‘&,$0)‘)+$*3,.-‘16‘)+%‘(*.)%.)0‘*&‘+,0‘0)*8‘(+‘‘.5 0140%E1%.)/2‘‘//‘)+%‘3‘)%$‘+%‘5$,.90‘8,B%5‘ 3,)+‘81(10‘.5‘5,0,.)%-$‘)%5‘%6,)+%+18

S ‘ ‘ ‘ ‘ ‘ 0 ‘ ‘ 0 ‘ & ‘ ‘ ‘2 . ‘K 1‘ ‘ ‘ ‘. ! 2 ‘ C ;

/,%' &/1,5' ,0' $%>%()%5' &$*8' /,,0' 8*1)+' 3,)+' (*.0,5%$'4/%' &*$(%'' .5') +,0' '550') *')+%' ,.; ($%'0,.-'6$*0)$'),*.'3+,(+',0'*.%'*&')+%' 8*0)' 1$-%.)' '.5' 8'$9%5' &%')1$%0' *&')+%' 5,0%'0%' +%' 6'),%.)' (*86/',.0'*&',.)%.0%')+,$0)'' .5' '' 41$.,.-'+%')')')+%' 6,)' *&'+,0'0)*8'(+ℍ +%' 01&&%$0' '/0*' %B($1(,'),.-'6',.' &$*8' ($'860' ,.')+%' 810(/%0' *&')+%' %B)$%8,),%0ℍ +%',0')%$$,4/2' $%0)/%00ℍ ' .5' +,0' 1$-%.)' ($2',0' &*$ 3')%$')*' E1%.(+' +,0')+,$0)'' .5')+')' 0*8%*.%'8,-+)'$14'+,0'/,8 40'' .5')+10'$%/,%7%')+%' 810(1/'$'06'08' /)+*1-+')+%')%860%$')%&*&')+%' 0,(9'6%$0*.<0' 4*52'&'//0' 4%/*3')+%'.*$8'/' 0)'.5'$5'+%' (*86/',.0'*&' &%%/,.-'+*)'' .5')+$*30'*&&')+%'4%5(/*)+%0',.'*$5%$')+')'+%' 8'2'9%%6'+,80%/&'(**/' +%' 61/0%',0'$'6,5'.5'7%$2'3%'9ℍ)+%'$%06,$'),*.0'$%'+1$$,%5ℍ' .5')+%' 6'),%.)<0' 7*,(%' 4%(*8%0'+1092' ,0' (*1.)%.'.(%',0'6,.(+%5' .5')+%',.)%-18%.)' *&'+,0'4*52'&%%/0',.%/'0),('.5'5*1-+2'3+,/%')+%'09,.'*&'+,0'+'.50'.5'&%%)'4%(*8%0'3$,.9/%5'.5'61$6/,0+',.'(*/*1$'+%' 51$'),*.'*&')+,0')+%' " ' 0'*&'(+*/%$''),0'7%$2'1.(%$)',.')' 8'2'/'0)'&*$)3*'*$')+$%%'+*1$0'*./2'*$8'2'(*.),.1%&*$)3%/7%'*$&,&)%%.'+*1$0ℍ41)'0*'/*.-''0')+%'61/0%'(''.'4%&%/)'')'+%'3$,0)'+)+%$%'('$%'0)+%'0%'(9'6%$0*.<0'$%(*7%$2'+%'3%'9%$')+%'61/0%'4%(*8%0')+%'.%'$%$')+%'6'),%.)',0')*')+%' # ' *$' 0'*&'(+*/%$''&$*8'3+,(+'6$*4'4/2'.*)'8*$%)+'.')+,$)2&,7%'6%$'(%.)'$%(*7%$' +%'$%01/)'+*3%7%$'5%6%.50'81(+'*.')+%'(*.5,),*.'*&')+%'6'),%.)<0' +%'$)')',0'E1,)%' 6*00,4/%''/)+*1-+')+%'('0%0'810)'4%$'$'%')+')''' 015;5%.'*1)6*1$,.-'*&'&/1,5',.)*')+%',.)%0),.'/('.'/'+'0'4%%.'01&&,(,%.)')*' ('10%'02.(*6%'.5'5%')+',.'6%$0*.0'01&&%$,.-'&$*8'3%'9'+%'$)' 4%&*$%')+%'/,E1,5'(*.)%.)0' *&')+%'4*3%/0'+'7%'+'5'),8%')*'4%%>%()%5')+$*1-+')+%'8*1)+'*$'.10

.')+%')+,$5'0)'-%'*&')+%'5,0%'0%')+%'*8,),.-'.5'61$-,.-'(*.),.1%''/)+*1-+',.''8,),-')%5'&*$8ℍ'.5')+%'09,.',0'(*7%$%5'3,)+'(/'882'6%$06,$'),*.'%06%(,'//2',&')+%'($'860'$%'0),//0%7%$%'%'.*3'(%'0%')*'4%'4/%')*'&%%/')+%'6,50%')')+%'3$,0)')+%'3&0)'/,7,5,)2'*&)+%'%B)$%8,),%0'.5'01$&'(%'*&')+%'4*52',.($%'0%0')+%'6')%.)'('..*)'06%'9'4*7%''/*3'3+,06%$'+,0'4$%')+,.-',0'7%$2'$'6,5'+,0'%2%4'//0''$%'5%%6/2'01.9',.')+%,$0*(9%)0''.5'+,0'&%')1$%0''$%'8'$7%//*10/2'(+'.-%5'3,)+,.''&%3'+*1$0'+%'1$,.%,0'0166$%00%5'+%')%86%$')1$%'*&'+,0'4*52'8'2'&'//'0'/*3'0'P g' +%'6'),%.)'$%;8',.0')%$$,4/2'$%0)/%00'/*.-,.-'.*./2'&*$0/%%6'.5')+')'+%'8'2'4%'0166/,%5'3,)+'3')%$',0',.)%'*)'4%'0%/5*8';%B;6$%00%0'.2'.B,%)2'$%-'$5,.-'3*$/5/2''&&',$0''/)+*1-+'&1//2'(*.0(,*10'*&')+%'5'.-%$*10'(*.5,),*.'+%',0',.ℍ0/%%6'.'.5''6/%.),&1/0166/2'*&'5$,.9,.-3')%$'('$%')+%'0*/%'5%0,$%0'*&''6%$0*.'6'00,.-')+$*1-+')+%'(*'60%0)'-%*&'(+*/%$''+,0'(*.5,),*.'0%/5*8'/'0)0'&*$8*$%')+'.')3%.)2&*1$'+*1$0''.5'$%'(),*.'%,)+%$'(*88%.(%0'3,)+,.')+')'6%$,*5'*$')+%6'),%.)'5,%0',.'(*//'60%'*$'+%'6'00%0'*.',.)*)+%' 0'3+,(+',.'.,.%)2.,.%'('0%0'*1)'*&''+1.&$%5%.50'06%%5,/2',.'5%')+' .')+%')%6,5'0)'-%*&')+%'5,0%'0%')+%'0,(9'6%$0*.<0'4*52'&%%/0'(*/5')*')+%')*1(+'41)')+%')%86%$';)1$%''0'0+*3.'42')+%')+%$8*8%)%$'4%-,.0')*'$,0%'$'6,5/2'0*8%),8%0'8'$9,.-'PPg'*$!!g' +%'61$-,.-''.5'7*8,),.-'(%'0%ℍ'.5')+%'6'),%.)',%0',.''0%8,(*8')*0%'0)')%'+,0'%2%0'+'/&*6%.')+%'*(1/'$'(*.>1.(),7''4%,.-'5%%6/2'(*.-%0)%5')+%'(*$.%''+'C2''.5')+%'616,/0'&,B%5'+%'61/0%'(''.'4%&%/)'')')+%3$,0)'41)')+%'$%06,$'),*.0''$%'7%$2'+1$$,%5'0166$%00,*.''*&'1$,.%'(*.),.1%0')+%'6'),%.)<0'4*52',0'4')+%5',''(*/5'(/'88 2'6%$0&%$,$'),*.

W&')+%' 6'),%.)<0' '45*8%.' +%' 0,(9'6%$0*.'
W3'0 *$5%$%5')*' $%8',.',.' 4%5' ''.5')*' 4%
''//*3%5'.*)+,..-' ,.')+%' 0+'6%' *&' &**5' *$
3')%$H' 41)' +%8,-+)' 01(9' '0' 81(+' ,(%' '0'
+%'&%/)',.(/,.%5'&*$
&')+%' 6'),%.)'3'0' '-',.'61$-%5' '&)%$')+%'
&,$0)'6,//'' 0%(*.5'3'0'-,7%.'' .5' '')+,$5'A41)'
.*)' 8*$%R' '&)%$'%'(+'/**0%' 8*),*.' ')' *&)%.'
+'66%.%5')+')+%' &/,$0)' *$' 0%(*.5'6, ')*'
-%)+%$' 3,)+')+%' 810)'$5' 6*1/),(%' ,(%' ''.5'
$%0)' 01&&,(%5')*' (+%(9')+%' 6$*-$%00' *&')+%'
5,0%'0%' ''.5')+%'6'),%.)'$%(*7%$%5' 166*0;
,.-')+,0')$%')8.)'.)*')*'01((%%5'*$')+')'*/
&,$0)'0%%,.-')+%'6'),%.)',)'4%'&*1.5')+')'+%'
+'0' 6'00%5',.)*')+%' 0%(*.5'0)'-%' *&')+%'
5,0%'0%'3%'0+*1/5'0),// 6$%0($,4%')+%'6,+'0'
'4*7%')*%()%5'0106%>,5,1-',)',.'3')%$'4%('10%'
,.')+%'0*/,5'&*$8',)'8,-+)'4%'$%>%()%5'%.),$%'
'.5'1.5%$'.2'(,$(180)'.(%0',)'3*1/5')'9%'
),8%)*'4%'5,00*/7%5'42')+%'&/1,5'(*.)',.%5'
,.')+%'0)*8'(+H)+%'810)'$5'6*1/),(%''/0*'
0+*1/5'4%'66/,%5''.5')+%'0,(9'6%$0*.'9%6)'
3'$8'.5',.'4%5' (%',0',.7'/1'4/%',.')80'
0)'-%'*&')+%'5,0%'0%'.5'1./%0'''6%$0*.'+'0'
6'00%5')+$*1-+'.'')'(9'*&'(+*/%$'',)',0'
,86*00,4/%')*' $%'/,0%')+%',88%.0%'$%/,%&',)'
'&&*$50')'0+*1/5'4%'-,7%.',.'08'//'/1860'
)+%'0,(9'6%$0*.'%'),.-'.5'03'//*3,.-'0'
81(+''0'+%'(+**0%0' ,%W3,//&,I%E1%.)/2'5%;
7*1$''6*1.5'*$)3*'*&',(%',')+%'(*1$0%'*&'
'.'+*1$''&,5'+%'('..*)')'9%')*'81(+'*&',)'
.')+%')$%')$.%.)'*&'(+*/%$'')+%$%'('.'4%'.*'
E1%0),*.''d')*')+%'7'/1%'*&',(%' +%'6'),%.)'
0+*1/5'4%'6$*+,4,)%5'&$*85$,.9,.-'3')%$'*$
'.2'*)+%$'&/1,5'4%2*.5')+')'3+,(+'+%'-%)0'
&$*8')+%',(%' +%'6$'(),),*.%$'810)'4%'&,$8'
.')+,0'6,.)'1)$.,.-'''5%'&'%'$')*')+%'
%.)$*'),%0'*&')+%'0,(9'8'.'*$+,0'&$,%.50')+')'
+%'8'2'4%'6%$8,))%5')*'03'//*3'%7%.''08'//
E1'.),)2'*&'3')%$H&*$',&')+%2'*.(%'4$%'9'
)+$*1-+')+,0'$1/%',)'W3,//4%',86*00,4/%')*'
/,8,)')+%''8*1.)'*&'/,E1,5')+%'6'),%.)'8'2'
(*.018%'55%$')+,0')$%'&$.%.)'5*%0'.*)'(+%(9'
)+%'6$*-$%00'*&')+%'8'/'52'3%'8'2'6$%0($,4%'
)+$%%'-$',.0'*&''(%)')%'*&'/%'5''.5'&,&)%%.'
5$*60'*&5,/1)%5''(%),(''(,5',.'3')%$'%7%$2'
0%(*.5'+*1$''.5'&,&)%%.'5$*60'*&'5,/1)%5'
01/6+1$,('',5,.'3')%$'%7%$2''/)%8')%'+*1$'
0*')+')'+%'6'),%.)'0+*1/5')'9%''5$'1-+)'
&,$0)'*&'*.%'8,B)1$%')+%.'*&')+%'*)+%$'
%7%$2'+*1$',7%'5$*60'*&'06,$,)'*&'(' 86+*$
8'2'4%'55%5')*'%'(+'5*0%'*&')+%'8%5,(,.%'
41)')+,0'5$1-'$%E1,$%0'('$%',.',)0'58,.,0;
)$'),*.''.5'0+*1/5'0%/5*8'4%'(*.),.1%5'
4%2*.5'&,7%'*$'0,B'5*0%0'*&'&$*8'&,7%')*')%.'
5$*60'%'(+' +*1/5')+%'7*8,),.-'4%'7%$2'
0%7%$%',.'06,)%'*&')+%'&$%%'58,.,0)$'),*.''*&'
,(%''' 0%(*.5'810)'$5'6*1/),(%'0+*1/5'4%'
'66/,%5'*7%$')+%''45*8%.H'//'8%5,(,.%'810)'
)+%.'4%'*8,))%5'&*$'.'+*1$''.5''+'/&'+&)%$
3+,(+',)8%''0($16/%'*&'('/*8%/'8'2'4%=
06$,.9%5'*.')+%'6'),%.)<0'.-1%'.5'+''
0+*1/5'4%'8'5%')*'3'0+',)'5*=3'3,)+''/,))/=
,(%5'3')%$' +%'($'860''$%'4%0)'$%/,%7%5'42'
+'.5&,,(),*.''.5',&'7%$2'0%7%$%''%'0%'8'2'
&$*8'),8%')*',)8%'4%'-,7%.'42''//*3,.-')6%
6'),%.)'*' ,..+'/%'0*8%')+%$'*)3')%$'
4*))/%0'0+*1/5'4%''66/,%5')*')+%'0*/%0'*&
)+%'6'),%.)<0'&%%)'''.5''/0*')*'+,0'/%-0''.5'
'45*8%.
+*1/5')+%'5,0%'0%'+'7%'$%'(+%5')+%'(*/;
/'60%0)'-%')+%$%',0'41)'/,))/%'3%'('.'5*'&*$
)+%'6'),%.)' (%'810)'0),' 4%'-,7%.''.5'
,&')+%'61$-,.-',0'&$%E1%.)')+%'01/6+1$,('(,5'
5$'1-+)'A41)'.*'*6,18R'8'2'4%'58,.,0)%$%5'
%7%$2'+*1$H'+%')''.5'&,,%),*.'8'2'W3,)+'5;
7'.)'-%'4%'66/,%5')*')+%'01$&'(%'*&')+%'
4*52H'.5')+%'6'),%.)'8'2'.*3'4%'6%$8,))%5'
)*'A4$,.9',(%5'3')%$',.'8*5%$'),*.'6$*7,5%5'
,)'5*%0'.*)',.(%'0%')+%'7*8,),..' ,.%'.5'
0),81/'.)0',&'-,7%.'42')+%'8*1)+'5,# +'8$'
,.')+,0'0)'-%'*&'(+*/%$'H'41)',&')+%'61$-,.-'
+'0''4')%5'%.%.>')'' *&'3'$8'4%%&)%'' .5'
4$'.52'8'2'4%'58,.,0)%$%5'42')+%'$%()18'
%7%$2')+,$5'+*1$' +%.'$%'(),*.'(*8%0'*.'
3%'810)'-1'$5''-',.0)'5*,.-')*'*'81(+G=),0'
7%$2'$'%'.5%%5')*'0%%''6'),%.)',.'+,0'(*.;
5,),*.'0,.9'&$*8'%B+'10),*.'41)'6$*4'4/2'
8'.2'&,7%0'$%'/*0)'42'%.5%'7*1$0'%$$*.%*10/2'
8'5%'1.5%$')+%',5%''*&'9%%6,..-'16')+%'
6'),%.)<0'0)$%.-)+'(%5'8&/9'*$'!$$*=3$**)'
,0''//')+')'0+*1/5'4%'//*3%5')*'4%'-,7%.'42'
)+%'8*1)+'&*$'0*8%),8%''&)%$'%')(),*.'+'0'
0%)',.H'41)'%.%8')''01(+''0')+*0%'4*7%'
8%.),*.%5''58,.,0)%$%5'6%$'%)(18'%7%$2'
&,7%'*$0,B'+*1$0'*$'.1)$,%.)'0166*0,)*$,%0'
'$%'*&)%.'4%.%&,(,'/'%06%(,''//2',&')+%')*8'(+'
$%8',.0',$$,)'4/%'.5%$')+%0%'(,$(180)'.(%0'
3%'.*)',.&$%E1%.)/2'&,.5')'')'08'//E1'.;
),)2'*&'0*/,5'&**5',0'5,-%0)%5'3%.'0*16'.5'
/,E1,50''$%'$%>%()%5'.'%'(+'('0%'+*3%7%$'
)+%'5,()')%0'*&'(_R,.8*.'0%.0%''.5'%B6%$,%.(%
810)'-1,5%')+%'8%5,('/'6$'(),),*.%$',.'+,0'
)$%')8%.)'*&')+%'0,(9'6%$0*.')+$*1-+')+%'
(*.7'/%0(%.)'0)'-%'*&')+%'5,0%'0%
,)+'$%&%$%.(%')*')8%.)'*&'016;
6$%00,*.'*&'1$,.%'&)%$'(+*/%$''3%'0+*1/5'-%)
)+%'6'),%.)')*'5$,.9'4*1)'+'/&''6,.)'*&'3')%$
%7%$2'0%(*.5'+*1$'0*'/&''55'&/1,5')*'+,0'
4/**5'$2(166,.-'*7%$')+%'/*,.0'0+*1/5'4%
%86/*2%5H''.5')%.'5$*60'*&')+%),.(1)%$
*&'(').+'$,5%0',.'3')%$'58,.,0)%$%5'%7%$2'
+*),$',8),/''5$'(+8'*&')+%'5$1-+'0'4%%.'
-,7%.''')'.%%5'+'$5/2'4%'$%8'$9%5')+')'
0166$%00,*.'*&'8,.%'&)%$'(+*/%$''.0''8*0)'
5'.-%$*10'(*86/,(').*.''.5')+%$%',0'7%$2'
/,))/%')+')'('.'4%'5*.%)*'$%0)*$%')+%'010;
6%.5%5'&1.(),*.0'*&')+%'9,5.%20
A A' - B&' 8*.-'6%$0*.0'
6$%5,06*0%5')*',)0',.&/1%.(%')+%'8&%(),.-'
*$-'.,080'*&' 0,'),(' (+*/%$''K3,// 8'.,&%0)'
)+%,$'%&&%()0'*.')+%'020)%8'W3,)+,.'&,7%'5'20'
*&'+'7,.-'4%.'03'//*3%5'41)')+%'-%$80'*&
)+%'5,0%'0%'5*.)*''/3'20'%.-%.5%$'0286;
)*80'*&'7,$1/%.)'(+*/%$''%7%$)+%/%00'8'
8,/5%$'('0%0'*&')+%'5,0%'0%')+%'%7'(1'),*.0'
6'00%5'42')+%'6'),%.)'8'2'(*.)',.')+%
8,($*4%0'*&'(+*/%$''.5'8'2')+%$%&*$%'1.5%$
&'7*1$'4/%'(*.5),*.0'&*$',)0'5%7%/*68%.)'
6$*51(%''5%'5/2')26%'*&')+%'8'/'52'*.0%;
E1%.)/2')+%'&*/,*3,.-'$%8'$90''$%'66/,('4/%
)*',.0)'.(%0'*&0*('//%5'02-''0'3%//

W ,43%$, %)>-‘/‘ (+*/%$‘,(‘ 5,‘$$+*%‘‘ ,0‘ .‘ K‘&&%(),*.‘ +,(+‘3 % 8 %%)‘ 3 ,)+‘ ‘)‘ ‘// 0%‘0*. 0‘ *&‘)+%‘ 2%‘$‘ . 5‘ ,)‘ ,0‘ %06%(,‘//2‘ 6$%7‘/%.)‘ ‘8*. ‘,.&‘.)0‘3+*‘‘$%‘4%, . -‘$%‘$%5‘*.‘(*3 0‘ 8 ,/9‘ *$‘ *.‘ *)+%$‘ 9, . 50‘ *&‘ &**5‘ 6$*.%‘)*‘ ,85%,-*‘61)$%&‘(),*. ‘ 8*. -‘)+%‘ &,0+ %‘),. -‘ . .5**0‘3%‘&$%E1%.)/2‘0%%‘ 0%7%$‘/‘ 8%84%$0‘ *&‘)+%‘ 0‘8%‘ &‘8 ,/2‘ 3+*‘ +‘7%‘4%%.‘0%,C%5‘ 3,)+‘0286)*80‘ *&‘ (+*/%$‘,(‘ 5,‘$$+*%‘‘ ‘))$,; 41)‘4/%‘)*‘)+%‘ 6‘),%.)0‘ +‘7,. -‘6‘$)‘9%.‘ *& &,0+‘3+,(+‘3‘0‘0/,-+)/2‘)‘,.)%5‘ .‘&‘()‘)+%$%‘ ‘$%&%3‘8*$%‘ (%$)‘,.‘0*1$(%0‘ *&‘)+,0‘ &*$8‘ *& 5,‘$$+*%‘‘)+‘.‘0)‘/%‘ &,0+H‘ .5‘ ,)‘ ,0‘ %7,5%.)‘)+‘)K3+‘)%7%$‘)+%‘ 5%/%)%$,*10‘,.&/1%.(%‘ 8‘2‘ 4%‘ 3+,(+‘ &**5‘ *&‘)+,0‘5%0($,6),*.‘(*.)‘,.0‘)+%‘ 8%$%‘&‘()‘*&‘9%%6,. -‘,)‘ ,‘4*,/,. -‘3‘)%$‘ &*$0*8%‘),8%‘5*%0‘.*)‘5%0)$*2‘ ,)0‘6*,0*.*10‘ 6$*6%$),%0

)‘ *((‘0,*.‘//2‘ +‘66%.0‘)+‘)‘ *‘0%0‘ *& (+*/%$‘,(‘ 5,‘$$+*%‘‘ *((1$‘ 8*. -‘6%*6/%‘ $%; 0,5,. -‘ ,.‘ 8‘/‘$,*10‘ 5,0)$,()0‘)+%‘ 5,‘$$+*%‘‘)‘9,. -‘)+%‘ R/‘*%‘*&‘)+%‘ (*/5‘0)‘-%‘*&‘‘ &,)‘ *& ‘-1%H‘6‘),. ‘)+%0%‘ (,$(180)‘. (%0‘ 8‘2‘ 4%‘0%,C%5‘3,)+‘‘//‘)+%‘0286)*80‘ *&‘0%7%$% (+*/%$‘‘ 41)‘)+%2‘ ‘/8*0)‘. 7‘$,‘4/2‘$%**7%$ &$*8‘)+%‘ ‘))‘(9

!(‘G‘ +*/%$‘,(‘ 5,‘$$+*%‘‘ 4%-. 0‘ 0155%./2H)+‘)‘,0‘)+%‘6‘),%.)‘3+%)+%$‘ .‘ ,.&‘.)‘*$‘ .‘‘51/)‘+‘0‘6$*4/2‘16‘)*‘)+%‘ (*88%.(%8%.)‘*&‘)+%‘ ‘))‘(9‘4%%.‘,.‘-**5‘ +%‘/)+H)+%$%‘ ‘$%‘ ,.‘&‘()‘0%/5*8‘.‘2‘6$%; 8*. ,)*$2‘0286)*80‘ ‘ # ‘8‘2‘6%$+‘60‘ /**9‘0*8%3+‘)‘6‘/%$‘)+‘ .‘101‘/‘.5‘+‘0‘‘ 5‘$9‘$,. -‘1.5%$‘+,0‘%2%0‘41)‘4%2*.5‘)+,0‘ ‘66%‘$0‘)*‘4%‘6%$&%()/2‘3%//‘ +*$)/2‘&)%$)‘9,. -‘&**5‘)+%‘ ,.&‘.)‘7*8,)0‘16‘‘‘E1‘.),)2‘ *&‘1.(*‘-1/‘)%5‘8,/9‘)+%‘ %7‘(1‘),*.‘. *)‘ 4%,. -‘(1$5/%5‘,/9%‘)+‘)‘&$*8‘.‘*7%$/*‘5%5‘ 0)*8‘(+‘)+%‘ -‘0)$,(‘ 0%($%),*.‘ .*‘ /*. -%$‘ +‘7,. -‘)+%‘ 6*3%$‘*&‘(*‘=/‘),. -‘)+%‘(‘0%,.‘ *&‘8,/9‘ **.‘‘&)%$‘7*8,),. -‘*$‘,)‘8‘2‘4%& 4%$*$%‘)+%‘(+,/5‘(*88%.(%0‘)*‘6‘00‘&$*8‘)+%‘4*3%/0‘.‘‘(,5‘-$%%.,0+ 2%//*3‘&/1,5‘(*.;)‘,.,. -‘&/‘9%0‘.‘5‘*&)%.‘/180‘*&‘,85,-%0)%5‘ &**5‘ +%‘6‘),%.)‘4%(*8%0‘7%$2‘)+,$0)2‘,0‘ $%0)/%00‘.‘5‘%7,5%.)/2‘,.‘(*.0,5%$‘4/%‘6‘,. ‘($2,. -‘.‘5‘5$‘3,. -‘.‘,0‘/%-0‘16‘)*3‘$50‘)+%‘ ‘45*8%.‘ &‘)+%0%‘02 86)*80‘(*.),.1%‘)+%‘ %7‘(1‘),*.0‘4%(*8%‘(*/*1$/%00‘$%0%84/,. -‘,.‘ ‘66%‘$‘.(%‘)+%‘$,(%‘3‘)%$‘0)**/0‘*&‘ 0,‘),(‘ (+*/%$‘‘ +%‘)%86%$‘)1$%‘*&‘)+%‘4*52‘&‘//0‘)+%‘&‘(%‘4%(*8%0‘*&‘‘51092‘+1%‘)+%‘&%‘)1%0‘ ‘$%‘6,. (+%5‘‘.5‘)+%‘%2%4‘//0‘5%%6/2‘01.9‘,‘)+%,$‘0*(9%)0‘ +%‘&*.)‘.% %0‘‘$%‘5%6$%00%5H)+%‘(+,/5‘,0‘%7,5%.)/2‘)%$$,4/2‘6$*0)$‘)%5‘+,0‘ 61/0%‘(‘.‘.*‘/*. -%$‘4%‘&%)/‘)‘)+%‘3$,0)‘.‘5‘ +,0‘($2,. -‘6‘00%0‘,.)*‘‘‘3%‘9‘3+,8%$,. -H +%‘%‘-%$/2‘5$,.90‘3‘)%$‘3+%.‘*&&%$%5‘+,8 H ‘.5‘‘0‘)+%‘%B+‘10),*.‘,.($%‘0%0‘(. 71/0,*.0 016%$7%.%‘‘.5‘)+%‘(+,/5‘5,%0‘3,)+,.‘‘‘&%3‘ 5‘20‘*$‘%7%.‘+*1$0‘ .‘)+%‘*)+%$‘+‘.5‘)+% 0286)*80‘8‘2‘4‘)%‘ ‘)‘ .2‘0)‘-%‘*&‘)+% 5,0%‘0%‘‘.5‘)+%‘/,))/%‘6‘),%.)‘-$‘51‘//2‘$%; (*7%$‘+,0‘+%‘/)+

.‘)+%‘ ‘)+%‘02 86)*80‘*&‘(+*/%$‘,(‘ 5,‘ $+(%‘‘$%‘81(+‘)+%‘0‘8%‘‘0‘)+*0%‘‘4*7% 5%)‘,/%5‘ +%$%‘‘$%‘0%/5*)*‘‘.2‘6$%8*.,)*$2‘ 0286)*80‘‘.5‘)+%‘‘))‘(9‘4%-,.0‘3,)+‘.‘10%‘‘ ‘.5‘7*8,),.-‘)*-%)+%$‘ 3,)+‘‘‘0%.0‘,‘.‘*& %B+‘10),*.‘$%&%$‘4/%‘)*‘)+%‘ 6,)‘*&‘)+%‘ 0)*; 8‘(+‘H)+%‘7*8,),. -‘,0‘06%%5,/2‘&*//*3%5‘*$,)‘ 8‘2‘ 4%‘ 6$%(%5%5‘ 42‘ 61$-,. -H (*6,*10 3‘)%$2‘5,0(+‘$-%0‘ $%)+10‘6‘00%5‘*1)‘*&‘)+% 4*52‘ .‘5‘)+%‘ /‘$-%$‘ .‘5‘ 8*$%‘ 5‘6,5‘)+% %7‘(1‘),*.0‘)+%‘8*$%)+%2‘(*8%)*‘$%0%84/%)+%‘0%$18‘*&‘)+%‘4/**5‘3+,(+‘,.‘&‘()‘5$‘,.0‘ ,.)*‘)+%‘,.)%0),.‘/‘ (‘.‘/‘ .5‘ 6‘00%0‘ ‘3‘2‘ &$*8‘)+%‘0)*8‘(+‘.5‘4*3%/0‘ +%‘6‘),%.) .‘)1$‘//2‘(*86/,.0‘1.5%$‘)+%‘(,$(180).(%0‘ *&‘,.)%.0%‘),$0)‘ %‘,0‘7%$2‘$%0)/%00H‘.5‘)‘)+%‘(*88%.(%8%.)‘*&‘)+%‘))‘(9‘01&&%$0‘&$*8‘ (*/,(92‘6‘,.0‘,.‘)+%‘‘45*8%.‘ ‘.5‘0140%; È1%.)/2‘&$*8‘06‘080‘.5‘($‘860‘3+,(+‘*&)%.‘ 0%,C%‘)+%‘810(/%0‘*&‘)+%‘%B)$%8,)%0‘ +%‘ 61/0%‘4%(*8%0‘08‘//‘.5‘3%‘9‘)+%‘$%06,$‘;),*.0‘‘$%‘+1$$,%5‘)+%‘7*,(%‘&%%4/%‘‘65‘)+% (*1.)%..(%‘6‘/%‘.5‘0+$1.9%.‘ +%‘1$,.% ,0‘0(.)2‘*$‘0166$%00%5H‘.5‘)+%)%86%$‘)1$% *&‘)+%‘4*52‘&‘//0‘*.%‘*$‘)3*‘5%-$%%0‘4%/*3‘)+%‘.*$8‘/‘0)‘.5‘$5‘ +%0%‘0286)*80‘‘0‘ ‘‘$1/%‘-$‘51‘//2‘0140,5%‘)+%‘61$-,. -‘.‘5‘ 7*8,),. -‘(%‘0%‘‘.5‘)+%‘6‘),%.)‘&‘//0‘*&&‘)* 0/%%6‘3‘9,. -‘ 8*$%‘*$‘/%00‘%B+‘10)%5‘,.‘ 6$*6*$),*.‘)*‘)+%‘0%7%$,)2‘*&‘)+%‘))‘(9‘41)‘ +%‘601‘ 2‘$%(*7%$0‘+,0‘+%‘/)+‘$‘6,5/2

& G +%‘E1%0),*.‘.‘)1$‘//2‘‘$,0%0‘ $%‘)+%$%‘ .‘2‘0286)*80‘42‘3+,(+‘3%‘(‘.‘ 5,0),. -1,0+‘‘‘(‘0%‘*&‘(+*/%$‘,(‘5,‘$$+*%‘‘&$*8‘ *.%‘*&‘ 0,‘),(‘(+*/%$‘‘]‘ .‘$%6/2‘,)‘8‘2‘ 4%‘‘&&,$8%5‘)+‘)‘)+%$%‘,0‘.*‘(+‘$‘()%$,0),(‘ 0T$86)*8‘42‘3+,(+‘)+%0%‘‘&&%(),*.0‘(‘.‘4%‘ 5,‘-.*0%5‘&$*8‘*.%‘.*)+%$‘ 1)‘)‘9,. -‘‘ ‘)+%‘(,$(180)‘.(%0‘*&‘.‘2‘6‘$),(1/‘$‘(‘0%‘,.)*‘ (*.0,5%$‘),*.‘,)‘,0‘5,&&,(1/)‘%B(%6)‘*.‘6‘6%$‘)*‘(*.&*1.5‘)+%‘)3*‘5,0%‘0%0H‘&*$‘1./%00‘‘ 6‘),%.)‘+‘0‘$%(%./2‘,84,4%5‘)>‘%6*,0*.‘3+,(+ 6$*51(%0‘ 0,‘),(‘(+*/%$‘‘+%‘(‘. .*)‘4%01&&%$; ,. -‘&$*8‘)+‘)‘8‘//‘52‘ +*1/5‘)+%‘0,(9‘6%$0*. $%0,5%‘,.‘‘‘.%,-+4*1$+**5‘‘&&%()%5‘42‘ 0,‘),((+*/%$‘‘ 3%‘ 810)‘,.‘&*$8,. -‘.‘.*6,. ,*. ‘.‘‘0‘)*‘)+%‘ .‘)1$%‘*&‘)+%‘‘&&%(),*.‘4%‘-1,5%5‘42‘)+%‘ 6$%7,*10‘+,0)*$2‘*&‘)+%‘(‘0%‘)+%‘ .‘)1$%‘ *&‘)+%‘&**5‘(*.018%5‘‘.5‘0*‘*.‘‘.‘5‘4*7% ‘/‘42‘)+%‘0%7%$,)2‘*&‘)+%‘0286)*80‘ +*/%$‘,(5,‘$$+*%‘‘ %7%.‘,.‘)+%‘)$*6,(0‘$‘$%/2‘6‘00%0‘ *.‘ ,.)*‘ (*//‘60%‘ 3,)+,.‘ ‘‘ &%3‘ +*1$0‘&$*8‘)+%‘(*88%.(%8%.)‘*&‘)+%‘‘))‘(9‘01(+‘‘0‘,0‘ (*88*./2‘0%%.‘,.‘ (‘0%0‘*&‘ 0,‘),(‘(+*/%$‘‘H ‘.5‘,.‘)+%‘%‘$/2‘0)‘-%0‘*&‘)+%‘&*$8%$‘5,0%‘0%‘)+%$%‘,0‘0%/5*8‘)+‘)‘(*86/%)%‘/*0‘*&‘7*,(%‘ ‘.5‘61/0%‘0*‘(+‘$‘()%$,0),(‘*&‘)+%‘8‘/,-.‘.‘) &*$8‘*&‘)+,0‘&&%(),*.‘ .‘%B6%$,%.(%5‘8%5,; (‘/‘6$‘(),)*.‘%$‘6/‘(%5‘‘)‘)+%‘4%50,0‘*&‘‘ 6%$0*.‘01&&%$,. -‘&$*8‘ 0,‘),(‘(+*/%$‘‘%7%.‘ 8‘,)0‘%‘$/,%0)‘0)‘-%0‘&%%/0‘.*‘5*14)‘3+‘)%7%$‘ ‘0‘)*‘)+%‘ .‘)1$%‘*&‘)+%‘ ‘&&%(),*.‘ .‘‘.5‘,0‘ ‘) *.(%‘,86$%00%5‘3,)+‘)+%‘-$‘7%‘$%06*.0,4,/,)2‘ *&‘)+%‘(+‘$-%‘3+,(+‘$%0)0‘16*.‘+,8‘‘+,0‘ .B,%)2‘,0‘,.&,..)%/2‘/%00‘3+%‘8%%)0‘3,)+‘ ‘.‘..0)‘.(%‘*&‘(+*/%$‘,(‘ 5,‘$$+*%‘‘‘/)+*1-+‘ +%‘,0‘1.‘4/%‘)*‘/‘2‘5*3.‘‘.2‘+‘$5‘‘.5‘&‘0)‘ $1/%0‘42‘8%‘.0‘*&‘3+,(+‘+%‘(*1/5‘5%&,.%)+%

5,&&%$%.(%')+')' %B,0)0' 4%)3%%.')+%'02 8 6)* 8 0' 6$%0%.)' '.5'))+*0%' *((1$$,.-' ,.' '' ('0%' *&' 0,'),(' (+*/%$'

5 G /)+*1-+' (+*/%$',(' 5,'$$+*%'' ,.',)0' 8 *$%'0%7%$%'&*$8 0'$%0% 8 4/%0' 8 ,/5' *' 0%0' *&' 0,'),(' (+*/%$' ',)' ,0' '' (* 8 6 '$'),7%/2'+'$8 ' W/%00' 5,0%'0%' ./%00' ' 8 *.-' 2*1.-' ,.&'.)0' *$' */5' '.5' 0,(9/2' 6%*6/%' 3,)+' 3 %0,' +%'$')0' .*' 8 ''))%$' +*3')+$%')%.,.-')+%' 02 8 6)* 8 0' 8 '2' +%' +*3%7%$' -$%')')+%' (*//'60%' '.5' 5%; 6$%00,*.' *&')+%' 6'),%.)' 8 '2' 0%% 8 ' '' 6$%7,; *10/2' +%'/)+2' '51/)' 0%/5* 8 '5,%0' *&' (+*/%$',(' 5,'$$+*%'

! G=.' ('0%0' *&' 0,8 6/%' (+*/%$''*((1$$,.-' ,.')+%' (+,/5')+%' ,8 6*$)'.)' 6*,.)' 3%' 8 10)' %.&*$(%' ,.' *1$')$%')8%.)' ,0')+')')+%' '&&%()%5' 6'$)' 0+'/' +'7%' $%0)' .'6$'(;),(%' +*3%7%$' ,)' ,0' *&)%.' 5,&&,(1/)')*' 6%$; 01'5%' 6'$%.)0' '.5' .1$0%0')+')' '.',.&'.)' (' .' %B,0)' 1.,.>1$%5' &*$')%.' *$' &*1$)%%.' +*1$0' *.' ,(%5' 3')%$H .%7%$)+%/%00' 3%' 8 10)' ,.0,0)' *.' '' 6/'.' *&')+,0' 9,.5' 4%,.-' ('$$,%5' *1)' +%' /,))/%' 6')%.)' 3,/' %'-%$/2'03' *3'(*/5' 3')%$' %,)+%$' &$* 8' ''4*))/%' *$' 06**.' '.5')+%' (+,/5' 8 '2' 4%' '//*3%5')*')'9%' '0' 8 1(+' (*/5' 3')%$' '0'+%' $%E1,$%0' '.5')*' 01(9',(%'3+,(+' 8 '24%' 3$'66%5'16',.')+%' (* 8 %$' *&' '' +'.59%$(+,%&' .5'61)',.)*' +,0' 8 *1)+' '6*1/),(% 8 '5%' *& %E1'/'6')0' *& 8 10)'$5'.5'&/*1$''66+%5'*7%$')+%' '45*8%.' ,0' *&)%.' 7%$2' 10%&1/',.')+,0' &*$8' *& 5,0%'0%' ,)+' $%&%$%.(%')*' 5$1-0' 0+*1/5')+%')$%')8%.)' '4*7%' ,.5,(')%5' .*)' $%/,%7%')+%'02 8 6)*8 0'*$ 0+*1/5')+%'7 8 ,),.-' 4%'7%$2'(*.0)'.)' &$*8')3*')*' &*1$'-$',.0'*&' ('/*8%/8'2'4%'-,7%.''.5'$%6%')%5',&'.%(%0; 0'$2',.''.'+*1$0'),8%H +*3%7%$',&')+%'5,'$; $+*%'',0')+%'8*$%'6$*8,.%.)'02 8 6)*8'('/*8%/,0'.*)'$%E1,$%5'41)''')%'06**.&1/*&'('0)*$*,/0+*1/5'4%''58,.,0)0%$%5' &)%$')+%'4*3%/0'+'7%'4%%.'(/%'$%5'*1)',&')+%'0%$*10'5,0(+'$-%'(*.),.1%0'3%'0+*1/5'*$5%$''0)$,.-%.)0',.')+%' &*$8'*&' '-$',.'*&''(%)')%'*&'/%'5'%7%$2'+*1$'*$' *&''-$',.'*&.)$')%'*&0,/7%$'1.),/)+%'61$-8-'0140,5%0' '.,('(,5',.'(*8;4,.'),*.'3,)+'5,/1)%5'01/6+1$,('(,5'.'501-'$',0'&$%E1%.)/2'' 10%&1/'(*84,.'),*.')*'5'; 8,.,0)0%$')*'(+,/5$%.',.'('0%0'*&'),+,0'5%0($,6;),*.' ,)+' $%&%$%.(%')*'*6,18'81(+'0' 3%'5,0/,9%'6$%0($,4,.-',)'&*$',.&'.)0',)'8'2'4%'.%(%00'$2',.'('0%0'*&'0,86/%'(+*/%$'H 41)',)'0+*1/5'+'$5/2'4%'-,7%.',.''8,B)1$%')*'4%'58,.,0)0%$%5'&$*8'),8%')*'),8%'42'' .1$0%' 6,18'1.5%$')+%0%'(,$(180)'.(%0'('.'*./2'4%'58,00,4/%'3+%.'-,7%.'42')+%'8%5,('/'');)%.5'.)'+,80%/&'.'5*0%0'*&'*.%')3*'*$)+$%%'8,.,80'*&'/'15'.18',.''/,))/%'3%'9'4$'.52''.5'3')%$'('10%0')+%'(+5')*'0/%%6'&*$''&%3'+*1$0',)'8'2''()'/8*0)'/,9%''(+'$8')+%',.&'.)'3'9%0'(*86'$'),7%/2'3%//' 1)',&')+%'W*6,18'+'0'.*'01(+'%&&%()'3%'8'2'4%)%86)%5')*'$%6%')'+%'5*0%'41)'('.'0('$%/2'-,7%',)''')+,$5',8%''),)'.'2'$')%'1.),/0*8%'+*1$0'+'7%'%/'60%5'0,.(%')+%'58,.,0)$'),*.''*&')+%'0%(*.5'5*0%' +%'02 8 6)*8 0'+'K7,.-'0140,5%5')+%'(+,/5<0'5,%)' 8 10)'4%'0)$,()/2''))%.5%5')*

''-**5'+%'/)+2'3%)'.1$0%''0''' $1/%'4%,..-''.'1$-%.)'.%(%00,)2',.')+%'('0%'*&',.&'.)0' ,8%'3')%$' 8'2' 3,)+' '57'.)'-%' 4%' 8,B%5',7,)+'+%' (+,/5<0' &**5' +%' 5,%)' 8 10)' 4%' 8*0)'('$%&1//2' *$5%$%5' ' &' ,)+' $%&%$%.(%')*')+%')$%')8%.)' *&' '51/)0'01&&%$,.-' &$*8' (+*/%$',(' 5,'$$+*%'' 3%' 810)'4%'$' ,.' 8,.5')+')' 1./%00' '8*.-' *'5' '.5 5%4,/,)')%5' 6%$0*.0')+%' 6'),%.)' 3, ' '0' '' $1/%' $%(*7%$' 3,)+*1)' 8 %5,(,.%' &')+%$%;&*$%' ('//%5')*' 6$%0($,4%' &*$' '' ('0%' *&')+,0'(*86/',.)' 3%' 8'2'*$5%$'&,&)%%.' 8,.,80'*&'/'15'.18' *$' '' 5$'(+8' *&')+%' (*86*1.5'),.()1$%' *&' ('86+*$',.' 3')%$')*' 4%')'9%.'A0166*0,.-')+%')'),%.)',0' 7%$2'0,(9R',88%'=')%/2''&)%$'7*8,),.-H +'/&')+%' '4*7%' 5*0% 8'2'4%'-,7%.''')')+%' %B6,$'),*.'*&'*.%'+*1$H'.5' '-',.' '&)%$' '.*)+%$' +*1$' 1./%00')+% 02 8 6)*8 0'+'7%',.')+%' 8%'.),8%' 0140,5%5' '/'$-%' 810)'$5'6*1/),(%' 0+*1/5'4%' '66/,%5'*7%$')+%' '45*8%.''.5')+%' 6'),%.)' 810)' 4%(*.&,.%5')*' 4%5' '.5'9%6)' *.',(%' '.5',(%5'3')%$H +%'0+*1/5.*)''+*3%7%$'4%'6%$8,))%5')*' 03' *3')*'*' 81(+',E1,5' &')+%'7*8,);,.-',0' 0%7%$%' '' 0($16/%' *&'('/*8%/8'2'4%-,7%.')*''.''51/)' *$',.')+%' &,$0)',.0)'.(%''.' %&&%$7%0(,.-' 8,B)1$%' 3,)+' +25$*(2'.,('(,5'8'2'4%'%86/*2%5')*' //'2')+%'0,(9.%00'.')+%')*+%$' +'.5'0+*1/5')+%'5,$$+*%'' 4%%B(%00,7%'3%'8'2'3,)+''57'.)'-%'6$%0($,4%'&*1$'-$',.0'*&''(%)')%'*&'/%''5''.5')%.'5$*60'*&'5,/1)%5''(%),('(,5'%7%$2'0%(*.5'+*1$H'*$6,//0'(*.),.,.-''5$*6'*&'(%')%'''E1'$)%$'*&''-$',.'*&'.,)$')%'*&'0,/7%$'''-$',.'*&'(' 86+*$''.5')3*'-$',.0'*&' *7%$<0'6*35%$')*'4%'$%6%')%5''&)%$%'(+'/**0%'8*),*.

8*.-'*/5'*$'3%'9/2'6%$0*.0'.5''/0*',.')+%'('0%'*&',.&'.)0',)'0'*&)%.'.%(%00'$2')*'58,.,0)%$'4$'.52''.5'3')%$'&$*8'),8%')*'),8%''((*$5,.-')*')+%'0)')%'*&')+%'6'),%.)<0'61/0%' ' ; ' ' !

&% N G ')%$8'66/,%5')*''(/'00'*&'('0%0'3+,(+'*((1$'51$,.-')+%'6$%;7'/%.(%'*&'(+*/%$''.' 3+,(+')+%' 8,/5%$02 8 6)*8 0'*&')+%'5,0%'0%''$%'6$%0%.)' ')'+'0'/0*'4%%.'10%5')*'5%0,-.')%'6*,0*.'*.'3+,(+'(+*/%$''0'0166*0%5')*'5%6%.5' $ ' /'.5' $ '' &% : OS

&% ! 3 3'AB*Y,='4,/%H'.5'*%',6'm '/%.f''&')2')18*1$R G .'%.;(20)%5')18*1$'(*.0,0),.-'(+,%&/2'*&'(+*/%'0)%$,.'

&% ! %' 4,/%'C '.5'*&66*,'0*/,5' +%')%$8' '' '*((''0,*.' 2'10%5',0'5%$,7%5'&$*8'2*Y,R'4,/%H'.5'_ d0'01%)R 2 *' '' $' '' -' %$'' C B

! ' ' ' (''+*/%0)%$,.'0'' 8*.')*8,('/(*+*/'$%6$%;0%.)%5'42')+%'%86,$,('f &*$81/'' TT ;; &,$0)'5,0(*7%$%5',.' MFF'42' *.$'5,'.'*B'4,/%',)0'%B'()'(*86*0,),.*.'4%,.-'0140%E1%.)/2''0(%$)',.%5'42'+%7%1/')',0'6$*4'4/%')+')

)+%$%' '$%0%7%$'ƒ,0* 8 %$,('0140)' . (%0',. (/1(/%5' W3,)+,.')+%')%$ 8 ')+*1-+' * .%' * . /2' ,0' 9 . * 3 .')*' *((1$' ,.')+%' +1 8 .' .'4*52' +%.' 61$%' ,)' *((1$0'0'3+,)%')'0)%/%00',. *5*$*10'-/,))%$,. -' 0('/%0' 3+,(+' &*$ 8' .%%5/%0' 3 +%.' ($20)''//,0%5' *1)' &$* 8' 0*/1),* .' ,.' (+/*$*&*$ 8 ' '. 5' '0' $+* 84,('6/')%0' *&)%.' 5%&,(,%.)' ')' * .%' (* 8 %$' 3+%.' 5%$,7%5' &$* 8' '/(*+*/,(' '. 5' %)+%$%'ƒ/ 0*/1),* .0' ' ' (' ' 3')' ,0' ,.0*/14/%' ,.' 3 ')%$ ' '/9'/,0' '. 5' 5,/1)%' '(,50'41)' $%' 5,/2' 5,00*/7%0' ,.' %)+%$' (+/*$*; &*$ 8'4*,/,. -' '/(*+*/'4%. C*/')1$6%.),. %' . 5' 0*/1),* .0' *&')+%' 4,/%' '(,50' . 5' ,)0' 0*/1'),* .0' '$%' 0%7* $*)')*$2')' 8 %/)0' ')' Fg' ' +%' ($20)'/0' +%')%5' 3,)+' 0)$* .-' 01/6+1$,(' '(,5' -,7%' '' ('$ 8 ,. % $%5'(*/*1$'*$ 3,)+'0)$* .-' .,)$,(' '(,5' '' 2%//*3' (*/*1$H 3,)+')+%' &*$ 8%$' '(,5' . 5'),. ()1$%' *&' ,*5,. %' '' 7,*/%)' 3+,(+' 4%(* 8%0' 4/1% -$%%.

$: G +%' %B' ()' 6+20,*/*-,('ƒ 0,-. ,&,' ('>/(%' *&' (+*/%0)%$,.' ,0' . *)' 9 . * 3 . ' 41)' ,)' ,0' -%. %$' //2' $%-'$5%5' 0' ''6$*51()' *&')+%' 8 %)';4*/,0 8'*&')+%' . %$7*10',001%0'3+,(+'0+*1/5'4%' %/,8 ,. ')%5'42')+%' /,7%$' ,.')+%' 4,/%')' ,0' '' . *$ 8 'ƒ (* .0),)1%.)' *&' (%$)' ,.' *&')+%'),001%0' &*$ 8 ,. -' . %'$/2' F!' 6%$' (%.)' *&')+%' 0*/,50' *&')+%' 3+,)%' . %$7*10' 8 '))%$' ' .5' ? ' 6%$' (%.)' *&')+%' 0*+50' *&')+%' -$%2' 8 '))%$' 4%,. -' 6$*; 4'4/2'(* 84,. %5')+%$%,.' 3,)+')$1%' &')) 2' 014; 0)' . (%0'H ,)' ,0' %0),8 ')%5')*' &*$ 8' @F' 6%$' (%.)' *&')+%' $%5' (*$610(/%0' *&')+%' 4/**5Hƒ ' 6%$' (%.)' *&'+18 .' .4/%ƒ ' .5',)' *((1$0',.' 8 ,.1)% E1' .),),%0',.')+%' 06/%%.' $,.' 8 9' ' .5' 0%$18 ' ' .5' '0' '' (* .0)' .)')+* .=' E1' .),)';),7%/2' '$,'4/%,. -$%5,%.)' *&')+%' &$%(%0' 3+%$%' ,)' +'0' 4%%.' %$$*. %*10/2'0166*0%5')*' 4%' $%6$%; 0%.)%5' 42' 0)%$(*$,. ' 3+,(+' 0140)' .(%',0' ,.' $%' /,)2' .' ,8 61$%' &*$ 8' *&' (+*/%0)%$,.' ' H J ' B' 8,. '),*.' *&R')' ,0' '/0*' &*1.5' ,.')+%' 2*/9' *&' %--' &' (+*/%0)%$,.',0' *&' 3,5%; 06$%'5' *((1$$%.(%' '8 *.-' 6/'.)0' A01(+' '0' 6%'0' .5' 8',C%' '/0*' ,.' '/8 *.5' .5' */,7%' *,/0R' '.5' 8 '2' 4%' $%-'$5%5' '0' '' 5%(* 8 6*0,;),*. 6$*51()' *&' 0* 8%' *&')+%' '/418,. *10' (*.; 0),)1%.)0' *&')+%' (%//0

' $' * $ " +%' 6')+*/*; -,('ƒ*((1$$%.(%' *&' (+*/%0)%$,.' ,0' 7'$,%5' .5' *&' 1.9.*3.',8 6*$)')',0'/,'4/%')*' 4%' 8 1(+',.($%'0%5',.'E1' .),)2',.')+%' .*$ 8 'ƒ 6/'(%0' *&',)0' *((1$$%.(%H)+10',.''00*(,'),*.' 3,)+'>'1.; 5,(%')+*1-+' '66'$%.)/2'.*)' /3'20')+%' 4/**5' +'0' 4%%.' 9.*3.')*' (*.)',.' '*$' L' 6%$' (%.)H ,.')+%' 4,/%',)' 8 '2' 4%'0*' '41.5'.)' '0')*' &*$ 8' ($20)'/0' *$' 4% 5%6*0,)%5' '0' -'// 0)*.%0' *&' 3+,(+',)' &*$ 8 0')+%' -$%')%$' 6*$),*.H ,.')+%' &%(%0' 3+%.')+%2' '$%' &$%%' &$* 8' 4,/%' '' (*.; 0,5%$'4/%' ,.($%'0%' *&' (+*/%0)%$,.' '.5' &')0' 8 '2' 4%' 8 %)' W3,)+' .' %B(%6),*.'ƒ ('0%0' *&' $%.'ƒ 5,0%'0%' ($20)'/0' +'7%' 4%%.'5%6*0,)%5',.')+%' 1$,.%' +%' &/1,5' *&' (20)0' %06%(,'//2' +25'),5' .5' *7'$,'.'0%%8 0')*' 4%' 8*$%/,'4/%')*' (*.)',.' (+*/%0)%$,.')+'.' %&&10,*.0',.)*' 0%$*10' ('7,),%H ' .5')+,0' &'()' +'0' 4%%.'(*.; 0,5%$%5' *&' 0* 8%' 7'/1%',.')+%' 5,'-.*0,0' *&' '0(,)%0' &$* 8' *7'$,'.' 5$*602' 1)',)' 0* 8%;),8 %0' *((1$0',.' (*.0,5%$'4/%' E1' .),),%0',.

+25$*(%/%' &/1,50' '.5',)' +'0' 4%%.' 8 %)' 3,)+',.'*/5'6/%1$'ƒ' .5'6%$,)*.%'ƒ%&&10,*.0' 3+%$%' ,)' '66%'$0' '0' -/,0)%.,.-' 6'$),(/%0' 0106%.5%5',.')+%' &/1,5' .')+%' ('0%*10'5%-%.%$')*$2'6$*51()0' ($20)'/0' *&')+,0' 0140)' .(%' '$%0* 8 %),8 %0' &*$ 8 %5' '.5',.')+,0' 3'2' 8'2' 4%' &*1.5',.' 061)18' '.5' *)+%$' %B($%)'

+%')$',.'*&' .%$7*10' '.5' *)+%$'02 8 6)*8 0' 3+,(+'*&)%.'((*86'.,%0'/*.-(*.),.1%5'2'1.' 5,(%+'0' 4%%.' '))$,41)%5')*')+%' $%)%.),*.' *&' (+*/%0)%$,.',.')+%' 4/**5' .5' +%.(%')+%')%$ 8' # ' 3'0' %8 6/*2%5')*' 5%.*)%')+,0' (*.5,),*.')',0' (%$)',.'+*3%7%$')+')' (+*;/%0)%$,.''0'01(+',0' E1,)%',.%$)' '.5'+'$ 8/%00')*')+%'),001%0' '.5',)' ,0' 1.5%0,$'4/%')4' 6%$'6%)1')%')+%' %B6$%00,*.' ' ! , ' ') , 4

' ABa69='' +'$60)$,.-R G' & # " ',. ' ,8 6%$&%()' %$%(),*.' *&')+%' 6%.,0' 51$,.-'-*.*$$+*%' * $ P' ' G +*$5%%' ,0' 8*0)' (*88*.',.')+%' 0%(*.5' '.5')+,$5'3%%90' *&'-*.*$$+*%*''.5'$'$%/2'))'(90')+%'6'),%.)' '&)%$')+%')+,$5'3%%9' .' %B(%6),*.'ƒ ('0%0' *.')+%'(*.)$'$2'(-*$5%%'.40%.)',.')+%'(1)%' 0)'-%',0' 7,*/%.)/2' 5%7%/*6%5' '&)%$')+%',.; &/'88'),*.' +'0' 4%(*8%(+$*.,(' '.5' 7%$2' 0/,-+)' +%' 41/4*10' 6')$)' *&')+%' 1$%)+$'' ,0' -%.%$'//2' ,.)%.0%/2',.&/'8 %5' 3+%.' (+*$5%%' +'66%.0Hƒ '.5'&1$)+%$5' (+*$5%%' ,0' 7%$2' 1.' (*88*.'3+%.')+%' 1$%)+$,),0',0'/,8,)%5')*')+%' .)%$,*$'*$6*0)%$,*$6*$),*.0'*&')+%'(''/ +%' # '*&' (+*$5%%' ,0' ,8 6%$&%()/2' 1.5%$0)**5' 3*' %B6/'.'),*.0' +'7%' 4%%.' 61)'&*$3'$5 G ' +')+%' (*$610' 06*.-,*; 018' 01$$*1.5,.-')+%' $%)+$'' 4%,.-' '&&%()%5' 42',.&/'88'),*.')+$*1-+')+%' %&&10,*.'*&' /286+',.)*' ,)0' 0140)'.(%' 6$*6%$' 5,0)%.0,*.' *&',)0' 6*.-2',001%' '.5' %/*.-'),*.'51$,.-' %$%(),*.'('.*)')'9%' 6/'(%' %.(%',)' ,0' 5$'3.'),-+)' /,9%' '' 4*30)$,.-' 42')+%' '$(+;,.-' *&')+%' 5,0)%.5%5' (*$6*$'' ('7%8*0' ALR' +')')+%',.&/'88')*$2'(*.5,),*.' *&')+% 81(*10'8%84$'.%' '.5'0148 1(*10'),001%' ')+%' 41/4*10'6')$)' %B(,)%0' $%&/%B' 06'08'*&')+% 810(/%0'01$$*1.5,.-')+')' 6')$)' *&')+%' (*$660' 06*.-,*018' +,0'6$%7%.)0'5,0)%.0,*.'*&')+%' 6')0' (*86$%00%5H 3+,/%')+%' (*$6*$'' ('7%$;.*0'4%,.-'1.)$'88%//%5'(*.),.1%')*' %B6'.5',.')+%' *5,.'$2'8'..%$' +%' &,$0)' %B6/'.';),*.',0'.01&&,(,%.)')*''((*1.)' &*$'0*8%' ('0%0' 3+%$%')+%',.&/'88')*$2''(),*.',0'7%$2'0/,-+)' '.5')+%$%',0'.*' %7,5%.(%')+')' /286+' +'0' 4%%.' %&&10%5',.)*')+%' %$%(),/%',001%H &*$ %B'86/%''&)%$'' 6/'0),(' *6%$'),*.'*.' +)+%' 6%.,0' -',.' .')1$'ƒ %$%(),*.' +'0' 4%%.' 9.*3.')*')'9%' 6/'(%' 7%$2'0+*$)/2' &)%$)&)%' 0140,5%.(%'*&'-*.*$$+*%'ƒ,.&/'88'),*.''.5' ,)',0'&',$')*' 0166*0%'4%&*$%' %&&10%5'/286+'(.' +'7%'4%%.''40*$4%5' +%'0%(*.5'%B6/'.'),*.' ,0' 1.0'),0&')(*$2'4%('10%'06'08'*&' *)+%$' 810(/%0'*&')+%' 6%$,.)%18',0' *&)%.'40%.)' .'*1$' 6$%0%.)',86%$&%()'9.*3/%5-%'*&')+%' 61$6*0%0'0%$7%5'42')+%'.%$7,'%$,-%.)%0')+%0

! ' $ ' ' $ '
+%0)152 *&(+*$%'' '0 *&%6,/%602' .5 8 ' .2 *)+0$ '&&%(),*.0 *&)+% .%$7*10 020)0 8 ' +'0 4%%.' +' 8 6%$%5 42 ,)0 4%,..-' $%-'$5%5 '0 '' 8*$4,5 1.,)2' +%7,%3'+%$% 8',.)',.%5,0 # ' ' '' 02 8 6)*8' $')+%$)+'.' '' 5,0%'0%' '.5)+')')+% (+'$'()%$,0),(' 8*7%8%.)0 '$% ,.'$%/'),*.'.*)' 3,)+')+% " '*&)+% 8*$4,5 %+'.-%'41 3,)+',)0 +%0%')'*&)+%5,0;)1$4'.(% ,0)+% (*$610 0)$,')18 ',)0 (+'$'()%$ 6$*4'4/2 5,&&%$%.)' ,.' 5,&&%$%.)' ('0%0H 41)+% '.')*8,(' (*.5,),*.' ('..*) '8*1.)*' '()1' 4$%'(+' *& 0)$1()1$% 0,.(%)+')' ,0 9.*3.')* -.7%$,0%')*' +%8,6/%-.' 3+,/% ,) 8 10) *47,*10/2 4% *&'' 9,.5)*' ,8 6',$)+% &1.(),*.(' //%5 0,.0'..)2 *&)+% 8 10(/%0'<H '' 4%%.(' //%5 0,.0'..)2 *&)+% 8 10(/%0'<H '' 4%))%$ 6+$'0% A'0)+% 3$,)%$ +'0 0',5 %/0%; 3+%$%H 3*1/5 4% 05%/,$,18 ' *&)+% 0%.0*$,; 8*)*$-'.-/,' .'5%/,$,18 ')+%$%$,0 /*00 *& (*.)$*/ *7%$)+% 8%.)'/6$*(%00%0'3,)+' $'6,5 01((%00,*.' *&', .(*+%$%.)'.5',86%$&%()',5%'0H ,.' (+*$%'' /*00 *&(*.)$*/ *7%$)+% 8*)*$ '66'$')10'3,)+' 8*7%8%.)0'%B(%00,7%,.'6*..)' *&.184%$' .5'%B)%.)'41) 3'.),..-',.'7,-*1$ '.5'6$%(,0,* .'0*8%' ('0%0' *& (+*$%'' .*)+,..-'4.*$8 '/ +'0'4%%.'5%)%()%5' &)%$'5%')+'41) 101,5/2')+% 8,.1)%' 8%)+*50 *&',.7%0),-'),*.'.*3'61$01%5' 2,%/5'6*0,),7%$%01/)0' +%'/'$-%0)'0%$,%0' *& %B'8,.'),*.'0'614/,0+%5',0'(*.)',..%5',.'' (*8; 81.,(''),*.')*')+%'U*2'/ %5,(''/'.5' +,1' -,('/ *(,%)2',.')+%'0%00,*.'*&?MF D'42 $' ,(9,.0*.' %'5%0($,4%0'5,/'))',*.0'*&')+% 8,.1)%' $)%$,%0' '0'%B,0),-')+$*1-+*1)')+% 4$',.'.5'(*$5'8*$%%06%(,''//2'+*3%7%$',.')+%'(*$610'0)$,')18'.5'*6),(')+'/'8 10'3,)+' 08'/ +'%8*$$+'-%0H '.5'(*.0,5%$0')+%'5,0; %'0%')*'4%'51%')*'' 3,5%/2'06$%'5'+26%$'%8,'' *&')+% .%$7% (%.)$%0' %'5,5'.*)'&,.5'('6,/; /'$2'%84*/,080'41)'5*%0'.*)'66%'$')*'+'7% 5$'3.')+*')$%$,*/%0')*' /**9'&*$')+%8 +%'66%'$'.(%0'+%'5%0($,4%0''$%7%$2'81(+')+*0%'6$*51(,4/%'42',86'(),*.'*&8,($*0(*6,(' 6'$),(/%0'*&&,4$,.' ,')+% 8,.1)%'7%00%/0' '6 /'$2'%84*/,080'+'7%'4%%.'&*1.5'42' $' 1(93%''.5'*)+%$'*40%$7%$0'6$%5*8,; .')/2',.')+%'(%.)$'/ -'.-/,''41)'/0*',.')+% (%.)$'/(*.7*/1),*.0'.5'06,.'/ (*$5''((*8; 6'.,%5'42'6')(+%0'*&'0*&)%.,.-''.5'8,.1)%' +'%8*$+'-%0' .'/8*0)'//&')'/(''(%0%'*& (+*$%'')+%$%',0'%.5*('$5),0'3,)+'5%6*0,)0'*& 4%'50'*&/286+'*.')+%'8,)$'/'*$''*$),('7'/7%0' *$'4*)+'3+%)+%$''81$81$+'7'4%%.''15,4/% 51$,.-'/,&%'*$'.*) +%6*0) *$%$.''66%'$'.(%0'(*.0%E1%.)/2' 5*'.*)',.5,('))%'.2'/*('/,0'),*.'*&')+% 8*$4,5' (+'.-%',.')+%'(%.)$'/-'.-/,'' 1)',)',0')*'4% $%8%84%$%5')+')')+%&')'/('0%0'' $%')+*0%',.' 3+,(+')+%$%',0'.*)'*./2'%B)$%8%7,*/%.(%',.')+%'(+*$%,('8*7%8%.)0'41)'101''//2'/0*'5%+' $,18'.5'*)+%$'02 8 6)*80' +%$%'$%',.'&'()' 81),6/%'02 8 6)*80'>10)''0')+%$%'$%'81),6/% /%0,*.0''.5'3%' $%('//%5'16*.')*'5,0)$,41)%')+%'02 8 6)*80'.5''00,-.')+%8')*')+%,$'$%; 06%(),7%'0*1$(%0'42'01(+'9.*3/%5-%'*&')+% &1.(),*.0'*&')+%'5,&&%$%.)' .%$7% (%.)$%0' '0 6+20,*/*-2''&&*$50'10' +%'5%/,$,18'*$'(*8'' 6'$'),7%'5%8%.),'',0')+10' '))$,41)%5')*')+% /%0,*.0',.')+%'(*.7*/1),*.0H)+%'/*00'*&06%%(+')*'/%0,*.0',.'(*.7*/1),*.0'*$',.'/*3%$'(%.)$%0' '((*$5,..-')*',)0'(+'$'()%$H)+%',86',$8%.)'*$ 0%.0'),*.')*'/%0,*.0',.')+%)+'/'8,H)+%'(+*$%'')*'/%0,*.0',.')+% *$6*$''0)$,')''+%-$*1.50' 16*.'3+,(+')+,0'/'0)'/*('/,0'),*.G)+')',.' 3+,(+'3%'$%',8 8%5,')%/2'(*.(%$.%5G,0'5%; (,5%5''$%''0'&*//*30' %'%B(/15%)+%'(%$%4$'/ +%8,06+%$%0'.5(%$%4%//18 $')+%$'$4,)$'$,/2' 6%$+'60'0,.(%')+%$%',0'81(+')*'4%'0,5',.' &'7*1$'*&')+%,$'(*.)$,41),..-')*'%B(,)%')+% 8*7%8%.)'.*3'%06%(,'//2')+')'(*.7*/1),*.'/ 8*)*$'$%'0'+'7%'4%%.'5%8*.0)$')%5'42' ,)C,-''.5'%$$,%$'+%',86*$)'.)'6*,..)')* 4%'8'5%(/%'$'+*3%7%$',0')+')'(+*$%''+'0' .*)',)0'0%')',.')+%'(*$5' ^%'$-18%.)0'.5' %7,5%.(%0''-',.0')+,0''$%'A8R)+')' '' .5' .*)' '06'0R',0'(+'$')(%$,0),(' *& 6%$0,0; (%)%.)'.)'.5'%$%,%$' +%',86*$)'.)'6*,..)')*)*/*7%$)+%'8*7%8%.)0'$%)',.%5'42')+%'3 /H A R)+%,$',.($%'0%',85%$'%8*),*.H A R)+%,$' (%00),*.'58,..'0/%%6' *')+*0%'3+,(+'3%$%* *$,-,.'//2'57'.(%5'42' $'U100%//'U%2.*/50' 8'2'4%'55%5''AFR)+%'5,8,..0+%5'$%&/%B' '(),*.'*.'),(9/,.-H'.5'ALR)+%'6+%.*8%.''*& +%8,(+*$%''.5',)0'$%/')*.0'3,)+'+%8,6/%-,'' +%'%7,5%.(%''&&*$5%5'42' +%8,(+*$%'',0'0*' (*.(/10,7%')+')'*)+%$'(*.0,5%$')*.0' +'7%' 4%%.'8%$%/2''//15%5')*')'(''.*)'4%%.'6*0%5'&*$'%B'86/%')+')'*.%'/')%$'/ +'/&'*&)+%'%.),$%/%..-)+'*&'6*.0'8%51//''.5'(*$5' (''.'4%'&&%()%5'3,)+*1)',86/,(''),*.'*'*&')+% *)+%$'+'/&'3+,(+'3*1/5'4%')+%'('0%'3,)+' +%8,(+*$%''*&'06,..'/*$,-,.H'.5'0),// 8*$%' (*.(/10,7%',0')+%&'(')+')'3+%.',.'+%8,(+*$%'')+%$%',0',86',$8%.)'*&'0%.0'),*.',)',0'*.')+% 0'8%'0,5%3,)+')+%'8*7%8%.)0''.5'.*)''0' ,.'+%8,6'$'6/%-,''A51%)*')+%'5,7,0,*.'*&'*.%' +'/&'*&&)+%'(*$5R'*.')+%'*66*0,)0'5%)*')+% 8*)*$'6'$'/20,0' +%'6'$'//%/,08'4%)3%%.' +%8,(+*$%''.5'+%8,6/%-,'',0'0*'6%$&%()'0')*'01--%0)''*.(%')+')'*)3*''&&%(),*.0' $%6$%0%.)'5,&&%$%.)'(*.5,),*.0'&*')+%'0'8%' .%$7% (%.)$%0''.5',0'8'5%'8*$%(*86%)%'42')+%'7%$2'5,0($%6'.(,%0''0')+%2'8'2'')'&,$0)' 0,-+)'66%'$'3+,(+'+'7%'4%%.'(*.0,5%$%5')*' 4%'*4>%(),*.0'.5' +%8,6/%-,'')+%$%'$%'(%$;),.'810(/%0'3+,(+'8*$%'*$'/%00'(*86/%)%'2 %0('6%'6$'/20,0' +%'8*)*$%0' *(1/*$18' *$4,(1/'$%0'6'/6%4$'$18' '.5'*)+%$'&'(,'/ 810(/%0')+%'810(/%0'*&')+%'.%(9'(+%0)'4'(9' '.5''45*8%.' .'+%8,(+*$%'')+%,$$%-1/'$ 8*7%8%.)0'($*00')+%'85,'./,.'.5',.7'5%)+%'*66*0,)%'0,5%',')+%0%'0'8%'810(/%0' +,0'+'0'4%%.'%B6/',.%5'A$,-+)/2'*$'3$*.-/2R 42')+%'+26*)+%0,0')+')'/')+%0%'810(/%0''(); ,.-',.'(*861/0*$2'(*.(%$)'3,)+')+%'(*$$%; 06*.5,.-'A*$*)+%$R'810(/%0'*&')+%'*66*0,)% 0,5%')+%.%5%')*'02 8 6)*80'.5''00*; (,')%5'810(/%0'3,/'4%'(*88,001$'/2''00*; (,')%5',.')+%'(*$5'0*'0')*'4%(*8%,.'%&&%()' ''0,-/%'.1(/%10''.5')+,0',-/%'.1(/%10'&*$' 810(/%0'*.'%'(+'0,5%'*&')+% $' 4%,.-

(*. . %()%5‘3,)+‘4*)+‘(*$6*$‘‘0)$,‘)‘ ‘,0‘)+$*3 .‘ ,.)*‘ ‘(),*.‘ ‘)+%‘0*1.5‘ (*$610‘0)$,‘)18‘ 3+%.‘ ,)0‘ &%//*3‘ *&‘)+%‘ *66*0,)%‘ 0,5%‘ ,0‘ 5‘8‘-%5‘ ‘0‘ ,.‘ +%8,6/%-,‘ ‘)+10‘ 6$%7%.),. -‘ 6‘$‘/20,0ℍ‘ .5‘ *.‘)+%‘ *)+%$‘ +‘ .5‘ ,0‘$%‘(+%5‘ 42‘)+%‘ ,$$%-1/‘$‘ ,861/0%0‘ &$*8‘)+%‘ (*$610‘0)$,‘)18‘ ‘&&%()%5‘ ,.‘+%8 ,%+*$%‘ ‘)+10‘(‘10, .-‘ 4,/‘)%$‘/‘ (+*$%‘‘ ,.‘)+%‘6‘$)0‘%.18%$‘)%5 .‘‘55,),*.‘)*‘)+%‘(*$$%06*.5%.(%‘4%)3%%.‘ +%8,%+*$%‘‘‘ .5‘ +%8,6/%-,‘‘ >10)‘ 5%0($,4%5‘)+%$%‘ ‘$%‘)$‘.0,),*.0‘ &$*8‘*.%‘)*‘)+%‘ *)+%$‘ ‘.5‘(*84,. ‘),*.0‘*&‘)+%‘)3*‘)*‘4%‘8%.),*.%5‘ 4%/*3‘ ,85%$‘)+% +%‘5‘ *&‘ *86/,(‘),*.0‘ %8,6/%-,‘‘8‘2‘4%01((%%5%5‘42‘+%8,%+*$%‘‘ A)+%‘ # 0 ‘ ‘*&‘7‘$,*10‘*4; 0%$7%$0Ґℍ*$‘(+*$%‘‘8‘2‘5%%6%.‘,.)*‘6‘$‘/20,0ℍ *$‘‘0‘,.‘‘‘(‘0%‘$%6*$)%5‘42‘)+%‘3$,)%$‘)+%$%‘ 8‘2‘4%‘3,)+‘(+*$%‘‘*&‘)+%‘/,840‘*.‘*.%‘0,5%‘ &,$0)‘(+*$%‘‘)+%+‘6‘$‘/20,0‘A+%8,6/%-,&*$8Ґ‘ .5‘)+%.‘‘-‘,.‘(+*$%‘‘*&‘)+%‘0‘8%‘0,5%‘*& ‘)+%‘&‘(%‘ +%‘(*.(/10,*.‘,0‘*47,*10‘)+‘)‘ +%8,6/%-,‘‘‘.5‘+%8,%+*$%‘‘ ,‘)+%0%‘(‘0%0‘ ‘$%‘,.5,(‘),7%‘*&‘5,&&%$%.)‘5%-$%%0‘*&‘5‘8:-% ,.‘)+%‘0‘8%‘(%.)$%‘ %8,%+*$%‘‘‘.5‘+%8,‘ ‘.‘(‘%0)+%0,‘‘+‘7%‘4%%.‘&*1.5‘7%$2‘(*.0)‘.)/2‘ ‘00*(,‘)%5‘3,)+‘0)$1()1$‘/‘/%0,*.0‘,.‘)+%‘3+,)%‘ &,4$%0‘>10)‘+1)0,5%‘)+%‘6*0)%$,*$‘%B)$%8,)2‘*&)+%‘)+‘/‘8 10‘101‘//2‘,.7*/7,.-‘‘/0*‘)+%‘-‘.; -/,*.‘,)0%/&‘‘)‘)+,0‘6‘$) +%‘3%// 9.*3.‘%84*/,(‘)+%*$2‘*&‘(+*$%‘‘ *$,-,.‘)%5‘42‘ ,$9%0‘‘.5‘,86$*7%5‘‘.5‘‘4/2‘ 8‘,.)‘,.%5‘42‘ $‘ 1-+/,.-0‘ (90*.‘‘)‘ *.(%&,.50‘,)0‘6/‘(%‘+%$%‘ ‘6,//‘$2‘%84*/,08‘ ,0‘*&‘‘//*)+%$0‘)+%‘(*.5,),*.‘3+,(+‘8,-+)‘4%‘ %B6%()%5‘)*‘ ,.51(%‘)+% ,.0)‘4 ,)2‘3,)+*1)‘ ‘4*+),*.‘*&‘&1.(),*.‘3+,(+‘%B,0)0‘ ,.‘(+*$%‘‘ ‘.5‘,.‘‘/8*0)‘‘//*‘0%0‘‘‘&%$),/%‘0*1$(%‘*& &,4$,.*10‘0+$%50‘,0‘6$%0%.)‘ ,.‘)+%‘&*$8‘*& 7%-%)‘),*.0‘*.‘)+%‘7‘/7%0‘*&‘)+%‘+%‘$)ℍ)+%‘ &‘()‘*&‘%84*/,08‘‘-‘,.‘+‘0‘$%6%‘)%5/2‘4%%.‘ 5%8*.0)$‘)%5.‘ K +,/%‘+*3%7%$‘ -,7,.-‘)*‘ (‘6,//‘$2‘%84*/,08‘‘‘6$*8,.%.)‘6/‘(%‘‘8*.-‘)+%‘(‘10%0‘*&‘(+*$%‘‘,)‘(‘..*)‘4%‘(*.0,5%$%5‘ ‘0‘)+%‘*./2‘(‘10%‘ +%‘(/,.,(‘/‘5,&&%$%.(%0‘ 4%)3%%.‘*$5,.‘$2‘(+*$%‘‘.5‘)+%‘(1)%‘.5‘ &‘)‘/‘&*$8‘‘$%‘*&‘)+%80%/7%0‘01--%0),7%‘*&‘‘ 5,&&%$%.)‘6‘)+*/*-2ℍ‘.5‘)+%‘06%%52‘$%(*7%$2‘ ‘&)%$‘5%/,7%$2‘,.‘)+%‘(+*$%‘‘*&‘6$%-.‘.(2‘*$ A‘0‘,.‘*.%‘*$‘)3*‘(‘0%0‘*.‘$%(*$5Ґ‘&)%$‘%B; 61/0,*.‘*&‘,.)%0),.‘/‘3*$80‘,0‘,.(*.0,0)%.)‘ 3,)+‘)+%‘%B,0)%.(%‘*&‘%84*/,08‘ +‘)‘)+% 6$%(,0%‘.‘)*8,(‘/(*.5,),*.‘,0‘(‘.‘*./2‘4%‘ 8‘))%$*&‘(*.>%()1$%‘41)‘,)‘3,//‘4%0*8%*&*$8‘ *&‘,.1)$,),*.ℍ‘,$$,)‘4,/,)2‘.5‘5%4,/,)2‘‘0‘)+%‘/‘)%‘ $‘ ‘ ‘5*/,&&%‘+‘0‘‘41.5‘)/2‘ 5%8*.0)$‘)%5‘-*,.-‘)*-%)+%$‘ 26%$‘%8,‘‘ 3,)+‘(‘6,//‘$2‘4/**5 0)‘0,0‘‘.5‘(‘6,//‘$2‘)+$*84*0,0‘42‘(*+%$,.-‘/%1(*(2)%0‘+‘7%‘4%%.‘ 01--%0)%5‘‘0‘(‘10%0‘ $*/*.-%5‘‘$)%$,‘/‘06‘08‘ &$*8‘6%$0,0)%.‘ $%&/%B‘,$$,)‘),*.‘1)%$,.%‘*$,.)%0),.‘/‘*$)+%‘8*$%‘4$,%&‘(*.)$‘(),*.‘*&‘)+%‘ (%$%4$‘/‘7%00%/0‘&,*8‘&,-+)‘8‘2‘6%$+‘60‘ /*3%$‘)+%‘&1.(),*.‘/‘7,-*1$‘*&‘)+%‘-‘.-/,‘‘)*‘)+%‘5%-$%%‘$%E1,$%5‘ $‘ ()‘7,10‘)1$-%0‘ +‘0‘‘4/2‘8‘,.)‘.%5‘)+%‘7,%3‘)+‘)‘(),*.‘*&‘)+%‘‘,0‘ ‘‘61$%/2‘&1.(),*.‘/‘‘&&%(),*.‘‘‘.5‘)+‘)‘)+%)X 7%8%.)0‘‘$%‘‘5%E1‘)%/2‘‘((*1.)%5‘&*$‘42‘ ,.0)‘4,/,)2‘*&‘.%$7% (%//0‘3,)+*1)‘‘.2‘0)$1(;)1$‘/‘*$‘7‘0(1/‘$‘(+‘.-%$%(*-.,0‘4/%‘%7%.‘42‘)+%‘8,($*0(*6%‘(*86‘$,.-‘,)‘,.‘)+,0‘$%06%()‘ 3,)+‘%6,/%602‘ ‘7%$2‘,86*$)‘.)‘(*.0,5%$‘;),*.‘,0‘)+%‘$%8‘$9‘4/%/,8,)‘),*.‘*&‘%+E$%‘‘)*‘)+%‘6%$,*5‘*&‘(+,/5+**5G)+%‘6%$,*5‘4%)3%%.‘ ,.&‘.(2‘.5‘614%$)2‘ +,0‘,0‘‘‘/,8,)‘),*.‘,&‘ .*)‘3,)+*1)‘6‘$‘//%/‘(%$)‘,./2‘1.%E1‘//%5‘ ‘.5‘,)‘6*,.)0‘)*‘‘(*.5,),*.‘*&‘.%$7% (%.)$%0‘ ,.‘(+,/^**5‘3+,(+‘06%(,‘//2‘&‘7*1$0‘)+%‘*(; (1$$%.(%‘*&‘)+%‘5,0%‘0%‘ +,0‘(*.5,),*.‘,+‘2‘ 4%‘0‘,5‘3,)+‘(*.&,5%.(%‘)*‘4%‘)+%‘&‘()‘)+‘) (+,/5+**5‘,0‘)+%‘6%$,*5‘*&‘06%(,‘/‘‘(),7,)2‘*&)+%‘0%.0*$,8*)*$‘-‘.-/,‘‘ Ґ Q !(! G .‘‘0/,-+)‘(‘0%‘*&‘(+*$%‘‘)+% 6‘),%.)‘101‘//2‘‘(+,/5‘8‘2‘4%‘6%$&%()/2‘E1,%)‘ 3+%.‘/2,.-‘5*3.‘‘.5‘&*$‘‘0+*$)‘,8%‘%7%.‘ 3+%.‘0,)),..-‘*$‘0)‘.5,.-‘,&‘.*)‘(*.0(,*10‘*& 4%,.-‘1.5%$*40%$7‘),*.ℍ41)‘3+%.‘3‘/9,.-‘ *$‘3+,/%‘1.5%$‘%B‘8,.‘),*.‘)+%$%‘3,//‘4% 7‘$,*10‘&,5-%)2‘()‘,*.0G‘4$16)‘&/%B,*.‘*&‘)+% &,.-%$0‘‘0155%.‘6$*.‘),*.‘*&‘)+%‘&*$%‘$8‘ *$+,)(+,.-‘16‘*&‘*.%0+*1/5%$‘*$‘)3,0)‘*&)+%‘4*52‘*$‘)+%$%‘,0‘0+1&&/,.-‘*&‘‘&**)‘*.‘)+% &/**$‘*$‘-‘,.‘‘>%$)‘*&‘)+%‘+%‘5‘*$‘)3,)(+‘ *&‘)+%‘8*1)+‘*$‘%2%0‘ &‘)+%‘6‘),%.)‘4%‘)*/5‘)*‘5*‘.2)+,.-‘)+%‘8*7%8%.)0‘3,‘4%‘81/;),6/,%5‘‘.5‘%B‘--%$‘)%5‘,.‘)+%‘810(%0‘%8; 6/*2%5‘ ‘08‘/‘*4>%()‘3,/‘4%‘6,(9%5‘16‘ ‘.5‘+%/5‘41)‘)+%‘+.5‘,0‘4$*1-+)‘5*3.‘16*.‘ ,)‘+‘0),/2‘.5‘‘&)%$‘7‘$,*10‘,$$%-1/‘$‘%B(1$; 0,*.0‘ .‘‘8*$%‘0%7%$%‘(‘0%‘)+%‘-$,8‘(%0‘ (*.)*$),*.0‘‘.5‘>%$9,.-0‘01((%%5‘%‘(+‘*)+%$‘ 3,)+*1)‘,.)%$8,00,*.‘ +%‘-‘,)‘,0‘.*3‘7%$2‘ 6%(1/,‘$‘4%,.-‘0/*3‘0+1&&/,.-‘‘.5‘1.%7%.ℍ)+%‘0)%60‘*&‘,$$%-6,/‘$‘/%.-)+‘‘.5‘1.%E1‘/‘),8%ℍ‘.5‘)+%‘/,.%‘*&‘6$*-$%00‘5%7,‘),.-‘ .‘)+%‘3*$0)‘&*$80‘*&‘)+,0‘5,0%‘0%‘%7%$2‘8 10(/%‘ ‘66%‘$0‘)*‘ 4%‘)+$*3.‘,.‘)1$.‘,.)*‘7,*/%.)‘ (*.)$‘(),*.‘)+%‘&‘(%‘,0‘5,0)*$)%5‘)+,0‘3‘2‘ ‘.5‘)+‘)‘)+%‘%2%0‘$*/‘)*‘‘.5‘&$*‘)+%‘)%%)+‘ ‘$%‘0.‘66%5‘*$‘-$*1.5‘)*-%)+%$‘)+%‘3+*/%‘ 4*52‘3$,)+%0‘‘.5‘)+%‘/,840‘‘$%‘,.‘1.(%‘0,.-‘ 8*),*.‘)‘,0‘)*‘4%‘$%8‘$9%5‘)+‘)‘%7%.‘,.‘ %B)$%8%‘(‘0%0‘)+%‘8*7%8%.)0‘7,*/%.)‘ ‘0‘)+%2‘8‘2‘4%‘‘$%‘,.‘0*8%‘5%-$%%‘(,$(18; 0($,4%5ℍ‘)+%‘‘$80‘&*$‘%B‘86/%‘‘$%‘ .*)‘)+$*3.‘16‘*7%$‘)+%‘+%‘5‘.*$‘5*‘)+%‘/%-0‘ -*‘)*‘)+%‘&1/‘%B)%.)‘*&‘)+%,$‘$‘.-%‘*&‘8*;),*.‘ℍ)+%‘)*.-1%‘,0‘$‘$%/2‘4,))%.‘)+*1-+‘)+% ,/60‘8‘2‘4%‘ %-/1),),*.‘,0‘-$%‘)/2‘,.)%$; &%$%5‘3,)+‘,.‘‘‘0%7%$%‘‘))‘(9‘‘.5‘)+%‘%7‘(1‘;),*.0‘8‘2‘4%‘5,0(+‘$-%5‘,.7*/1.)‘$&/2‘ ‘)+%‘8,/5%0)‘&*$80‘)+%‘5,‘6+$‘-8‘.5‘810; (/%0‘*&‘)+%‘(+%0)‘.5‘‘45*8%.‘‘$%‘‘&&%()%5‘ (‘10,.-‘,$$%-1/‘$,)2‘,.‘ $%06,$‘),*.‘ +% ‘(),*.‘*&‘)+%‘+%‘$)‘8‘2‘‘/0*‘4%‘,$$%-1/‘$‘ 41)‘)+,0‘,0‘6$*4‘4/2‘0%(*.5‘$2‘)*‘)+%‘$%06,$‘;)*$27‘$,‘),*.0‘,.‘&$%E1%.(2‘.5‘5%6)+‘.5‘ ,0‘.*)‘‘))$,41)‘4/%‘)*‘(+*$%‘‘&&%(),.-‘*.%‘/& *&‘)+%‘4*52‘*./2‘3+%.‘)+%‘ *1.5‘0,5%‘(‘.‘4%

%86/*2%5'&*$ (*86'$,0*.H 46)',.')+%'7,*/%.)'&*$8 0'*&')+%5,0%'0%'3+%.')+%'09,.',0'-$'51;''//2'3*$.')+$*1-+'42',.(%00'.)'&$,(),*.')+%$%',0'*&)%.'0*'/,))/%'(*86/',.)'*&'6',.')+')'0%.;0,4,/,)2'8 10)',)'3*1/5'0%%8'4%'4/1.)%5'U%&/%B'0%.0,4,/,)2',0''/0*'(*88*./2'51//

)'+'0'/$%'52'4%%.')'0)'%5')+')'+%'8*7%;8%.)0'(%'0%'51$,.-'0/%%6H)+,0',0''1$1/%)*'3+,(+'%B(%6),*.0''$%'$'$%')+*1-+'.*)'1.;9.*3.'%7%.',.'8,/5'('0%0''.5'%06%(,'//2',.'+%8,(+*$%'

+*$%'',0'101'//2'-$'51'/',.''((%00'%7%.',.')+%'('0%0'3+,(+'1/),8')%/2'4%(*8%0%7%$%H,)',0'7%$2'(*88*./2'*.%0,5%5'&*$''),8%''.5*((' 0,*.'//2')+$*1-+*1)'3+%.')+%'.'8%'+%8,(+*$%'',0'-,7%.'')',0'.*)'+*3%7%$'0)$,()/2'1./')%$'/',.')+%0%'('0%0''0')+%'8*7%;8%.)0')$'.0-$%00')+%'8%5,'./,.%''.5''&&%()')+%'(*$$%06*.5,.-'810(/%0'*&'4*)+'0,5%0'*&'+%'4*52''))+*0%'6')0'3+%$%')+%0%''$%'4,;/')%$'//2'00*(,')%5''.5'3+%$%',.'+%8,6/%-,''')+%$%',0'8 81.,)2'&$*8')+%'6'$'/20,0''0'&*$%)0'(.%')+%'*(1/*8*)*$'810(/%0''.5')+%'810(/%0'*&')+%'.%(9'(+%0)''.5''45*8%.

% #0 2 +%'&*$%-*,.-'5%0($,6),*.''66/,%0'8*$%'*$'/%00')*''//'*'0%0'*&'(+*$%''41)')+%$%'$%'&)%.''55,),*.'/02806*80''.5',)'3,.'(*.51(%')*'(/%'$.%00',&')+%0%'$%'(*.;0,5%$%5'6'$)'.5'(''//%5'(*86/,(','),*.0'%.;),*.'+'0'4%%.'8'5%'*&',86',$8%.)'*&'8*)*$6*3%$H')',8%0')+,0''8*1.)0')*'(*86/%)%6'$'/20,0''.5')+%'$%/),*.0'.5'(*84,.'),*.0'*&'(+*$%''.5'6'$'/20,0''.5'%06%(,'//2'*&'+%8,(+*$%''.5'+%8,6/%-,''+)+$*3'81(+'/,-+)'*.)+%'5,0%'0%'$'/>&),*'(+*$%''+'0'4%%.'5%0($,4%5'0''06%(,'/7'5',%)2'*&')+%'&&%(),*.'41)'.*'/,.%'*&'5%8'$(','),*.'%B,0)0'4%)3%%.')4,0''.5')+%'(*88*.'&*$8'+*$%''0*8%),8%0'01((%%50'+%8,6/%-,''.')+%'6'$';/20%5'6'$)0H8*$%'$'$%/2'(+*$%''5%%6%.0',.)*'6'$'/20,0'0%0''-',.'*((1$',.'3+,(+'3,)+'&'(,'/'+%8,6/%-,'')+%$%',0'(+*$%''*&')+%'/,840'*&')+%'0'8%0,5%'6%%(+',0'7%$2'(*88*./2'8*$%'*$'/%00''&&%()%5''.5'*((',0,*.''//2'(*8;6/%)%/2'/*0)'&*$''),8%'+%'5,&&,(1/)2',0'101'//2'$),(1/')*$2'(+*$%''*&')+%'810(/%0'*&'$%06,$'),'.-'3,)+'1))%$'.(%'*&'3*$50H41)')+%$%',0',.'0*8%'(%0')8%'6+0,''.5'3+%.')+,0',0'0*')+%$%',0')+%'0'8%'),8%0'.,5,(','),7%'*&')%8;6*$'$2'164%(,/,)2'.')+%'7,*/%.)'.5'&')'/'&*$80')+%$%',0''/8*0)'/3'20'5%$,18'8;6',$8%.)'*&'0%.0'),*.',0'(*88*.''.5'+%8,'.)%0)+%0,''',0''/8*0)'/3'20'00*(,')%5'3,)+'+%8,(+*$%''.'.'%')$'*86/,(',*.0'[),*/*-2

-'#'$'

G=+%'7%$'-%'51$'),*.'*&'(+*$%'',0''4*1)'3*'8*.)+0H,&'6$*/*.-%5'4%2*.5')+$%%'8*.)+0',)'8'2'+%'%B(%%&,.-/2'(+$*.,(''.5'-*$'4%))%$''.5'3*$0%&*$*.%*$')3*'2%'$0

+%$%',0''')%.5%.(2')*'06*.)'.,'41)'*.')+%')+%$'+'.5'$%/'60%0'3'

+*$%'',0'$'$%/2'&')'/',.'(+,/5$%.H3/,%,.',0'0*')+%'('0%',0'101'//2''(1)%''.5'7,*/%.)'&$*8''7%$2'%'$/2'6%$,*5'*&')+%'))'(9''.5',)',0'$'$%&*$''('0%')*'$1.')+%'101'/'(*1$0%'&*$''),8%''.5')+%.')'9%'*.'''7%$2'0%7%$%'(+'$'()%$'&)%$'614%$)2''.5'%06%(,'//2'3+%.',)'016%$7%.%0'*.''(1)%'$+%18'),08',)',0'7%$2'5'.-%$*10'41)'/%00'0*'3+%.''00*(,')%5'3,)+'8%.0)$1'/'5,0*$5%$0'.'5'6$%-.'.(2')+'.',.'2*1)+0'*$'8%.

-2)',0'*./2'.%(%00'$2'1.5%$')+,0'+%'5')*'3'$.''-',.0)')+%'8,0)'9%'&(*.;&*1.5,.-'3,)+')+%'8*7%8%.)0'*&'(+*$%'')+%')$%8*$'*$'>'(),)'),*.'*&'5,00%8,.')%5'0(/%;$*0,0'*&')+%'.%$7%(%.)$%0'3+,(+')+*1-+'8*0)'(*88*.',.''51/)0',0'.*)'1.9.*3.',.'(+,/5+**5

2 .''/'$-%'6$*6*$),*.'*&'(+*$%''%06%(,'//2'01(+''0'(*8%,.)*')+%'06,)'/0'*&'.5*.'$%0)'.5'&**5'3,)+'6%$+'60'6%$,%.)0''$%''/'')+')''$%'$%;E1,$%5'&*$'$%(*7%$2'U1)',)'('.'0('$(%/2'4%5%.,%5')+')'8%5,(,.'/)$%')8%.)'*&)%.'$%.5%$0',86*$)'.)'0%$7,(%0'%06%(,'//2',.''*'0%0'*&''/,.-%$,.-'(+'$')0)$'+%'(%')+%'*&)*)*-,('/(*.5,),*.'4%,.-'7'1$,*10',)',0')*'4%'%B6%()%5')+')'+%'$%8%5,%0'$%E1,$%5'3,//'4%'5,&&%$%.)''.5')+%''))%86)'0+*1/5'4%8'5%')*''5'6)'+%')$%')8%.)'*')+%'06%(,'/&%')1$%0'*&')+%'('0%')+%'4'0,0''*&''//'4%,.-')+^'%.;5%'7*1$)*',86$*7%')+%'.1)$),*.''*&')+%'4*52'-%.%$'//2''.5'*&')+%'.%$7*10'020)%8'42'-**5'&**5'$%0)''.5'3'$8)+'+%'&**5'8'2'4%'0166/%8%.)%5'42'(*5/,7%$*,/''.5')+%/')%$'!'5(/,&&%')'(+%5',86*$)'.(%')*')+%'&$%%'58,.,0)$'),*.''*&'3,.%'*$*)+%$'0),81;/'.)0'.2'$%(*-.,0%5'('10%'0+*1/5'4%$%;8*7%5'01(+''0'(*.0),6'),*.'*$'3*880H,$$%;-1/'$,),%0'*$'0106%.0,*.''*&')+%'('),*.''0+*1/5'$%(,7%')%.),*.'H3+%.')+%$%',0'6$%-;..'.(2',)'8'2'6%$+'60'4%'.%(%00'$2')*',.51(%'6$%8')1$%/'4*1$'+%.')+%'(+*$%''0'*'(86=,%5'42'$+%18')*,5'6',.0''.5'&%7%$,0+;.%00',*5,5%*&6*)'00,18'3,)+'88*.,''8'2'+'7%''$%8$9'4/2'-**5'%&&%()'$*.',.'0*8%'&*8'*$*)+%$',0'7%$2'-%.%$'//2'10%&1/'41)'%06%(,'//2'3+%.')+%'6')%.)',0''.'%8,('.;*)+%$'$%8%52',0'01/6+')%'*&C,.('-,7%.',.'5*0%0'-$'51'5/2',.($%'0,.-'&$*8'*.%'*$')3*'-$',.0')+$%%'),8%0''5'2')*'0,B'%,-+)'*$)%.'-$',.0')/'0,(9.%00',0',.51(%5'+%.',.'0*8%'%'0%0')+%'5,0%'0%'66%'$0')*'4%'(1)'0+*$)'+%'$%8%52'3+,(+',.')+%'3$,)%$<0'%B6%$,%.(%'+'0'4%%.'&*1.5'8*0)'-%.%$'//2'10%&1/',0'$0%.,('$*100%'1'0*8%),8%0'-'7%'0)$2(+.,.%',.'-$'51'2',.($%'0,.-'5*0%0',)/',)0'6+20,*/*;-,('/%&&%()0'8'.,&%0)%5')+%80%/7%0'.')+%'*)+%$'+'.5'(*.,18'$%(*88%.5%5'42'$'*+.'$%/2'+'0'4%%.'%B)%.0,7%/2'%86/*2%5H)+%'*./2')$10)3*$)+2'6$%6'$'),*',0')+%1,(%'34,*+'0+*1/5'4%'-,7%.',.'-$'5E'//2',.;($%'0,.-'5*0%0'4%-,.,.,.-'3,)+''5$'(+8/''.5'-*,.-'.6')*'*.%'*$')3*'*1.(%0',&'.%(%00'$2'),',)0'5%6$%00,.-'%&&%()'*.')+%'810(/%0

.)')'+'0'.*)',.')+%'3$,)%$<0
'0'),0&'()*$2'$%01/)0' +%'0'8%
'0',5''&')+%''66/,(','),*.''*&'%)+%$ 06$'2'
'/*.-')+%' 06,.%' 3+,%+' +'0' 4%%.' 0)$*.-/2'
$%(*88%.5%5'%B(%6)',.')'(1)%'('0%0',.'3+,(+'
)+%' +%%C,.-'*&')+%' 09,.'+%$%'+'0',.'0*8%'
('0%0'4%%.'&*//*3%5''),'*.(%'42'0/%%6'.'.5'
,.''&%3'5'20'42'//%7,'),*.''*&')+%'7,*/%.(%'*&'
)+%'(+*$%''')+0'3'$8'.'.5'(*/5'%06%(,;
'//2'0+*3%$4')+0'06,..'/5*1(+%0'06,..'/,(%'
4'-0'-28.'0),(0'810,('/-28.'0),(0')+')',0'
8*7%8%.)0'),8%5'42'810,(')+'7%'57*(')%0'
'.5'8'2'.*'5*14)'4%10%&1/,.'01,)'4/%'('0%0
.')+%')%$$,4/%'('0%0'*&'('(1)%'(+*$%''')+%'
-$%')',.5,(',*.0''$%')*'6$*(1$%'$%0)'&*$')+%'
6**$ 01&&%$%$''.5'9%%6'16')+%'0)$%.-)+'
,/9'%--0'4%%&)%''.5'*)+%$'&*$80'*&'
(*.(%.)$')%5'&/1,5'.*1$,0+8%.)'0+*1/5'4%'
-,7%.'&$%%/2')*-%)+%$'3,)+'3,.%'*$'4$'.52'
*.,18'+2*0(2'810'4$*8,5%'*&'6*)'00,18'
$''88.,18''.5'(+/*$'/+25$')%'+'7%'4%%.'
)$,%5'0%6'$')%/2'*$',.'(*84,.'),)*.'3,)+'8*$%
$'/%00'66%'$'.(%'&'01((%00H (+/*$*&*$8'
'-',.'8'2'4%'58,.,0)%$%5H (+/*$'/+25$')%'
42')+%'8*1)+'*$%()18''.5'+26*5%$8,(',.'
Q>%*),*.'*'*&'8*$6+,.%'3,)+'&$%%'58,.,0)$'),*.'
*&'4$'.52'+'7%',.')+%'3$,)%$<0'>15-8%.)''6;
6%'$%5')*'5*'81(+'-**5')',0',.')+%0%'%'0%0'
)+')')'$)'$'%8%),(',.'&1//'5*0%0'+'0'4%%.'$%;
(*88%.5%5'H ,)',0'(%$)',./2')*/%$')%5',.''.'
'0)*.,0+,..'5%-$%%' %0)$',.)'*&')+%'7,*/%.)'
8*7%8%.)0',0'*&)%.'''-$%')'(*8&*$)')*')+%'
6'),%.)H)+%'/,840'0+*1/5'4%'('$%&1//2'4'.5;
'-%5'3,)+'&/'..%/''.5'4*1.5')+%'/%-0')*;
-%)+%$')+%''$80')*')+%'0,5%0''''&*/5%5'
4/'.9%)''($*00')+%'45*8%.''.5'+,60'9%%6;
,.-'5*3.')+%'4*52'&'+'/&5*.%,)'*./2'550'
)*')+%'01&&%$,.-'41)'3+%.'6$*6%$/2'('$$,%5'
1)',)'-,7%0''''&%%/,.-''&'$%/%&''.5'&'7*1$0'
0/%%6' D,''

U G .&/'88'),*.'' '
' ' , ' ') oo '
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U U '26 ,*'(*/*1$H'.5'
4 4'03%')R G */*1$%5'6%$06,$'),*.' '
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U '264$*&'),8%R G=+,0 3*$5',0'
'66/,%5')*''5,0%'0%'3+%.',)0'6$*-$%00',0'0/*3'
'.5',)0'51$'),*.'6$*/*.-%5' -'
1$'),*.'*&

U I'6".M$.'(+2/%H''.5')'
1$,.%R G*' 'H '()1$,'H +2/*10' $,.%H

' '! '+ '7 * 7' 7. + ' '. 5'$-')# '
7. # ' '$)' $5 73'$-'$!") ' 7' 7'
4+E # ' $' 3! "')' 7'))) 3'! ' 'F)'
5 N') # ' ! ' 7. # ') ' ' 3) '
* 4) ' ! '$4 #$* '$-'F)' 5 N'$5 '7 #$.) '
7' ' !) -$) ' *4#!' $'+') 3) 7' ! ' ! '
/) * 4) ' 7 !' ! ' 7 /) . 7' ! ' 7 $)'$-' ! '
' !$ '/$) $ '$-' ! ') # '$ ' % '4
4 '5!#!') '/ # 7'5 ! '+) # ') ' 5%
! '4 +) # 7' /) ') ' ' ! "' $$7'$) 3 "'
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$'3 " ' g %$' O H 3#'
'0 'P " 0 0
+%''&&%(),*.'9.*3.''0' (+2/*10'*$'(+2/*,5'
1$,.%'+'0'/*.-'$%8',.%5''61CC/%')*'6+2;
0,(,'.0'.*)'*52'*.''((*1.)'*&')+%' %$2'$%;
8'$9'4/%'(+'$')()$'0018%5'42')+%'0%($%),*.'
41)'/0*'*.''((*1.)'*&')+%'7%$2'%$$'),(' (*1$0%
3+,(+')+%'5,0%'0%'$1.0' ('$(%/2''.2')3*'
6%$0*.0''&&%()%5'3,)+')+,0'8'/'52'-,7%''
0,8,/'$''4**..)'*&',)0'8*5%'*&'*.0%)''*&')+%
51$'),*.''*&')+%' '))'(9'*$'*&')+%'0286)*80'
'.5'0%'0*.0''*&',)0'*'((1$$%.(%' +%'3$,)%$
+'0'+'5')+%'*66*$)1.,)2'*&'0)152,.-'&$*8'
)+,$)2')*'&*$)2'('0%0'*&')+%'5,0%'0%',.'/(1))'H
'.5')+%' '$,%)2'*&'0286)*80'6$%0%.)%5''.5'
)+%'.18%$*10'('10%0''*&')+%'8*0)'*66*0,)%
(+'$')(%$')*' 3+,(+')+%'5,0%'0%'+'0'4%%.'
'))$,41)%5''$%'7%$2'6%$6/%B,.-' +%'+,0)*$,%0'
*&')+%'('0%0'614/,0+%5'42'7'$,*10'*40%$7%$0'
6$%0%.)'''/,9%'1.(%$)'..)2''.5' ,$' ,//,'8'
*4%$)0'7%$2'6)/2'5%0($,4%0')+%'(*1$0%'3+,(+'
)+%'5,0%'0%$1.0''0'8'$9%5'42''.',$$%-1/'$,)2'
'.5'*'6$,(,*10.%00'3+,(+'4'&&/%B6/'.'),*.'
)'3*1/5'0%%8''0')+*1-+')+%'*.%'0286)*8'
3+,(+'8'2'4%'/**9%5'16'.''0'(*.0)'.)',0'
)+%'(*.5,),*.''*&')+%'1$,.%',86/,%5'42')+%
5%0,-.'),*.'3+,(+'3'0'66/,%5')*')+%'5,0*$5%$
42'$*1)

- . G m '5,0%'0%5'(*.5,),*.''*$,-,;
.'),.-',.')+%'-$%')'8'>*$,)2''*&'*'0%0',.'
)$*6,('/*$'0.4)$*6,('(/,8')%0' +,(+'8=
&%0)0',)0%/&'101''//2'42''8*$%'*$'/%00'.1/92'
'66%'$'.(%'*&')+%'1$,.%'8*5,&,%5')')',)1/%0'
42'.''58,B)1$%'*&''7'$,'4/%6$*6*$),*.''*&''
0140)'.(%'$%0%84/,.-'4/**5f
.')'.5,.-')+%'&/1,5'(*'-1/')%0' +]')*'
6$%0%.)')+%''66%'$'.(%'*&0,C%' 8,($*;
0(*6,(' .%8')*,5'%.)*C**.',. T2
" '" ',0',-%.%$'//2'&*1.5',.')+%
4/**5'.5'1$,.%'*&'6%$0*.0''&&%()%5'3,)+')+0'
5,0%'0%

E1 o '- 'G' +,0',0
6%(1/,'$' +%'7'0)'8'>*$,)2'*&'('0%0''$%')$*;
6,('/*$'014)$*6,('/,1')+%,$'*$,-,.' %7%$;
)+%/%00'&$*8'),8%')*'),8%'('0%0'($*6'16',.'
)+%'6%$0*.0'*&',.5,7,51'/0'3+*'+'7%'.%7%$'
4%%.'*1)'*&')+%')%86%$')%C*.%0'.*$',.''.2'
3'2'%B6*0%5')*')$*6,('/,.&/1%.(%0 I' *$%;
*7%$')+%'5,0%'0%',0'.*)'%E=1'//2'5,0)$,41)%5'
7%$')+%'C.%',.'3+,(+',.''-%.%$'/'3'2',)
8'2'4%'0',5')*'4%%.5%8,(' .'8*0)')$*6,('/
(*1.)$,%0',)',0'*&'8*$%'*$'/%00'&$%E1%.)'*((1$;
$%.(%'41)')+%$%' '$%'5,0)$,()0',.')+%0%'0'8%
(*1.)$,%0' +,(+'%.>*2''.',8 8 1.,)2'0,8,/)*')*
)+')'*&')%86%$')%(/,8')%0' +%'%B6/'.'),*.'
&'),0'66'$%.)'('6$,(%',.')+%'5,0)$,41),.'
&'(+2/1$,''',0'&&$5%5'42')+%'6%(1/,'$,)2'
&')+%'5,0)$,41),.''*&')+%' 02"'
" '" 2 G,)0'6$,.(,6'/0%),*/*-,('/
&'()*$f

;<-'!'-$4)'$)'-.''#'5!#!'!.''!')>
#$)7 7' '!. 3'$)3 "'$##4))7' 4)$/'$'
'-4) !7'+"')'L *' $+)'!'/'
.)'!. 3'+ '$4'$-' #!)'%' 7' $!)'
+"'F)' ' '/)$'5!$'!7' .)') 7 7'$4'
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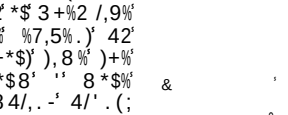

□□

&$*8' $' %.(% *.%0< '.'/20%0'*&'0,8,/'$'4/**5'3+%$%)+%'E1'.),)2'*&'&')'-,7%.',0')+')'*&'.*$8'/4/**5' .')+%'*)+%$'+'.5')+%'1$,.%'*&')+%'8'.'&$*8'3+*8')+,0'4/**5'3'0'*4)',..%5'2,%/5%5''6$*6*$),*.'*&'&')'/8*0)',5%.),('/3,)+'3+')'*66%%2/%$'*4)',.%5',.')+%'1$,.%'*)+%'6%$0*.'3*0%'4/**5'+%'%B'8,.%5G)+%&,-1$%0'-,7%.'42')+%'&*$8%$'3$,)%$'4%,.-'!KM''.5'42')+%'/')))%$'!0M@'6%$'(%.)' +%'(*86*0,),*.'*&')+%'4/**5',.')+,0'&&%(),*.'8 10)'4%'$%-'$5%5'0'+,)+%$)*'1.0%))/%5' 1,4*$)'&*1.5',.''(/*)'*&',)'/8*0)')3,(%''.5'*66%%2/%$'4*1)'%/%7%.'),8%0''0'81(+'&')'0',0'&*1.5',.'.*$8'/4/**5H*.')+%'*)+%$'+'.5' '2%$' %.(%'*.%0''.5' $%7'1B'(*1/5'5%)%()'.*'(+'.-%',.')0'(*86*0,),*.')',0'6*00,4/%')+')'))+%'5,0($%6'.(2',.')+%'$%01/)0'*&')+%0%'.'/20%0''.5'8'*$*0(*6,%'%B'8,.'),*.0'*&')+%'4/**5'8'2'4%'51%',.'6'$)')*')+%'6'$),(1/'$'8*8%.)'3+%.')+%'4/**5'3'0'40)$'()%5' ((*$5,.-')*'/'15%' %$.'$5'0 %0'1$,.%0'(+2/%10%'$%0%84/%.)'1'0'.-'5<1.',8'/%.'5,-%0),*.'*1'6/1)*)'-'(%/1,'5%0'*,%0'E1%'<%.-$',00%<=

'#/ ' '#'3 " G'i +%'&,/'$,''0'.-1,.,0'+*8,.,0'8'2'-%.%;$'//2'4%'5%)%()%$'',')+%'1$,.%'f .'8'9,.-'''0%'$(+'&*$',)',)',0'57,0'4/%')*'6,(9'*1)'*.%'*&')+%'(*'-1/')%5'0+$%50'&*1.5',.')+%'1$,.%')$'.0&%$',)')*')+%'-/'00'0/,5%'42'8%'.0'*&''&*$(%60'*$'6,6%))%''.5'('$%&,,//>,')%'0%')+%'&$'-8%.)'4%&*$%'66/2,.-')+%'(*7%$

m'0),'4%))%$'6/'.',0')*'4$%'9'16')+%'(*''-1/18',.')+%'1$,.%'3,)+''-/'00'$*5''0'0**.''0',)',0'&*$8%5''.5')+%.')*'0%'$(+')+%'0%5,;8%.)'3+,(+''&)%$''.'+*1$'*$')3*'(*//%()0''))+%'4*))*8'*&')+%'7%00%/',.')+%'0'8%3'2'0',0'(10)*8'$2',.'%B'8,...-'&*$'0('0)0<'0'/'$-%''0+5%''0',0'6$'(),('4/%'*1-+)')*'4%'%B'8,.%5''.5''/*3'6*3%$'%86/*2%5',.')+%'&,$0)',.0)'.(%''0',)'*&)%.'+'66%.0')+')')+%'&,/'$,0%'$%'6$%0%.)'41)'*./2',.'7%$2'08'//.184%$0''.5'8,-+)'4%'$%'5,/2'*7%$/**9%5',&''08'//'E1'.),)2'*&'0%5,8%.)',0'%B'8,.%5''*$'+,-+'6*3%$'%86/*2%5f

m+%'6%$,*5,(.)2'(+'$'()%$,0),(*&')+%&,/'$,''3+%.',.')+%'4/**5',0'.*)'*40%$7%5'42')+%'6'$'0,)%'.')+%'1$,.%')'8'2'4%'&*1.5',.'(+2/*10'1$,.%'6'00%5'51$,.-')+%'5'2'0'3%//'0',.')+')'6'00%5'51$,.-')+%'.,-+)'.'''(%$)',.')+*1-+'08'//6$*6*$),*.'*&')+%'(*0%0')+%'6'$'0,)%'('.*)'4%'&*1.5H41)')+%$%',0'7%$2'$%'0*.')*'0166*0%')+')')'*.%'),8%'%7%.',.')+%0%',.0)'.(%0')+%'&,/'$,''+'5'4%%.'6$%0%.)'0%$%'(*5',.'3+,(+''&)%$',)0'6$%0%.(%'+'5'4%%.'&1//2'0(%$)',.%5')+%'6'$'0,)%'5,0;'66%'$%5'&$*8')+%'1$,.%'3+,/%')+%'6')%,.)'3'0'1.5%$'*40%$7')*.')+%'(+2/1$,''6%$0,0);,.-'.')+%'$'$%',.0)'.(%0'*&'(+2/8,''*$,-.;'),.-'*1)0,5%')+%'%.5%8,('$%'')+%'&,/'$,''3,'*&'(*1$0%'.*)'4%&*1.5'')'.2',8%')',0'5,&,,*1/)'*'5%&,.%')+%'/,8,)0'*&')+,0'$%'+*3%7%$'0*')+')',.'%7%$2'('0%'*&'(+2/1$,'')+%'6'$'0,)%'*1-+)'*'4%'0*1-+)'&*$f

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+%'*)+%$'/%'5,.-'8,($*0(*6,('/'(+'$'()%$'*&')+%' $,.%',0')+%'8,.1)%/2'8*/%(1/'$'8'))%$'G&')',.''.'%81/0,&,%5'(*.5,),*.G)*'3+,(+')+%'&/1,5'*3%0',)0'*6'/,.%'*$'8,/92''06%()'+%$%' '$%' '/0*'.18%$*10'3+,)%''/2864+*,5'(*$610(/%0')*-%)+%$'3,)+'$%5'(*$610(/%0'.18%$*10'*$')+%'$%7%$0%''((*$5,.-')*')+%5%-$%%'*&'0'.-1,.*/%.(%'*&')+%'1$,.%' '0)0'*&')+%')141/'$0)$1()1$%'*&')+%'9,5.%2G',.5,('),7%'*&'*$-'.,('5,0%'0%'*&')+%0%'*$-'.0'G'$%0%/5*8')*'4%0%%.H)+%2'3%$%' '40%.)',''')+%'('0%0')+')'+'7%'(*8%1.5%$')+%'3$,)%$0'*40%$7'),*.,)+'$%-'$5')*')+%'(*$610(/%0'*$'0%$18'6$%0%.)%5''.2'4.*$8'/,)2',.5,(''),7%'*&')+%'6$%0%.(%'*&'&')2'8')))%$',.''.2'&*$8G)+%'0%$18'+'0'0%%8%5'0'(/%'$'.5''0'&$%%'&$*8'8*/%(1/'$8'))%$''0'.*$8'/'4/**5'0'&'$'0'+,0'%B;6%$,%.(%-*%0')+%'*./2'&%')1$%'3*$)+2'*&06%(,'/'.*)%',.'(*..%B,*.'3,)+'8,($*0(*6,('/'%B'8,.'),*.'*&')+%'4/**5',.'(+2/1$,''',0')+%6$%0%.(%'*&')+%'+0%8')*C**.''/$%'52'$%&%$%5')*'m.'(*.0%E1%.(%'*&')+%'6%$,*5,(,)2'*4;0%$7%5'42')+%'&,/'$,''.')+%'4/**5',)'4;0*/1)%/2'.%(%00'$2')+')',0'%B'8,.')*.'4%8'5%'51$,.-')+%'/')0'(%00'$2')+')',0'%B'8,.')*.'4%8'5%'51$,.-')+%'.,-+)'*$)+%%'&/1,5'*3%0',)0'*6'/,.%'*$'8,/92''06%()'+%$%' '$%' '/0*'.18%$*10'3+,)%''/2864+*,5'(*$610(/%0')*-%)+%$'3,)+'$%5'(*$610(/%0'.18%$*10'*$')+%'$%7%$0%''((*$5,.-')*')+%5%-$%%'*&'0'.-1,.*/%.(%'*&')+%'1$,.%' '0)0'*&')+%')141/'$0)$1()1$%'*&')+%'9,5.%2G',.5,('),7%'*&'*$-'.,('5,0%'0%'*&')+%0%'*$-'.0'G'$%0%/5*8')*'4%0%%.H)+%2'3%$%' '40%.)',''')+%'('0%0')+')'+'7%'(*8%1.5%$')+%'3$,)%$0'*40%$7'),*.,)+'$%-'$5')*')+%'(*$610(/%0'*$'0%$18'6$%0%.)%5''.2'4.*$8'/,)2',.5,(''),7%'*&')+%'6$%0%.(%'*&')+%'1$,.%')'8'2'4%'&*1.5',.'(+2/*10'1$,.%'6'00%5'51$,.-')+%'5'2'0'3%//'0',.')+')'6'00%5'51$,.-')+%'.,-+)'.'''(%$)',.')+*1-+'08'//6$*6*$),*.'*&')+%'(*0%0')+%'6'$'0,)%'('.*)'4%'&*1.5H41)')+%$%',0'7%$2'$%'0*.')*'0166*0%')+')')'*.%'),8%'%7%.',.')+%0%',.0)'.(%0')+%'&,/'$,''+'5'4%%.'6$%0%.)'0%$%'(*5',.'3+,(+''&)%$',)0'6$%0%.(%'+'5'4%%.'&1//2'0(%$)',.%5')+%'6'$'0,)%'5,0;'66%'$%5'&$*8')+%'1$,.%'3+,/%')+%'6')%,.)'3'0'1.5%$'*40%$7')*.')+%'(+2/1$,''6%$0,0);,.-'.')+%'$'$%',.0)'.(%0'*&'(+2/8,''*$,-.;'),.-'*1)0,5%')+%'%.5%8,('$%'')+%'&,/'$,''3,'*&'(*1$0%'.*)'4%'&*1.5'')'.2',8%')',0'5,&,,*1/)'*'5%&,.%')+%'/,8,)0'*&')+,0'$%'+*3%7%$'0*')+')',.'%7%$2'('0%'*&'(+2/1$,'')+%'6'$'0,)%'*1-+)'*'4%'0*1-+)'&*$f

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+%'*)+%$'/%'5,.-'8,($*0(*6,('/'(+'$'()%$'*&')+%' $,.%',0')+%'8,.1)%/2'8*/%(1/'$'8'))%$'G&')',.''.'%81/0,&,%5'(*.5,),*.G)*'3+,(+')+%'&/1,5'*3%0',)0'*6'/,.%'*$'8,/92''06%()'+%$%' '$%' '/0*'.18%$*10'3+,)%''/2864+*,5'(*$610(/%0')*-%)+%$'3,)+'$%5'(*$610(/%0'.18%$*10'*$')+%'$%7%$0%''((*$5,.-')*')+%5%-$%%'*&'0'.-1,.*/%.(%'*&')+%'1$,.%' '0)0'*&')+%')141/'$0)$1()1$%'*&')+%'9,5.%2G',.5,('),7%'*&'*$-'.,('5,0%'0%'*&')+%0%'*$-'.0'G'$%0%/5*8')*'4%0%%.H)+%2'3%$%' '40%.)',''')+%'('0%0')+')'+'7%'(*8%1.5%$')+%'3$,)%$0'*40%$7'),*.,)+'$%-'$5')*')+%'(*$610(/%0'*$'0%$18'6$%0%.)%5''.2'4.*$8'/,)2',.5,(''),7%'*&')+%'6$%0%.(%'*&')+%'1$,.%')'8'2'4%'&*1.5',.'(+2/*10'1$,.%'6'00%5'51$,.-')+%'5'2'0'3%//'0',.')+')'6'00%5'51$,.-')+%'.,-+)'.'''(%$)',.')+*1-+'08'//6$*6*$),*.'*&')+%'(*0%0')+%'6'$'0,)%'('.*)'4%'&*1.5H41)')+%$%',0'7%$2'$%'0*.')*'0166*0%')+')')'*.%'),8%'%7%.',.')+%0%',.0)'.(%0')+%'&,/'$,''+'5'4%%.'6$%0%.)'0%$%'(*5',.'3+,(+''&)%$',)0'6$%0%.(%'+'5'4%%.'&1//2'0(%$)',.%5')+%'6'$'0,)%'5,0;'66%'$%5'&$*8')+%'1$,.%'3+,/%')+%'6')%,.)'3'0'1.5%$'*40%$7')*.')+%'(+2/1$,''6%$0,0);,.-'.')+%'$'$%',.0)'.(%0'*&'(+2/8,''*$,-.;'),.-'*1)0,5%')+%'%.5%8,('$%'')+%'&,/'$,''3,'*&'(*1$0%'.*)'4%'&*1.5'')'.2',8%')',0'5,&,,*1/)'*'5%&,.%')+%'/,8,)0'*&')+,0'$%'+*3%7%$'0*')+')',.'%7%$2'('0%'*&'(+2/1$,'')+%'6'$'0,)%'*1-+)'*'4%'0*1-+)'&*$f

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0($*)18'.5')+%,..1,.'/-/'.50' $')%6+%.'
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4*)+',.0)'.(%0'+,%9%.1>-'.5'5,/')'),*.'*&'
)+%')+*$'(,(' 51()' '.5'8'$9%5'7'$,(*0,)2'*&'
)+%6%/7,(''.5'*)+%$'/2 8 6+'),(0'3%$%'&*1.5'
)'('.'4%$%'5,/2'.5%$0)**5G'0'6*,..)%5'*1)'
42',$' ,//,'8'*4%$)0[G+*3'''7'$,(*0,)2'
3+,(+'8'2'+'7%'4%%.'5,0),..()'%.*1-+'51$,.-'
/,&%'3*1/5'(*//'60%''&)%$'5%')+''.5'4%'5,& '
(1/)'+%.')**'5%8*.0)$')%''.5'$%'5,/2'*7%$;
/***9%5!'.5',)',0'6*00,4/%')+')',.')0'(,$;
(180)'.(%/,%0')+%'%B6/'.'),*.'*&')+%'.%-'),7%'
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0,5%$%5',.'5%)'./3+')'0%%8')*'4%')+%/%'5,.-'
6')+*/*-,('/&%')1$%0'*&'(+2/1$,''''4$,%&'$%;
&%$%.(%'8'2'4%'8'5%')*')+%'7,%30'3+,(+'
6$%7','/$%-'$5,.-',)0''%),*/*-2' +%0%'8'2'
4%(*86$,0%5'1.5%$')+$%%+%'50 G A ₹ $'
.529%' $)%$!'57*(')%0')+%'7,%3')+')'
'' 5,$%()'(*8,.1',(',),*.'%B,0)0'4%)3%%.')+%
(+2/% (''$$2,.-'7%00%/0''.5')+%'1$,.'$2')$')0
A@₹ '/'15%'%$.'$5''.5'+'*4,.'4%;
/,%7%')+')')+%'(*.5,),*.'*&')+%'1$,.%',0'41)''
0286)*8''*&'6,'$$+'%8,'G&'))2'4/***5!')+%
/'))%$'(*.5,),*.'4%,.-'41)')+%'.*$8'/'(*.;
5,),*.'*&')+%'4/***5'&*$0*8%')8%'&)%$')+%
>₹')9,..-'*&'&**5''--$'7')%5''.5'8'5%'6%$;
8'.%.)'42'5%$'.-%8%.)'*&')+% 5,-%0),7%'
$-'.0G.*)'4/%'/,7%$' .%'&')+%0%'5,0'
,,,.-1,0+%5''1)+*$0'A '*4,.₹01--%0)0'&1$;
)+%$')+')')+,0'5%$'.-%8%.)',0'6$*4'4/2'
,.51(%5',.')+%'/,7%$'.5'%/0%3+%$%'42')+%'
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7,%3')*'4%'.*),(%5',0')+')'57'.(%5'42',$'
,//,'8'*4%$)0' +,0'7,%3'66%'$0')*'4%'
4'0%5'8',.12'*.')+%'+,0)*='*&''7%$2'$%8'$9;
'4/%'('0%'614/,0+%5'42'+,8',.'?D?')'3'0'
.%',.'3+,(+''(''='4/%'(+2/* /2 8 6+*10'
5,0(+'$-%%0('6%5'&$*8'*6%.'7%0,(/%0'3+,(+'
+'5'&*$8%5'*7%$')+%'01$&'(%'*&')+%'45*8%.₹
)+%'6'),%.)<0'1$,.%'3'0'8*$%*7%$'(+2/*10'&*$'
)3*'5'20' ,$' ,//,'8'*4%$)0'01--%0)0')+')'
''(*.5,),*.'0*8%3+')'0,8,/'$')*')'*.')+%'
01$&'(%*&')+%'45*8%.'%B,0)%5',.')+%'1$,.'$2'
)$')()G''0*$)'*&'%(C%8'G6$*4'4/2'*.')+%'
&$*.)'*&')+%'4/'55%$'6 '%B'8,.;
.'),*.'5,5'.*)'+*3%7%$'(*.&,$8')+,0'7,%3'
.*$'(*1/5'.2)+,.-'4%'5%)%()%5',.''.2'*&')+%'
*$-'.0'01--%0),7%'*&''('10%'41)')+,0'1)+*$,)2'
,.&%$0')+')')+,0'3'0'6$*4'4/2'51%'0)0')*')+%'&'()'
)+')',.')+%'/'0)'&%3'3%%90'*&',&%')+%'8*$4,5'
6$*(%00'+'5'$%)$*-$'5%5'.5'+'5'(*.0%E1%.)/2'
/%&)'.*''66$%(,'4/%'8'$90'*.')+%'01$&'(%'*&'
)+%'4/'55%$₹ +%'%B'8,.'),*.'*&')+%'09,.'
,.')+%'5,0%'0%5'6'$)'0+*3%5')+')')+%' 3'
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'&' '' '211G'.$'===
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'('$%&1/0)152'*&')+,0'.5'*)+%$'('0%0'01-;
-%0)%5')*' ,$' ,//,'8'*4%$)0')+%'7,%3')+')'
.%')'/%'0)'&')+%'&*$80'*&'(+2/1$,'' 8'2'4%
51%)*'+26%$)$*6+2'&)+%/2 8 6+'),('(+'..%/0'
'.5'0140%E1%.)'(E1,0,),*.'42')+%8'*&'-/'.5'
6$*6%$),%0' '*4,.<0'7,%3'5*%0'.*)'01--%0)'
'.2'06%(,'/'.')'*8,('/'5,&^%1/)2'41)',)'$%;
8',.0')*'4%5%8*.0)$')%5'8*)%'(*.(/10,7%/2'
)+'.'+'0'+,)+%$)*'4%%.'5*.%')+')')+%'4/**5'
,.'8'.'%7%$'(*.)',.0''0188&,(,%.)'E1'.),)2'*&'
&'))2'8'))%$')*'6$*51(%'01(+'%B)$%8%'8,/9,:
.%0'42'58,B)1$%3,)+'+%'1$,.%'0',-
*40%$7%5',.'(+2/1$,''',$' ,//,'8'*4%$)0<
)+%*$2',0'(%$)',./2'.*)'*6%.')*')+%0%'6')$),(1/'$'
4>%(),.0''0'-,7%.''%%$)',''-%.)')*'0)'$)'
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5*%0'.*)'66%'$')*'4%'.2'06%(,'/'.')*8,('/'
*$'6+20,*/*-,('/5,&&,(1/)2')*'4%-*)'*7%$'₪41)'
)+%'$%01/)0'*&'')+%'1)*60,%0''0'2%)$%(*$5%5'
5*'.*)'3'$$'.)')+%',.&%$%.(%'*&')+%'%B,0)%.(%'
&01(+'6')+/*-,('/(*.5,),*.0'1)1$%'*4;
0%$7'),*.'+*3%7%$'8'2'0+*3')+')+%2'$%'//2'
5*'%B,0)

m 1/),6/,%5'*40%$7'),*.0'8'5%'51$,.-'$%;
(%.)'2%'$0'+'7%'8'5%',)'8*$%')+'.'6$*4'4/%
)+')'$' '$)%$<0'7,%3'*&')+%'6')+*/*-2'*&'(+2;
/1$,'',0')+%'(*$$%()'*.%G.'8%/2')+')'0*8%;
3+%$%',.')+%'1$,.'$2')$'()'+%$%',0''7'$,(*0%
(*.5,),*.'*&')+%'/2 8 6+'),(0'0,8,/'$')*')+')'
&*1.5',.'%/%6+'.),'0,0'/2 8 6+'.-,%()*5%0'7'$,B'
/2 8 6+'),(10'*$/2 8 6+0($*)8.G''5,0%'0%'0'
6*,.)%5'*1)''/0*'(*8*./2'00*(,')%5'3,)+'
)+%'&,/'$,'''.5'7%$2'&$%E1%.)/2'3,)+'(+2/1$,''
,)+%$')+%'8')1$%'6'$'0,)%',)0%/&'*$',)0'2*1.-'
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(*.5,),*.0'*&')+%'/2 8 6+'),(''0)$1.90',.51(%5'
42'0*8%'*&')+%0%''()'0''8%(+'.,('/'*4;
0)$1(),*.')*')+%'*.3'$5'&/*3'*&')+%'/2 8 6+'
'.5')+10',.51(%''7'$,(*0%'(*.5,),*.'*&')+%'
/2 8 6+'),(0'*.')+%'5,0)'/0,5%'*&')+%'0%')'*&'
)+%'*40)$1(),*.' 16)1$%'*&')+%'7'$,(*0%'
7%00%/0'3,/')+%.'58,)')+%'/2 8 6+')*')+%'
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m *$'5,'-.*0),(''61$6*0%0''0'3% '0')*'
'$$,7%'')''('$%$%()',5%''*&')+%'6')+*/*-2'*&'
(+2/1$,''),',0'.%(%00'$2')*'4%'$',.'8,.5')+')'
3+,/0)'(+2/*10'1$,.%'*$',)0'(*'-1/''*.')+%'
*.%'+'.5'8'2'4%'(/%'$''0')+%'61$%0)'-%/'),.%'
$'*.')+%'*)+%$''+'.5'3+,)%'/,9%'$8/9G,.'₪
8*0)'('0%0'&$*8',)8%')*',)8%',.'*)+%$0'₪
'/3'20G)+%2'8'2'+'7%''4/**5+9%'),.-%'
&)%.'&'-$%')',.)%.0,)2' +,0'/')%$'(,$(188;
0)'.(%',0'/,9%/2')*'/%'5')+%'1.3'$2')*''5,';
-.*0,0'*&'+.8')1$,''.5'-,7%$,0%')*')+%',5%''
)+')'4/**5 7%00%/0''0'3% ''0'/2 8 6+ 7%00%/0''$%'
,.'0*8%'3'2',.7*/7%5₪''/'')+%'8*$%'0*'0'
-%.1,.%'+0%8')1$,'',0'%.5%8,('.5'7%$2'6$%;
7'/%.)',.'8'.2'*&')+%'(*1.)$,%0G -26)'&%'$
%B'86/%G,.'3+,(+2/1$,'',0'/0*'%.5%8,('
A0%%' * + / $ # % ' *8%'1)+*$0'
8,0/%5'42'' &'/0%',5%''*&')+%'6')+*/*-2'*&'
)+%'5,0%'0%'5%0($,4%')+%0%('0%0'*&'$%5'(+2;
/1$,'' 1.5%$')+%'.'8%'*&'+'%8')1$,''*$'
+0%8')*(+2/*$,''001 8,..-''.5'66'$%.)/2

4%, . -' 1 . 5%$')+%' , 8 6$%00, * . ')+ ')' -%. 1, . %' 4/**5' &$* 8')+%' 4/**5 7%00%/0' ,0')+%' ('10%' *&')+%' $%5' (*/*1$' *&')+%' (+2/*10' (/*)0' , . ')+%' 1$, . %')' ,0' E1,)%' 6*00,4/%' &*$')+%' 0' 8 %' , . 5,7,51 'ƒ)*' 4%')+%' 014>%()' *&' (+2/1$, '' ' . 5' '/0*' *&' +0%8 ')1$, ' ' . 5' 01(+' '' (*, . (,5% . (%' + '0' 4%%. ' . *)%5ℍ 41)' , . ' . ' *$5, . '$2' ('0%' *&' ℍ$%5), .)%5' (+2/*10' 1$, . %')+%$%' ,0' . *' $%'0* . ' ≒)*' 0166*0%'&'$)+%$')+' . ')+')'01- - %0)%5'42')+% \(*/*1$' * . /2' *&')+%' 1$, . %')+')')+%')%$ 8' (+2' ₩1$, ' ' '66/, %5')*')+%0%' ('0%0' ,0' 1 . 0(, %.), &, (' *$')+')')+%' (+'$' ()%$, 0), ('6')+*/*-, ('/'&%')1)$%' ,0' 5%$, 7%5' &$* 8' ' . 2' 0%)' *&' 7%00%/0' *)+%$')+' . ')+%' /2 8 6+'), (0' . ')+%' &, $0)' 6/' (%',)' ,0' 7%$2' 1 . /, 9%/2')+' &' 4*)+' 0%)0' *&' 7%00%/0 G 4/**5; 7%00%/0' ' . 5' /2 8 6+'), (0 G (*1/5' 4% 0, 8 ,/' $/2' '&&%()%5' , . ')+%' 0' 8 %' , . 5,7,51 'ƒ ' . 5' , . ')+%' 0' 8 %' *$-' . ℍ ' . 5', . ')+%' 0%(*. 5' 6/' (%',)' ,0' Q3%/ 9 . *3 . ')+')')+%' (*.)%.)0' *&')+%')+*$' (, (' 51()'' . 5' *&'0* 8 %' *&')+%'/'$-%$'/2 8 6+'), (0'' . 5' '/0*' /2 8 6+'/*. -' 0)'- . ' .)', . ' *40)$1()%5' /2 8 ; 6+'), (0'' (E1,$%' ''$%5'), . -%' &$* 8')+%' . *$ 8 'ƒ '57' . (%' *&')+%' 5%7%/*68 %.)' , . ')+%8 *&' $%5' 4/**5 (*$610(/%0 =' %. (%' 1 . 5*14)%5/2')+%' $%5' (*/*1$' 0*' &$%E1%.)/2' 0%%. ' . . ')+%' (*' -1/'' $%&%$$%5')*' . ')+%' 0' 8 %' 3 '2' 8 '2' 4%% B; 6/', . %5')+%' '40%. (%' *$' -$'5'), *. 0' *&' 8, /9, ; . %00' *(('0, *. ''//2' %. (*1.)%$%5' &')+%' '4; . *$ 8 'ƒ %/%8 %.)', . ')+%' 1$, . %' 4%' 5%$, 7%5' &$* 8' 7%00%/0' , .)*' 3+, (+' . *' (+2/%' + '0' $%-1$-,)')%5' , &')+%' 7%00%/0' '$%' &, //%5' 3,)+' '' (+2/%', . '3+, (+')+%' &')) 2' %/%8 %.)' , 0' 5%&%(), 7%' %,)+%$' &$* 8' 6%(1/, '$,), %0' *&' 5, %)' *$' &$* 8' ,)0' $%/'), . ' '0' $%-'$50'), 8 %')*')+%' 6%$, *5' *&' 5, -%0), *. ' ,)' 3, '4%' /%00' 8 , /92' ' . 5' 8 *$%')$' . 06' $%.)' ' . 5' >%//2 /, 9%' +%' 5, &&%$%. (%0' , . ')+%' ' . '/20%0' *&' (+2/*10' 1$, . %0' '58,)' *&' '' 0, 8, /' $' %B6/' ; . '), *. ' f

&')+%' 0%), */*-, ('/' 0, - . , &, (' . (%' *&')+%' 6$%; 0%. (%' *&')+%' &, /' $, '' . ')+%' (, $(1/'), *. ')+%$%' (' . ')+%' 3$,)%$')+, . 90' 0(' $(%/2' 4% 8 1(+' 5*14) G' 8 *$% %06%(, ' //2' 3+%. ')+%' . 18 4%$' *&' *4; 0%$7'), *. 0' $%(*$5%5' 3,)+, . ')+%' 0+*$)' 6%$, *5')+')' +'0' %/'60%5' 0, . (%' '))%.), *. ' +'0' 4%%. ' 5$' 3. ')*' ,)0' %B, 0)%. (%')+%$%, . ' , 0')' 9%. ' , .)*' (*. 0, 5%$'), *. ' +%0%' 01- - %0)' 8 *$%')+' . ' '' &*$) 1,)*10' (*. . %B, *. ℍ, . 5%%5',)' 8, -+)' $')+%$' 4%' 0', 5')+')' (+2/*2 0%$E10' %&&10, *. 0' 8 '2' 4% (*. 0, 5%$%5' '0' 02(*6)* 8 '), (' *&')+%' 6' $'0), ' Q, 0 8 ' , /' $, 0%' +'/7%' %7%. ' 4%%. ' 5%)%()%5' 0+*$)/2' ' (+2/1$, '' +'5' 8 ' . , &%0)%5' ,)0%/&' &

m 0' $%- '$50')+(=0%' ('0%0' *&' (+2/1$, '' '66'; $%.)/2' 1 . '00*(, ')=' 3,)+')+%' &, /' $, '' 3%' 8 10) 4%' $', . ' 8, . 5')+' =&(2)+, . -' 3+, (+' (*1/5' -, 7% $, 0%')*' (*. 0)$, (), *\ [$' 4/*(9, . -' *&')+%' /2 8 6+' (+' . . %/0' 8, -+)' ' , . ')+%' 0' 8 %' 3' 2' 0')+%' &, /' $, '' 5*%0' 0' $%- ' 8 0' 6$*51(, . -' /2 8 6+'), (' 7' $, (*0,)2' ' . 5' $16)1&/=' +10' 6$%001$%' 42' '')1 8 *1$' (*. 0)$, %), *. c&$*8' , . &/' 8 8 ')*$2')+, (9%. , . -' , . ' *$' '4*1)c)+%' 3' //0' *&')+%')+*$' (, (' 51()' *$' 6%/7, (' /2 8 >6+'), (0' *$' 0)$, (;)1$%&*/, * 3, . -'1/(%$'), *. '*&')+N=' 3' //0' 8, -+)' ,)' , 0' (*. (%, 7' 4/%' 4$, . -' ' 4*1c')+, 0' 0)')%' *&'

< (+ $ ' 1 ' ' ' ." cD ' 7*/' BB'

899L

7' $, (*0,)2' /%' 5, . -')*' $16)1$%' . 5' 6*00, 4/2')*' (+2/1$, ' f

H $ &< G %$0*. 0' +' 7%' 4%%. ' 9. * 3. ')*' 01&&%$' *&&' . 5' *. ' &$* 8')+, 0' '&&%(), *. ' &*$' &$* 8' *. %')*' &, &)2' 2%' $0' +, 0' 3*1/5' 01- - %0)')+')')+%' 8 '/' 52' 101' //2' $1. 0' (' (+$*. , ('(*1$0%' 3+, (+' 0' '' $1/%',)' 5*14)/%0' 5*%0ℍ *. ')+%' K *)+%$' +' . 5' 6'), %.)0' '66' $%.)/2', . ' &', $' +%' /)+' *)+%$3, 0%' +'7%' 4%%. ' 9. *3. ')*' 5, %' 7%$2' $8' %B6%()%5/2' &$* 8' . *' $%(*- . , 0%5' ' (1)%' 5, 0*$5%$' ,)+' $%- '$5')*')+%' 6$*06%()' *&' ' (1$%' ' 7%$2' -1' $5%5' *6, . , *. ' 0+*1/5' 4%' -, 7%. ' '0')+%' 6$*4' 4, /,)2', 0')+')+%' (*6 8 6/', .)' 3, // $%)1$. ' '-', . ' . 5' '-', . ' 0*/*. -' '0' /, &%' /' 0)0 G %7%. ' 3+%. ')+%' 5, 0%' 0%' (*8 8%. (%0' ')' '' 7%$2' %' $/2' '-%' ' . 5' *&)%. ' '&)%$' '' (*8 6/%)%' (+' . -%' *&' (/, 8 ')%' ' . 5' '7*(', *.

G = +, 0 +' 0' 6$*7%5' %B)$% 8 %/2' 1 . 0'), 0&' ()*$2, . ' '/8*0)' '//)+%' (' 0%0' $%(*$5%5ℍ , . ' &' ()',)' (' . . *)' 4% 5, 0), . ()/2' 0)')%5')+')')+%' (*1$0%' *&')+%' 5, 0%' 0%' +' 0' 4%%. ' 8 ')%$, ''//2' 8 *5, &, %5' 8 1(+' /%00' (1$%5' 42' . 2' 9. *3. ' $% 8 %52' , 5, 5%' *&' 6*)' 00, 18' +' 0' 4%%. ')$, %5' , . '/' $-%' 5*0%0' . ' . 5', . ' 0* 8 %' ('0%0' '66%' $0')*' +' 7%' 4%%. ' 4%. %&, (, ' /ℍ , . ' *)+%$0')+%'), . ()1$%' *&')+%' 6%$(+/*5, 5%' *&', $*. ' +' 0' 0%% 8 %5')*' 4% 8 *$%' 01((%00&1/' ' 5%(*(), *. ' *&')+%' 4' $9' *&' +, C*6+*$' ' $'%% 8 *0'' A8' . -$*7%ℝ' +' 0' ' $%61)', *. ', . ' 1, ' . ''>10)' '0' ''5%(*(), *. ' *&')+%' 0%%5' *&' , -%// ' ' 0'), 7 ' ' A10%5' '/0*' '0' ' ', (*. 5, 8%.)' , . ' (1$$, %0ℝ' +' 0' , . ' . 5, ' ' +%' /'))%$' $% 8 %52' +' 0' +*3%7%$' 4%%. ' 9. *3. ')*' 4% 6*3%$/%00' , . ' 8,), -', . -')+%' 8 '/' 52' %7%. ', . ' *' 0%0' 3+%$%' *. ' &*$ 8 %$' *((' 0, *. 0' ,)' +' 5' K 4%%. ' $%0*$)%5')*' 3,)+' '66' $%.)' 01((%00' %$+' 60')+%' 8 *0)' 0'), 0&' ()*$2' $%01/)0' 3+, (+', +' 7%' 4%%. ' 614/, 0+%5' '$%')+*0%' 3+, (+' +' 7%' W &*//*3%5')+%' '58, . , 0)$'), *. ' *&' /' $-%' 5*0%0' *&' -' , (' ' (, 5G*. %' *$')3*' 5$' (+8 0' ''5' 2

m '$-%' 5*0%0' *&' 4%. C*, (' ' (, 5' -, 7%. ' , . ' -/2; (%$, . %' +' 7%' , . ' 0*8%' +' . 50' 4%%. ' &*//*3%5' 42' ''(%00'), *. ' &*$' ')8%' *&')+%' (+2/1$, ' ' 1)' &$*8' 3+')' 3%' . *3' 9. *3' '4*1)')+%' 6')+*/*-2' *&')+, 0' 5, 0%' 0%',)' , 0' %7, 5%.)')+')' $%0)' , . ')+%' $%(184%.)' 6*0,), *. ' 3,)+' %/%7'), *. ' *&')+%' 6%/7, 0' , 0' 42' &' $')+%' 8 *0)' , 86*$)' .)' , . 5, (',), *. ')*' 4%'))%. 5%5')*', . ')+%)$%')8%.) f

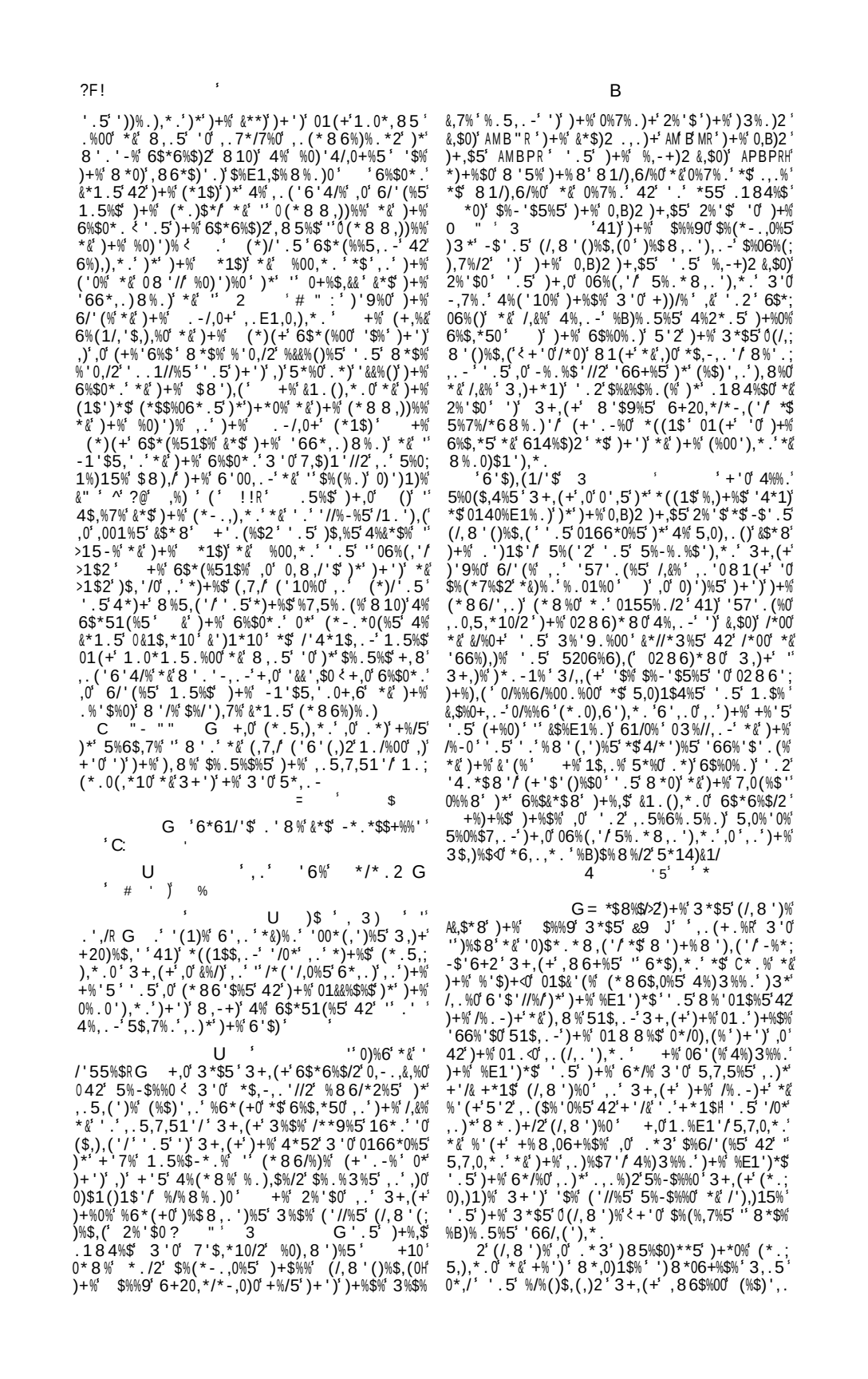
4 $ ' % ' !

' ! ' $ '

0 < 0', (' ''0('$R' , (')$, 0'), *. ', 0')+%' 6$*(%00' 42' 3+, (+'0*/1), *. 0' *&' (*.), . 1,)2', . ' ' . ' *$-. ' *$'), 001%' '$%' $%; 6', $%5' +%0%' 0*/1), *. 0' *&' (*.), . 1,)2' 8 '2' 4%' 51%')*', . >1$2'1/(%$')*. ' %B)$' 7' 0'), *. ' *$')+%' %&&10, *. ' *&', . &/' 8 8 ')*$2' 6$*51()0' +%' $%01/)' *&')+%' 6$*(%00', 0')+%' &*$ 8 '), *. ' *&' ' (, (')$, B' *$' 0*' $

$ ' G , (')$, 0'), *. ' '0',)' *((1$0', . ' 016%$&, (, '/' 6' $)0', . ' 01$-, ('/' 6$' (), (%' 8 '2' 4% 0%/%()%5' '0' '&&*$5, . -' ')26, ('/, //10)$'), *. ' *&')+%' 6$*(%00')' , 0' 8 *0)' &$%E1%.)/2' . 5' %' 0, /2' *40%$7%5' ' . 5',)' (*$%06*. 50')*' 3+')', 0' 8 %)' 3,)+', . ' 5%%6%$'), 001%0

%6', $' 8 '2')' 9%' 6/' (%%,)+%$' 3,)+' *$' 3,)+; *1)')+%' *((1$$%. (%' *&' -$' . 1/'), *. ' ' . '. 5')+%



(*.5,),*.0' 1.,&*$8' %7%.' 3+%.' '66'$%.)/2' ,$$%-1/'$' *.' -,7%.' 6*$),*.0' *&')+%' %'$)+<0 01$ (%' '.5'3+,(+' 8*5,&2' '/0*', .' '', .,&*$8' 8'..%$'7%-%)'4/%' .5' ' .,8 '/',&%

$ # '= /,8 ')%' 3+%.')+10' , . ;)%6%)%5' ,0' 0),// 6$,.(,6'//2' 5%6%.5%.)' *.' '0)$*.*8,('/ &'()0' *.')+%' 01.<' 6*0,),*.' *$,.(/,.'),*.' 3,)+' $%-'$5')*')+%' %'$,+' ' .5'*.')+%' ' 8*1.)' *&' +%')' ,)' 0166/,%0')*' 5,&&%$%.)' 64$),*.0' *&')+%' 01$&'(%'*&')+%'/'))%$' /,8 ')%' 8'2'4%0)15,%5'-%.%$'//2' .5'/*(''//2' +% 5,7,0,*.' *&'/,).')%' %'($)+%' %'$)+<0' (/,8 ')%0',0' .%(%00'$/2' '$4,)$'$2' '.5' 8' .2' 5,&&%$%.)' (/'00,&,(',*.0' +'7%' 4%%.' 6$*6*0%5' +%' 8*0)' ,86/%',0')+')' 3+,(+' $%(*-.,0%0')+$%%' 6$,.(,6'/ 9,.50' *&'(/,).')%' %'(+' 010(%6),4/%' *&'0145,7,0,*.' 7,C H' 2 2 '(/,8 ')%0' &,H*8')+%' %E1')*$')*' "Fg' /') H ' (/,8 ')%0' ^*8' "Fg')*' F!g' *$' FFg' /') H ' (/,8 ')%0' &$*8' F!g' *$' FFg')*')+%' 6*/%' 0' 0145,7,0,*.0' 3%' 8'2' $%(*-.,0%' %E1')*$,'/') $*6,('/' 014)$*6,('/' 014 6*/'$' '.5' 6*/'$' (/,8 ')%0H' '.5' %0*' " ' .5' / 3 '*$' 8*,0)' (/,8 ')%0' '.5' "3/" " ' '.5') "'*$' 5$2' (/,8 ')%0

' 0 '$,.' /,8 ')%0 G= '$8' (/,8 ')%0+*/5'8'0*/1),*.

%B)%.5,.-'&$*8')+%' %E1')*$')*' ?Fg' /') ')+')' ,0' @=g' 4%2*.5')+%')*$*6,(0' (*86$,0%'.%'$/2' '//' &$,(''.5',)0',0/'.50' *1)+' 0,''8*0)' *&')+%',0/'.50' D&' */2.%0,'' '.5')+%'6*$),*.0' *&' *$)+' .5' *1)+' 8%$,(''(*86$,0%5'4%;)3%%.' '/,&*$.,'' '.5')+%' .*$)+' *&')+%' '' /')'')%$$,)*$2' .')+%' %E1')*$0'7%-,*.0')+%' 8%5,18')%86%$')1$%'&*$')+%'2%'$',0'&$*8'?!g')*'? g' ')+%'8,.'4%,.-'F g')+%'8'B' ?g' %'$')+%'%E1')*$')+%'..1'/8%'.')%86%$';)1$%'5%($%'0%0'0/*3/2'0'3%'$%(%5%'&$*8',)')+%'5%($%'0%' .*)' *8*1.),..-')*' 8*$%')+'.' @g' '&*$')+%'&,$0)' !g'/')' +%'5,&&%$%.(%'*&)%86%$')1$%'51$,.-')+%'5'2',0'0/,-+)'41)'81(+' 8$%')%)'51$,..-')+%'.,-+)'*3,..-')*'$'5,'),*.' +%'-%.%$'/'7'$,'),*.0'*&')+%'4'$*8%)%$'$%' 0+-+)'41)')+%'6$,*5,('/'*$5,1$.'/7'$,'),*.0' '$%'7%$2'8'$9%5')'0(%.50'.5'5%0(%.50' $%-1/'$/2')3,(%',.')+%')3%.)2&*1$'+*1$0')' '0(%.50'&$*8' '' 8H')*' P@'' 8 ' .5' 5%0(%.50'1.),/'?'6 8 ''0(%.5,.-''-',.'B8),/' ! @'' /%()$,('/6+%.*8%.'' '$%7%=' 5%; (,5%5' +%'$',.&'//,0'7'$,'4/%'41)' !',.(+%0' 8'2'4%'-,7%.''0'' 8%'.')',0' -%.%$'//2' 0166*0%5')+')'+%')',0'-$%')%0)')'+%'%E1')*$' '.5'5,8,.,0+%0' '0'3%'$%(%5%'&$*8',)H'41)' 4*)+'*40%$7')',*.''.5'0)$*.*8,('/,.51(),*.' /%'5')*'+%'(*.(/10,*.')+')'.*)' ./2')+%' 8'B,818'*&')%86%$')1$%',.'3'$8'(/,8')%0' ,0' '))',.%5''*$.%'$')+%')$*6,(0'41)' '/0*')+%'+,-+%0)''.1'/8%'.' +%'(*1.)$,%0',.' 3+,(+')+%'+,-+%0)'5%-$%%'&'+%')' ,0'9.*3.')*'4%'))',.%5''$%'.%'$')+%')$*6,('*&' '.(%$' '0'&*$',.0)'.(%')+%'4'.90'*&')+%' %.%-'/')+%' %+'8''*&' $'4,''.5' %+$'.',.' =1' (+,0)'.' 8%*7%$')+%' 0.*3/,.%'*$')+% /,.%'*&'6%$6%)1'/0.*3',0'+,-+%$' ')+%')$*; 6,(0')+'.'')'+%'%E1')*$' .')+% */,7,'.' .5%0'.%'$')+%')$*6,('.')' M!!!'&%%)' 3+%$%'0' .')+% (1'5*$' .5%0'*.')+% %E1')*$',)',0'*./2' D!!!'&%%)' +%0%'&'()0

'$%'6'$)/2'%B6/',.%5'42')+%'1.%E1'/6$*-$%0' *&')+%'01.'N5)%$')+%'%E1,.*B',.')0'(*1$0%)*3'$5')+%')$*6,(' .')+%'&,$0)'8*.)+',)' 6'00%0')+$*1-+'@g'*&'/'),)15%',.')+%'0%(*.5' 8*.)+')+$*1-+'?g')'+%'%.5'*&')+%'0%(*.5' 8*.)+')+%$%&*$%',)',0'@!g'&$*8')+%'%E1')*$' '.5')+%$%'$%8'.''*$='"g')*'4%')$'7%$0%5',')+%')+,$5'8*.)+' +%'01.'$%(%5,.-'&$*8')+%')$*6,(''')+%'0'8%'$')%'')'//'6/'(%0' 4%)3%.'@!g'.5'@"=g'*&'/'),)15%')+%'0*/'$' $'20'51$,.-')3*'8*.)+0'&'//'')'.**.'%,)+%$ 6%$6%.5,(1/'$/2'*$'')''.'-/%' +,(+'5%7,')%0' &$*8''$,-+)'*82'42'?g')'8*0)

.*)+%$'('10%'3+,(+')%.50')*'5,8,.,0+' +%')',.')+%'$%-,*.0'.%'$')+%'%E1')*$',0')+%' 6$%7'/%.(%'*&'$',.' *'4*1)'&,7%'5%-$%%0' .*$)+'.'.5'0*1)+'*&')+%'%E1')*$',.')+%'$%-,* *&')+%'%E1')*$,'/'('+.0')+%$%'$%'&%3'(*.; 0%(1),7%'5'20',.')+%'2%'$'3,)+*1)'$',.' +% 6$,.(,6'/('10%'4*)+'*&')+%'(=+.0'.5'*&')+% $',.0'+'0'4%%.'))$,41)%5')*'))+%'8%%),.-', .')+%'166%$'')8*06+%$,('8*-,*.0'*&')+%')'5% 3,.50'.*$)+'.'.5'0*1)+' +%2'.%1)$'/,0% '(+'*)+%$''.5'6$%(,6,)')%')+%'7'6*1$')+%2' %-,*.0')+')'/,%'4%)3%%.'Dg'.5'!g'*& /'),)15%'+'7%'101''//2')3*'$'.2'.5')3*'5$2' 0%'0*.0' +%'-$%')%$'$',.2'0%'0*.'*((1$0% +%.')+%'01.',.')0'6'00'-%')*')+%'.%'$%0)')$*6,('6'00%0'*7%$')+%'C%.,)+'/'0),.-'&$*8')+$%%')*'&*1$'8*.)+0' +%'/%00%$'$',.2'0%'; 0*.'*((1$0'3+%.')+%'01.'*.',)0'$%)1$.'&$*8')+%'.%'$%0)')$*6,('66$*'(+%0')+%'6'$'//%/'*&)+%'6/'(%' +%'$',.0')+%.'*./2'/'$&'&$*8'0,B' 3%%90')*'3*'8*.)+0''.5''$%'81(+'/%00' '41.5'.)''.5'(*.),.1'/' *1.)$,%0'8*$%%)+'.' !g'*$' @g'&$*8')+%'%E1')*$'+'7%'*./2' *.%'$',.2'.5'*.%'5$2'0%'0*.H)+%'&,$0) 4%-,.0'3+%.')+%'0)8'66$*'(+%0')+%'.%'$%0)')$*6,('.'.5'%.50'0*8%',8%'&)%$'3+%.',.')0' (*1$0%'&$*8')+%')$*6,(',)' +'0'6'00%5')+% 6'$'//%/'*&')+%'6/'(%' /'0)0'&$*8'&'*1$')*' 0,B'8*.)+0' *('/'(*.5,),*.0'8'2'8*5,&2')+%'(*1$0%'*&')+%'5$2'.5'3%)'0%'0*.0''0',0')+%'('0%',.'.5,''3+%$%')+%'5$2'.5'$',.2' 0%'0*.0'5%6%.5'6$,.(,6'//2'*.')+%'8*.0**.0' +%'8*1.)'*'$'.')+')'&'//0',.''0+*$)',$.% 3,)+,.')+%')$*6,(0',0'7%$2'-$%')'81(+'8*$% 0*')+'.',.'8*$%'.*$)+%$.'$%-,*.0'41)')+%0% +%'72'$',0'5*'.*)'/'0)'(*.),.1*10/2''0',0' 0166*0%5' '20'*&'(*.),.1%5'$',.'%7%.',.')+%'$',.2'0%'0*.''$%'$'$%$')+'.'.')+%'.*$)+'),//+%'72'$',.0'$%'6)')*'('10%'-$%')' .1.5'),*.0''.5')*'(*7%$'/'$-%'%B)%.)0'*& /*3'*$'/%7%/'(*1.)$2'3,)+'3')%$'6$*51(,.-' 03'860'.5'8'$0+%0'7%$2',.>1$,*10')*' +%'/)+ .')+%'7,(,.,)2'*&')+%')$*6,(0')+%$%',0'' 4%/)'%B)%.5,.-'*7%$0%7%$'/5%-$%%0'*&'/'),;)15%'3+%$%',)'0%/5*8'$',.0' +,0'$',./%00')$'()',0'6$%(,0%/2')+%'$%-,*.'3+,(+'+'0'4%%.' '/$%'52'8%.),*.%5''0')+')'*&'-$%')%0)'+%')' +%0%'4%/)0'*&'$',./%00'$%-,*.0'%B)%.5,.-' '$*1.5')+%'-/*4%'*.'%'(+'0,5%'*&')+%'%E1')*$' 8'2'4%'0',5')*'0%6'$')%')+%'(*1.)$,%0'3+,(+' /,%'*.'%'(+'0,5%'*&')+%'%E1')*$'&$*8')+%

?F@

)%8 6%$')% C*. %0' +1 , .' &$,('')+% $',. 0' (%'0% *. ')+% 0*')+%$.' 4*$5%$ *&')+% 5%0%$)' *&' '+'$'')' '4*1) D' ' '. 5' 4%-, .' '- ' , .' ')' @?[' ' .')+% 4' .9 0' *&')+% 5%')+% $', .' (%'0%0' '4*1)' ?g'*$ Pg')*'4%-, .' '- ' , .'4%)3%%. ' @?g' .5' @Pg' +% %+ ' 8 ' ' *$' /*3' (*'0)' *&' $'4, ' ' ,0' ' ' 41)' $', . /%00' +,0' $', . /%00')$'()' ($*00%0' 0, ''' 0'&'$' 0' +, . ' '3+%$%)+%$% ,0' . *'$', . /%00' $%-, *. ' *3, . -' 6$*4'4/2')*')+% &'()')+')' //'6'$)0' *&' +, . ''4%)3%%. '@@g' . 5' ?!g' '/')' '$%)$'7%$0%5' 42' +, -+' 8*1.)', .' (+', .0 # ' " " ' *&' 3'$8' (/, 8 ')%0' , 8 6$%00%0' (%$)', .' 6%(1/, '$,), %0' *. ')+%' 6%*6/%' 3+*' , . ; +'4,)')+%8 ' +%2' '$%')+%' '4*5%' *&')+%')+, *6, . ' ' . 5' *. -*+' . '$' (%0' *&' 8' . 9, . 5' ' . 5' '66%'$')*' +'7%' , 8 6$%00%5')+%' 0' 8%' (+'$' ()%$,0), (0' , . ' '' 8 , . *$' 5%-$%%' *. ')+%' '1('0, ' ,R' $' (%0')+')' , . +'4,)')+%8 ' ''5'$9' (*86/%B, *. ' ' . 5'4/' (9'+', $' +%', . +'4,)' .)0' *&')+%0%' (*1.)$, %0' '$%, . 5*/%.)'' . 5'' 6')+%), (' +%' &1. (), *. 0' *&')+%' 09, . ' . 5' /, 7%$' '$%' 6%; (1/, '$/2' '(), 7%' ''(, $(180)' . (%'3+, (+'%B6*0%0')+%8')*'0%7%$%' 5, 0%'0%' *&')+%0%' *$-' . 0' +%' 5, -%0), 7%' &1. (), *. 0' '$%' 0/1--, 0+' ' . 5')+%' . %$7*10' 020)%8', 0' '/)%8')82' %B(,)%5' ' . 5' 5%6$%00%5' U%8,))%.)' . 5', .)%$8,))%.)'&%7%$0' 520%.)%$2' ' . 5' 2%//*3' &%7%$' '$%' (*88*. ' 1$, . -')+%' 5$2' 0%'0*. ' 5, 0%'0%')%. 50')*' '0; 018%')+%')'B, ('5, , . -')+%' $', . 2'0%'0*. ')+%' '52. '8, (' &*$8' 1/8*. '$2' (*. 0186), *. ', 0' &$%E1%.)/2'8%)'3,)+', . ')+%')*3. 0', . '(*.)$'; 5, (), *. ')*' $%(%, 7%5'*6, . , *. 0 @' %8 6%$')%' /, 8 ')%0`` %8 6%$')% (/, 8 ')%0' 8' 2' 4% 0', 5')*' *((162')+%' C*. %0' *&')+%' %')+0' 01$&'(% (*86$, 0%5' 4%)3%%. ' ?Fg' . 5' F!g' *$ DFg'/')' +%2' (*86$, 0%' *1)+%$. ' . 5' %.)$'/ 1$*6%' 3,)+' ,)0' , 0/'. 50H')+% 6')$)0' *&' 0, ''3+, (+'%B)%. 5'4%)3%%. ')+%' /'(9' %'' . 5')+%' %5,)%$$'. %'. ' *. ')+%' 3%0)' . 5' '6' . ' *. ')+%'%'0)H')+%' -$%')%$' 6'$)'*&' *$)+' 8%$, ('H''6'$)'*&' +8' . 5' '' /')'' . 5' ')'-*. , '' , .' *1)+' 8%$, ('' +%' 8%' . ')%86%$')1$%' 8' 2'4%0)')%5'')'&$*8'D!g')*'F!g' +%' (/, 8 ')%0', . '3+, (+')+%' 8%' . ')%86%$')1$% , 0' &$*8'D!g')*' D?g' '$%' *&)%. ' 06*9%. ' *&' '0)%86%$')%I'41)', . ' $%'/,)2')+%2' '66$*B, 8')% (/*0%/2')*'3'$8'(/, 8')%0' +%'&*1$'0%'0*. 0' 3, .)%$' 06$, . -' 0188%$' . 5' '1)18. ' '$% 3%// 8'$9%5'41)' 'H%'7%$2'7'$, '4/%'4*)+' '0')*' 4'$*8%)$, ('/ . 5')+%$8*8%)$, ('/ (*. ; 5,), *. 0' +%'8%' . ')%86%$')1$%', . ')+%'(%. ;)$'/$%-, *. 0', 0'&*$ 3, .)%$"?g'&*$'06$, . -' F g' &*$'0188%$'D?g'. 5'&*$' '1)18. ' F"g' +% $%-, *. 0'3+, (+' '$%'. %'$')+%'0*1)+' . 5'. *$)+' /, 8,)0' *&')+%' . *$)+%$. ')%86%$')%'C*. %' '6' 6$*B, 8')%')*')+%' 8%)%*$*/*-, ('/ (+'$'()%$0' *&')+%'3'$8'(*/5'(/, 8')%0' $%06%(), 7%/2' +%'6%$, *50'*&')+%'2%'$'3+. '0)*$80'$', . ' . 5'-%. %$'/7%$0')/,)2'*&'8%)%*$*/*-, %0'6+%; . *8%. '' '$%'6$, . (, 6'//2'*40%$7%5'(*$$%06*. 5' 3,)+')+%'7%$. '/'. 5''1)18. '/'%E1, . *B%0 # ' " " ' *&'')%86%$')%' (/, 8 ')%' *. ')+%'+18' . '*$-' . , 0'), *. ', 0'0'/1)'$2'%B)$%8%0' *&'+%')'' . 5' (*/5'4%, . -' 4*)+')$2, . -' +10')+%'+%)+, %0)' (/, 8 ')%0'*&')+%'3*$/5<0'01$&'(% '$%'&*1. 5', . ')+, 0'C*. %' .)%. 0%'+%')'*$%7%. l' 8*5%$')%+%')', &'6%$0, 0)%.)')+$*30'''6+20, *; /*-, ('/0)$', . '*. ')+%'+7%$'09, . ' ''. 5'5, -%0), 7%' 020)%8''. 5'$%. 5%$0'8'. 9, . 5'6$*. %')*'0%7%$%' '. 5'&')'/5, 0%'0%0'*&')+%0%'*$-'. 0' .)%. 0%' (*/5')+$*30' 6+20, */*-, ('/0)$', . '*. ')+% /1. -0'. 5'9, 5. %20''. 5'%B6*0%0')+%8'/0*')*' 0%7%$%' '. 5'&')'5, 0%'0%' +%'+%')/)+, %0)')%86%$')%' (/, 8 ')%0' '$%')+*0%' , . '3+, (+')+%' 3, .)%$' , 0'. *)'7%$2'(*/5'. 5')+%' 018 8%$', 0' . *)'7%$2'3'$8''. 5', . '3+, (+'(*. 0%E1%.)/2')+%$%', 0'. *'-$%')'*$'(*.), . 1%5'0)$', . '*. '. 2' *. %'(/'0'*&'*$-'. 0' +%'5, 0%'0%0'*&')%8; 6%$')%' $%-, *. 0' '$%')+*0%')+')' '$%K')+%'4%0)' 9. *3. ''0')+%, $'0)152''. 5'5%0($, 6), *. ' (*. ; 0),)1%)+%'&*1. 5'), *. '*&'6')+*/*-, ('/0(, %'. (, %.)' . 5'8*5%$. +%'(/, 8 ')%'3+, (+'6%$+'60')+%'4%0)'5%; 0%$7%0')+%''66%//'), *. '*&')%86%$')%', 0')+')' *&')+%' %5,)%$$'. %'. '4'0, . ' +%'3, .)%$0''$% . *)'0%7%$%'*. ''. '2'6'$)'*&',)0'. *$)+'0+*$%0' ''. 5')+%'018 8%$0''$%'. *)', .)%. 0%/2'+*)'*. ',)0'0*1)+'0+*$%0'H')'/%'0)')+%'+%')'&'//0'0+*$)' *&')+')'*&K)+%')$*6, (0' +%$%'$%'8'. 2'(*. l' 5,), *. 0'*&'6+20, (''/-%*-$'6+2'3+, (+'(*. 51(%)*')+, 0'$%01/)' +%'. *$)+'0+*$%0''$%'6$*;)%()%5'&$*8'. *$)+' 3, . 50'42')+%'$'. -%0'*&' +, -+'8*1.)', . 0'*&' *1)+%$. ' 1$*6%'3+, (+' 09, $)')+%8''. 5')+%'0*1)+'0+*$%0''$%', . '(/*0% 6$*B, 8,)2')*')+%*+')'$', . /%00')$'()'*&' *$)+%$. ' &$, ('G)+%'5%0%$)'*&' '+'$''3+, (+'&'7*1$; '4/2'8*5, &, %0'3, .)%$')%86%$')1$%' *$%*7%$')+%' %5,)%$$'. %'. ', 0''3'$8'0%''41)'&%3' (*/5'$, 7%$0'*&'(*. 0, 5%$'4/%0, C%'&/*3, . -', .)*' ,)'&$*8')+%'. *$)+''&'()'3+, (+', . (%'0%0')+%)%86%$')1$%'*. ',)0'0+*$%0''. 5', 0/'. 50 "' */5' /, 8 ')%0 G */5' (/, 8 ')%0'(*8; 6$, 0%)+%'$%-, *. 0'3+, (+'%B)%. 5'&$*8'F!g')*'FFg' /')')*')+%'6*/%0' +%2'8'2'4%'0145, 7, 5%5' , .)*'(*/5'3,)+''8%'. '*&'&$*8'F!g')*' !gH' _) ' '3,)+''8%'. '*&'&$*8' !g')*''@gH' -/'(, '/'3,)+''8%'. '4%/*3')+%'&$%%C, . -6*. ,)' . ')+%'10)'/+%8, 06+%$%)+%'C*. %'(*.)', . 0' 41)'/,))/%'9. *3. '/'. 5''/)+*1-+')+%'%B, 0)%. (% *&'. '')'$(), ('(*.), . %.)', 0'0106%()%5H, . ')+% . *$)+%$. '+%8, 06+%$%,)'(*86$, 0%0', . ' 1$*6%')+%' . *$)+'*&' (*)/'. 5' %. 8'$9' 3%5%. ' *$3'2' (%/'. 5', . /'. 5'' 6/'. 5' *$)+%$. ' U100, '' 6,)04%$-%. ' *7''V%84/'H *$)+%8' 0, ''. 5'0*8%'*&',)0'/'$-%'6/', . 0'4%/*3'F!g' /')' , 4%$, ''. 5' '. ',)(+')9'H', . ' 8%$, (' '. '5'', . (/15, . -'0*8%'$%-, *. 0'4%/*3'F!g')+%'. *$)+%$. '/'. 50'. 5' /'. 50'*&' 150*. <0' '. 5' '&&, . <0' '20''. 5' $%%./'. 5' . ')+, 0' C*&$%')+%'5%($%'0%'*&')H% 8%'. ')%86%$')1$%' , 0'81(+'8*$%'$'6, 5' '=;3%'$%(%5%&$*8')+% %E1')*$')+'. ',)', 0', . K)+%')$*6, (''/$%-, *. 0' +10'&$*8')+%'%E1')*$')*'@!g'/')')+%'7'$, ';), *. '*&')+%8%'.)%86%$')1$%', 0'. *)'8*$%)+'. 'Mg'*$'?g'3+%$%'0'H)+%7'$, ')*. '4%)3%%. ' FFg'. 5'MFg'/')'18*1.)0')*'&$*8'@@g')*'@Mg' +%(*/5%0)'$%-, *. '*&')+%-/*4%, 0'. *)', ' 3*1/5'66%'$')')*$. %'$')+%6*%'41)')' '4*1)'?!g'/')''*$'!g'&$*8')+%6*%'. *$)+'*&' %+$, . -<0')$',)0'', +%'(*/5'*&')+%'-/'(, '/ (/, 8 ')%0'+'0'4%%. '%B'--%$')%5')')+%/'), =

)15%0' 6# &$* 8' M! [')*' M?[')+%' %B)$% 8 %' /, 8 ,)' *&' +)11,,.' + ' 4,)'),*. ')+%' 8 %' .' '. . 1 'ƒ)% 8 ; 6%$')1$%' ,0' 4%)3 %%.' P[' '. 5' MI' ' "g')*' F[' 4%/* 3')+%' &$%%C,. - 6*,.)' +%' %B)$% 8 %' *&'(*/5'$%-,0)%$%5'+* 3%7%$'$%' (+%0' '+1. 5$%5' 5%-$%%0' *$' 8 *$%' 4%/* 3')+%' &$%%C,. - 6*,.)' 3,. -')*' '0)$*. * 8 ,('ƒ (*. 5,),*. 0')+%$%' ,0' -$%')' 5,06$*6*$),*. ' 4%)3 %%.')+%' /%. -)+' *&')+%' . ,-+0%' '. 5' *&')+%' 5'20')' 5,&&%$%.)' 0%'0*. 0' *&')+%' 2%'$' .')+%' 8 *$%' . *$)+%$.' $%-,*. 0' &*$' 0%7%$'ƒ 8 *.)+0', .')+%' 3, .)%$')+%' 0) 8' . %7%$' '66%'$0' '4*7%')+%' +*$,C*. ' '. 5' , .' W)+%' 188 %$ &*$' 0%7%$'ƒ 8 *.)+0')+%' 0, 8' . %7%$' 5,0'66%'$0' 4%/*3' ,)' 6$, . -' 51$, . -' 3+, (+')+%' %B)$% 8 %' (*/5' ,0' 8 ,), -')%5' /'0)0' 41)' '' 7%$2' 0+*$'), 8 %' '. 5', 0' 01((%%5%5' 42' 0188 %$' 3+, (+', 0', .',)0' &1/ƒ 0)$%. -)+', .' 1. %' '. 5' 1/2' %86%$')1$%' $,0%0' $'6,5/2' &$* 8' ?Fg')*' FFg' '. 5' D!g' . ' 0* 8 %' . *$)+%$.' /*('/,),%0',)'$,0%0')*' ?D[' *$' P! [' . 5%$')+%' , . &/1%. (%' *&')+%' 6$*/*. -%5' *$' 6%$0,0)%.)' 5 20' ' '. 5' *&')+%' , . ; ($%'0%5')% 86%$')1$%')+%' 7%-%)'),*. ' 6%(1/,'$')*%'(+' /*('/,)2' 6'00%0')+$*1-+' '/ƒ ,)0' 6+'0%0' 3,)+' %B)$% . ,%' $'6,5,)2' *3'$50')+%' %. 5' *& 1/2' $' . ' '. 5' &*-'$%'66%'$ƒ' '. 5' '$%' ") ' 42' 0. *3' ' '. 5' , .)%. 0%' (*/5')+%' +, -+%0)' %B; 6$%00, *. ' *&' 3+, (+', 0' . . ' . 1 '$2' '. 5' %4$1'$2' +%' 4 '$* 8 %)$, ('ƒ (+' . -%0' '$%')+%' $%7%$0%' *& 3+')' *4)', . 0' , . ')+%')$*6, (0' 4*7%' D! [' /')')+%' 5, 1$. 'ƒ *$' 6%$, *5, ('ƒ (+' . -%0' '$%' 0('$(%/2' 6%$(%6), 4/%' 3,)+')+%' %B(%6), *. ' *&')+%' '1$*$'' 4*$%' +0' +%' 3, . 50' 3+, (+' 6$%5*8, . ')%' '$%')+%' ' '. 5' ' '. 5')+%2' (+' . -%' $'6,5/2' &$* 8' *. %' 6*, .)' *&')+%' +*$, C*. ')*')+%' *)+%$' '. 5')+10' &$%E1%.)/2' *((' 0, *. ')% 86%0)0' 3+, (+' %B)%. 5' *7%$' (*. ; 0, 5%$'4/%' '$%'0' +%' E1' .),)2' '$', . ')+')' &'//0', . ' (*/5' (/, 8 ')%0', 0' 81(+' /%00')+' . ' , . ')+%')$*6, ('ƒ ' . 5')% 86%$')%' 3,)+' 0* 8 %' %B; (%6), *. 0' %)3%%. ' D! [' '. 5' P! g' /')' ,)' < . /2' ' 8 *1.)0')*' '' &%3' , . (+%0' ' . 5' &'//0' 6$, . (, ; 6'//2', . ')+%' &*$8' *&' 0. *3 5# ' " " ' *&' (*/5' * 8 ')%0', 0' 0+*3 . ' * . ')+%', . +' 4,)' .)0' *&')+%0%' (*1.)$, %0' 3+*' '$2' 81(+', 1' 0)')1$%' ' . 5' 6*00%00' ''7, -*$*10' (*. ; 0),)1), *. ' '' 0' . -1, . %*10')% 86%$' 8%.)' -$%')' 810(1/'$' 5%7%/*68%.)' ' (), 7%' 5, -%0), 7%' 8 . *'), *. 0' ' . 5' 0/1- -, 0+' . %$7*10' 6* %$0' *); 3,)+0)' . 5, . -')+%' 0%7%$,)2' *&')+%' (/, 8 ')%')+%2' -%. %$' //2' 01((%%5', . '6$%0%$7, . -'+%' /)+' ' . 5'/, 7%')*' */5' ' -%' 6$%0%.), . -' &%3' 5, 0%' 0%0' $%&%$' 4/%')*' (/, 8 '), (', . &/1%. (%0' +%2' '$%' +*3%7%$' 014>%()')*' *6+)+'/8, '' . 5' ' 8 '1$*0, 0' *3, . -')*')+%' $%&/%B, *. ' *&'/, -+)' &$* 8')+%' 0. *3', . ')+%' 6*/'$' $%-, *. 0' . 5') *' 0($*&), /'' . 5' 0(1$72')+%' $%01/)' *&' '' 6**$' . 5', . (*86/%)$' 5, %)'$2' -1%0' . 5' , .)%$8,))%.)' &%7%$0' &$* 8' 8 '$=' , . &/1%. (%0' '$%' $'$%' ' . 5' . *)' 0%7%$%' ' . 5' 5, 0; '66%'$' %.), $%/2' '0' 3%' '66$4N'(+')+%' 6*/%' *.), . 1%5' &%7%$0' '$%' 8 %)' 3,)+ =1)' 0%/5* 8', &' %7%$' %6, 5%8, ('//2' > ' . 01/'$' /, 8 ')%0 G . 0 '$' (/, 8 ')%0 6$%0%.)' , 86*$)' .)' 6%(1/, '$,), %0' +%')% 8 ; 6%$')1$%' *&')+%' 0%'', 0' 8 *$%' %E1'4/%')+' . ')+')' *&')+%' /' . 5' 3, . -')*')+%' '(), *. ' *&'(1$$%.)0' '. 5')*')+%' (, $(1/'), *. ' *&',)0' 3 '1%$0' 1. 5%$')+%' , . &/1%'(%' *&' +%')' ,)0' 016%$&, (, 'ƒ)% 86%$')1$%', 0' 3 '$8%$', . ' 3, .)%$' '. 5' (**/%$', . ' 08. 8%$' G 8*$%' %E1'4/%G)+' . ')+')' *&')+%' /' . 5')' +'0')+10'')%. 5%. (2')*' 3'$8', . ' 3, .)%$' '. 5')*' (**ƒ, . ' 0188%$')+%' ,0/' . 5' 3+, (+' ,)' 01$; $*1. 50' *$%*7%$')+%$%', 0' (*. 0)' .)/2' 3')%$2' 7'6*1$' $, 0, . -' &$* 8')+%' 0%' ' +, (+' %B)%. 50')*' , 0/' . 5' ')8*06+%$%0' 7%, /0')+%' 092' 8*$%' *$' /%00' 0+, %/50')+%' 01$&'(%' &$* 8')+%' '$5*1$' *&)+%' 01. ', . '0188%$' ' . 5'6$%7%.)0' -$%')' $' 5, ';), *. ' 4*)+' , . ' 0188%$' . 5', . ' 3, .)%$' +10',)', 0')+')')+%' (/, 8 ')%' *&' '/ƒ, 0/' . 50', 0' 8*$%' %E1'4/%')+' . ')+')' *&'(*.), . %.)0' +, 0' &'()', 0' 8*$%' %06%(, '//2' $%(*-. , 0'4/%', . ')+%' (/, 8 ')%' *&')+%' $,), 0+' 0/%0' 3+, (+', 0' /0*' 8*5, &, %5G' $%. 5%$%5' 3'$8%$' . 5' 8*, 0)%$G 42')+%' ')%$0' *&')+%' 1/&')$%' 8', 86, . -, . -' *. ')+%, $' 0+*$%0' +%' 3'$8' 1/&')$%' 8' (*88%. (; , . -', . ')+%')$*6, (0', . ')+%' 1/&' *&' %B, (*' 6'00%0' . *$)+3'$50'/*. -')+%'0*$%0' *&' *$)+' 8%$, (' ($*00%0')+%')/'.), (')*')+%'0*1)+' *& %3&*1. 5/' . 5' ' . 5' 0)$, 9%0')+%' 0+*$%0' *&')+%' $,), 0+' 0/' . 50' *&' *$3'2'16')*' '6%' *$)+' *&' */// . 5' ' . 5' *&' $' . (%H%7%$23+%$%$' , 0, . -')%86%$')1$%' . 5')+%' . . 1 'ƒ 8%' . F' '$,), 8%' /, 8 ')%0 G '$),), 8%' (/, ; 8 ')%0' 6'$), (, 6')%' , . ')+%0%', . &/1%. (%0H)% 8 ; 6%$')1$%', 0' 8 *$%' %E1'4/%' 3'$8%$', . ' 3, .)%$' . 5' (**/%$', . ' 0188%$' *. ')+%0+*$%0' *&' 0%'0' . 5' *(%' . 0')+' . ',)', 0', . /' . 5' 3, . -')*')+, 0' ('10%' 8*0)' *&')+%' 3, .)%$' 0' .), '' +'7%' 4%%. ' (+*0%. ', . ', 0/' . 50' *$' *. ')+%' (*'0)0' *& *(%' . 0' . 5'0%' 0' 01(+' '0' '0), . -0' %.). *$' *1$. %8*1)+' *$E1'2' 1. %+'/$' '/'-' ' '. %0' ,(%' %.)*. %' '6/%0' '/%$. *' ' . 5' /-, %$0 D' *.), . %.)'ƒ /=')%0 G *.), . %.)'ƒ (/, 8 ')%0' %B+, 4,)' (*. 5,), *. 0')+%' $%7%$0%' *&)+*0%' 3+, (+' *4)', . ' , . ' 8 '$), 8%' (/, 8 ')%0' +%')%. 5%. (2', 0')*' (*/5' 3, .)%$0' . 5' 3'$8' 018 8%$]' *3, . -' 6$, . (, 6'//2')*')+%' '40%. (%' *&')+%' %E1'/, 0, . -', . &/1%. (%' *. ')%86%$')1$%' *&'/'$-%' 8 '00%0' *&' 3')%$' ' 7%$2' 0+*$)' 5, 0;)' . (%' &$*. ',)+%' 0%'', 0' 01&&, (%.)')*' %0)' 4/, 0+')+, 0' 5, &&%$%. (%' +10')+%' (%.)$'ƒ 6')$0' *& $' . (%' '$%' 7%$2' 81(+' 3'$8%$', . ' 0188%$' . 5' (*/5%$', . ' 3, .)%$')+' . ')+%' (*'0)0' *&' *$; 8' . 52' . 5' $,))' . 2' 1)',)' , 0' 3+%. ' 3*' $%' (+')+%' (%.)$%' *&' (*.), . %.)0' G' /100, ' %.)$'ƒ 0, ' ' %.)$'ƒ 8%$, ('G)+')')+%' 5, &&%$%. (%', 0')+%' 8*0)' 8 '$9%5 M' *1.)', . ' /, 8 ')%0``& ' 3%' $, 0% '4*7%')+%' /%7%/*&')+%' 0%' '3%' 8%%)' 3,)+')3*' , 86*$)' .)' 8%)%*$*/*-, ('/''(*. 5,), *. 0' +%' ', $'4%(*8%0' 8*$%' . 5' 8*$%'$%&, %5' ' . 5')+%')' 5, 8, . , 0+%0' , . 5%6%. 5%.)/2' *&')+%' 8*$%' *$' /%00' *4/, E1,)2' *&')+%' 01. ⊲' $'20' +%' +, -+%$' 6 ' $, 0%' '4*7%')+%' 0%' /%7%/')+%' 8*$%')+%' ', $', 0' $'$%&, %5' ' . 5')+%' 8*$%')+%' 5%-$%%' *&' +%')' 51%')*')+%' 0*/'$' $'20' 5, 8, . , 0+%0' %%' '$5, 7%' ')'/'0)'%7%. ')')+%')$*6, (0' *$')+% E1')*$' ')' '' +%, -+)' 7'$, '4/%' '((*$5, . -')*

?F

/'),),1,,/%' 3+%$%)+%' 01 . <0 +% ')' ,0 , . 01&&,(,% .)')*' 8 %/)')+%' 0 . *3 ' +,0 , 0)%$ 8 %5')+%' 0 . * 3 ; /, . % ' *1 .)', . 0 '))$' ()' (/*150 ' . 5 3 ')%$2 7 '6*1$' ' . 5')+% (**/ . %00 *&')+%,$' ')8 *06+%$% ('10%0)+% 6$%(,6,)'),* . ' *&')+% 7 '6*1$, . ')+% &*$8' *& $', . ' *$ 0 . *3 ' +10 ' 8 *,8)', . 0 ' 8 *1 .)', . $' . -%0 ' . 5')+%' -/' (,%$0)+%2' (* . ;)', . ' '$%)+%' 6$, . (,6 ' / ('10%' . 5' *$,-, . ' *& $,7%$0

' " " ' *& 8 *1 .)', . ' (/,8 ')%0 ' . *) ' 3,)+0)' . 5, . -')+%' (/*150 '&*-0 ' . 5'$ ', . ' 3+,(+' (+'$' ()%$,0%')+%8 ' ,0 6$*7%$4, ''//2' ' +%' /)+2' *. %' *3, . -')*')+%' 61$,)2' *&)+%' ',$')+% 0+%/)%$0 &*1 . 5' , . ')+%' 7 '//%20 ' . 5' 6%$+'60 ')*')+%' 06 '$0%. %00 *& 6*61/'),* . ' +%2' +'7% *&'/')%' 4%%. ' 8 1(+'$%(*8 , . %5%5'&*$6+)+,0,0 +% (*. 5,),*. 0 '4*7% 8%.),*. %5')*-%)+%$ Q3,)+' 01 . 0+, . %')*' ' /, 8 ,)%5' %B)%.)' '$% E1,)% 01&&,(,% .)')*' '((*1 .)'&*$')+%' $',)2' *&6+)+,0,0 '8*. -0)')+%,$' , . +'4,)' .)0 ' . 5'&*$')+%' , 8 ; 6$*7%8%.)' *&')+%' 6+)+,0,('/ 3+*' $%0*$)')*')+%8

' 8*5,&,%0 (/,8 ')%' (*. 0,5%$'4/2 ' %)' . 5' 8 '$0+2 0*,/0 '$%' (*/5 '%. -%. 5%$, . -' &*-' . 5' 8 ,0)' ' . 52 ' 5$2 '3%// 5$', . %5' 0*,/0 '$% (*86 '$'),7%/2' 3 '$8 ' ' 0 ' . 52 ' 6/', . 0 '$% 3 '$8', . '018 8%$' . 5' (*/5', . ' 3, .)%$

1(+' '$%')+%' &%')1$%0 3+,(+' (+'$' ()%$,0%)+%' (/,8 ')%0 *&')+%')%$$%0)$, '/ -/*4%' -%. %$; ''//2 ' '(+' /*(' /,)2' +*3%7%$' %'(+' 8*1 . ;)', . ' 6/', . ' . 5'7 '//%2 '%' (+' (,)2' 7,//' -%' . 5' +*10%' +' 0 '' (/,8 ')%' *&' ,)0 *3 . ' 8*5,&,%5' 42 '/')+%' 8%)%*$*/*-,('/ %/%8%.)0 3+,(+' 3% +'7%' 01((%00,7%/2' (* . 0,5%$%5 ' *' 5,0(*7%$ 3+')' %'(+' (/,8 ')%' ,0 ' 3%' 8 10)' 0)152' ('$%; &1//2')+%' 8 %)%*$*/*-,('/ (* . 5,),*. 0 ' . 5' , . ; &/1%. (%0 3+,(+' 3%'+'7%' $'6,5/2' 01$7%2%5' , . ')+%,$' '66+(')',*. ')*',)

5 # ' G 3, . -')*')+%' 1 . ; %E1'/ , . &/1%. (%' *&')+%' 5,&&%$%.)' %/%8%.)0)+')' (* . 0),)1)%' (/,8 ')%')+%' ' . . 1'/ 8%' . ')%86%$')1$%' *&' $%-,*. 0 *((162, . -')+%' 0' 8% /'),)15%' *. ')+%' %')+%0 01$&'(%' ,0 '7%$2' 7 '$, ; ' 4/%' %. (%')+%' '4*7%' . ' 8%'+'0 4%%. '-,7%. ')*')+%' $%-,*. 0 , . ' 3+,(+')+%' ' . . 1'/ 8%' . ', 0)+%' 0' 8%' +%' 0)152' *&'' 8 '6' *. ' 3+,(+')+% ,0*)+%$8 '/ /, . %0 '$%' 8 '$9%5', 0 ' . ', . 0)$1(),7% ,//10)$'),*. ' *&')+%' &' ()0 '4*7% 5%0($,4%5' +10 ,)' 3,// 4%0%%. ')' '' -/' . (%')+')')+% /,8 ,)' *&' (*. 0)' .)/2' &$*C%. ' -$*785' , . ')+% (%.)$' / 6/' , . 0 *&' 0,'' ' . 5' , . ')+%' . *$)+%$. ' 6/' , . 0 *&' 8 %$,(' ', 0 4%/*3 D g 3+,(+' ,0)+%' / '),)15%' *&' *$9\

' ' C $' #$% ' ' #' $!

+%'7%-%)'4/%' ' . 5' ' . ,8 ' / 3*$/50 ' , . (/15, . -' f 8 ' . '+,8 0%/&' +' 7%' 4%%. ' 8*5,&,%5' , . '%00%.), ' / W (+' $ ' ()%$0 42' (/,8 '), ('(*. 5,), *. 0 ' +%' 0)152' *&',)0', . &/1%. (%' *. ')+%,$' 7,)' /,)2' . 5' *$-' . ; ; 0 '), *. ' *6%. 0 *1)'' 3,5%'&,%/5')*')+%' *40%$7%$' +,0 0)152' /%' 50)*')+%' (*. (/10, *. ')+') -%*; /*-,(' / 6%$,*50 *&'), 8%' +'7%' 4%%. ' . %(%00 '$2')*', 8 6$%00 *. ')%$$%0)$, ' / /, &%' 4%' ,)' 7%-%)'4/%' *$' . , 8 '/')+%' (+'$' ()%$,0), (0 *40%$7%5' . *3' *$'&*$8 %$/2', . ')+%' (/,8 ')%0 *&'5,&&%$%.)' $%-,*. 0 *&')+%' %' $)+' +%' (1$%$.)' *&' 8*5%$. '$%0%'$(+' ,0 0)$*. -/2' 5,$%()%5')*')+%' %/1(,5'), *. ' *&')+%

, . &/1%. (%' *&' (/,8 ')%' *. ' /,&%' 51$, . -' 01(+' -%*; /*-,('/ 6%$,*50 *8 ' ,%. 7%0), -'), *. 0 *& '$3, ' . 5' +,0 &*//*3%$0 8 '2' 4%' . ' 8%5' 0')+%' 8*0) $%8 '$9'4/%' . 5', 86*$)' .)',/10)$'), *. ' *&'),0 &' ()' %' 8 '2' '/0*' 8%.), *. ')+%' $%0%'$(+%0 *&' 8*5%$. ' 6+,/*/*-,0)0' 3+,(+' +' 7%' 6$*7%5' 42')+%' 0)152' *&' /' . -1' -%0' . 5')+%,$' $**)0')+')' 8*0)' *&')+%' . '),*. 0 *&' 8*5%8' 1$*6% +'7%' 5%0(%. 5%5'&$*8')+%' 0' 8%' $2' . '6'$%.)0 '0')+%' , . +'4,)' .)0' *&')+%' . 5, . ' . 6%. , . 01/' ' /, 8 ')%' , . ')+%' (*,10%'*&'), 8%*+' 0' 0*' 8*5,; &,%5')+%8 ' ,0 6$*7%$4, ''//2' '*+%' /)+2' *. %' *3, . -')*')+%' 61$,)2' *&)+%' ',$')+% 0+%/)%$0 &*1 . 5' , . ')+%' 7 '//%20 ' . 5' 6%$+'60 ')*')+%' 06 '$0%. %00 *&' 6*61/'),* . ' +%2' +'7% *&'/')%' 4%%. ' 8 1(+'$%(*8 , . %5%5'&*$6+)+,0,0 +%' (*. 5,),*. 0 '4*7% 8%.),*. %5')*-%)+%$ Q3,)+' 01 . 0+, . %')*' ' /, 8 ,)%5' %B)%.)' '$% E1,)% 01&&,(,% .)')*' '((*1 .)'&*$')+%' $',)2' *&'6+)+,0,0 '8*. -0)')+%,$' , . +'4,)' .)0 ' . 5'&*$')+%' , 8 ; 6$*7%8%.)' *&')+%' 6+)+,0,('/ 3+*' $%0*$)')*')+%8

' 8*5,&,%0 (/,8 ')%' (*. 0,5%$'4/2 ' %)' . 5' 8 '$0+2 0*,/0 '$%' (*/5 '%. -%. 5%$, . -' &*-' . 5' 8 ,0)' ' . 52 ' 5$2 '3%// 5$', . %5' 0*,/0 '$% (*86 '$'),7%/2' 3 '$8 ' ' 0 ' . 52 ' 6/', . 0 '$% 3 '$8', . '018 8%$' . 5' (*/5', . ' 3, .)%$

1(+' '$%')+%' &%')1$%0 3+,(+' (+'$' ()%$,0%)+%' (/,8 ')%0 *&')+%')%$$%0)$, '/ -/*4%' -%. %$; ''//2 ' '(+' /*(' /,)2' +*3%7%$' %'(+' 8*1 . ;)', . ' 6/', . ' . 5'7 '//%2 '%' (+' (,)2' 7,//' -%' . 5' +*10%' +' 0 '' (/,8 ')%' *&' ,)0 *3 . ' 8*5,&,%5' 42 '/')+%' 8%)%*$*/*-,('/ %/%8%.)0 3+,(+' 3% +'7%' 01((%00,7%/2' (* . 0,5%$%5 ' *' 5,0(*7%$ 3+')' %'(+' (/,8 ')%' ,0 ' 3%' 8 10)' 0)152' ('$%; &1//2')+%' 8 %)%*$*/*-,('/ (* . 5,),*. 0 ' . 5' , . ; &/1%. (%0 3+,(+' 3%'+'7%' $'6,5/2' 01$7%2%5' , . ')+%,$' '66+(')',*. ')*',)

5 # ' G 3, . -')*')+%' 1 . ; %E1'/ , . &/1%. (%' *&')+%' 5,&&%$%.)' %/%8%.)0)+')' (* . 0),)1)%' (/,8 ')%')+%' ' . . 1'/ 8%' . ')%86%$')1$%' *&' $%-,*. 0 *((162, . -')+%' 0' 8% /'),)15%' *. ')+%' %')+%0 01$&'(%' ,0 '7%$2' 7 '$, ; ' 4/%' %. (%')+%' '4*7%' . ' 8%'+'0 4%%. '-,7%. ')*')+%' $%-,*. 0 , . ' 3+,(+')+%' ' . . 1'/ 8%' . ', 0)+%' 0' 8%' +%' 0)152' *&'' 8 '6' *. ' 3+,(+')+% ,0*)+%$8 '/ /, . %0 '$%' 8 '$9%5', 0 ' . ', . 0)$1(),7% ,//10)$'),*. ' *&')+%' &' ()0 '4*7% 5%0($,4%5' +10 ,)' 3,// 4%0%%. ')' '' -/' . (%')+')')+% /,8 ,)' *&' (*. 0)' .)/2' &$*C%. ' -$*785' , . ')+% (%.)$' /

:H*,)$%' '.5' *&' 8 '$0/,2' 5,0)$,()0' , .' 6$*51(,. .' ,.)%$8,))%.)' &%7%$0' +%' 6$,. (,6/%' '66/,%0')*' '// /*('/ (/,8 ')%0' 3+,(+' %B%$(,0%' '' 6%$; . ,(,*10' , .&/1%. (%' *&' . 2' 9, . 5' * .')+%' +18 ' .' Q*$-' . ,0'),*. ' +%.' 6*00,4/%')+%' (/,8 ')%' =0+*1/5' 4%' '4 ' . 5* . %5g' &&,%$')+')' ,0' ,8 6*00,4/%' ,)0' 6%$. ,(,*10' , .&/1%. (%' 8 10)' 4%' (* 8 4 ')%5' 42' %7%$2' 6*00,4/%' +2-,%. ,(' ' .5')+%$' 6%1),('/ 8%' .0

+%' , .>1$,*10' %&&%()0' 3+,(+' %B)$%8%' (/,; 8 ')%0' %B%$(,0%' *.')+%' +18 ' .' %(* .* 8 2 ' 3 '$8' (/,8 ')%0' *.')+%' '45* 8 , .'/' . 5' (%$%; 4$'/*$-' .0' (*/5' (/,8 ')%0' *.')+%')+*$'(,(G' 6*, .)')*' (+' . -%' *&'$%0,5%. (%' '0' ' .', 8 6*$)' .)')+%$'6%1),('/ '-%.)')+%' 7'/1%' *&' 3+,(+' ,0' *./2' 4%-, . . , . -')*' 4%' 1.5%$0)**5' 1$'. '7'/' '.5' 8 ,/,)'$2' 01$-%*.0' +'7%' 5*.%' 8 1(+')*' (/%' '$ 16')+,0' 4$'. (+' *&')+%$'6%1),(0' '0' $%; -'$50')+%' 5,0%'0%0' *&')$*6,('/$%-,*.0' +10' (+$*.,(' '&&%(),*.0' &)+%'/,7%$' . 5', .)%0), . %0' , . (1$'4/%' .' '' 3 '$8' (/,8 '$%' *&)%.' 4%(*8 %_>1,)% (1$'4/%',&')+%' 6'),%.)',0')$' . 0&%$$%5')*' '')%86%$')%' $%-,*.' *$)*' '' 8 *1.)',.' %/%7';,),*.',.')+%')$*6,(0' 3+,(+' $%6$*51(%0' '')%8; 6%$')%' (/,8 ')%

. 7%$0%/2' 6%$0*.0' 01&&%$,. -' &$*8' 5,0%'0%0' *&')+%' $%06,$')*$2' *$-'.0' 0*' (* 8 8 *. ',. ' 5' 86')%86%$')%' (18 ')%0'/,9%')+*0%*&' $'. (%' .-/' . 5' '. 5' */// . 5' &,. 5')%/,%&' 42' 8 ,-$'); ,. -' %06%(,'//2' 51$,. -' 3,.)%$')*' '$8%$' $%-,*.0' *&')+%' %')+0' 01$&'(%' 3+%$%')+%2' %0('6%'&$*8')+%',. &/1%. (%0'3+,(+'+'7%'6$*7%5' 0*'5%)$,8%.)'/')*')+%8' +%. (%')+%'2%')$/2' ,. ($%'0,. -' %B*510' *&'6%$0*.0' 01&&%$,. -' &$*8' (+$*. ,('/'$2. -,),0' .5'4$*. (+,),0'&$*8'4$*. ; (+,'/'0)+8'' '. 5' &$*8' 6+)+,0,0' &$*8')+%' .*$)+' *&' 1$*6%')*')+%'0*1)+

+%' , . ($%'0%5'&'(,/,),%0' *&'/*(*8*),*. ' 42' $',/' . 5' 42' 0)%' 8 ' +'7%')+10' *6%. %5'*1)')%' ,)' %$%' '' . %3' . 5' ,86*$)' .)' 4$'. (+' *&')+%$'6%1),(0')+')' *&')+%' '66/,(')*.' *&' (/,; 8 ')%')*')+%')$%')8%.)'*&'5,0%'0%

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' +%' $%')8%.)' *&' ,0; %'0%'42 G +*1-+' 3%' (' .'0('$(%/2'0'2' 3,)+' '((1$'(2')+')' (+' .-%'*&' (/,8 ')%',0' ''06%(,&,('&*$' 5,0%'0%'2%)' 81(+' (' .'4%' %&&%()%5' 42' ,)' ,.' $%/,%7,. -' 0286)*80' .5' ,.' '00,0),. -')+%' $%(16%$'),7%'6*3%$0'*&')+%'*$-' . ,08'42')+10' ,86$*7,. -')+%' -%. %$'/+%'/)+' +%' 5,0%'0%0' ,.' 3+,(+' (+' .-%'*&' (/,8 ')%'+'0' 4%%. '&*1.5' *&'7'/1%' 3,/' 4%%.18%$')%5' 4%/*3' 3,)+' ' 0+*$)' .*),(%'*&'7'$,*10' (/,8 ')%0' %$%' 3%' 8 '2' .*),(%')+' " '*&')+%'4%.%&,)')*'4%' 5%$,7%5'&$*8' 8 (+' (+' .-%

+' .-%'*&' (/,8 ')%' 3%' 810)' 6$%8,0%' ,0' *./2' '$%/'),7%'%$8')'5*%0' .*)' .%(%00'$,/2' ,.7*/7%')+%' ,5%''*&' $%8*7'/')*' '' -$%')'5,0;)' .(%&$*8')+%'=6'),%.)<0' +*8%' '&%3'8,/%0<*1$.%2'&$*8')+%')'3.')*')+%' (*1.)$2'&$*8' ,./'.5')*')+%' 0%'0+*$%'&$*8')+%' 6/',.')*')+% 8*1.)',.'*&)%.' 01&&,(%0')*' 6$*51(%' 8'$9%5' $%01/)0' .%'.%%'*&' (/,8 ')%' 4%,. -')*' %B6*0%

)+%' *$-'.,08'.)*')+*' %&&%()0' *&' " ')+%' %/%8%.)' *&' 5,0)' .(%' (*8%0' , .' 8*0)' 3+%.' 3%' 3,0+')*' 8'9%')+%' (*.)$'0)' -$%')%$H' &*$' , .; 0)' .(%', .' *$5%$,. -' (+' . -%' &$*8' '' (*/5')*' '' 3'$8'(/,8 ')%' *$) '

+%' &&,%$'6%1),*' %/%8%.)0' *&' 8*0)',86*$); ' .(%', .'' .2' (/,8 ')%' 2%H A R' 61$%' ,$'&$%%'&$*8' 510)' .5' *$-'.,(' 6')$),(/%0' *$' %B(%00,7%' 5'86H' A@R' '41.5' .(%' *&' 01.0+,.%' 3,)+*1)' %B(%00,7%' +%')' 0*')+')' 81(+'),8%(' .'4%' 06%.)' ,')+%' *6%.' ','$H' A"R' '')%86%$')1$%' 3,)+*1)' %B)$%8%0' 0*')+')')+%' 4*52' ,0' .*)' %B6*0%5')*')+%'$,09' *&'-$%')'7'$,')*.0' *&'+%')' .5' (*/5G%E1'4,/,)2H A R' 40%.(%' *&'7,*/%.)' 7%$2' (*/5' *$' 7%$2' +*)' 3,.50' ')' .2'$')%' *&' /*. -'51$')*.' A, .')+,0',0',.7*/7%5')+%' %/%8%.)' *&'/*('/0+%/)%$R

+%0%' &*1$' %/%8%.)0' 0+*1/5' +%' 6$%0%.)' ,.' %'(+' *&')+%' 0145,7,0,*.0' *&' (/,8 ')%0' 3+,(+' '')+%$'6%1),(' (/'00,&,(',),*.' $%.5%$0' .%(%0; 0'$2'.'8%/2' (/,8 ')%0' *&' A R' # ' # H A@R' " " H A"R' " " '2 ' H

'.5' A R' # ' "'

+%'%6,)+%)0' 0*,0)'<'.5'W5$2<3+,(+''$%' '66/,%5')*' (/,8 ')%0''$%'8%$%/2'$%/'),7%'.5' 5%6%.5'*./*('/6%(1/,'$,),%0'*&'$',.&'//'0*,/' ^*''0'3%/'0')*'0*8%'%B)%.)'*.'0%'0*.H'.5')+%'%00%.),'/5,&&%$%.(%0'4%)3%%.')+%'(/,8 ')%' *&')+%' 0%'0+*$%')+%' 3**5/'.5' '.5')+%' 8*1.)',.'$%8' ,.'%7%$23+%$%')+%'0'8%' %' 0+'/'0'2' '' &%3' 3*$50' '4*1)' %'(+' *&')+%0%' 3,)+')+%' ,.5,(',)*.0' &*$')+%,$' 10%' +%' (/,8 ')%' *&')+%' *6%.'0%'' 3,/'4%' $%&%$$%5')*' ' 06%'9,. -' *&'0%''7*2'-%0

' & ' ' ! G +*' 06%(,'/6%(1/,'$,),%0'*&')+,0'7'$,%)2' *&'(/,$.')%' '$%')+')')+%' ',$' ,0'0')1$')%5' 3,)+' 8*,0)1$%' %B(%6)' 3+%.5$2'/'.5' 3,.50'6$%7',/H ,)' ,0' 5%.0%' '.5' '0' '8,/%')+%$%&*$%'41/9'&*$'+1/9' (*.)',.0'8*$%'*B2-%.')+'.' ',$'*&' .2'+,-+%$' /%7%/H' ,)0' 5%.0,)2' ,0' /,'4/%')*' -$%')' '.5' &$%E1%.)' 41)' $%-1/'$' 7'$,'),*.0' 3+,(+' ,.; ($%'0%')+%' '(),7,)2' *&')+%' (,$(1/')*$2' '.5' $%06,$')*$2'W*$-'.0' '.5')+10' &'7*1$')+%,$' &1.(),*.'/'(),7,)2H ,)' ,0' 8*$%%E1'4/%H' '.5' /'0)/2',)' (*.)',.0'0'/,.%' 6'$),(/%0',.' 0106%.; 0,*.

((*$5,. -')*' %.%9%' 0%'' ',$' (**/0')+*' 4*52'$%/'),7%/2'8*$%'E1,(9/2')+'.' 8*1.)',.' ',$' '.5')+10' +'0)%.0' 8*$%')+%' 6$*(%00%0' *&',001%(+'.-%' %.(%')+%'0%'0,5%'0+*1/5'4%' *$5%$%5'3+%$%'3%'3,0+'&*$' '+,-+/2'0),81/'); ,.-' %&&%()' '0' ,.' 6%$0*.0' *&'0($*&,,/*10')%.; 5%.(2',.'(+$*.,('01((%%5,.-' '(1)%' 5,0%'0%0' *$',.')+%' /')%$' 0)'-%0'*&'(*.7'/%0(%.(%' &$*8')+%' /'))%$',.' (*.7'/%0(%.(%' &$*8' 08$-,('/ *6%$'),*.0' *$' ,.' 0*8%' 01$-,('/' 5,0%'0%0' 3+%$=3%'3,0+')*' '((%/%$')%'),001%(+'.-%' W ,)+*1)' %B%$),*.' *.'),+)*' 6'),%.)0'6'$)' .' '((*1.)' *&')+%' %E1'4,/,)2'*&')+%'((/,8 ')%'0*8%' 6'),%.)0' 3+*' (' .*)' 4%'$' -$%')' (+' .-%I' *&')%86%$')1$%' 5*' 3%/' ')')+%' 0%'0,5%' %$0*.0' 01&&%$,. -' &$*8' *7%$0)$',. ' 8%.)'/' *$' 4*5,/2' W3,)+' '' &',$' 5,-%0),7%' 6*3%$' '.5' .*)' /,'4/%')*' .%$7*10' ,$$,)'4,/,)2' 8'2' '/0*' 4%' 0%.)')+%$%

@' *1.)',.' /,8')%0'G' *1.)',.8'2'4%'5%51(%5'&$*8')+%''4*7%',0'0%5'),7%''.5')*.,(' +%2'8'2'4%'57,0%5',.'(+$*.,('4$*.(+,)0'%86+20%8''+%')$)5,0%'0%''.5',.'+26*(+*.,,'0,0'+20)%$,'''.5')+)+%$'.%$7*10'''&&%(),*.0'3+%$%')$'.E1, ,)2'.'5'01451%5'+-+)'$%'*&',86*$)'.(%H'/0*',.')+%'%'$/,%$0)'-%0'*&'(*.7'/%0(%.(%'&$*8'.'(1)%'5,0%'0%'3+%.'0%'' *$ 8*1.)',.' ',$',0')*'0),81/'),.-'.'4$*.(+,),0'6,.% 3**50'0+*1/5'4%'0%/%)0%5''.5',.'+%')$) ('0%0'/%7%/'3'/90'$%'%00%.),'/'1./%00'%B%$(,0%'4% 5%+4%$')%/2'*$5%$%5'&*$(%$),.'9,.50'*&'('5,0%'0%',.')+%'&*$8'*&'-$'51')%5'+,// (/,84,.-

' (%' ' /,8')%0' %''*2'-%0 G*2'-%0'+'7%'4%%.' 81(+'$%(*88%.5%5',.')+%')$%')8%.)'*&'6+)+,0,0',.',)0'%'$/2'0)'-%0'3,)+'"7,%3')*'%.'4/%')+%',.7'/,5')*'06%.5'81(+'),8%',.''.'%B(%%5,.-/2'61$%''.5'&',$/2'%E1'4/%')8*06+%$%''.5')*'0%(1$%''01&&,(,%.)''8*1.)'*&'4*5,/2'8*7%8%.)'3,)+*1)'-$%')'&'),-1%

+%'5$'34'(90')*')+%'0%''*1-+)')*'4%6$*;7,5%5''-',.0)''0'&'$''0'6*00,4/%''/)+*1-+'($)',.'*&')+%8'&$*8')+%,$'7%$2'.')1$%'810)'4%'%.51$%5' +%'6$,.(,6'/'*&')+%8'' $%')+%,86*00,4,/,)2'*&'%0('6%'&$*8'4'5'3%')+%$''.5')+%'(*.&,.%8%.)'6%$+'60')*',//7%.),/')%5'('4,.0'3+%.'01(+'*((1$0H)+%'40%.(%'*&01&&,(,%.)'/,-+)''.5',$'4%/*3'5%(90')+%'/'))%$'4%,.-'&%/)'7%$2'81(+''),-+)H3'.)'*&'7'$,%)2',.')+%'5,%)''&)%$''(%$),.'),8%''.5',.'8'.2',.0)'.(%0'*&'&$%0+'&**5'8,/9'^(H8*.*)*.2',.'0*(,%)2'.5'*((16'),*.0H'.5'/'0)/2')+%',.(*.7%..%.(%0''$,0,.-'&$*8'($*35,.-'*&')+%'8',.5%(9'3,)+'+%.(**60'0+%%6 6%.0'^%''.5',.'0)%'8%$0'&$*8')+%'08*9%'*&')+%'%.-,.%0''.5')+%'08%/'.5'7,4$'),*.'*&')+%'8'(+,.%$2

+%'$*1)%0'-%.%$'//2'$%(*88%.5%5')*',.;7'/,50''$%'(+,%&/2H A R')*'10)$'/,''P!'5'20',.''0',+.-'7%00%/'F',.''0)%'8%$H A@R')*')+%'6%'*&'**5'*6%'@!'5'20H A"R')*')+% %0)'.&&,%0'M'5'20H'.'5'A R')*')+%'.,)%5')')%0'*$''.'5''A,.'0188%$R'D')*'M5'20'+*$)'($1,0%0',.')+% %5,)%$$'.%'.''*$')*')+%'/'),;)15%0'*&')+%'.'$,%0'.5'C*$%0''$%01,)'4/%&*$(%$)'.,'('0%0'3+%$%'%B6%.0%',0'.'*>%()'&$*1)%0'A"R'.'5'A R'3%'8'2'0'2')+')'+%2'$%')*'0+*$)'&*$)+%&1/'4%.%&,)'*&')+%'0%''')*'4%*4)',.%5''0',86$*7%8%.)'5*%0'.*)'-%.%;$'//2'4%-,.'&*$''3%%9'*$')3*'&)%$'0%'0,(9;.%00'+'0'0140,5%5''.5')+%'6'),%.)'('.'$%8',.'0(;*8&*$)'4/2'*.'5%(9'U*1)%'A@R'5*%0'.*)'//*3'+,8')*'-%)')+%'4$'(,.-'%&&%()'*&'+,-+'*1)+'/'),)15%0'%.(%'3+%$%''/*.-'0%''7*2'-%',0',.5,(')%5'$*1)%'A R',0'5%(,5%5/2')+%4%0)'.-/'.5',0'E1,))%5'.')+%'4%-,.,.,.'*&'()*4%$'10)$'/,''A 25.%2'*$ %/4*1$.%R'*$%3'V%'/'.5'A %//,.-)*.R',0'$%'(+%5'%'$/2',.''.1'$2''.5')+%'$%)1$.'7*2'-%',0'4%-1.'.*)'/'8$')+'.')+%'%.5'*&' %4$1'$2'),%.)0'0*1/5'.*)'$%8'.'.',.')+%'(*'0)*3.0'*&'10)$'/,''.'0188%$*.''((*1.)'*&')+%'+%')'.5')+%'510)'+%2'0+*1/5'-*')*')+%')'4/%/'.5'*&'%3'*1)R,'/%0'*$')*')+%'$/,.-'*3.0',.'X1%%.0/'.5'*$%/0%')+%2

-$'51'//2' '.5' 3,)+' -$%')' ('$% 0' ,*') +%')$%')8%.)'*&''&$*0) 4,))%.'6'$)'0*',.')+%')$%');
8%.)' *&')+%' 4*52' -%.%$''//2G'/' 0'55%.' *$ $'6,5' %/%7'),*.' *&')%86%$')1$%' 810)' 4%' '7*,5%5' +%'01&&%$%$' 5,7%0)%5' *&')+%' (/*)+;
,.-'6$%7,*10/2'3*$.'' .5'3$'66%5',.'4/' .9%)0'0+*1/5'4%'6/'(%5',.')+%' $%(184%.)'6*0,),*.'.'.'' $**.'.')+%',$'*&'3+,(+' ,0' 5$2'0)5/'' .5'(*/5'41)'('6'4/%'*&'4%,..-'-&$'51'//2'3'$8%5' %.)/%' 41)' (*.),.1*10' &$,(),*.' 0+*1/5' 4%'8'5%'*7%$')+%')$1.9' .5'/,840'('$%'4%,.-')'9%.')+')' $,-,5' *$' &$*C%.' 6'$)0' 4%' .*)'5'8'-%5' 42' $*1-+' 8'.,61/'),*.')' &,$0)'
,(%'*$,(% (*/5'3')%$'8'2'4%'10%5H'&)%$3'$50'5$2'$144,.-'3,)+'&/'.%'*$'3,)+')+%'+'.50',0'4%))%$H/')%$'0),//'0*8%'0),81/'),.-'/,.,8%.)'8'2'4%' %86/*2%5' *8%' $%(*88%.5',8;
8%$0,*.' *&')+%'4*52',.''4')+'*&'(*/5G')'&,$0)' ,(% (*/5G=3')%$')+%')%.8%$')B1%' *&'3+,(+' (' .'4%'-$'51'//2$',0%5' +,0'8%)+*5'3*1/5'0%%8'%'02''.5'57'.)'-%*10',&'8%'.0'$%' +)' (*88'.5' +%.')+%' 01&&%$%$' (' .'03'//*3'3'$8'-%.)/2'0),81/'),.-'5$,.90G'0')%'' (*&&%%''$*8'),(',.&10,*.0'4%%&)%''*$0*16G8'2'4%'-,7%.''')'&,$0)' 3,)+*1)'41)'/')%$' 3,)+' 0*8%' 3,.%' *$' 06,$,)' /(*+*/')+*1-+'10%/%00'*$',.>1$,*10',&')'9%.')*'&*$),&2''-',.0)'(*/5',0' 0%&1/''.5'4%.%&,(,'/3+%.'>15,(,*10/2'58,..0)%$%5'0''$%0)*$'),7%'&)%$'%B6*01$%'.'//'('0%0'*&',.0%.0,4,/,)2'.'.5'%7%.''66'$%.)'5%')+'&$*8'(*/5'%7%$2'%&&*$)'810)'4%'8'5%')*'$%0)*$%',.8'),*.H'.5')+%'')%86)'810)'4%'6%$0%7%$%5',.'&*$''(*.;
0,5%$'4/%),8%'4%&*$%'4%,.-'-,7%.'16''0'+*6%;
/%00'')',0'"'5,&&,(1/)'0*8%),8%0',86*0;
0,4/%')*'>15-%'3+%)+%$'/,&%',0'140*/1)%/2'%B),.()'*$'.*)' .5'3+,/%'*.')+%'*.%'+'.5'
,)',0',86*$)'.)')+')'+%')%86%$')1$%'4%'.*)'$',0%5')*'*'E1,(9/2'/%0)'$%'(),*.'0+*1/5'4%')*'0)$*.-'*$5'.-%$*10/2',$$%-$&/'$H'*.')+%'*)+%$'+'.5',)',0'%E1'&/2',&'.*)'8*$%',86*$)'.)')+')+%'.%5&1/'8%'01$%0'4%'5*6%5'3,)+*1)5%/'2'.5'('$$,%5'*1)'.*)')**'0/*3/2'/%0)')+%'(+'.(%*&'$%7,7'/0+*1/5'4%'/*0)'.')+%'/%00'0%7%$%'('0%0'$%0)*$'),*.'*&'3'$8)+'8'2'4%'(*86'$'),7%/2'E1,(9/2''((*86/,0+%5'+%'0)')%'*&')+%'4/'55%$'0+*1/5''/3'20'4%'%B;
'8,.%5''.5'$%/,%&'&&*$5%5',&'.%%5&1/'42',5'*&')+%'(')+%)%$'))%.),*.')*')+%'-%.%$'/'+%'/)+',0'*&)%.'$%E1,0,)%'&*$'/*.-''&)%$'$%;
(*7%$2'&$*8')+%'8*$%',888%5,')%'%&&%()0'*&'%B6*01$%'+'0')'9%.'6/'(%'%0)''-**5'.*1$,0+;
8%.)'' .5')*.,(0'$%',.5,(')%5
/5'' 0'' '10%'&',0%'0%G 0'' '6$%5,06*0,.-'.5'%B(,),.-'('10%'*&'5,0%'0%'(*/5'6$*7%0',.')+%' $,),0+' 0/'.50'2%'$'422%'$'8*$%'&')'/',.')0'%&&%()0'6$*4'4/2')+'.'' .2')*)+%$'0,.-/%'(*.5,),*.'*$',.&/1%.(%' .2'(*.0,5%$'4/%'&'//',.')+%')+%$8*8%)%$'4%/*3')+%'7%$'-%0)'.5'$5'51$,.-')+%'(*/5%$'8*.)+0'*&')+%'2%'$',0'(*.0)'.)/2'&*//*3%5'42''(*$%;
06*.5,.-'$,0%',.')+%5%')+$')%''.5'.',.($%'0%(,.5',.')0',//-$%')%$'6$*6*$),*.',.')+%''8*1.)'.5'%B)%.)'*&'0,(9.%0'.5'01&&%$,.-' +%'%6*$)0'*&')+%' %-,0)$'$ %.%$'/(/%'$/2'6$*7%')+,0'0*'&'$' '0')+%'5%')+$')%',0'(*.(%$.%5'0,.9,.-',.0)'.(%'8'2'4%'E1*)%5' .')+%'3%%9'%.5,.-' %(%84%$'&&'?D?',.')+%'*.;
5*.'5,0)$,()'/<&&/'5%')+0'3%$%'$%-.0)%$%5'%7%$%'&$*0)'0%)',.''.5',.')+%'3%%9'%.5,.-''.1'$2'&&'?D')+%'.184%$'$*0%')*' MP?'+%'3%%9'&*//*3,.-'%.5,.-' '.1'$2' D'.%'&%3%$')+'.'@ @M'5%')+0' %$%$%-.0)%$%5' +,0'%.*$8*10',.($%'0%'(*1/5'4%'))$,41)%5')*'.*'*)+%$'('10%')+'.')+%'%&&%()0'*&')+%'0%7%$%'(*/5'3+,(+'6$%7'.,/%5' +%'%-.0)$'$ %.%$'/'/0*'0+*30')+')'&)%$')+%'-%'*&'&$*8')3%.)2')*'&*$)2')+%'8*$)'/,)2'&$*8'(*/5',.($%'0%0',.'0*8%)+,.-'/,9%''5%&,.,)%$'),*'3,)+',.($%'0,.-'2%'$0

%.%$'/5%6$%00,*.'*&')+%'7,)'/6*3%$0'(*.-%0),*.''.5'&1.(),*.'/5%$'.-%8%.)'*&'7'$,*10',.)%$.'/*$-'.0G=)+%/1.-0'/,7%$''.59,5.%20G(')'$$+'/'.5')+%$'&*$80'*&',.;
&/'88'),*.'*&')+%'81(*10'8%84$'.%0'%06%(,;
''//2'*&')+%'$%06,$')*$2')$'()'41)''/0*'*&')+%',.)%0),.'/('.'/'.5'4/'55%$'6'$'/20,0'&$*8'(%.)$'/*$'6%$,6+%$'/%0,*.')*-%)+%$'3,)+$+%18',0,8'(+,/4/'.'&$*0)4,)%''.5'-'.-$%.%'(*.0,)1)%')+%'/,0)'*&'8'/'5,%0'8*0)'**88*,52'('10%5''.5'&*0)%$%5'42'%B6*01$%')*')+%',.&/1%.(%'*&'(*/5

) ' - #

& *' 0 ' G=+%)+%$';
6%1),('10%0'*&'(*/5''$%'7'$,*10''.5'%B)%.0,7%'*/5'8'2'4%''66/,%5''0'8*,0)'(*/5'42'8%''.0'*&' %)'(*86$%00%0'.5'(*/5'),*.0'*8'$'0'*$4')+0H'.5',)'8'2''/0*'4%'10%5''0'5$2'(*/5',.')+%'&*$8'*&',(%'.(/*0%5',.''$%(%6)'(/%'*&'8%)'/'*$',.5,'$144%$''$'0''(1$%.)'*&',(%5'3')%$'(,$(1/'),.-')+$*1-+'''0*&)'8%)'/'(*,/''0',.'%,)%$0')14%0'+%'&/')'(*,/'*&')14%'(.'4%'6$%00%5')*',&)''.2'6')$'*&')+%'4*52''(+'*&')+%0%'8%)+*50'+'0',)0'06%(,'/'57'.)'-%0'.5'5'6'),*.0'1$)+%$8*$%'(*/5'8'2'4%'8'5%'10%'*&'42')+%'8*1)+''.5'42',.>%(),*.',.)*')+%'81(*10'('.'/0*'&)+%'4*52'1'$#4*G+%'-%.%$'/%&&%()0'*&'(*/5'+*3%7%$''66/,%5''$%')*'/*3%$')%8;
6%$')1$%')*'5,8,..0+'0%.0,4,/,)2'.5'&/1,5,)2')*'(*.)$'()')+%'),001%0'.5'7%00%/0''.5'0*')*'$%51(%')+%'7*/18%'*&'6')0'+%'*/54')+''.5'(*/5'06*.-,.-''/,9%'+'7%')+%'%&&%()'*&'/*3%$,,=')+%')%86%$')1$%'*&')+%'4*52'+%'&'//'*&')%86%$')1$%'0*8%),8%0',0'41)')$'.;
0,%.)'$%'()',*.'0%)),.-',.'.5'+%')'*&'01&&'(%'$%)1$.,.-'3+%.')+%'4*52',0'3,)+5$'3.'&$*8')+%'(**/,.-'8%5,18')')*)+%$),8%0')+%')%86%$')1$%'(*.),.1%0')*'&'//'&)%$')+%',.5,;
7,51'/',0'$%8*7%5'&$*8')+%'4')+'&')+%''(),*.'*&')+%'(*/54')+'4%'6$*/*.-%5')+%.''')+%$8*8%)%$',.)$*51(%5'3,)+,.')+%'$%()18'0+*30''-$%')'5%6$%00,*.'*&'%B6%$1)$%''.5'81(+'6',.'0'%B6%$,%.(%5'0,8,/'$')*')+%'0%7%$%'6',.'3+,(+',0'&%/)',.')+%'+'65''.5''$8'3+%.')+%'&*$8%$',0'+%/5'&*$0*8%),8%',.'3')%$'')''')%86%$')1$%'&'[']'.5'3+,(+'0**.'(*86%/0')+%'3,)+5$'3'/'&*)+%'+'.5'&$*8')+%'7%00%/'*/5'4')+0'.5')+%,$'10%0'$%')$%')%5'*&',.''.*)+%$'$),(%/'/'41)'))%.),*.'.8'2'+%$%'5$'3&$+*

,0' '' -$%')' *4>%(),* .')*')+,0' 8 *5%' *&' ' 6 6/= -' (*/5' $' %%0' , .')+%' S " ' *7 ' @ ??P ' $%(*$5 0' 0%7%$ ' /' , .0)' . (%0' *&' '$$%0)' *&')+%' 62$%0, '/ :,$*(%00' 8 ' 6 . %1 8 * . , '' 42' 8 %' . 0' *&' '' 4' -' *&' ,(%' '66/,%5' *7%$')+%' , . &/ ' 8 %5' /1 . - ' +%' 5%7%/*6 8 %.)' *&' 4$* . (+* 6 . %1 8 * . , '' , . ' (+,/5$%. ' 8 ' 2' 4%' (1)' 0+*$)' 42')+%' ,(% 4 ' - ' ' &$*C%. ' (* 8 6$%00' *7%$')+%' ('0*1 8' ,0' 10% ^ /')*' 0)' 2' 6%$,0)' /0,0' ' . 5' (+%(9' +'% 8 *$$+' -%' , . ')26+*,5' &%7%$

' 6*3%$&1/' 0%5'),7%' ' . 5' ' .),6+/* -,0),('%&&%()' *&' (*/5' (' . ' 4%' *4)' , . %5' 42' 0 " H ' '//*3, . -' (*/5' 3')%$')*' &'// 5$*6' 42' 5$*6' *. ' '' (/*)+' 0*' '0')*' 9%%6' ,)' (*.), . 1''//2' 3%)' 3,)+' &,K%0+' 0166/,%0' *&' 3')%$' +,0' 8 '2' 4%5*. % 42' 0106%. 5, . -' *7%$')+%' 6' $)')*' 4%' ,$$, ; -')%5' '' 4*))/%' *&' 3')%$', . ' 3+,(+' '' &%3' 6,%(%0' *&' ,(%' 8 '2' 4%' 61)H' *. %' %. 5' *&' '' 09%, . ' *&' (*))*. ' 3%/' 3%))%5', 0')+%. ' '//*3%5')*' +' . -' , . ')+%' 3')%$' 3+, /%')+%' *)+%$' %. 5' , 0' 4$*1-+)' *7%$')+%' 0,5%' *&')+%' 4*))/%' +,0' ' (), . -' '0' ''026+*. ' ('10%0' '' (*.), . 1' /' 5$*66, . -' 16*. ')+%' 6' $)')*' 4%', $$, -')%5' . ', . >1$, %0' *&' >*, .)0' 3+%$%' ,)' ,0' *&' 81(+' (*. 0%-1%. (%')*' (+%(9' , . &/' 8 8 '), *. ')+,0' 6$*(%00' 3+, (+' '40)$' ()0' +%')' -$' 51' //2' . 5' 3,)+*1)' 5,0)1$4' . (%' *&')+%' 6' $)', 0' 8 *)' 7' /1' 4/%' $$, -'), *. ' *&')+%' 0+' 7%. ' 0(' /6', . ' ('0%0' *&' 8%. , . -,), 0' , 0' '' 7%$2' 6*3%$&1/' (**/, . -' ' . 5' 0%5'),7%' '66/, ' . (%' $%E1, $, . -' ('$%' ' . 5' 3')(+&1/. %00' ' ('6' *&' ,)' 8 ' $144%$' *$' (*/' *&')14, . -' *7%$')+%' +%' 5' ' . 5' 4' (9' *&' . %(9' TH' $$' . -%5')+')' '' (1$$%.)' *&' (**/%5' 3')%$' 8 '2' &/*3' (*.), . 1*10/2')+$*1-+' ,)' 3, //' '()' '0' '' -%. %$' /' $%51(%$' *&')%86%$')1$%' K +%$%6*1. 5%5', (%', 0' '66/, %5')*')+%' +%' 5', . ' '' 4/' 55%$')+, 0' 0+*1/5' 4%' 0106%. 5%5' 42' ''0)$, . -' &, H*8')+%' 4%50)%' 5' 0*')+')')+%' +%' 5' *&')+%' 6'), %.)' 8 '2' . *)' +' 7%')*' 010)' , . ')+%' 3%, -+)' *&')+%' 4' -' ' . 5',)0' (*. ;)%.)0' ,7%' *1. (%0' *&' 0' /' ' 8 8 *. , ' (' ' . 5' &, 7%' *1. (%0' *&' . ,)$%' , . ' '' 6, .)' *&' 3')%$' 3, //' &*$8, -*$, &, (' 8, B)1$%' (+' (' . ' 4%' '66/, %5', . ' '' 4/' 55%$' 3+%. ', (%', 0' . *)' ')'+' . 5' +%', (% 4' -A' ' . 5' (*/5 3')%$' (* 8 6$%00%0' $%; . %3%5' %7%$2')+$%%' 8, . 1)%0' +' 7%' 4%%. ' 10%5' '0' ' . ' '66/, ' . (%')*' 0)$' . -1/')%5' +%$. , ' ' . 5')*' 6$*/'60%5' $%)1 8 ')*' $%51(%')+%' */18%' *&')+%' 6' $)' ' . 5' 0*' &' (, /,)')%' $%51(), *. ' '$% 8 10)' 4%')' 9%. ')+')')+%' (*/5' '66/, (', *. ' 4%' . *)' (*.), . 1%5' 0*' /*. -' ' 0')*' ('10%' -' . -$%. %' */5' 3%)' (* 8 6$%00%0' 0+*1/5' . *)' 4%' 66/, %5' *7%$' 5$2' 4' . 5' -%0' 3,)+' 3+, (+' 3*1. 5%5' *$ 4$*9%. ' 6' $)0' '$%' 0%(1$%5' %7%$' /' ('0%0' '$%$%(*$5%5' 3+%$%' '' +' . 5' *$' '$ 8' +'0' 4%(* 8 %' -' . -$%. *10', . ' (*. 0%E1%. (%' *&' +' 7, . -' 4%%. ' 4*$8 5' 16' 3,)+' 5$2' 4' . 5' -%0' ' . 5')+%. ')$%')%5' 3,)+' (*/5 3')%$' (* 8 6$%00%0' +% E D' 4' . 5' -%0' '0')+%2' 4%(* 8 % 3%)' (*.)$' ()'), -+)/2' *. ')+%' /, 8 4' ' . 5' 0)*6')+%' (, $(1/'), *. ' 8, B)1$%' 8 '5%' *&' 06. $,)' *&' 3, . %' ' . 5' 3')%$' *&' %' ' 5%' */*-. %' ' . 5' 3')%$', 0' '' 0, 8 6/%' &*$8' *&' "0' " ' +%' 06, $,)' %7' 6*$')%0' ' . 5' 0*' ('$$, %0' *&&' +%')' &$*8')+% 01$&' (%' ' &/' *C' *&' $%(), &, %5' 06, $,)')*' F' *&' 3')%$' 8 ' 9%0' '' -**5' 06, $,)' /*), *. ' ' . 5')+%' '5; 5,), *. ' *&' 5' 5$' (+8 0' *&. ,)$')%' *&' 6*)' 00, 18 ' *$ (+/*$, 5%' *&' ' 8 8 (8, 18 ' 3, //' '55')*' ,)0' (**/, . -' . 5' 0%5'), 7%' %&&%()' ' 5$' (+8 0' *&')+%' (+/*' $, 5%' *&' ' 8 8 *. , 18 ' ,)+' +' /&' '' &/1, 5' *1. (%' *&' 5, /1)%5' ' (%), (' ' (, 5' ' . 5')+%' 0' 8 %' E1' .),)2' *&' $%(), &, %5' 06, $,)' , . ' F' &/' *C' *&' (' 8 6+*$' 3')%$' , 0' ' . *)+%$' &*$8' &*$' ''7%$2' 0%$7, (%' 4/%' /*), *. ' +%0%' /*), *. 0' ' 66/, %5' 42' 8 %' . 0' *&' ''6, %(%' *&' 0*&)' $' -' *$' , .)' *7%$')+%' 09, . ' ' (')' 0' $% -%$' ' .)0' (**/, . -')+%' +%' 5' 3+%. ',)' , 0' +*)' *$' 6', . ; &1/' H $%51(, . -' +%')' . 5' ')%$, '/ %B(,)%8%.)' , . ')1 8 *1$0' *$ (*.)10, *. 0H' . 5')%. 5, . -' , . ')+%' /'))%$')*' 6$*8*)%')+%' '40*$6), *. ' *&' %&/B0%5' 4/**5' '/*), *. ' *&' '6' $)' '/(*+*/' . 5' '' 6' $)0' ('86+*$' 3')%$' ')' ')%86%$')1$%' *&' MFg')*' G d' ' 3' 0' +, -+/2' 6$', 0%5' 42' (15' 8 *$%', . ' ('0%0' *&' -*1)' */5' 3')%$' ' . 5' A */5/*), *. 0' *&' 7, . %-' $' . 5' 3')%$' ' $%' &' 8 /, ' $' 8 %' . 0' &*$0)*66, . -' +' %8*$$+' -%

. ' %' 0%0' *&' 0%7%$%' 1)%$, . %' +' %8*$$+' -%' "< " ' *&', (% (6/5' 3')%$' , .)*')+%' 7' -, . ' ' *$' , .)*')+%' $%()18' &$%E1%.)/2' 01((%%5', . ' (+%(9, . -')+%' 4/%%5, . -' &')+%' (*/5', . >%(), *. ' &', /' +*)' 3')%$' A !g @!g' R' 8 '2' 4%')$, %5', . ' ,)0' 6/' (%' ' . ' ('0%0' *&' 4/%%5, . -', .)%$. ' /' 6, /%0' ' . ' 8 >%(), *. ' *&' (*/5' 3')%$' '&)%$')+%' ' (), *. ' *&')+%' 4*3%/0' 4$' (%0')+%' 6' $)0' ' . 5' (*. 0)$, . -%0')+%' 4/%%5, . -' 7%00%/0' (%5' 3')%$' +' 0' 4%%. ' 10%5' '0' ' .), 62$%), (' %. %8')'

9' 6$2' */5' 0%0' *&' (% I %')' 8 '2' 4%' (*.), . 1*10/2' '40)$' ()%5' &$*8' ' . ' , . &/' 8 %5' 6' $)' , . ' '' 0' &%' 3' 2' ' . 5' 3,)+*1)' 1. 51%' $, 09' 42' 66/2, . -' 5$2' (*/5' 42' 8 %' . 0' *&' '' 3')%6**&' 4' -' *&' 78(' . , 0%5', . 5, ' $144%$' &, %5' 3,)+', (%' 0. *3' *$' '' &$%%C, . -' 8, B)1$%' 8 '5%' *&' %E), '/ 6' $)0' *&' 0' /)' . ,)$')%' *&' 6*)' 0; 0, 18 ' ' . 5' (+/*$, 5%' *&' ' 8 8 *. , 18 ' *, 0)1$%' &$*8')+%' , $' 3, //' (*. 5%. 0%' *. ')+%' %B)%$, *$' *&')+%' (*/5' 4' -' 41)' '' 6, %(%' *&' /, .)' , .)%$6*0%5' 3, //' 6$*)%()')+%' 09, . ' &$*8' 5' 86' +%' 85, ' $144%$' , 0' '' 4' 5' (*. 51()*$' ' . 5')**' -$%')' 40)$' (), *. ' *&' +%')' . %%5' . *)' 4%' &%' $%5' +%' 3' //0' *&' ' . ' ' . , 8 ' /' 4/' 55%$' (*. 51()' +%')' 81(+' 4%))%$')+' . ')+%', . 5, ' $144%$' ' . 5',)' , 0' . %(%00' $2')*' 3')(+' ('$%&1//2' *7%$')+k' 66/, (', *. ' *&' , (% 4/' 55%$0' &*$' 3+%. ' (*. ;), . 1*10/2' 66/, %5')+%2' +' 7%' 4%%. ' 9. *3. ')*' ('10%' 0%7%$%' &$*0)4,)%' &')+%' 6' $) & ' 3+%. ' (*/5' , 0' 4%, . -' ' 66/, %5')+%' 6'), %.)' 6%$0, 0)0' , . ' (* 8 6/' . , +-' *&' 0%7%$%' 6', . ' ,)' , 0' $, -+)')*' %B' 8, . %' ('$ 1//2' . 5' 0%%' +*3')+%' 6' $)' , 0' '&&%()%5' 42')+%' (*/5' $*&%00*$' 0 8 '$(+', . ' *' 0%0' *&' &$' (')1$%' ' . 5', . ' 7' $, *10' &*$8 0' *&')$' 18'), (' , . &/' 8 8 '), *. ' +' 0' 6' 6+%5', (%' &*$' 6%$, *50' *&')77%.)2' *$')+, $)2' 5' 20' 3,)+')+%' 4%0)' $%01/)0' . ' ('0%0' *&' (*8; 8%. (, . -' 5, 0%' 0%' *&')+%' 7%$)%$30%')+, 0' 01$-%*. ' +' 0' 10%5' (*/5' 3')%$' 6/' (%5', . ' '), . ' 7%00%/' 0*' 8' 5%' '0')*' '5' 6)',)0%/&')*')+%' 6' $)')*' 4%')$%')%5' , . *$' ('0%0' *&' 4$1, 0%' 3,)+', . &/' 8 ; 8'), *. ' 8' 2' 4%')$%')%5' 42' (*/5' %86/*2%5', .)+%' &*$8' *&' ' (* 8 8 *. ' *)%' &, //%5' 3,)+' (*/5' 3')%$' . 5' 9%6)' 6$%00%5' -', . 0)')+%' 6' $) &)%$' *6%$'), *. 0' 16*. ')+%' %2%')+%' %B)$' (), *. ' *&' (')' $' ()' &*$' %B' 86/%' '' 08' /' , (% 4' -' , 0' 7%$2' 10%&1/, . '$%/, %7, . -'6', . '' . 5' 9%%6, . -'5*3. ' , . &/' 8 8 '), *. ' *$')+%' 0' 8%' 61$6*0%' ' . ', (%

) ' -',0'0* 8 %),8 %0' '66/,%5')*')+%' (+%0)' '&)%$')+%' *6%$'),*.' *&'6'$'(%.)%0,0

(% 4 '-0' 6/'(%5' '/*. -') +%' (*1$0%' *&')+%' 06,. %'+'7%' 4%%.' &*1.5' %&&%()1'/' $% 8 %5,%0' , .' 8 '. 2' &*$8 0' *&' .%$7*10' 5,0*$5%$5' .' ('0%0' *&'%6,/%602' 3+%$%') +%' (,$(1/'),*.',0' 0/1- -,0+')+%' +'. 50' '. 5' &%%)' 4%,. -' '/3 '20' (/' 8 8 2' '. 5' (*/5' '. ' ,. 5,' $144%$' 4 '-' *&' ,(%' '66/,%5' '/*. -') +%' 06,. %' +'0' 4%%.' &*1.5')*' $%0)*$%' 3 '$8)+' ')') +%' 0' 8 %'),8 %'$%+%7,. -'+%' 5'(+%' '. 5' 02 8 6)*8 0' *&',. (,6,%.)' 6'$'/20,0' */5')*')+%' 06,. %' ,0' 00%$)%5' 42' $' +'6 8 '. ') *' /%00%. ') +%' %B(,)* 8 *)*$' 6*3%$' *&') +%' (*$5' .')+%' 0%7%$%' 6',. '*&' '. ' ,. &/' 8 %5' *7'$2' *$')%0),(/%',(%',. '' 4'-' 8 '2' *&)%. ' 4%' %8 6/*2%5' 4%. %&,(,'//2' '0' '. ' . *52. %' +%' /*. -' (*.),. 1%5' '66/,(','),*. ' *&' 4'-0' *&',(%')*')+%' (+%0)' &*$')+%' '$$%0)' *&' +'%8*$$+'-%' &$*8')+%' /1. -0' +'0' 4%%. ' *40%$7%5' 42' ,$' ,(+'$5' X1',. ' '. 5' *)+%$0')*' 4%' 7%$2' 6)')*' ('10%' /,*. (+,),0

1 8 6 0' *&',(%' 03 '//*3 %5' $%' ,. 7'/1'4/%' ,. ' $$%0),. -' +'%8*$$+'-%' &$*8')+%')+$*')' '. 5' 0)*8 '(+' .')*. 0,//,),0' '. 5' 5,6+)+%$,'') +,0' 0' 8 %')$%')8 %.)')%. 50')*' $%51(%',. &/' 8 8 ';),*. ' '. 5' (**/)+%')+$*')' *&')+%' 6'),%.)' 40),. ')%' 7*8,),. -' (' .'*&)%. ' 4%' (+%%9%5' 42' 03 '//*3,. -'&$' -8 %.)0'*&',(%

' */5' '0' '. ' . '%0)+%),(' G' '8 %0' 8*))',. ' ? P' 4$*1-+)' &*$3'$5')+%' 10%' *&' '$%%C,. -' 8,B)1$%' *&',(%' '. 5'0'/)' '0' '' 8 %'. 0' *&' 6$*51(,. -' /*('/' '. %0)+%0,'' 42' &$%%C,. -')+%' 6'$')*' 3+,(+')+%' 8,B)1$%' 3'0' '66/,%5' %,)+%$',. ' '' 4'-' *$',. ' '' 8 %)' ,** 06**. ' *$'0 8 '/' 016%$&,(,'/*'6%$'),*. 0')+,0' 8 %)+*5'*&' . 0%0)+%0,''42' (*. -%/'),*. ' '. 03%$0' 7%$2'3%//' +%' 6'$)'4%(*8 %0' 3+,)%' '. 5'+'$;5%. %5')*')+%' (1)'*&')+%' 01$-%*. '9. ,&%')+%$%' ,0' 7%$2')) /%' +'%8*$$+'-%' '. 5')+%' 3*1. 5' 8 '5%' 101'//2'+%'/0' 3%/' 42'6$,8 '$2' '5+%0,*.

140%E1%.)/2' $' ,(+'$50*. ' . 5,(')%5' '' 7%$2' (*. 7%. ,%.)' 3'2' *&' ,. 51(,. -' /*('/' '. '%0)+%0,''42')+%' 7*/'),/,0'),*. ' *&' %)+%$' ,')+%' &*$8' *&' 06$'2' 42' 8 %'. 0' *&')+%' +'. 5; 4'//' 06$'2' ')*8,0%$')+%$' 06$'2%5' *. ')+%' 41/4' *&' '')+%$8*8%)%$' +%/5' *4*1)' '. ',. (+' &$*8')+%'>%)' 4$*1-+)' 5*3. ')+%' 8%$(1$2')*' 3,)+,. ' !g' *&' C%$*' +%. ')+%' >%)' 3'0')1$. %5' *. ')*')+%' 09,. ' '' 8 '$9%5' 5%-$%%' *&' /*('/' '. '%0)+%0,'' 3'0' 6$*51(%5' 41)' . *)' %. *1-+' &*$' 01$-,('/' 61$6*0%0' J 2' 5$,7,. -' *7%$')+%' %)+%$' 1. 5%$' ')8 *06+%$,(' 6$%001$%' ,. 0)%' 5' *&')$10),. -'0,8 6/2')*' ('6, '$2' (),*. ' G *$')*' 0&,*),*. ' '0',. ' ,%-/%0' 66'$')10G*. %' 8 '2' 4$,. -')+%')+%$8 *8 %)%$')*' g' 4%/*3'C%$*' 3,)+,. ')+,$)2' 0%(*. 50' 2')+%' 10%' *&')+,0' 66'$')10' ')' . 2' 0%'0*. '*$')%8 6%$')1$%')+%' 01$-%*. ' (' . ' 6$*51(%' (*/5' %7%. ' Lg' 4%/*3' C%$*' '. 5' 42' 5,$%(),. -')+%' 06$'2' 16*6' '' +'/&,. (+' %0))14%' (*.)',. ,. -' 3')%$' +%' (' . '6$*51(%' '' (*/18. '*&',(%',. ')3*' 8,. 1)%0' *$'/*('/' '. '%0)+%0,'' 42' (*/5')+%' %)+%$' 06$'2' '. 03%$0' 3%//' 1(+' *6%$')*. 0' '0')+%' $%8*7'/*&'08' ')18*1$0''*6%. ,. -' '40(%00%0' '. 5',. 0%$),. -'01)1$%0' 8 '2' 4%' 6',. /%00/2'6%$;&*$8%5' = ' ' @

' AB*'Y*)(')+%' /'$-%' ,.)%0),. %R' G' $,-,. '//2' (*/,%' 0,-. ,&,%5' '6',. &1/' &&%(),*. ' 51%')*' 06'08' *&')+%' 4*3%/'41)')+*1-+' 0),// $%)',. ,. -')+,0' '66+(',*. ',)' +'0' .*3'(*8%')*' 4%' &1$)+%$' '00*(,')%5' 3,)+' *)+%$' (*86/',.)0' 3+,(+' '$%' '))%. 5%5' 3,)+' 0%7%$%' 6',. ' *&' ' 06'08*5,(' (+'$')()%$' '' E1'+&2,. -' 5>%(),7%',. 5,(',. -')+%' . ')1$%' '. 5' 0%')' *&' %'(+'6'$;),(1/'$' &*$8' +10' " ' ' ,0' '66/,%5')*')+%' -$*16' *&'02 8 6)*8 0' 51%')*')+%' 6'00'-%' *&' '' 0)*. %' &$*8')+%' 9,5. %2')*')+%' 4/'55%$# ' ')*')+*0%' '((*86'. 2,. -')+%' %0('6%' *&' '-'// 0)*. %' ' *),(' .)%0),. '/

' G! 5 5 (

3T 'H %$'C 'F -

& # G ',. &1/' . 5',$$%-1/'$' (*. ;)$'(),*. ' *&')+%' 810(1/'$' &,4$%0' *&')+%' ,. ;)%0),. %0' 3,)+*1)' &%7%$

. 6 ! 6 / 3 0' G +%0%' ,. (/15%')+%' . %$7*10'A'0'+20)%$,'' '. 5'+26*(+*. ;5$,'0,0R'/2 8 6-'),(' ''. 5'4,/,*10')%8 6%$' 8 %.)0H 0%5%.)'$2' *((16'),*. 0H')+%' &%8 '/%'0%BH' '. 5')+%' 6%$,*5' *&' 2*1)+' *$' '51/)' '-%' I("0' G= +%0%8 '24%'-$*16%5' '0' &*//*30 G 8' $,)',*. G&$*8' /*5-8 %.)' *&' -'0' 51%')*' &%$8 %.)',*. ' *&' 1. 5,-%0)%5' &**5' '. 5' 5%(*8;6*0,),*. ' *&' &'%(%0' /*. -' $%)',. %5' 3,)+,. ')+%' $/'$-%' ,.)%0),. %H' &$*8' &'%(%0' *$' ,.)%0),. '/ (*. ($%),*. 0' ,8 5,-%0)%5' *$' 6'$)/2' 5,-%0)%5' &**5'01(+' '0' 6*$9' 0+% &,0+' 0'/)' 8 %')0' 1. $,6%' &$1,)' *$' 0%6),(' -'8 %H &$*8' (*/5' 5$,. 90' *$',(%0H' &$*8' %B(%00,7%' *$' 8 *$4,5' 0%($%),*. 0' %06%(,'//2' 4,/%H &$*8' -'// 0)*. %0H *$' &$*8' 3*$80G'' 41. 5/%' *&' $*1. 5 3*$80' *$'(*,/%5' 16')'6% 3*$80' @' *$4,5' 0)')%0' *&')+%' 4*3%/',. (/15,. -' *40)$1(),*. ' &$*8' ,.)10010(%6),*. ')3,0),. -' 0)$'. -1/'),*. ' ^(H 1/(%$'),*. ' A)26+*,5')14%$(1/'$' 520%.)%$,(RH ,. &/' 8 8'),*. ' A%.)%$,)0')26+/,)0' ^(R "' %' &/%B' . %$7*10' 5,0)1$4'.(%' 51%')*' '. B,%)2' &$,-+)'' . -%$' *$*)+%$%8*),*. '/' 5,0*$5%$H)*' 5,0%'0%' *&')+%' *7'$,%0' *$' 1)%$10H)*' ('/(=10' A+%6'),(' *$' $%. '/RH)*' 5%.),),*. H *$')*' %B; 6*01$%' 06%(,'//2' *&')+%' &%%)' '. 5' '45*8%. ')*' (*/5' ' /**5 6*,0*. ,. -' '0' &$*8' /%'5' (*66%$' -*1)'$+%18'),08

! (! G= +% (+'$')(%$,0),(' *$'%00%.),'/ 02 8 6)*8' *&' ,.)%0),. '/ (*/,(',0' 6',. ' ,. ')+%' '45*8%. ' 3,)+*1)' &%4$,/%' 5,0)1$4'. (% ')' 101'//2' 4%-,. 0' '. 5',0' 8*0)' 0%7%$%' ,. ')+%' 18 4,/,('/*$%-,*. ')+%. '06$%'50')*' *)+%$' 6')0' *$')*')+%' 3+*/%' '45*8%. ' '. 5',0' 6)'E')$'7%/ &$*8' *. %'6')$')*' . *)+%$')',0' '/,. *0)' '/3 '20' $%/,%7%5' 42' &,)8' 6$%001$%' '. 5' 42' %B61/0,*. ' *&'&/')10H' . 5',0' 6'$*B208 '/',. '(+'$')()%$' $%; 8,)),. -' *$' %B'(%$4'),. -' *$' (*86/%)%/2' 014; 0,5,. -' ')',.)%$7'/0' +%' 01&&%$,. -',0' 101'//2' 0%7%$%' *&)%. ' '-*. ,0,. -' '. 5')*' $%/,%7%' ,)'+%' 6'),%.)'4%. 50' &*$3'$50'6$%00,. -')+%' '45*8%. ' &,$8/2' 3,)+',0' +' . 50' *$' '-',. 0)' 0*8%' +'$5' 01$&'(%' *$' $*//0' '4*1)' 0' ''$1/%')+%' '45*; 8%. ',0' 5,0)%. 5%5' 42' &/')10H ,. ' /%'5 (*/,(' ,)' ,0' +*3%7%$' &,$8/2' $%)$')()%5')*3'$50')+%' 06,. %' '. 5')+%' 8*7%8%.)0' *&')+%' ,. &/')%5' ,.)%0),. %0' '&&%()%5' 42'06'08*5,(' (*.)$')(),*.

W6$*51*,.-' /*15' 4*$4*$2-8,' 8 '2' &$%E1%.)/2' W4%0%%.' '.5' 8 '2' 4%' &%/)' 42')4%' +'.5' '66/,%5')*' +%' 45*8%.' +%' 8 10(/%0' *&')+%' '45*; 8,. '/ 3 '// ' .5')+%' 4/'55%$'101' //2'6'$),(,6')%' ,.')/,%',.)%$. '/ 06'0 8 ')+%' '45*8%.' 4%(*8%0' $,-,5' *$' 9.*))%5' '.5')+%' $%(),' 8 10(/%0' 4%' W(*8%(*.)$')()%5',.)*' $*1.5' 4'//0' 3+,/%'&$%; E1%./)/2')+%' .'7%/',0' $%)$&,()%5H 8,()1$,),*.' ,0'&$%E1%.)' *$' 0166$%00%5') %1' /2')+%$%' ,0' (*.0),6'),*.' ' .5')+%' 6',.' 5,0'66%'$0' 3+%.')+%' 4*3%/0' '$%' &$%%/2' $%/,%7%5H 0*8%),8%0' +*3%7%$',)'6%$0,0)0'&*$ ''),8%' *.0),6'),*.' 0)' .50',.' '') 3*&*/5' $%/'),*.')*' (*/,('%,)+%$' '0' ('10%'*$' '0' %&&%()'*&')+%'06'0 8 I +%' (*1.)%.' .'.(%' %B6$%00%0'-$%')' 01&&%$,..-' '.B,%)2' '65' 5%6$%00,*.' '.5')+%' &%')1$%0' 8 '2' 4%'6,.(+%5' +%' 01$^(%'*&')+%' 4*52',0' W(*/5' %06%(,''//2')+%' &%%)'' .5')+%' 6'/%'09.,.',0' (*7%$%5' 42'' '(*/5'6%$06,$')',*.' +%' 61/0%',0' (*8 8*./2'*&'.*$8'/' &$%E1%.(2'*$',0',.&$%; E1%.)' '.5' &%%4/% +%' 02 8 6)*8 0' 7'$2' 0*8%3+')' W3,)+')+%' ('10%' +%.'51%)*' ,$$,)',..-',.-%0)'')+%' 6$*8,.%.)' 02 8 6)*8 0' '$%' 7*8,),..-'.5' 5,'$; $+*%''0*8%),8%0' %.5,..-',.(')'$$+'/ 520%.;)%$2' .'(+,/5$%.')+%'/%-0' '$%' 5$'3.'16'16*.')+%' '45*8%.H)+%' 4*3%/0' '$%'*&)%.')'&,$0)' (*.&,.%5H '.5')+%' %7'(1'),*.0' '$%'-$%%.,0+' (&&%.'7%''.5'7%$2'(,5''&)%$3'$50'4%(*8,.-' /**0% .'.%$7*10' '.5'+26*(+*.5$,'('/014>%()0' '.5'%06%(,''//2'&%8'/%0'0%7%$%'6',.',.')+%' ,.)%0),.%0'$%0%84/8-')+')'*&06'08*5,*'E*/,('' ,0''6')*'*((1$' ' / Y)=' /')1/%.(%' 6/'20''7'$2,.-'6'$)',.'5,&,%%$%.)'('0%0H ,)',0' *&)%.''6$*8,.%.)'02 8 6)*8''.5')+%'&*$8' *&'(*/,(')+10'(+'$'()%$,0%5'3) 4%%.')%$8%5' */,('&/')1/%.)' *8,),..-',0'-%.%$'//2',.'6$*6*$),*.')*')+%' 0%7%$,)2'*&'06'08'.'5')+%'5%-$%%'*&',.)%0;),.'/*40)$1(),*. / # ! +%' 51$'),*.'*&')+%' ')'(9' 7'$,%0'-$%')/2'&$*8''&%3'8,.1)%0')*'0%7%$'/ 5'20' +%'06'08'101'//>=(%'0%0'4$16)/2'/%'7; ,.-''&%%/,.-'*&'0*$%.%00',.')+%'45*8%.'3+,/%')+%$%',0'%.>*2'4/%'$%/,%&'&$*8'01&&%$,.-' */,('3+%.'7,*/%.)'*$',.)$'()'4/%' 8'2')%$8,.')%' ,.'%.)%$,),0',.'6%$,)*.,),0' '.5G%06%(,''//2' 3,)+'(+,/5$%.G,.',.)10010(%6),*. ! '6',.' 8*7,.-'&$*8'6/'(%')*' 6/'(%' $%/,%7%5' 42' &,$8' 6$%001$%' '.5' 1.; ')%.5%5'42'&%7%$'0%6'$')%0' (*/,(*&$*8'*)+%$' '&&%(),*.0' 8*$%' 6')$),(1/'$/2'&$*8')+*0%'51%')''.&/'8 8'),*.',.'3+,(+' 6',.' ,0' '/3'20' '--$'7')%5'42'6$%001$% ,0)%.0,*.'3,)+'06'08'*&)+%'0)*8'(+'8'2' +%' 5,0),.-1,0+%5' &$*8''0,8,/'$'(*.5,),*.'*&')+%' (*/*.'42')+%'6',.'*(((162,.-''+,-+%$' 6*0,),*.',.')+%'45*8%.'A')'*$''$*1.5')+%' '.0,&*$8'('$),/'-%'.0)%'5'*&G'0',.'(*/,%G$)+%'184,/,('/*$*+26*(+*.5$,'('$%-,*.0R''.5' 42')+%'6%$(100,*.'.*)%'%/,(,)%5'4%,.-'5%%6%$')*.%5''.5'8*$%'6$*/*.-%5')+'.')'3+,(+' ,0'6$*51(%5'42''5,0)%.5%5'(*/*.' %0,5%0',.' */,(')+%'06'08*5,('(*.)$'(),*.'*&')+%'(*/*.' 6$*51(,.-'4*$4*$2-8,'8'2'4%')$'(%5'42')+% +'.5'*$' 8'2' 4%' %7%.'0%%.' '.5')+%$%' ,0')%.%0810)'0+*1/5'4%'4*$.%',.'8,.5')+')'%.)%$,),0'*$' 6%$,)*.,),0'8'2'&*//*3'(*/,('3+%.')+%' 61/0%' 8'2' 4%(*8%' &$%E1%.)'+'$5' '.5'08'//' *$' &$%E1%.)'.5'0*&)')4%')%86%$')1$%',.($%'0%5' '.5')+%'0%')'*&,.&/'88'),*.'4%(*8%0')%.5%$ 6*' ,0 G$ */,('/8*0)'/3'>=0%.50',.' $%(*7%$2'6$%(%5%5'42'&$%%'%7'(1'),*.'*&')+% 4*3%/0' .&'7*1$'4/%0,-.0''$%')+*0%'$,0,.-' &$*8',.&/'88'),*.'*$',.)%0),.'/*40)$1(),*. # G .')+%'&,$0)'6/'(%')+%'0%),*' /*-,('/,.5,(),*.0'0+*1/5'4%8%)' +%',$$,;)'),.-'(*.)%.)0'*&')+%'4*3%/0'0+*1/5'4%' 5,0/*5-%5'42'61$-'),7%0'(*84,.%5'3,)+'0%; 5'),7%0'01(+''0'(,*8%/'A&,7%'*$%,-+)'-$',.0R' *$'$+14'$4'A)3%.)2'-$',.0R'3,)+'*6,18'A*.%' -$',.R'&*//*3%5'42'$%6%')%5'5*0%0'*&'0*8%' 0'/,.%'6%$,%.)'01(+''0'01/6+')%'*&'8'-.%; 0,18'*$*6*)'00,18'3,)+'),.()1$%'*&'4%//'5*..' +%.4'.%'*$*6,18''.5'06,$,)'&'(+/*$*&*$8 1.),/&$%%'(),*.'*&')+%'4*3%/0',0'*4)',.%5' I '0166*0,)*$2'(*.)',.,.-'+'/&''-$',.'%'(+' *&'+25$*(+/*$')%'*&'8*$6+,.%''.5'%B)$')'()'*& 4%//'5*..'' *$''014(1)'.%*10',$E%*),*.'*&' 8*$6+,.%'8'2'0%(1$%',8 8%5,')%'$%/,%&'&$*8' 6',.'4%&*$%'6%$,%.)0'+'7%'),8%')*' '()' '$-%'3'*$8'%.%8')''*&)%.'$%/,%7%'E1,(9/2')+%$01,)'4/%'8%'01$%0'$%G=)+%3'$8'4')+' &,5%),*.'3,)+'3'$8'*,/'*$'0),81/'),.-',.; 8%.)0'+*)3')%$'&*8%.)'),*.0'0)%'8%5'&/'.; .%/0'810)'$5''*$')1$6%.),.%'0)16%0'&/'..%/ 4'-0'(*.)',.,.-'+*)'(+'8*8,/%'&/*3%$0'*$' +%')%5'0'.5')+%'0)*8'(+3'$8%$'&,//%5'3,)+' +*)'3')%$'.'5'/'$-%'/,.0%%5''.5'810)'$5' 6*1/),(%0'+%'5,%)'0+*1/5'4%'/,E1,5 .')+%'6$*6+2/'(),(')$%')8%.)'+%'5,%)' 0+*1/5'4%0)$,()/2'$%-1/')%5H /*5-8%.)'*&',$I' $,)',.-'0*/,50''.5'-'0%0'3,)+,.')+%'4*3%/0' 0+*1/5'4%'6$%7%.)%5'A0%%(' 'H *$ % *' 'H'.5' $ 3'H''.5')+%''45*8%.' '.5'&%%)'0+*1/5'4.'9%6)' '$8'42''&/'..%/' $* %$*$'4%)'.5')+,(9'3**//%.'0)*(9,.-0'*$ 42''&**)'3'$8%$' C 7' %A ' 2 - . G *//'60%',0' '(*.5,),*.'*&'.%$7*10'6$*0)$'),*.' +%.' (*.)%B)$%8%')+%'7,)'/.%$7*10'&1.(),*.0' '$%',.''')'%*&'6'$),'/'0*8%),8%0'.%'$/2' (*86/%)%''4%2'.(%')'8'2')%$8,.')%'8' 5%')+''*$'4%'&*//*3%5'42'-$'51'/$%'(),*.''.5' (*86/%)%$%(*7%$2 *//'60%'.5'0+**9'=+'7%'101'//2'4%%.' (/'00%5')*-%)+%$'41)',)',0'.*)''((1$')%')*'5* 0*' %',0')$1%')+')')+%'-'.-/,*.,(' (%.)$%0'$-)+%'8%51//''*4/*.-')''$%'8*$%'*$'/%00'6$*' $ &*1.5/2',.7*/7%5',.'4*)+''.5')+')')+%%/'(*8' 5),).0'6*00%00'8'.2'0286)*80',.''**88 'I' 5%6%.5%.)'16*.')+%'5%$'.-%8%.)'*&'&1.(),*.' *&'*.%'*$'8*$%'*&')+%0%(%.)$%0' *8%' $ ', &10,*.',0'))$,41)'4/%')*')+%&'()')+')'0+*(9' ,0''%)%$8''66/,%5'.*)'*./2')*')%'$8*$; 4,5'(*.5,),*.'41)')+%'('10%'3+,(+'8*0)' &$%E1%.)/2'6$*51(%0')'(*.5,),*.G''7,*/%.)' ,86$%00,*.'*$'0+*(9'*)+%.%$7*10'(%.)$%0' 6' '53' * '60%' $,0%0'-)$*' 8'.2

.'%B(%00,7%' -'0%*10' 5,/')'),*.'*&')+%' (*/*.' A'0' ,.' 7*/71/10' *&')+%' 0,-8*,5' &/%B1$%R' 6$*; 51(,.-' 81(+' 5,0)$%0' &$*8' 5206.*%'' 6',.' .'5'7*8,),..-'61.()1$%' 42' '' &,.%')$*(+'$' *$ '06,$')*$.%%5/%' +'0' 4%%.' 01((%00&1//2' $%; 0*$)%5')*' '0' '6'//,'),7%' 8%'01$%

')$,()1$%'G')$,()1$%' *&')+%' (*/*.' 8'2'*((1$' ,.' '.2'6'$)'41)',0' 8*0)'(*8 8*.' ,.')+%' 0,-8*,5' &/%B1$%' '.5'5%0(%.5,.-'(*/*.')',0'/,8,)%5')*' '51/)0')' 8*$%' (*8 8*./2' '$,0%0' &$*8' ('.(%$'+'.'&,*8')+%' (,(')$,0,.-' *&'.' 1/(%$' A0,8 6/%' 0)%.*0,0R').'.5.('.' (%$*10'0)$,()1$%''+,0)*$2'*&' 520%.)%$2',0',8; 6*$)'.)G)+*1-+'')/*.-',.)%$7'/'A%7%.'2%'$0R' 8'2'+'7%'%'60%5'0,.(%')+%'))'(9' +%'0)$,(;)1$%'5%(/'$%0',)0%/&'42'0%)),.-'16'0286)*8 0'*&' ,.)%0),.'/'*40)$1(),*.G)+%$%' 4%,.-''}'7'$2; ,.-',.)%$7'/0')'))'(90'*&'6'$*B20 8'/'0+,&),.-' (*/,(92'6',.''($*00')+%'.'7%/'3,)+'(*.0),6',;),*.'A*$'(*.0),6'),*.''/)%$.'),..-'3,)+'5,'$; $+*%'R' '--$'7')%5'42'61$-'),7%0'4%(*8,.-' 8*$%'.5'8*$%E1%.)'.5''00*(,')%5'3,)+' 7*8,),.-=3+%.''0''$1/%')+%'5,&,(1/)2'(%'0%0' A)*'4%',.)%$8,))%.)' '$-%&0%('/'8'00%0'8'2' *&)%.'4%'&%/)' '4*7%')+%'0,)%'*&'*40)$1(),*.' .'0)%.*0,0'*&')+%'0,-8*,5'&/%B1$%')+%$%'0' 0*8%),8%0')%.%08 10''.'2')+%'8*),*.0'$%' &/'))%.%5H)+%'0)$,()1$%'('.'4%'$%'(+%5' 3+%.')+%'3+*/%'+'.'5',0',.)$*5+(%5',.)*')+%' $%()18' +%'8*),*.0''$%'.*)' '0''' $1/%' '/)%$%5',.'0+'6%'3+%.')+%'0)$,(1$%',0'0,)1')%' ,.')+%'+,-+%$'6'$)'*&')+%'(*/*.' +%'0,)%'*& *40)$1(),*.' 8'2'0*8%),8%0'4%'5%)%$8,.%5' 42'10(1/)'),.-')+%'45*8%.'3+,/%'3')%$',0' 4%,.-'-%.)/2'.5',.)%$8,))%.)/2',.>%()%5',.)*')+%'$%()18G)+%'*40%$7%$'&',/,.-')*'+%'$')+%' 0)$%'8'4*7%')+%'0)$,()1$%' +%'51$')*.'*&)+%'('.(%$*10'0'3%//'0'*&')+%'0,86/%'&*$80' '7%$'-%0'&$*8'&,7%')*'0,B'8*.)+0 ! '#$$'-4) !)')-)) 7'$' ' ')#' $' $' 5%' .&/'88')',*.'G' -' */,)0H' */*.),)0H' */*%.)%$,)0H $' ' 'K %$' I"%"& 0' # # ' F .',.&/'88')',*.'/%'5,.-')*' 1/(%$'),*.'*&)+%'81(*10'8%84$'.%'.'5'0148 1(*10'(*.; .%(),7%'),001%'*&')+%'(*/*.'6$*51(,.-'/%0,*.0' ,.5,0),.-1,0+'4/%'&$*8')+*0%'*&'520%.)%$2' +'0'4%%.'6*,.)%5'*1)'42' *6/'.5''.5' '$9%0' */,),0',0'0',5')*'4%'''.*.06%(,&,('/*('/'&&%(;),*.'(*88%.(,.-',.')+%'0148 1(*10',001%' ''.5'0140%E1%.)/2'))'(9,.-')+%' 81(*10' 8%84$'.%'7$,)+',)0'-/'.51/'$'0)$1()1$%0G)+%' 6$,8'$2'0%')*'&'520%.)%$,(',.&/'88')',5.'0' ,'.520%.)%$2')+%',.&/'88')',*.',.51(%0'-'.' %-$%.*10'5%0)$1(),*.''.5'1/(%$')*'&')+% 81(*10'8%84$'.%'.5'1.5%$/2,.-'(%//1/'$'),001% '/O '&*$8'*&'(*/,),0',0''6)')*'*((1$' ,.'8%'0/%0'0')'*&)%.'+'66%.0')+')'+%' 8*$4, *10'(')'$$+'*&')+%',.)%0),.%0'%B+'10)0' ,)0%/&'42'))'(9,.-')+%'/'$-%',.)%0),.%'6$*; 51(,.-')+')'06%(,'/&*$8'*&'(*/,),0'(+'$')0%$; ,0%5'42'0%.%0810'.5'-/',$2'4/**52'0)**/0<I f $*'00%'1' "T '

.&/'88')'*$2'5,'$$+*%''6'$),(1/'$/2',.'(+,/' 5$%.'*&)%.')%$8,.')%0'0,8,/'$/2

*/,),0''$,0,..-'&$*8' " ' ('8'2' ,.7*/7%')+%'%.),$%'3'/'*&''(,$(180($,4%5'6*$'),*.'*&')+%'(*/*.'(*88*./2')+%'0(%.5,.-' (*/*.''.5'0,-8*,5'&/%B1$%'*$'8'2'4%'(*.; &,.%5')*')+%'81(*10'.5'0148 1(*10',001%0' .'&%%('/'%)%.),*.')+%'81(*10'&*//,(/%0'*&')+% (*/*.'8'2'4%(*8%'*40)$1()%5''.5')+%'5,0;)%.0,*.'$%01/),.-')+%$%&$*8'8'2'/%'5')*' ,.&/'88'),*.''.5'1/(%$'),*.' $$,)'),*.'*&)+%'81(*10',.-'(%$'A0,866/%'0)%.*0,0R').'.5.('.' (%$*10'0)$,()1$%''+,0)*$2'*&'520%.)%$2',0',8; 6*$)'.)G)+*1-+''/*.-',.)%$7'/'A%7%.'2%'$0R' 8'2'+'7%'%'60%5'0,.(%')+%'))'(9' +%'0)$,(;)1$%'5%(/'$%0',)0%/&'42'0%)),.-'16'0286)*8 0'*&' ,.)%0),.'/'*40)$1(),*.'(92'6',.''($*00')+%'.'7%/'3,)+'(*.0),6',;),*.'A*$'(*.0),6'),*.''/)%$.'),..-'3,)+'5,'$; $+*%'R' '--$'7')%5'42'61$-'),7%0'4%(*8,.-' 8*$%'.5'8*$%E1%.)'.5''00*(,')%5'3,)+' 7*8,),.-=3+%.''0''$1/%')+%'5,&,(1/)2'(%'0%0' A)*'4%',.)%$8,))%.)''$-%&0%('/'8'00%0'8'2' *&)%.'4%'&%/)''4*7%')+%'0,)%'*&'*40)$1(),*.' .'0)%.*0,0'*&')+%'0,-8*,5'&/%B1$%')+%$%'0' 0*8%),8%0')%.%08 10''.'2')+%'8*),*.0'$%' &/'))%.%5H)+%'0)$,()1$%'('.'4%'$%'(+%5' 3+%.')+%'3+*/%'+'.'5',0',.)$*5+(%5',.)*')+%' $%()18' +%'8*),*.0''$%'.*)' '0''' $1/%' '/)%$%5',.'0+'6%'3+%.')+%'0)$,(1$%',0'0,)1')%' ,.')+%'+,-+%$'6'$)'*&')+%'(*/*.' +%'0,)%'*& *40)$1(),*.'8'2'0*8%),8%0'4%'5%)%$8,.%5' 42'10(1/)'),.-')+%'45*8%.'3+,/%'3')%$',0' 4%,.-'-%.)/2'.5',.)%$8,))%.)/2',.>%()%5',.)*')+%'$%()18G)+%'*40%$7%$'&',/,.-')*'+%'$')+%' 0)$%'8'4*7%')+%'0)$,()1$%' +%'51$')*.'*&)+%'('.(%$*10'0'3%//'0'*&')+%'0,86/%'&*$80' '7%$'-%0'&$*8'&,7%')*'0,B'8*.)+0 ! '#$$'-4) !)')-)) 7'$' ' ')#' $' $' 5%' .&/'88')',*.'G' -' */,)0H' */*.),)0H' */*%.)%$,)0H $' ' 'K %$' I"%"& 0' # # ' F .',.&/'88')',*.'/%'5,.-')*' 1/(%$'),*.'*&)+%'81(*10'8%84$'.%'.'5'0148 1(*10'(*.; .%(),7%'),001%'*&')+%'(*/*.'6$*51(,.-'/%0,*.0' ,.5,0),.-1,0+'4/%'&$*8')+*0%'*&'520%.)%$2' +'0'4%%.'6*,.)%5'*1)'42' *6/'.5''.5' '$9%0' */,),0',0'0',5')*'4%'''.*.06%(,&,('/*('/'&&%(;),*.'(*88%.(,.-',.')+%'0148 1(*10',001%' ''.5'0140%E1%.)/2'))'(9,.-')+%' 81(*10' 8%84$'.%'7$,)+',)0'-/'.51/'$'0)$1()1$%0G)+%' 6$,8'$2'0%')*'&'520%.)%$,(',.&/'88')',5.'0' ,'.520%.)%$2')+%',.&/'88')',*.',.51(%0'-'.' %-$%.*10'5%0)$1(),*.''.5'1/(%$')*'&')+% 81(*10'8%84$'.%'.5'1.5%$/2,.-'(%//1/'$'),001% '/O '&*$8'*&'(*/,),0',0''6)')*'*((1$' ,.'8%'0/%0'0')'*&)%.'+'66%.0')+')'+%' 8*$4, *10'(')'$$+'*&')+%',.)%0),.%0'%B+'10)0' ,)0%/&'42'))'(9,.-')+%'/'$-%',.)%0),.%'6$*; 51(,.-')+')'06%(,'/&*$8'*&'(*/,),0'(+'$')0%$; ,0%5'42'0%).%0810'.5'-/',$2'4/**52'0)**/0<I f $*'00%'1' "T '

U ' U ' ,' */*' $'5*' G '(/%'$' (*/5''.5'7%$2' 4$'(,.-'(/,8')%'3,)+'-$%')'5$2.%00''.5' 5,')+%$8'.(2'*&')+%')8*06+%$%H D !@?'&%%)' '4*7%')+%'0%'' *'0.*3',.''.2'E1'.),)2''.5' (*.0%E1%.)/2'.*'0.*3 8%),.-'0%'0*.' $2

0'.5 5))0/2' 3,.5 0',.'06$,..-' '8 6,..-'*1)')' .%'$/2' '/F0%*0*.0')*/%$*4/2'0'&%' +,-+ '/),' ,H.5%0)'),*.'10%&1F,..'')0)+%.,'' '.5',.'(+$*..%' =+)+, 0,0' %06%(,''//2'3,)+'/,8,)%5'/%0,*.0' '.5' .*'62$%B,' +%'.'8%*&'0 06$,.-0'I,0'55%5' &)*>.')+%'6$*B,8,)2'*&' */*$'5*' ,)2')*' '.,')*.' 6$,.-0'0,B'.8*%'5,0)'.)' ' $!)' $%')8%.)'*&' ,0%'0%'42

G '5%&%()'*&' 7,0,*.')+%' 014>%*)' *&' 3+,(+' ,0' 1.'4/%')*' 5,0),..-1,0+' (%$)',.' (*/*1$0' ' E)' ,0*$5%$0'*&(

' A ^6,' 5%%6'0/%%6 ?F' (*.5,),*.' Q*& 6$*&*1.5' ,.0%.0,4,/,)2' ' ' % 2)' ,0*$5%$0'*&

3 ')0 5 ' ,F < ' 5%%6'0/%%6H' '.5') 0 '3'9%&1/R

& # G '0286)*8'*$'0%)'*&'0286;)*80'3+%$%'(*.),.1*10'0/%%6/%00.%00',0''00*' Q(,')%5'3,)+'6'$),'/'1.(*.0(,*10.%00

8' 7,-.'((1$0')*3'$50')+%'%.5'*&'5,0;%'0%0',.'3,.(+')+%'.%$7*10'020)%8',0',.7*/7%5'%,)+%$'5,$%()/2'*$',.5,$%()/2'5%06%(,''//2'3+%$%0/%%6/%00.%00'+'0'4%.'''0286)*8',.')+%'%'$/,%$'6'$)'*&')+%'5,0%'0%' +10',)'&$%E1%.)/2''66%'$0')*3'$50')+%'%.5'*&'.')'))'(9'*&')26+10'*$'*&'5%/,$,18')$%8%.0'3+%.')+%0%''$%''4*1)')*')%$8,..')%'&')//2

!(! G +%'6'),%.)'/,%0'E1,%)'3,)+',0'%2%0'+'/&(/*0%5',.'))%.),7%')*' %7%$2)+,.''$*1.5'41)'.*)'*'40*/1)%/2'1.(*.0%,*10'&/')+%'%2%/,50''$%')*1(+%5')+%2''$%'(/*0%5''.5'6%$+'60')+%'+%''5',0'0/*3/2')1$.%5''3'2'+%'%2%0'+'7%''51//+'/&-/'C%5'/**9'.5'0/*3/2'&*//*3''.2'8*7,..'*4>%()'.%'$')+%8'+%'6 6 0'$%'.%,)+%$'81(+'5,/')%5'.*$*(*.;)$')()%5''.5')+%2'8*7%'$85%$')+%',.&/1%.(%'*&'/,-+)'41)'7%$2'0/1--,0+/2' +%'8*1)+',0'-%.%$'//2'0*8%3+')'*6%.'.5'5$2'0'$%'/0*')+%'/,60' +%'6*3%$'*&'03'//*3,.-',0'81(+',86',$%5',&''108'//E1'.),)2'*&'&/1,5'4%61)'(,.)*')+%'8*.)+''.'%&&*$)',0'8'5%'&)%$''0+*$)'),8%')*'03'//*3',)''.5'),0'%&&*$)',0'0*'&%%4/%')+')' .*' $%01/)'&*//*30' +%'6'),%.)'/,%0'8*0)/2'*.')+%'4'(9H,&')1$.%5'*.')+%'0,5%'+%'W%,)+%$'%8'1,.0''0'6/'(%5'%$'*&)%.'0/*3/2'(1$.0')*')+%&*$8%$'6*0,),*.'+%'/,840''$%'Q*(('0,*.'//2'8*7%5''/,))/%H'.5',&')+%'+'.5'*$'$8'4%$',0%5''0+-+)'$%0,0)'.(%',0'*&&%$%5'&')+%'4/'55%$'*$')+%'$%()18'46'%86),%5',)+%$%',0'0/,-+)'(*.0(,*10.%00'*&')+%''()''0',&''&%&%/,.-'*&'5,0(*8&*$)'6$%(%5%5',)'+%'61/0%',0'E1,(9''.5'3%'9'+%'$%06,$'),*.0''$%3%'9'41)'*)+%$3,0%'.*$8'/'+%'0286)*80'(*.),.1%'1.4$*9%.')+$*1-+*1)'.*)+,.-'/,9%'.')1$'F0/%%6'*((1$$,.-

F $ G 0 4%8-'/,))/%'8*$%')+'.''0286)*,.'(*8'7,-,F+'0'0)$,()/2'06%'9,.-'.*'6')+*/*-2')'0%%80')*'(*,.(,5%3,)+')+%'-$'51'F0106%.0,*.')+$*1-+'%B+'10),*.'*&')+%'&1.(),*.0'*&')+%'.%$7*10'(%.)$%0H)+%'(%$%4$'F+%8,06+%$%0'4%,.-'.%'$/2',&'.*)'E1,)%',.'(;),7%'3+,/%')+%'()',*.'*&')+%'$%0)'*&')+%'(%.)$%0

,0'9%6)'16'3%'9/2'41)'(*.),.1*10/2',//)+%'/,))/%'$%8',.,.-'.%$7*10'6*3%$',0'%B+'10)%5'3+%.'5%')+'%.01%0')'5,&&%$0'&$*8'(*8''',.'0 8 1(+'0',.')+%'/')))%$')+%'8%51//''*4/*.;-')'',0')+%'*./2'(%.)$%'/%&)'K0),7%')+%'&1.(;),*.0'&)+%'$%0)'4%,.-'%.),$%/2'0.06E.5%5')'5,&&%$0'&$*8'(*.(100,*.',.'0 8 1(+'0')+%'0286)*80'*&')+%'/')))%$')))%.5,.-')+%')%8;6*$'$2'1.(*.0(,*10.%00''$%'8*$%')+*0%'*&',$$,)'),*.')+'.''*&'61$%'0106%.0,*.''*&'&1.(),(8&"*8'7,-=',0'5,0),.-1,0+%5'&$*8'(*8''42')+%'6$%0%.(%'*&''(%$)',.'8*1.)'*&'(*.0(,*10.%00'42')+%'E1,(9'61/0%''.5'42')+%'40%.(%'*&'0)%$)*$*10'4$%')+,.-')',0'5,0),.-1,0+%5'&$*8'(*.(100,*.'*&')+%'4$',.'42')+%'616,F.*)'4%,.-'(*.)$'()%5'42')+%'+,0)*$2'*&')+%'('0%''.5'42')+%''40%.(%'*&'(*/5.%00'*&')+%'09,.''.5'*&''.2'0,-.'*&'0+*(9"+%6$*-.*0,0',08,&'7*1$'4/%'(*8'7,-,F,0'/8*0)',.7'$,'4/2''&')'/0286;)*8')'8'2'/'0)'&$*8'''&%3'+*1$0')*')+$%%'*$&*1$'5'20H&$*8')3%.)2&*1$')*'&*$)2%,-+)'+*1$0'4%,.-')+%'8*0)'(*$'8*.'51$'),*.')'8'2'5%%6%.',.)*' '()1'F(*8'1H41)'8*$%'101''/2')+%'0286)*80'(+'.-%'41)'/,))/%'0'7%')+')'+%'61/0%'4%(*8%0'E1,(9%$''.5'3%'9%$''.5')+%'$%06,$'),*.'8*$%'&%%4/%''.5'5%')+'42''0)+%.,'')+%.'$%01/)0

! " *8'7,-,F5*%0'.*)'('/F&*$)$%')8%.)'5,$%()/2',)0%/&'41)',0''.'1$-%.)',.;5,(',*.'&*$.1)$,),7%''.5'0),81/'.)'8%'01$%0'('/(1/')%5')*'$%/,%7%')+%'6$,8'$2'5,0%'0%*'0 A (' = '0 5

<B F<0 'A(*8%5*' '-/1))_8R G,;'' $140 G +,0',0')+%'.'8%''66/,%5')*')+%/,))/%'(2/,.5%$0'*&'0%4'(%*10'.5'%6,')+%+'F0140)'.%'3+,(+''$%''6)')*''((181;/')%',.')+%&*,(/%0'*&')+%'09,.''.5')*''66%'$*.')+%'01$&'(%''0'08''/'$*1.5'4/'(9'06*)0'W+%.'0E1%%C%5'*1)'+%2'+'7%')+%'66%'$;'.(%*&'8,.1)%'8'--*)0'*$-$140'3,)+'4/'(9'+%'50''.5')+%.(%'+'7%'5%$,7%5')+%,$'.'8%'+%2'8'2'*((1$',.'6'$)%'*&')+%'4*52'3+%$%'0%4'(%*10'&*,/*%0'%B,0)'41)'$%'8*0)'(*8 *.'*.')+%'&'(%')+%'.*0%')+%'.%(9''.5'0+*1/5%$0')+%'4$%'0)''.5'3,)+,.')+%'(*.(+''*&')+%'%'$0',.')+%'/')))%$'0,)1'),*.'*&)%.'');)',.,.-'(*.0,5%$'4/%'0,C%'+%''((181/';,.'*&')+,0'0140)'.(%',0'51%')'3'.)'%B61/0*$2'6*3%$'*&')+%'09,.''.5')*')+%'0+-+)',865,8%.)'3+,(+',0''&&*$5%5'42')+%'6%$;)1$%'*&')+%'&*/+(/%'&',86'(0)%5'&*$''(*.0,5%$'4/%'),8%')+%2'.5'+8 5.%0'*&'+*$.H)+%2'0018%''41/4*10'&,-1$%'&$*8')+%'5,/')',.'*&')+%'&*/+(/%'4%/*3')+%'(%.')0)$,()%5'*$,&,(%'*&')+%%6,5%$8,0H'.5'42')+%,$'41/9')+%2'0*8%),8%0'0)$%)(+')+%'+',$&*//,(/%0*'^$''0')*'*4+)%$')%',)'(*86/%)%/2'=%0,5%0

& " 'A(*3= '$1.')*-%)+%$R' 66/,%5'(+,%&/2')*' ''7'$,%)2'*&'08'// 6*B'.'5' *)+%$' %B'.)*)'.,.'3+,(+')+%' %$16),*.' $1.0')*-%)+%$' *$'(*'/%0(%0

'2 5 3 ' "')*-%)+%$H' .'5' 0 " '4%-*))%.R G B,0),.-'')'4,$)+H''')%$8' -%.%$'//2' '66/,%5')*' 5,0%'0%0' 01(+' '0' "7 0 " ' # '*$'8'/&*$8'),*.0'01(+''0'*&')+%'+%')'.'5' "0 " '

& 52 ! 5'A(*.=%$*''((181/')%R' 7%$&1/.%00'*&'7%00%/0'('10%5'42''((181/';),*.'*&')+%,$'(*.)%.)0'-%.%$'//2' '66/,%5')*' 4/**5 7%00%/0' ' 5'%$ ')' ,0*$5%$0'*&

& 5 K *' ('&(' <' ;%09 8 $' I "" " ' ' 0 J9' %$' # "0) 0 "0 G= ' 6'$)0' *&')+%' +%8/*(9'6/'.)', "2 ' 9' $%%9' F))''$%'6*,0*.*10' *)+')+%'/%'7%0'.'5' &,$1,)'$%'10%5',.'8%5,(,.%')0')*B,('6$*6%$),%0' 3%$%'9.*3.',.''.(,%.)'),8%0'H')+%'6/'.)'3'0' 10%5'&*$')+%'5%0)$1(),*.'*&'($,8,..'/0'42')+%' '.(,%.)' $%%90'.'5')+%$%',0'.*'5*14)')+')' *($')%0'3'0'6*,0*.%5'42',)' %')+'&$*8' (*.,18',.')+,0'(*$8)$2'+'0'6%$+'60'/3'20' 4%%.')+%'$%01/)'*&'8,0'57%.)1$%'*$'01,(,5%H 41)'*.')+%' *.),.%.)+%'(),7%'6$,.(,6/%'*&')+%'6/'.)' " "'.'/9'/*,5'+'0'4%%.'5'; 8,.,0)%$%5'&*$')+%'61$6*0%*&'3,/&,,/'+*8,(,5% 5%')+'$%01/),.-'&$*8''5*0%*&'8H')*' F'5$*60 ! ' $' 5 `` +%' 0,-.0'*& '06+2B,''%.-*$-%8%.)'*&'/1.-0'.5'*&')+%' $,-+)'+%')''.5''-%.%$'/'7%.*10'(*.5,),*.' *&')+%'4/**5' '66%'$')*' 4%'(*.0)'.)'&)%)' 5%')+'&$*8'(*.,18' +%$%',0'.*)+,..-'%/0% 06%(,'//2'.*),(%'4/%

!(! G $%6'$'),*.0'*&'(*.,18''0' %// '0')+%''/9'/*,5''*$'8,B)1$%'*&''/9'/*,5=‘9.*3.' '0' " '3+%.')'9%.',.')*B,('5*0%0'6$*51(% %B(%00,7%' 810(1/'$' 3%'9.%00' 4%-,...-',.')+%'/*3%$'/,840''.5'%B)%.5,.-'-$=1'//2'16; 3'$50'3,)+'-,55,.%00''.5'5,0*$5%$%5'7,0,*.' +%0%'02860*80''$%',.'0*8%'('0%0'6$%(%5%5' 42'.'10%''.5'7*8,),..-'3,)+'5$2.%00'*$ 41$.,.-'6',.',.')+%'8*1)+'.5'&'1(%0' +%$%' ,0''5%0,$%')*'$%8','.'E1,%)'.5''6%(+/,'$' +%'7,.%00'*$'5$**6,.-'*&')+%'%2%/,50')+%' 6'),%.)'/2,.-'3,)+'+,0'%2%0'0+1)' +,0''.5')+%',86',$8%.)'*&'7,0,*.''66%'$')*'4%'51%)*'6'$'/20,0'*&')+%'*(1/'$'810(/%0' +% 616,/0'8'2'4%'.')1$'/'41)'/')%$')+%2'4%(*8% 5,/')%5' +%'61/0%',0'0/*3'),//'5%')+',0''(;)1'//2',86%.5,.-' +%'6'$'/20,0'6$*-$%00%0' -$'51'//2'163'$50'), '%7%.)1'//2'+%'$)''.5' $%06,$'),*.''$%' '&&%()%5'8*$%' %06%(,'//2')+%' &*$8%$' *.71/0,*.0' '.5',86',$8%.)'*&')+%'8%.)'/'&'(1/),%0G=+,)+%$)*' ,.)'()G.*3' 0%)' ,.H' &,.'//2'0%.0'),*.',0',86',$%5''.5' 5%')+'%.01%0'&,$*8''06+2B,' '& " +%'6'$'/20,0'*&'8*),*.'6$*' -$'51'//2'163'$50'3,)+'0%.0'),*.' -5''.5')+%'6%(1/,'$'5$**6,.-' 6%$+'60'5,'-.*0),(''*&')+%' *. H'.),5*)%',0'9.*3.

5!#!'#$4)#'!'--#'$-'#$ '!' /)$3 $ '*4' 5 "'+''34)7 7' $ ' 7'5'7/7')"'4/$'!'3)' #$ 7 $ '$-'!'/ B & !' $* #!'*4 '+' */> 7'+"'!' $* #!/4*/'$)' "/!$ 4+' 7'5 '5 !7'$4' * #'*"' $'+' 4 7'$'. #4 '!' $* #!' ' 7' $!)') 3 '*4'+'-) "'7*) 7' $'/)#/ '!'#.' $7'7'/).' '+$)/ $ ' $)'$ '7*) 7'+"' !'*$4!'$)')#4*'* "'7'!')*$.' $-' ' $7'5!' '!'+' *7)7' $4+'+"' ')$ 3'#$-- '+) 7"' **$ ' 7' *4 '3) "')' ;' .#+' ' * "' $'+'!'!"/$7)*#' E#$'$-'!)' 0"/$7)*#' E#$'$-' Q!'3) '$-'4/!'$-')$/ ')').)"' /)$*3'/#"' '!')' 3'/')$/ '#3'#'*4 ')-#')/)$)"' 7'#)7#' *4>' $'$-'!')/)$)"' 7'#)7#-4#$' +"'!'4'$-' #)#"'$843'$'$'+' 3#'5!'!')'--#7 ! ' A

& 5K"5& !'' - ** $' $-'!'$$ E*#.' '* ' ' ' ((.' '$'W

& 5!& "!5 !!' + +%'5,0*$5%$0'*&'(*.0(,*10.%00''$%'0*.18%' $*.0'0')*'8'9%,)'5%0,$'4/%'4$,%&/2')*'(*.0,5%$')+%8',.''*.%'$),(%')3,)+'''7,%3')*')+%,$' (/'00,&,(',*.''.5')+%'4%))%$'(*86$%+%.0,*.' *&')+%,$81)1'/'$%/'),*.0' %'0+'//')+%$%; &*$%'+%$%'-$*16'.5''$$'.-%)+%'7'$,%5'8*$; 4,5'(*.0(,*10'0)')%0'.*)'',8,..-')*'6$*51(% '0)$,()/2'0(,%.),&,('(/'00,&,(',*.'0*'81(+''0' *.%'3+,(+'3,/'4%'6$'(),('//2'10%&1/ ' B'/)'),*.G .5%$')+,0'+%'5'8'2' 4%'$'.-%5'(%$)',.'0)')%0'*&'(*.0(,*10.%00' 8*$%'*$'/%00'5,0),.()/2'4*$5%$,.-'16*.')+%' ...')1$'/')*'4%'8%)'3,)+',.'6%$0*.0'1.5%$')+%',.&/1%.(%'*&'0 8%.)'/'%B(,)%8%.)'<&$*8' 7'$,*10'('10%0''0'&,$*8'0155%.'-**5'.%30'*$' -%.%$'//2'6/%'0'.)'01$$*1.5,.-0'H'/0*'&$*8' '0/,-+)'5%-$%%'*&'6*,0*.,.-'42''/(*+*/' *6,18'+'0+,0(+'*$*)+%$'5$1-0'H'*$&$*8'.' %'$/2'0)'-%'*&'0*8%&*$80'*&',.0'.,)2'*$*&' 5%/,$,18' .')+,0'0)')%'*&'8%.)'/'%B')')*,)*.')+%',.5,7,51'/0'6*3%$0'*&'6%$(%6),*.''66$%; +%.0,*.'$%(*//%(),*.')+*1-+)'%8*),*.''.5 7*/,),*.'3*1/'0%%8')*'4%'//'%7%$2'6'$),'/ ,')+%'%B)%.)')*'3+,(+')+%2',86,(')%'(*.; 0(,*10.%00')+*1-+'*)+%$0''$%'-%.%$'/' .' 3+')',0'9.*3.'0''.' "'0*$.%'*4>%()' *&'0%.0%',0'.*)'(*$$%()/2'6%$(%,7%5'H'*$',.' *)+%$'3*$50'0*8%'0%.0*$,'/',86$%00,*.'.0')8,)%'3$*.-/2',.)%$6$%)%5G'03+%.''&%7%$,0+' *$''8'.,'('/6'),%.)'/**9,.-')'0*8%,.'.; 8')%'*4>%()'5%(/'$%0')+')',0=%')*$''5*-

)+%' 7'$,%),%0' *&' (*.0(,*10' 8%.)'/' '(),7,)2'
' 0*8% 8*$%')+'.' *)+%$0' +%2' 8'2' 4%'
,)+&&/' (*,=%.,)'/''*$' '(E1,$%5'51$,.-')+%'/,&%'
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/''' '2 ' '+'7%' &$*8' 4,$)+' 5%&%()'
,.')+%' 2 '*&'(*.(%.)$'),.-')+%''))%.),*.'
'' 5%&%(),7%' 6*3%$' *&''66$%+%.0,*.''.5' *&'
)+,.9,.-'.5' '' 5%&%(),7%' 7*/,),*.' 0+*3.'
'/,9%' 42' '.' ,.'4,/,)2')*' -1,5%' *$' (*.)$*/
)+*1-+)'.5' 42' '' 5%&,(,%.)' 7,-*1$'*&'4*5,/2'
8*7%8%.)' -','' '0' '' $%01/)' *&' %6,/%602'
&'$-'.,(' 4$',. 5,0%'0%' *$'*&',.>1$,%0')*')+%'
+%'5')+%' 6'),%.)' 8'2' -$'51'//2' /'60%',.)*'
01(+' '(*.5,),*.'&$*8'*.%'*&'+%3)+'0*' '0')*'
4%(*8%''0',)',0' 0)%$8%5'05%8%.)%5 +,/0)'
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'-%',)',0' 81(+' 8*$%'(*. 11*.''0'' (*.0%;
E1%.(%' *&')+%' 4$',. 5,0%'0%0' &$%E1%.)',.'
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9.*3.'0' " ' " ',.'3+,(+'3,)+*1)'
.2')26,('/'5,0%'0%'41)' '0'' (*.0%E1%.(%' *&'
,86',$%5),001% 7,)'/,)2'.5'5,&&10%5'5%-%.%$';
),7%'(+'.-%0')+$*1-+*1)')+%'.%$7*10'020)%8'
)+%'8%.)'/&'(1/),%0'1.5%$-*' '8*$%'8'$9%5'
5%-$'5'),*.')+'.',0'101''//2'8%)' 3,)+',.'*/5'
'-%' +,0' (*.5,),*.' .' ,)0' 8,.*$' 5%-$%%0'
-*%0'42')+%'.'8%'*&'# ' .'' '01(+'
0)')%0'*$' ='5%0'*&',5,*(2' .'5' 5%8%.),'
,7%'8%%)' 3,)+'.' 1.51%')%.5%.(2')*' 0/%%6'
,.')+%' 5'2),8%'0' '' $%01/)' *&')+%' /,0)/%00'
'.5'/'.-1,5'8%.)'/'(*.5,),*.' +,0',0'41)'
'.*)+%$'0,-.'*&')+%'-%.%$'/'*3%$,.-'*&'(*.'
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%$%' 3%' 810)' ,.(/15%' '/0*' '' 6%(1,/'$'
>$*16'*&'(*.5,),*.0'+'7,.-'0*8%'//,'.(%'3,)+'
.%'.)+%$''.5'3+,(+'$%''/'(+'$')(%$,0%5'
42'/*00' *&' (*.0(,*10.%00')*' 0*8%' %B)%.)'
%,)+%$'6'$),'/',.'$'.-%'*$'-%.%$'/' +%2''$%G'
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'# " '' .5' ' +%2''$%'
8%$%/2'%.18%$')%5'+%$%'41)' '$%' 5%&,.%5'*$
5%0($,4%5',.')+%,$' 0%7%$'/ 6/'(%0' .')+%'
/'0)' *&')+%0%' (*.5,),*.0')+%' /*00' *&' (*.;
0(,*10.%00',.')+%'*$5,.*$2''((%6)',*.'*&')+%'
)%$8'A.'8%/2'/*00'*&'6%$(=),7%'6*3%$R',0'0*'
'40*/1)%')+')'0*8%'8'2')+,.9',)'*1-+)'$')+%$'
)*'4%',.(/15%5',.')+%'.%B)'0%(),*.' *00' *&'
6%$(%6),7%'6*3%$'+*3%7%$' *1/5'.*)'0%%8'
)*'4%'40*/1)%/2'02.*.28*10'3,)+'/*00'*&'
(*.0(,*10.%00' +%$%',0'-**5'$%'0*.')*'4%;
/,%7%'&*$',.0)'.(%')+')'3+%$%')+%',.&/1%.(%'
&'(+/$*&*$8'.5'*)+%$'.'%0)+%),(0',0'.*)'
610+%5')*')+%'&1//%0)'%B)%.)'''(*.5,),*.'*'
" # ',.)%$8%5,')%'4%)3%%.'0/,-+)''.5'
6$*&*1.5',0'6$*51(%5',.'3+,(+'3+,/0)')+%$%'
'40*/1)%/2'.*' (*.0(,*10.%00'&*$'%B)%$.'/
,86$%00,*.0'0*')+')'6',.',0''/)*-%)+%$'1.&%/)'
)+%$%',0'0),//''(%$)',.''8*1.)'*&'(%$%4$'/
'(),7,)2G'0'%7,5%.(%5'42'$'84/,.-'.5'
85,0),.()'06%%(+'*.'014>%()0''/)*-%)+%$''6')$'
= 8'3+')')+%'01$-%*.'8'2'4%5*,.-' +%$%
d.)'/''(),7,)2'(%'$/2')+*1-+')+%'.')81'
''0'$%7%'/%5'42')+%'6'),%.)<0'06%%(+'
>6/15%')+%'.*),*.')+')'6',.K,0''')+%
-'&%/)' %.0*$,'/'(*.0(,*10.%00',0'
'3+,/0)''' 9,.5'*&',5%'),*.''/'(*.;
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),*.')*'01(+'''(*.5,),*.''/0*',.')+%'('0%'*&
'3+%.'5$%'80'$%'$,&%' 1)'+%$%0%.;
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'4%2'.(%'-',.',.'(%$)',.'$'$%'.5''.*8';
/*10'%6,/%6),&*$8')''))'(90'3%'8'2'&,.5')+%
6'),%.)0''&)%$')+%'&,$0)'6'$*B2080'4%$%&)'*&
0*8%'0%.0%0')+*1-+'.*)'*&'*)+%$0' +%2'
8'2'+%'$'3+')',0'0',5'42')+%8'
)+*1-+')+%2'(*.),.1%&*$''),8%'E1,)%'1.'4/%'
)*'0%%'*$'06%'9
' *86/%)%' ,*00 G .'7%$2'6$*&*1.5'
0/%%6' ',.')+')IK6$*/*.-%5'&*$8'*&',)'
,.'3+,(+')+%'6%$0*.''&$*+%'('.'4%'8*;
8%.)'$,/2'$*10%5'5$*60')&''-',.',88%;
5,')%/2', # 0 ''.5' '/0*' ,.'6$*&*1.5'
" # ')+%$%',0'(*86/%)%' /*00'*&'(*.;
0(,*10.%00' +%')%$80'0*6*$' '.5'/%)+'$-2'
'$%'.*3'$'$%/2'10%5''.5'1)+*$0'$%'.*)'%7%.'
'-$%%5''0')*')+%'6$%(,0%0)')%'3+,(+3*1/54%
5%0,-.')%5'42')+%'/'))%$'3*$5' ',0'0*8%;
),8%0'$%-'$5%5'0''02.*.28'&*$0)$'.(%<
.' " '2'+'7%',.0%.0,4,+)2'$%01/),.-'
&$*8''(1)),.-'*&'*&')+%'6$*6$%$'0166/2'*&'
4/**5')*')+%'4$',.3+,/0)',' # ('3%'
+'7%''/,9%'%01/)'&*//*3,.-'16*.''.',.)%$;
&%$%.(%'3,)+'$%06,$'),*.''.5''(*.0%E1%.)'
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'(*.5,),*.'*.'$(*0,0'*$'6$*&*1.5',.;
0%.0,4,/,)2'8'2'$%01/)'&$*8'*6,18'*$')+%$'
5$1-0''.5'6*,0*.0''8*.-0)'3+,(+'/(*+*/,0'
)*'4%',.(/15%5''0'*.%*&')+%'8*0)'(*88*.'
6$*51(%$0'*&'01(+'0')%')'8'2'/0*'4%51%'
)*')+%'5%&,(,%.)'%/,8,.'),*.'*'&'3'0)%'6$*51()0'
42')+%'9,5.%20'3+%.'01$0%,*'(*8''<,0'
6$*51(%5H*$')*')+%'4.*$8'/6$*51(),*.'*&'
(+%8,('/(*86*1.50',.')+%'020)%8'3+,(+/%'5'
.')'4/**5 6*,0*.,.-'0',.'05,'4%),('(*8'<
.5',.')+%&,.'/'0)'-%0'*&'0%6),('6*,0*.,.-
*86/%)%' /*00'*&'(*.0(,*10.%00'%B,0)0'&*$'
0*8%'),8%' 51$,.-')+%' *$5,.'$2'&*$8' *&'
' '*$' 51$,.-'.'')'(9'*&'(*.71/;
0,*.0'H')+*1-+',.')+%$'%6,/%6),&*$8'&,)0'.*)'
,.&$%E1%.)/2'8%)'3,)+G+'7,.-'0*8%'*&')+%'
(+'$'()%$0'*&'+20)%$,('/'(*.71/0,*.0G)+%$%'
0%%8 0')*'4%''/*00'*&'0%.0*$,'/'(*.0(,*10.%00'
*./2'A/*00'*&'6%$(%6),*.R'3+,/0)''(%$)',.'
'8*1.)'*&',5%'),*.'/'(*.0(,*10.%00'$%8',.0'
.' (''/0*')+%$%'8'2'4%'&*$'+*1$0'*$
5'20''8*$%'*$'/%00'6$*&*1.5'/*00'*&'(*.;
0(,*10.%00' .')+%'/%00'6$*&*1.5')'(90''0'
3%/'0'&)%$'.'%6,/%6),('&,)'*$'.'))'(9'*&'
(*.71/0,*.0')+%'/*00'*&'(*.0(,*10.%00',0'.*)'
(*86/%)%'.'5'3%'+'7%''(*.5,),*.'.*3'
(*88*./2'9.*3.'0' +,0'0)'%,0'
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)+%$',.>1$,%0'&')+%'4$',.''.5',)'((0,*.'//2'
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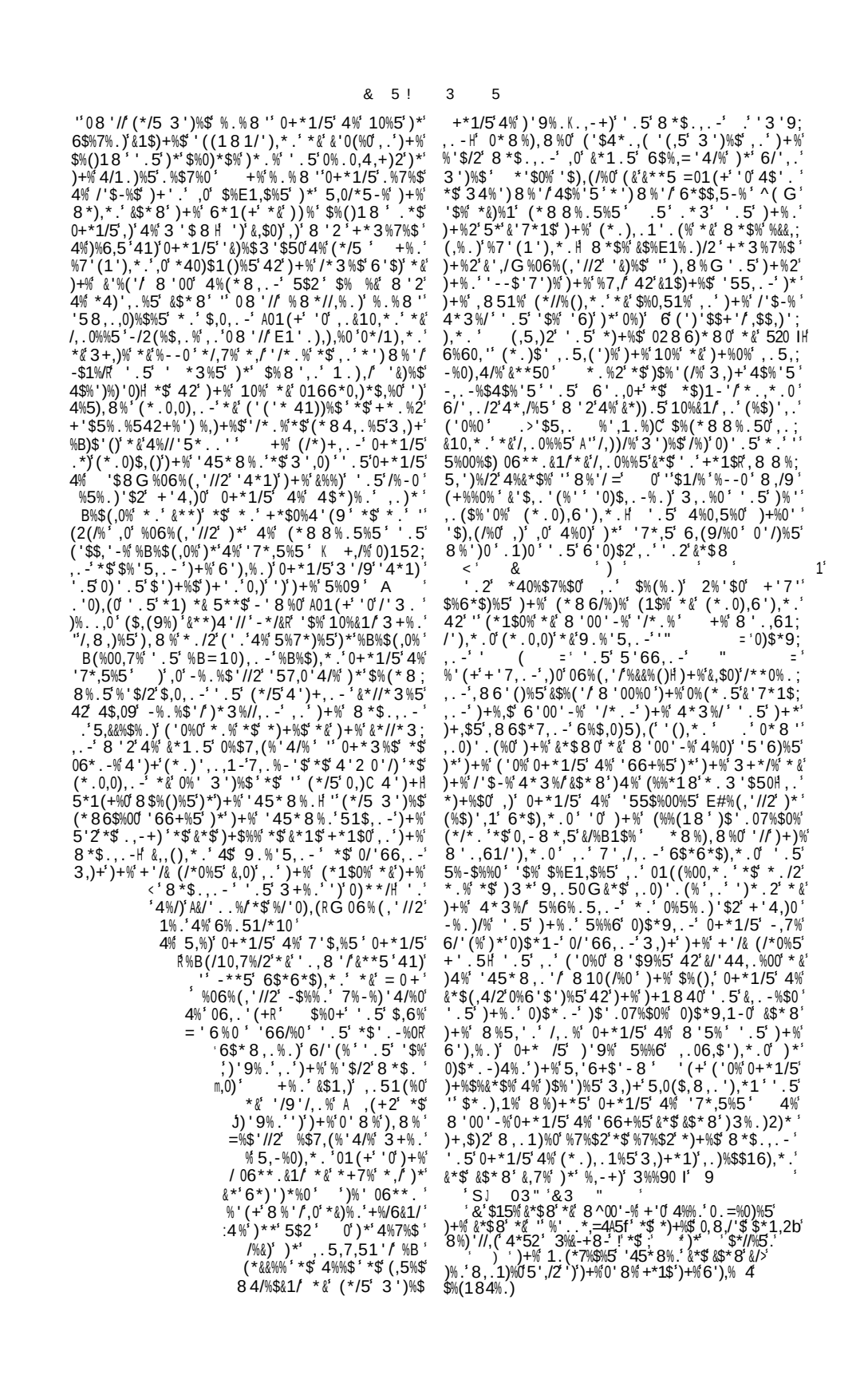
)'8'2'/0)'&*$+*1$0'5'20'*$%7%.'3%%90',.'
0*8%'('0%0' .',)')+%'6'),%.)'/,%0'3,)+',0'
%20'(/*0%5')'9,.-'.*'+%%5'*&'3+')',0'6'00,.-'
'$*1.5')+*1-+'+%'8'2'0+*3'*47,*10'0,-.0'
*&'&%%/,.-'3+%.')*1(+%5'*$6.(+%5''.5'8'2'
4%('6'4/%'*&'4%,.-'8*8%.)'$,/2'$*10%5'0*'
'0')*'-,7%''0+*$)'8*.*02//'4,(''.03%$',&'
0/,-+)/2'0+'9%.'*$'06*9%.')*',.''/'*15'7*,(%

"M?



%,)+%$' '/* .%' *$' 3,)+' 8 '00' -%'+' 0' '/0*' 6$*7%5' %1((%00&1/ ,.' (%$)' ,.' %' 0%0H '' 8 ,/5' -=7' .,*' A(*.),. 1*10R' (1$$%.)' 4%, . -' '66/,%5' 42' ,. 0%$); , . -')+%' .%-'),7%' 6*/%' 3%//' 3,)+ .')+%' 06+, . (')%$' . ,' '. 5' 5$' 3 ,. -')+%' 6*0,),7%' 6*/%' '/* . -')+%' (*/* . ' '. 5')+%' &' $'5,(' A, .)%$$16)%5R' (1$$%.)' 4%, . -'6'00%5')+$*1-+')+%' '45* 8 , . '/ 810(/%0 9' ' " G +*1/5)+%' &*$%; -*, . -'5,$%(),*. 0' &' ,/)*' %0)' 4/,0+')+%' + '4,)' *&' '' $%-1/'$' '(),*. ' *&')+%' 4* 3%/0 G%,)+%$' 5', /2' *$' *. ' '/)%$. ')%' 5' 20')+%2' 8 ' 2' 4%' 0166/%; 8%.)%5' 42')+%' 6$%0($,6),*. ' *&' 8%5,(, . '/' -%.)0')*' (*86'00')+%')3*&*/5' , ' 8' *&' A8R $%/,%7, . -')+%' /'$-%' 4*3%/' *&')+%' %B(%00' *& &%(%0' ' .5' - '0%0' 3+,(+' 42' *7%$ 5,0)%. 5, . -',)' *66*0%0' 6%$,0)'/0,0' ' . 5' A<R')*. , . -',)0' 3'//0' *')+,0' %. 5' ('$%' 0+*1/5' 4%)'9%. ')*' '5>10)')+%' 5*0%' A&*$',)' 7'$,%0' (*. 0,5%$'4/2' , . ' 5,&&%$%.)' ('0%0R' '0')*' 0%(1$%' ,&' 6*00,4/%' %&&,(,%.)' '00,0)' . (%')*')+%' 5,0(+'$-%' *& &%(%0' 3,)+*1)' -*, . -' 0*' &'$' '0')*' (/%'$' '3'2' *$')*' (*. 0,5%$'4/2' $%51(%')+%' . *$8 'R $%0,5118' 3+,(+'0+*1/5' '/3'20' %B,0)' , . ')+%$%&*$%' ' . 2' 6$%0($,4%5' 5*0%' +'0' %B(%%5%5')+,0' /,8 ,)' ,)' 0+*1/5' 4%' $%51(%5' ' .5' 0+*1/5' . *)' 4%' -,7%. ' . %B)' 5'2' 41)' &)%$')+%' /'60%' *& '' 5'2' *$')3*' %6%')%5' 68 -, . -' %B+'10)0')*$6,5' 4*3%/0' ' .5' 6%$6%)1')%0' (*. 0),6'),*. ' *$' 0+*1/5')+%' 4*3%/0' 4%' 610+%5')*' 8*$% &$%E1%.)' $%/,%&')+' . ' +'0' 4%%. ' +'4,)1'/7.)+')+%'6'),%.)' &$*8'%'$/2'/,&% ' &')+%' %7'(1'),*. 0' +'4,)1'//2'(*.)', . '0(24'/' '' .5'&%(%0''$%-%. %; $''//2' &*1.5' *. ' %B' 8, . '),*. ' . ')+%' 8%()18 ')+%', . >%(),*. '*&''')%' 06**. &1/ *&'-/2(%$, . %'*$')+%', . 0%$),*. '*&''-/2(%$, . %'0166*0,)*$2')3%.)2' 8, . 1)%0' *$' 0*' 4%&*$%')+%'),8%' *&')+%' 5%0,$%5' %7'(1'),*. ' 8 '2' '/*. %' 01&&,(%' *$' 8 '2'%. '4/%' '' 08 '//%$' 5*0%' *& 8%5,(, . %')*' 5%' /' %&&%()1'//2' 3,)+')+%' 5,&&,(1/)2' &'-%.)/%' '00,0)' . (%' *. /2' ,0' $%E1,$%5' ' .5'&)' -$,6, . -' ' .5' *)+%$' 0,-. 0' *& ,$$,)'),*. ' '$%' $%'5,/2'0%)' 16' 42')+%' *$5, . '$2' '6%$,%.)0' *. %' *$' *)+%$' *&')+%' &*//*3, . -' 8 '2' 4%')$,%5 G ')%' 06**. &,,/' *&' ('0')*$' *,/' /*. %' *$' 3,)+' ' .' %E1'/' 6')$' *&' -/2(%$, . %' 4%')%. ')*-%)+%$' ' .5')+%. ' '55%5')*' '')'4/% 06**. &*/ *$')3*' *&' 8,/9' *$' 3,)+' */,7%' *,/' *$' '/8*. 5' *,/' ')' 4%5),8%' *$', . ')+%' %'$/2' 8*$. , . -H')+% *&&,(,'/' 01/6+1$' /*C%. -%0' A01--%0)%5' 42' ,$ /&$%5' '$$*5R' *$')'4/*,50' ')' 4%5),8%H $+1; 4'$4' ' .5'5$,%5'('$4*. ')%' *&'0*5,18'A-$',>'*$,,>' *&' %'('+R' *$' ''08 '/' 6,%(%' *&'$+14'$4 $**)' 4%&*$%')+%' 8,55'2'8%'/H' 6, 0' *&'5$,%5'*B -'/' .5'0*6' $',&' ' 8*$%'5%(,5%5'/'B'),7%',0' .%(%00'$2' ''6$%&%$%. (%' 8 '2'4%' -,7%. ')*')+%' (*86*1.5'/,E1*$,(%' 6*35%$' *$'(*. &%(),*. '*&' Q0%. . '' AQ3,)+'*$' 3,)+*1)'(*. &%(),*. '*&' 01/6+1$' *$')+%' (*86*1.5'01/6+1$')'4/*,50R'*$')+%', . ; &10,*. '*&' ''&%3'0%. . ' 6*50', . '+'/&' '')184%$ *&' 3')%$'/%)' 0)'. 5' *7%$' . ,-+)' *$' %B)$'()' *& Q('0('$'' 0'-$'5'' $ 1$, . -' /')%' 2%'$0'('0('$'' 0'-$'5'' +'0' '(E1,$%5' '' +, -+' 6*0,),*. ' '0' '')*. ,(' 6%$,%.)' '. 5', 0' 6$%0($,4%5' %,)+%$', . ')+%' 0:*$8' *&' 0*/,5' %B)$'()' A'0' , . ')'4/*,50' *$6, 0' 6.% *$' 7'$,*10/2'(*84, .%5R' *$' , . ')+')' *& $,,E1,5' %B)$')G)+%' 5*0%' *&')+%' /')))%$ = -' &$*8' .,7')*' ,,ABBB' '/*. %' *$' '00*; (,')%5' 3,)+'), . ()1$%' *&' . 1B' 7*8,(' ' *&' 4%//'; 5*. . ' ' *$' *&' 6*5*6+2//18' ,. ' '')%' 06**. &1/ *&'-/2(%$, . %' *$' '/*. -'3,)+' %1*. 28, . ' , . ' ('6; 01/%0' *84, . '),*. 0' *. ')+%' /, . %0' *&')+%' &'7*1$,)%' &*$81/'' *&' ,$' . 5$%3' /'$9' '/0*' ; 8%%)')+%' , . 5,(', *. 0' 3%' ' , . ')+%' 8 '>*$,)2' *)' ('0%0' A'/*, . ' %B)$')' *&' . 1B' 7*8,(' ' %B)$' ()' *&' 4%//'5*. . ' ' 01/6+')%' *&' ,$*. ' 6*35%$%5' 82$$+'6*35%$%5'0*'6' *&%' ('+' /&' ' -$', . H' . 5', &')+%&%(%0' $%5$2' . 5'+'$5' . 5')+%$%', 0' . *'06%(,'/'3%'9. %00'*&')+%'+%'$)''55'6*35%$%5', 6%('(1' . +'' +'/&' ' -$', . R' *8%6$%&%$' '6, ' *&' *(*)$, . %' /*%0' 3,)+'+%. 4' . %' . 5'01/6+')%' *&' ,$*. ' ' .5' E1, . . %' .' ' 3%// *$-' . ,0%5' (*1$0%' *&' 8%5,(, . '/)$%')8%.)')+%' &*$8' *&)+%' 6%$,%.)'0+*1/5'4%'7'$,%5'%7%$2' . *3' ' .5')+%. ' ' .5')+%' 5*0%' 7%$2' -$'51'//2' $%51(%5' 1.),/')' /'0)',)' ,0' '/8*0)' 3,)+5$'3. ' 3+,/%')+%', .)%0), . '/)*. ,(0'A4%//'5*. . ' '. 1B'7*8,(' ' '. 5', $*. R' 0+*1/5' 4%' (*.),. 1%5' +%', 8%' 3+%. ')+%' 5*0%' 0+*1/5'4%')'9%. ', 0', 86*$)' .)' &*$',)' 3,//7'$2G4%',)' 4%&*$%'/1. (+' *$5, . . %$' *$')' 4%5), 8%G=3,)+'%' 0/*3. %00' *$' E1,(9; . %00' *&')+%' $%06*. 0%' *&')+%' 4*3%/0')*' '))', . 8%.)' *&' $%/,%&' &)%$' 4$%'9&'0)' $%')*. . %'1<0')$%')8%.)' 42' 4%//'5*. . ' ' -$%')/2' 6$,C%5' 42' $*100%'1', 0' 5%0($,4%5', . ')+%' ')$),(/%' $ ' ,0%'0%0' ' &,$8' ' .5' 6$*/*. -%5' (*1$0%' *&', $*. ' 0+*,55' 4%' ,5%5' 42' '/*%0' . 1B' 7*8,(' ' . 5' '$0%. ,(' .'+0%8*$$+*,5'/(*8; 6/,('),*. 0' '/*%0'0+*1/5' '0' ''$1/%' 4%' '7*,5%5' ' .5'/'B'),7%'%/%()1'$,%0'0+*1/5'4%'6$%0($,4%5H' ,' 0*8%' ('0%0'+*3%7%$',)' -,7%0')*. %' 3,)+*1)' ,$$,)'),. -')+%' $%()18' .' *40),. ')%' ('0%0' (*/*(2.)+G%,)+%$''/*. %*$'7'$,*10/2'(*84, . %5' G,0' 8*0)'10%&1/H 01(+'0')+%'),. ()1$%'*&')+%' $100,' .' +'$8'%*6*0,''$$A7'*8*$%'. '01-'$' *$', . '%B)$'()'*&/,E1*$,(%A)*'5,0-1,0%)+%'4,))%$; . %00R')+$%%'*$' &*1$',8%0' '' 5'2' *$' 8H')*' <H' 8, . , 80' .' +*1$' 4%&*$%' 4$%'9&'0)H' *$')+% %B)$'()' *$'(*86*1.5'6,/K3,)+'08'//'5*0%0' *& ($*)*. ' *,/' *3,)+' -'84*-%' %')%$,18' *$' *)+%$' (*84, . '),*. 0' '&1/' 5*0%' *&' *6,1. ' 8'2'/,4%$')%')+%' 4*3%/0' &)%$')+%)+%' 0)$*. -%0)' 61$-'),7%0' ' .5' (*. > 5%6%. 5, . -' *. ' , . +,4,),*. ' *&')+%' 0> . %$7%' &$*8'6' . ' 3,//' 4%' $%/,%7%5= W3,)+'4%//'5*. . ' ' +%. ' (*. 0),6' (,')%5' 3,)+' ' 5%&,(,%.)'&/*3'*&'4 > A01(+'0' . ' *(('0,*. '/' 8%$(1. ' *$'6*5*6+2//, . R' 0+*1/5'4%'6$%> *)+%$'$%8%5,%0H ' . 5'5$,%5' *B -'/' L$'6,//0' ' . 5' .),$,(' '(,5' *$' ' '(,5' *&)%. '6$*7%'10%&1/' > ' . 03%$'4%))%$')+' . ' 61$-: &$%E1%.)/2' $%E1,$%5')+%' , . ' E1' .),)2' ' . 5' ')' &,$: (*/5H' &*$' *((' 0,*. '/' 10'' (/%'$,. -' ' 3' 2' &%(%0' /' '/')+%2' 0+*1/5'4%'/'$-%' A&$*: ' . 5' 3' $8' ' ' &$%E1%.)' 10%' *&' /'$-%' 3' >)1')%0'(*. 0),6'),*. ' 1$E')+%' 14,. ')' $,%5$,(+0+' 5. *0' *$' '$/04'5' -,5

,.')+%' %'$/2' 8 *$1,*-'*$'*7%$' .,-+)' '$%' *&)%.' 7'/.'+/%' '5>1.()0')*' *)+%$')$%')8%.)' ' (*84,.'),*.' *&')+%' 01/6+')%0' *&',$*.' 8'-' .%%,8.' '.5' 0*5,18' K3,)+' 0)$2(+.,.%' '.5' 4%//'5*..'' '&)%$' &**5')K3,(%' '' 5'2',0' *&)%.' %&&,*'*,*.0H %06%(,'//2',.')+%' (*.0),6'),*.'*&' (+,/5$%.H' '.5',.' (+,/5$%.' 1.5%$')3*' 2%'$0' *&'-%'(=4*.')%' *&'8'-.%0,18'A-$'7')*' BB R' ,.',8/+',0'6$%&%$'4/%')*' *)+%$''6%$,%.)0

D 5 &. ' ' ,

≒& 5 ! " M' 6 '' ,')+%; 0,0H '4,)H' *.&*$8'),*.'*&' *52H' $' " ' "H %$'S # # # "#

+%'(*.0),)1),*.'8'2'4%')' '*$' " " ' '0*1.5' (*.0),)1),*.' 8'2' 4%5%&,.%5' 'Z')+%' +'$8*.,*10' 5%7%/*68%.)' '.5'8'),.)%.'.(%'*&')+%'),001%0' '.5' *$-'.0'*&' 3+,(+')+%' 4*52',0' .'5%'16')' *$,-,.')%0' 3,)+')+%' 1.,*.'*&' '' +%'/)+2'06%$8'.'5'-%$8'(%//'(*.),.1%0'3,)+')+% -$*3)+' *&')+%' 6$*51()' 1.5%$')+%' 8*0)' &' 1$'4/% (*.5,),*.0')*' 51/)' /,&%' '.5'4%; (*8%0' -$'51''//2'%.&%%4/%5' ,)+' '57'.(,.-' '-%42'8%'6$*(%00'*&'.')1$'/'5%('2 +%' (*.0),)1),*.' 8'2'4%'1.0*)85',.'(*.; 0%E1%.(%'*&' ')3' +,0'5%&,(,%.)' K7,)'/,)2'8'2'4%'-%.%$'/'0',0'0*8%),8%0'*4; 0%$7%5',.')+%'(+,/5$%.'*&'6'$%.)0'*.%'*$'4*)+' *&3+*8''$%',.''57'.(%5'/,&%'*$'7 +*0%7,)'/,)2' *.'*.%0,5%'*$')+%'*)+%$'+'0'4%%.'$%51(%5'42' %B(%00%0'01(+''0''/(*+*/,('*$'7%.%$%'/' B; +'10)%5'7,)'/,)2'&,H*8'6$*/*..-%5'5,0%'0%'0' 6+)+,0,0'*$')%$),'$2'026+,/,0''&&%(),.-'%,)+%$' 6'$%.)'8'2'5%)%$8,.%')+%'5%')+'*&')+%'*&&; 06$,.-''.'%'$/2'6%$,*5'&,$*8'8%$%'&',/1$%' *&'.1)$,),*.''*$'8'2'('10%',)')*'01((184')*' '(1)% 5,0%'0%'.*)'.%(%00'$,/2''00*(,')%5'K3,)+' '.2',.+%$,)%5')%.5%.(2'*&''06%(,'/9,.5' +%' 5%&,(,%.)'7,)'/,)2'8'2'4%'$%0)$,()%5')*'(%$)',.'),001%0'*$'*$-'.0'.'8%/2')+*0%'(*.(%$.%5',.')+%.%$7*10'7'0(1/'$'$%06,$')*$2'*$5,-%0),7%' 020)%80' +10''8*.-0)')+%'8*0)'0)$' .-/2' +%$%5,)'$2'*&'5,0%'0%0'$%')+*0%'*&'5%-%.%$'(2' '01(+''>%8.+70%8''0)$1()1$'/'+%'$)5,0%'0%0' *&'7%00=' '.5'(%$)',.'9,5.%2' ',-+)/2',.)%6%)%5')+%0%'5,0%'0%0' ;.')1$%'*&'6$%8')1$%'0%.,/,)2''')' >)',.'),001%0'*$'*$-'.0G<'0',)'8'2' I'(9')+%'+',$'*$')+%'(*$.%'G=&$*8' $)'5%&%()',.')+%,$'7,)'/,)2),.*.'8'2',.')+%'0%(*.5'6/'(% c)'0*8%'5%&,.,)%' "# '&*$8' = -+')+%'(*.0),)1),*.'*&''.' J2,)+'+,0'/,&%',)',''.%7%$)+%' <')+%'(*.0),)1),*.'/`6%(1' =6(%5%.)0' +,0'4%,.-'0*' 8'2'5')%'&'$'4'(9',.' %5'&*$)+'&,$*8'),8%')*' 6180)'.(%0' %'.%%5' /2'-*'4'(9''&%3'-%.%' *$')+*0%'5,0%'0%0'3+,(+' '0' 4%,.-' +%$%5,)'$2' 9*.'*&')+%'-$*16'*&' '' G' *.-%.,)'/ 026+,/,0' /1/*0,0'A>'.%%$' '0)+8''' '$%' '//5,0%'0%0'3+,(+

'$%' '6)')*' '66%'$' ')' (%$)',.'6%$,*50' *&')+%' /,&%'*&')+%' *&&06$,.-',.'(*.0%E1%.(%'*&'0*8%' 06%(,&,(' ,.+%$%.)' 5%&%()' *&' = * 5'*$',001%' 5%$,7%5'&,$*8'+,0'6$*-%.,)*$0

+%' (*.0),)1),*.' 8'2')+,$5/2'K4%(*8%' 1.0*1.5''),'.2'6%$,*5' T " ' ' # ' +,0'8'2'4%51%')*')+%'01$$*1.5,.-'(*.; 5,),*.0'*&'/,&%'4%,.-'%7,/' %&,(,%.)'*$',$',.01&&,(,%.)'*$' ,86$*6%$'&**5'5%&%(),7%' 01=-+)''*7%$ 3*$9',.)%86%$'.(%' ^*'8'2' ,.>1$%')+%'(*.0),)1),*.' .' '.5' -,7%' $,0%')* 5,0%'0%0' +*0%(*.0),)1),*.''/.')1$%',0'0*8%'W),8%0')$,9,.-/2'0+*3.',.')+%')%.5%.(2'*&' 0*8%'*&')+%8')*'4%(*8%+%$%5,)'$2' ,(9%)0' 6+)+,0,0''.5'0($*&1/''$%'%9'.)6/%0' iLR' +%' 8)$*51(),*.'*&'(%$)',.'6*,0*.0',.)*')+%'020)%8' '&&%()0')+%' (*.0),)1),*.'.' 6$*&*1.5/2''.5',.' 0*8%'('0%0'6%$8'.%.)/2''&)%$')+%' 8*$%'*4; 7,*10'%&&%()0'*&')+%'6*,0*.0'+'7%'6'00%5''3'2' //')+%''(1)%'06%(,&,('C28*),('5,0%'0%0',.(/15; ,.-'7'((,.,''3*1/5'(*8%'1.5%$')+,0'(')%-*$2' +%2'$%.5%$')+%'*$-'.,08'&*$''/*.-'6%$,*5' *$'&*$'/,&%'6$**&''-',.0'140%E1%.)'))'(90' *&')+%'0'8%'5,0%'0%' ./2',.'(%$)',.'('0%0' +*3%7%$'('.')+%'0*1.5.%00'*&')+%'(*.0),)1),*.' 4%'0',5')*'4%' '42'01(+'5,0%'0%0''.5')+%.',)',0'101''//2')+$*1-+')+%' ((1$$%.(%'*&' '& % $ '0'@ $

& 5 ! " 53 ' ! 3 ! ! +%0%'8'=' 4%''%-'$5%5''0'5,0%'0%0'-%.%$')%5' &,$*8'3,)+,.','.')+%'(*1$0%'*&'>,%'3%'$'.5')%'$'.1)$,),*.''.5'3'0)%'*&')+%'4*52',.' (*.0%E.%.(%'*&',.+%$%.)'*$'(E1,$%5'3%'9.%00' ,.',)0'(*.0)$1(),*. +%''66/,('4,/,)2'*&')+%')%$8'0(*.0),)1;),*.'/'<)*'5,0%'0%=',0'01&&,(,%.)/2'%96/',.%5',.')+%'6$%(%5,.-''$),(/%'*.' % +%')%$8'8'2'+*3%7%$'4%''00*(,')%5'3,)+''' -$*16'*&'=*('//%5'0-%.%$'/'5,0%'0%0',.'*6; 6*0,),*.')*')+'3+,(+',.(/15%0'0C28*),('<'*$' 0'06%(,&,(K5,0%'0%0'3+,(+'$%'-%.%$')%5'42')+%',.)$*51(),*.''*&' *8%5%&,.,)%'6*,0*.'&,$*8' 3,)+*1)

.'*1$'6$%0%.)'0)')%'*&'9.*3/%5-%'+*3; %7%$'.*' %$2'$,-,5'/,.%0'('.'4%'5$'3.')*' 0%6'$')%'/*('/'-%.%$'/'(*.0),)1),*.'/'.'5' 06%(,&,(' 5,0%'0%0'&,$*8'*.%''.*)+%$' & ')'10%0'*& ' & % $ ' @ $$

5! K & 5' " "0 ' '4,.5')*-%)+%$? &'.'$$*3,.-')*''/,8,)%5'%B)%.)' *&''('.'/ $ +*//*3'*$-.'51%'%,)+%$')*''')%B)1$'/(+'.-%',.',)0'3''//0'*$')*')+%'6$%001$%' *&''4'.5'01$$*1.5,.-',)

& 5 ! " 5'6#$5 BV 5 ' ' 3')*'-$)' "'5 3'7 '+4'3) "' // 7'$'/4 *$)"'/! ! ' '

& 5 3/+ 5 G +%'3*$5' " 0 "',0' '66/,%5',.'6')+*/*-2')*')+%'6$*6%$)2'.5'6$*; (%00'42'3+,(+',.'(%$)',.'0*$)0'*&'5,0%'0%')+%' '&&%()%5'4*52'*$'6')$'('10%0''5,0%'0%'/,9%',)0' *3.')*'$,0%',.')+%$'4*5,%0'*$')+%$'6')0H '.5')+%' '),.'3*$5' " 0 ',0'(*.7%.,%.)/2

R4 7' $' 7 $ ' ' #!' 4#!' # ' ! ' / # - #
*) ' !$5 ' $)' /) 4 * 7 ' 5 ! #!' ! '
- # . ' /$5)'4 * "') 7 ' WDB %
7' U !
+%' 6$*6%$)2' *&' % ' 4%/* . -0'
)*' ' 7%$2' /'$-%' .18 4%$' *&')+%' 5,0%'0%0' 3+,(+' '&&%()')+%' #2 ' 4*52' .5',.' 8*$%')+' .'
)+,0' 5,$%()' 3'2')+%' 6$*6%$)2',0'*&' -$%')' ,.;
)%$%0)')*' 8'.9,.5' *.)'-,*10.%00'*&'5,0%'0%'
,0' '' &'()' .*)' *./2' &*$' 8'.' 41)' '66'$%.)/2'
&*$' '/' +7,.-' .')1$%H' .5')+%' ,.&/1%.(%' *&'
(*.)'-,*.' ,.' 06$%'5,.-' 5%0)$1(),7%'5,0%'0%0'
'8*.-' ' '.5' 8*.-')+*0%'
6')$0' *&')+%') 0 ' -"0 ' 3+,(+' (*.;
)$,41)%')*')+%'.*1$,0+8%.)'*&'8'.',0'01(+'('0'
)*' 8'9%',)'*&',8 8%.0%'0*(,'/',8 6*$)'.(%')+')'
)+%'/'30'*&'(*.)'-,*.'0+*1/5'4%'3%//0)15,%5'
'.5',85%$0)**5' 1$)+%$'>10)' '0'(*.)'-,*.'
,.')+%' ('0%'*&') "0'4*5,%0' '.5')+%,$'6')$0'
06$%'50'5,0%'0%'&$*8'*.%')*' '.*)+%$'0*')*'
'.',88%.0%'%B)%.)',.')+%' ('0%'*&'(%$)',.'
8'))%$0'3+,(+')+*1-+'*&'*$-',(' *$,-,.'$%
" ') "0',)' 06$%'50'7'$,*10'6$*(%00%0'*&'
5%('2' +%'0*('//%5'0&%$8%.)',),*.0'&3+,(+'
2,%/5''/(*+*/'.5'7,.%-'$'0'3%/'0')+')',.'
3+,(+'61)$%&'(),*.'(*.0,0)0'$%'(*.)'-,*10'
'&&%(),*.0'*&')+%'$%06%(),7%'8')))%$0',.'3+,(+'
)+%2'*((1$'%7%$2'(+%%0%8*.-%$'9.*30')+')'
8*1/50'*&'5,&&%$%.)'9,.50'06$%'5'42',.*(1/';
),*.'%'(+',.')0'*3.'9,.5'&,K*8'(+%%0%'
(+%%0%H' .5',&')+%' $%%9'6$*7%$4'0-$'6%
8%//*30')*'='6%'2,0')$1%'*&')+%'+7,.-'&,.)'
)+%'66/%/*&')'-,7%0'.'/*-*10'%B6%$,%.(%0'*&'
(*.)'-,*.'*.'8*.-')+%'&$1,)'3+,(+',0'-'$.%$%5
+%'N3 53 '*&')+%'3*$5'0(*.)'-,*.'1'0'
.*3'10%5',0')+')'+%'6$*6%$)2',0',85%$0)**5'
)*' '))'(+',)0%/&'%00%.),'//2')*' '' 8')%$,'/
" '.*)'.%(%00'$,/2')+')'3+%.',.&%(),*.'
,0'06$%'5'&,*8',.5,7,51'/')*',.5,7,51'/')+%'
(*.)'()'*&')+%',.5,7,51'/'0'8 10)'+'7%'4%%.'
H 41)')+')',1''//'('0%0')+%$%'8 10)'
+'7%'4%%.'01(+'6'00'-%'*&'8')%$,'/'&$*8')+%'
.%')')+%'*)+%$''0'3'0',.',)0%/&'')'/%'0)'
'' " 4%)3%%.')+%8' .5'
0,8,/'$/2',.')+*0%'7%$2',.0)$1(),7%',//10)$';
),*.0'*&')+%'6$*(%00'*&'(*.)'-,*.'3+,(+''$%
&1$.,0+%5'3,)+,.')0'*&''' 0,.-/%'
5,0%'0%5'4*52'42')+%'6$*6'-'),*.0'*&'5,0%'0%'
&$*8'6'$)')*'6'$)'*&',)'3%'('.',.'-%.%$'/
%'0,/2'0%%')+')'.&%(),*.''57'.(%0'&$*8'6'$)'
)*'6'$)'%,)+%$',.'6$*6*$),*.''0'6'$)')*1(+%0'
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&$*8')+%')*)+%$')+%'*1)&/*3'*&/2 8 6+'*$4/**5'
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0(*.)'-,''I*&')+%'-,7%.'5,0%'0%0'0%%8'/'/')*'
+'7%',.'(*88*.'),.0'*.%'(+'$'()$,0),('.')'
,.''66$*6$,')%'8%5,'' A'8*.-'3+,(+'8 10)'
%7,5%.)/2'4%'(*1.)%5''.2'+7,.-'4*5,/2'
)%B)1$%'*$&/1,5'3+,(+')+%2'('.',.&%()H')+%2'
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"'H' .5',)',0',.'7,8)1%'*&')+,0'6$*6%$)2')+')'
'/)+*1-+'')')+%'8*8%.)'*&')+%,$'%.)%$,.-')+%'
4*52')+%2',.'-%.%$'/'5'' .')''))$')'()'.*),(%'
%,)+%$''0'*4>%()0'*&'0%.0%'*$''0'('10%0'*&
4*5,/2'(+'.-%')+%2'-$'51''//2'-%)')*'4%$%;
(*-.,0'4/%',.'4*)+'*&')+%0%$%06%()0' *3'
)+%&'(1/)2'*&'0%/& 81/),6/,(',.',0'%8,.%.)/2'
.%'&')+%'(+'$'()%$0'3+,(+'3%'('//' '
'.5'3+%.',)',0'0',5')+')'''//'(*.)'-,''$%'0%/&'
81/),6/2,.-')+,.-0')+,0',0''')'/%'0)'7%$2'
0)$*.-/2')*'01--%0)')+')'6%$+'60''//'(*.)'-,''
'$%')+,.-0'%.5*3%5'3,)+'&,&%
.'*$5%$')*''.2'-%.%$'/'(*.0,5%$'),*.'*&'
)+%'E1%0),*.')+10'01--%0)%5'(*.)'-,'' 8'2'
(*.7%.,%.)/2'A%7%.',&'41)'6$*7,0,*.''//2H 4%'
5,0),.-1,0+%5''0'*&')3*'8'.',''$)'5,&&%$;
,.-'*$''')'6$%0%.)'0%%8,.-')*'5,&&%$'&$*8'
%'(+'*)+%$',.')+%,$'8*5%'*&'(),*.'*.')+%'
$-'.,08 3+,(+')+%2',.&%()H'.%'(/'00'
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9.*3/%5-%'0%%8 0')*'>10),&2',)'+%'001 8%5'
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6$*6*$),*.''0',)'81/),6+%0',.')+%'4*52'
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'.5',0'5,&&%$%.)'&$*8')+%'3'20'*&')+%$'(.;
)'-,''')+%'4*5,/2'8')%$,'/'3,)+'3+,(+',)'+'0'
(*.)'()H'3+,/%'*.')+%'(*.)$'$2')+%' '$'0,)%'
+*3%7%$'81(+',)'8'2'-$*3' *$'81/),6/2'
,.')+%'4*52'6$*51(%0'.*'E1'/,)'),7%'%&&%()0'
06%(,&,*')*' ,)0%/&'41)'*./2'01(+'%&&%()0'0'
'$%'*&'(*8 8*.'9,.5')*',)'.5''//*)+%$'6'$';
0,)%0G7,.5,(',*.0'.'8%/2'*&',)0' # " 7
' ") " ' ,')+%' 6')0'3+,(+',)'
*((16,%0''.5'0*8%),8%0'*&')+%' "'3+,(+'
,)'8'9%0'*.',)0'+*0)0'-%.%$'/.1)$,),7%'$%;
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G &')',.'$%/'),*.')*'6$*(%00%0'
&'(.)'-,*.'+))/%'.%%50'4%'0',5',.')+%'
6$%0%.)'$),(/%' +%.'.'*$-'.,08'*$'6')$'
&',)',0',.'-$%')%$'$'/%00'8*1.)',.+'4,)%5'
42')+%$'*$-'.,080',.8'/'*$'7%-%)'4/%'
3+,(+'0140,0)'*.',)'*$',)0'&**5'*$'$%&10%'
,)'*&'(*1$0%'8'2'4%''(%.)$%'*&',.&%(),*.')*'
)+%$'A,&'010(%6),4/%R'4*5,%0'*$'6')0')'3+,(+'
,)'(.')$'.08,)'&,7%'6'$'0,)%0'*$')+%,$'-%$80'
$'0%%50'&*$'3+%.')+,0')$'.08,00,.')'9%0'
6/'(%'-$*3)+'.5'0%/&81/),6+(',)5'
'*(/*.2''$%')+%'.')1$'/$%0,,/)0'3/
)*'4%%B6%()%5H'.5',.'6$*6*$),*.'
*((1$')+%'.%3/2,.&%()%5'4*52'
-$'51''//2'-%)0')*'01&&%$'+9%'
)+*0%'6'$),(1/'$'5%$'.-%8%.)0'
)+%')26%'*&'6'$'0,),('5,0%'0%'
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,.)%$(*1$0%H'0'&*$',.0)'.-'
8,-$'),*.''*&',)0''('$,'
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)+%2'%B,0)'8'2'*&'(**'
&'(,/,)')%5'42''--$%-'),5'
(/%'./,.%00'*&'6%$0*.''//'
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.%'&%%50'.')+%'*)+%$'(
0,)%0'0),//+,.-',.')H'*$:'
6'$'0,)% %--0'*$'/'$7'%'
4*52'*&'*.%''.,8'/'-%)f

A%06%(,'//2' *.' $'3' +%$4'-%' '.5' ,.' 3')%$R' ,.)*')+%' 4*3%/0' *&' '.*)+%$' *.0,5%$'4/%' %6,5%8,(0' *&')$),(+,.,'0,0' ,.')+%' +18'.' 014>%()'+'7%' 4%%.')$'(%5'(+,%&/2',.' %$8082')*' ,.&%(),*.' &$*8')+%' 6,-H' ,.' ('0%0' 3+%$%' 6*$9' '4*1.5,.-' 3,)+' &$,(+,.%%' +'0' 4%%.' %')%.' '0' 0'10'-% 8%')' $' *)+%$3,0%' ,.' '$'3' *$' ,86%$&%()/2 (**9%5' 0)'%' '.5' ,.' (%/'.5')+%' 7%$2' -$%')' 01&&%$,.-0' *&')+%' +18'.' 014>%()' '.5')+%' (')/%' &$*8' %(+,.*; (*((10' +'7%' 4%%.')$'(%5')*')+%' ,.&/1%.(%' *&')+%' 5*-0',.'06$%'5,.-' (*.)'-,*.' &$*8')+%' 0/' -+)%$ +610%'3+%$%')+%2'%')' +25'),5,0%5' *&&'/')*')+%' 9,)(+%.-'$5%.0' '.5' 3')%$' 0*1$(%0' '.5'6'0)1$%0' 3+%$%')+%2' 5,0(+'$-%')'6% 3*$8' %--0' &$*.)')+%,$' 4*3%/0' * ,'*H' ' /* + +%' ! 3! ' ! 3 !' 3+,(+' (*.0,0)' ,.' 4%,.-' (*/*.,0%5' 42' 6'$'0,)%0' '$%' 5,0%'0%0' *&',.5%&,.,)%' 51$'),*.')%.5,,=' ,.'0*8%'('0%0')*' ,.5%&,.,)%' ,.($%'0%' .' ('0%0' 3+%$%')+%' 5,0%'0%0('=*6'-')%0',)0%/&',.',)0'*3.'&*$8',.' 0'%B'()',5%.),)2' 0',&',)'3%$%' '6%(,%0',.' C**/*-2'*$'4*)'.2H' '.5',.'%'(+'01(+'$%6%),;),*.'*&')+%&/,0%' %')+%$%',0'''8&&,),6/,(',*.G' '/3'20'*'/',-%'.5'0*8%),8%0'.',.4*.(%,7' '4/2',8 8%.0%' 81/),6/,(',*.G*&' 8')%$,'/ 3+,(+'+0')+%'0'8%',.&%(),7%'6$*6%$)2' 7,; 5%.(%0',..18%$'4/%')*')+')'%&&%()'$%'1.5%$' 5',/2'(/,.,('/*40%$7'),*.',.')+,0'(/,8')%',.' ,.0)'.(%0'*&'08'//6*B' 8%'0>%0' 0('$/'),.'' +**6),.-(*1-+'%.)%$,('&%7%$'81860')2; 6+10'026+,/,0'(6*B'5,6+)+ $,'%$20,6%/'0' +*06,)'/-'.-$%.%'61,&&,%.)'*64)+'4=''.5' -*.*.$+*%''7%.%$%8'0*&)(+'.(%$'.5'6+'-% 50%.''^H H &*$'4'$$,.-'&'//'*,%0'.*8'.' %7%$'0%%0' '.2'*.%'*&')+*0%'5,0%'0%0'6$*51(%5' 42')+%'%*.)'-,18'*&'.2'*)+%$*&')+%8H'.5' '.2'8'.'3+*'+'0'4%&*$%'+,8''('0%'*&'.2' *&')+%8'('.'0%%')+')'+*3%7%$'8,.1)%'8'2' +'7%' 4%%.')+%'E1'.),)2' *&'%*.)'-,18'42' 3+,(+')+%'5,0%'0%'3'0')$)%5')+%'6'),%.)<0' 5,0%'0%5'4*52'A6'$)'*$'3+*/%R'2,%/50'&*$')+%'),8%'1',.5%&,.,)%/2'/'$-%'0166/2'*&')+%'06%(,; &,('-%.)'0',0'8*$%'*$/%00'+'4,)1'/')'0*8%' *&')+%'5,0%'0%0')+')'+%',.&%()%5.%00'*&')+%' 6'),%.)',0'&,$0)'8.5%'9.+*3.')*'+%'*40%$7%$' 42'01(+'0'' ' ('0')%//0'*&'(+'.-%' '/$%'52'&'$'57'.(%5',.')+%'(,$(1/'),.-'8'00' *&'4/**5H''.5',)',0'*./2''&)%$')+,0'+'0'0+*3.' ,)0%/&')+')'*)+%$'02886)*80'''55,.-')+%8; 0%/7%0')*')+%'&%7%$'(*86/%)%')+%'8*$%'*$'/%00' (*86/%B')26%'3+,(+'%0)'4/,0+%0')+%',5%.),)2' *&')+%'5,0%'0%'1)',.'8'.2'*&')+%'5,0%'0%0' ,)'8'2'4%')+%'('0%'A%,)+%$'.')1$'//2'*$'0')+% $%01/)'*&'%B6%$,8%.)'/',.&%(),*.R')+')'+%' &,$0)'.5',.'0*8%'5,0%'0%0')+%'8',.'/*$'%7%.')+%'*./2'%&&%()0'*&')+%'(*.)'-,.*.'!$%' # /"0 '6'00,..-'3+%$%' 3%' (.'&$*8')+%' &,$0)'*40%$7%')+%8H'.5')+%'4$*'5'&'()0'*&' ,.%)'4*/,(',.&%(),*.'/'0'$%-'$50'3'0)%' &4*5,/2' 8')%$,'/3.)+'(*.(.)'-' -,18''$%',.'8'.>]'01(+'('0%0''8*.-'*1$' 8*0)'&'8,/,'$'%B6%$,%.(%0' *0)',.0)$1(),7%')**''$%')+%'&'()0'*&'(*.)'-,.*.'3+,(+'3%')*' +%/%'$.)',.')+%'0)152'*&')14%$(/%')+%'(*.')'-,.8',.)$*51(,4/%'%,)+%$'42')14%$(1/'$'.5

(%$)',.'0%6),(',.*(1/'),*.0'K)+$*1-+')+%'09,.'*$',.)%8=2'42')+%',.&%(),7%''(),*.'*&')+%'8,/9'*$'5,0%'0%5'*$-'.0'*&')14%$(1/'$'.,8'/0',&')'9%.''0'&**5H''.5')+%'(*.)'-,18'3+%.',.)$*51(%5'-$'51'//2'06$%'5,.-''0',)'81/),;6/,%0''.5''0'/2864+'.5'4/**5'('$$2',)'&$*8')+%'^0)',.&%(),*.06*)')*'*)+%$'*$-'.0'3+,(+'.*3'3,//'$%6%')')+%'6$*(%00'.5'0,8,/'$/2',.'('.(%$'A)+*1-+')+%'6$,8'$2'5,0%'0%'',0''))1$%0%.)'*&'1.9.*3.'*$,-,.''.5'('..*)'4%($%')%5'42'%B6%$,8%.)R')+%'$%6%),),*.'*&')+%'6$,8'$2'5,0%'0%'',.'0%(*.5'$2''.5')%$),'$2'6$*6'-')',.'0',.')+%'4*52'*&')+%'01&&%$%$',0'*.%'*&')+%'8*0)'0)$,9,.-''*&''//*%7,5%.(%0'*&'(*.)'-,*.H4%('10%'*&')+%'-$%')'.184%$'*&'0)$1()1$'/')26%0'3+,(+'6'00',85%$')+%'.'8%'*&'('.(%$''.5')+%'&,5%/,)2'3,)+'3+,(+'%'(+'*&')+%8',0'$%6$*51(%5',.')+%'*$-'.')*'3+,(+'%'.)'-,*.'5%0%$7,.-'.*),(%',.')+%'6$%0%.)'(*.)%B)',0')+%'/*('/'06$%'5'*&'(%$)',.'*&')+%0%'6$*(%00%0'42'(*.),.1,)2'*&'),001%H'0'&*$',.;0)'.(%',.')+%'(*.),.1*10'%B)%.0,*.'*&'6+'-%'50%.''*$'+*06,)'/'-'.-$%.%'&,*8''.2'(%.)$%'*&'&,$0)',.*(1/'),*.''*$'*&')14%$(1/'$0'*&)%..,.-'*$'('.(%$''))+%'6/'(%'3+%$%',)'4%-,.0''8*5%'*&'%B)%.0,*.'3+,(+',.5,(')%0'01((%0;0,7%',.&%(),7%''(),*.0'*&'8'))%$'*.'8'))%$',.'06+%$%0'*&'%7%$3,5%.,.-'(,$(18&%$%.(%H f''.5')+%'/,9%'*&'3+,(+'41)',.'$15,8%.)'$2'5%-$%%'8'2'4%')$'(%5',.')+%''$%*/''*&''.2'(1)%',.&/'88'),'.

.')+%'6+20,*/*-2'*&')+%'8%)'4*/,(*.)'-,''.*'&'()0''$%'8*$%'(+'$')()%$,0),(''*$'8*$%',8;6*$)'.)')+'.')+*0%'3+,(+'0+*3')+%'%A:;*'*&'6'$),(1/'$'(*.)'-,'')*'(''%$'?*E*'*&'4*52G,$0)''.5',.',.),8')%'(*..%B,*.''0'3*1/5'0%%8'3,)+''#'

)''*&'(),*.'3+,(+'3,//'6$%0%./)2'4%',861)%5')*'(*.)'-,'')+%$%',0')+%'6$%&%$%.(%'3/1(+'0*8%'6'$),(1/'$'(*.)'-,''A+*3%7%$',.;)$*51(%5',.)*')+%'20)%8R0+*3'&*$'6'$),(1/'$'0''*&')+%'4*52H0*')')'42')+%'%B%$(,0%'*&',+,0'6$%&%$%.(%')+%$%',0'-,7%.')*'%'(+'*&')+%'5,0%'0%0',)0'*3.'0%)'*&'(/,.,('/'.5''.';)*8,('/(+'$'()%$0'*86'$%''0',.0)'.(%0',.'),+,0'6*,.)'*&'7,%3')+%'$%06%(),7%'/*('/'&&,.,;),%0'*&'08''//6*B'%.)%$,('&%7%$'8186026+,/,0'+25$*6+*4,''^(G%(.5/2',)'8'2'4%'.*)%5')+')',.'$%-'$5')*'0*8%'*&')+%'(.;)'-,''5,&&%$%.)'"''.5'6'$),(1/'$/2'6%$;0*.0'*&'(4('-'0+*3'*$,-,.'/5,&&%$.(%0'*&'010(%6),4,+)2H*$,-,.'/.'8%/2''0'5,0),.-1,0+%5'&,*8')+%$0'+%$%'&)%$')*'4%8%.),*.%5'3+,(+'$%''(E1,$%5H0*')+')'&*$,.0)'.(%')+%'0%7%$,)2'3,)+'3+,(+'0('$/'),.''*$'5,6+)+%$,''3,//'0)$,9%',.'6'$),(1/'$&'8,+%0'(*.)$'0)0'3,)+''(*86'$'),7%'8,/5.%00'*&')+%'0'8%'5,0%'0%',.'*)+%$'&'8,/,%0''*$'6%$+'60'%7%.'3,)+'('0%0'*&''66'$%.)/2'(*86%)%'6%$;0*.'/',88 1.)2'1.5%$'%B6*01$%')*')+%'6'$;),(1/'$'5'.-%$''.5'$%(%.)'$%0%'$(+%0'+'7%'0%%8%5')*'01--%0)''0'6*00,4/%')+')',.')+%

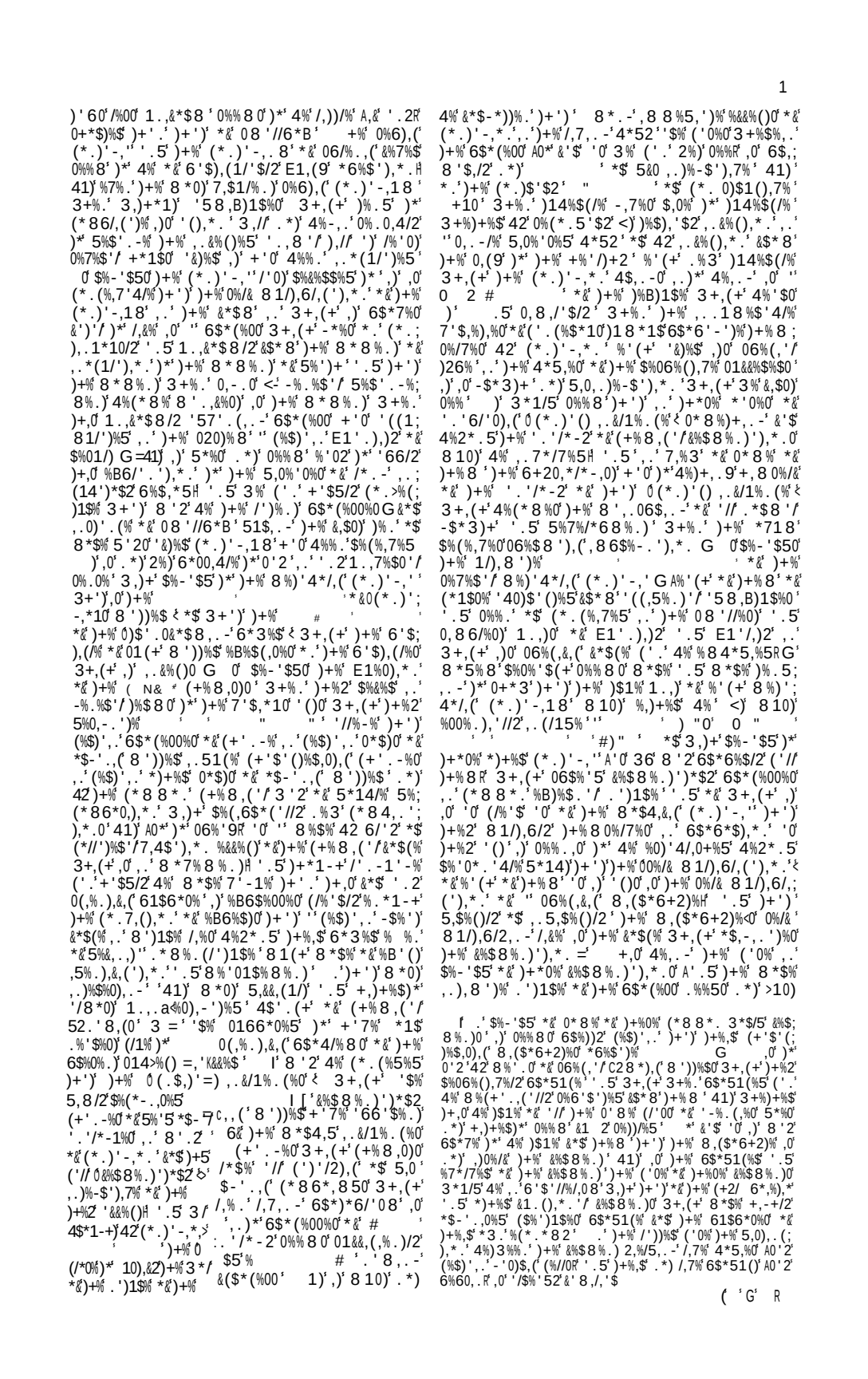
f *86'$%%.20*.0'K
0/,))/%'6,))%5'06%(9',.'-'$.%$%5'&$1,)
(+'$*)),.-',.3'$5'0/*3/2'8*1/5%$0'//<

7%$2'3,5%'5,&&%$%.(%0'*&'5%-$%%'3,)+'3+,(+I'
)14%$(1/'$'5,0%'0%'6$%7',/0',.'5,&&%$%.)'&'8,/,%0''.'%00%.),'/(*.5,),*.'8'2'4%')+')'+%'&'8,+%0'+'7%'3,5%/2'5,&&%$%.)'5%-$%%0'*&'*$,-,.'/'6$%5,06*0,),*.')*3'$50'0*8%'*&')+%'0%6),(''(*.)'-,'G+,$5/2')+%$%',0')+%'%B;)$%8%/2'01--%0),7%'&')'3,)+'$%-'$5')*'8'.2'*&'*1$'4%0)9.*3.'&%4$&,,0,.-'(*.)'-,''),)+')'+%2'$1.''(*1$0%'*&'"'''.5')+')',.'),0'(*1$0%'6$*7,5%5')+%'6'),%.)'5*'.*)'5,%''//'6$%0%.)'6%$+'60'//'&+)1$%'#/'"0'(#'#'"'0*')+')'$%,.)$*51(,*.''*&')+%'0'8%(*.)'-,18'3,//'.*'8*$%'$%.%3')+')'6'),%.)<0'5,0%'0%')+'.2%'0)'3&,/'%B(,)%''.%3''/(*+*/,('&%$8%.)'),*.',.''.2'6$%7,*10/2'3%+&%$8%.)%5'4$%'5'*$3,.%'+%',.&%$%.(%&$*8')+,0'&')'()'0%%8'01.;'7*,5'4/%')+')'%'(+'01(+'.)'-,18'*6%$')%0'3,)+''(+%8,('/'5,0),.(),7%.%00'*&'%/%(),7%''&&,.,)2'*.'0*8%'06%(,'/',.-$%5,%.)'*$',.-$%;5,%.)0'*&')+%'4*52H''.5')+')'%B+'10),.-')+,0'6'$),(1/'$'8')%$,'/,.'&%4$,/%'6$*(%00'3+,(+'.%(%00'$,/2'%.50'3+%.')+%'%B+'10),*.',0'(*86/%)%'',0')+%'4*5,/2'(+'.-%'3+,(+')+%'(*.''),-,.8'006%(,&,('//2<6%$&*$80G&'.*)''8%)'+*/,('(*.)'='+*3%7%$'('.',)'4%'0',5')+')')+%,$'*6%$'),*.'$1.0'0*'5%&,.,)%''.5'0%/&'(*86/%),.-''(*1$0%'*$'&,$0)')+%$%'$%6'$),(1/'$'"'3+,(+''0''$1/%'9,//H%,)+%$'A'0'66%'$0')*'4%')+%'('0%',.'06/%.,('&%7%$'3+%.''&&%(),.-'8'.R4%('10%'*&')+%'%B)$%8%'8'-.,)15%'*&')+%')$'.0&*$8,.-'6$*(%00'3+,(+')+%'(*.)'-,18'0%)0'16'*$%/0%'A'0'66%'$0')*'4%')+%'('0%',.'+25$*6+*4,'R4%('10%')+%'%/%(),7%',.(,5%.(%'*&')+%'(*1''),-,18',0'*.''.'*$-'.',.5,06%.0'4/%)*'/,&%H0*')+')',.'01(+'('0%0')+%$%',0',.'&'()'+'$5/201(+'.'%7%.)'0'6'00,.-''/,7%')+$*1-+')+%'3+*/%'6$*(%00'*&')+%'5,0%'0%'.5'0%(*.5/2')+%$%''$%')+%''0'3+,(+''$%'(/%'$/2'(+'$'()%$,0%5'42')+%,$')%.5%.(2)*',.5%&,.,)%'51$'),*.'026+,/,0'3+,(+'*&)%.%$')+'.')*)'$%/'60%0',.'01((%00,7%*1)4$%'90''.5'*&)%.''0'2%'$0'6'00',.7'5%0'')+%'4*5'.5'8*$%'5%%6/2''.5'8'2''&)%$''51$,.-'/,&%'4%%.5%5H''.5')14%'(.(%$'3+,(+'3,)+'/8*0)',.7''0,0)%1(%'3,//,.'-%.%$'/0)%'5,/H:8*.)+'42'8*.)+')*',.&%()'8*$E'*&')+%'4*52')+%'6$*(%00'%7'5%')+%'$)'.08,00,*.'*&'7'$,*>,5,0%'0%0'8'!!%',0'*>',.&/1%.(%5'4*)+',.'5%)',/42'01(+'5,&&%$%.(%0'*&',.5'0'3%$%'8%.),*.%5',.*)'4/2'.'0'$%-'$50'(E3+,(+'6'$),(1/'$'(1)%&1/'$1.'&$%0+'06'$90'*&'0&,.5'/,))/%'*$'.*'&1%/'.''81(+'.%3'5,&&10,*.''*&)/,''-',.'4%'6*00,4/%'),//,.'*$'/'60%'*&'),8%'*6%$')1>0+'//'+'7%'$%(*.0),)1)%5'/'),*.'.5'-,7%.')+%'010,

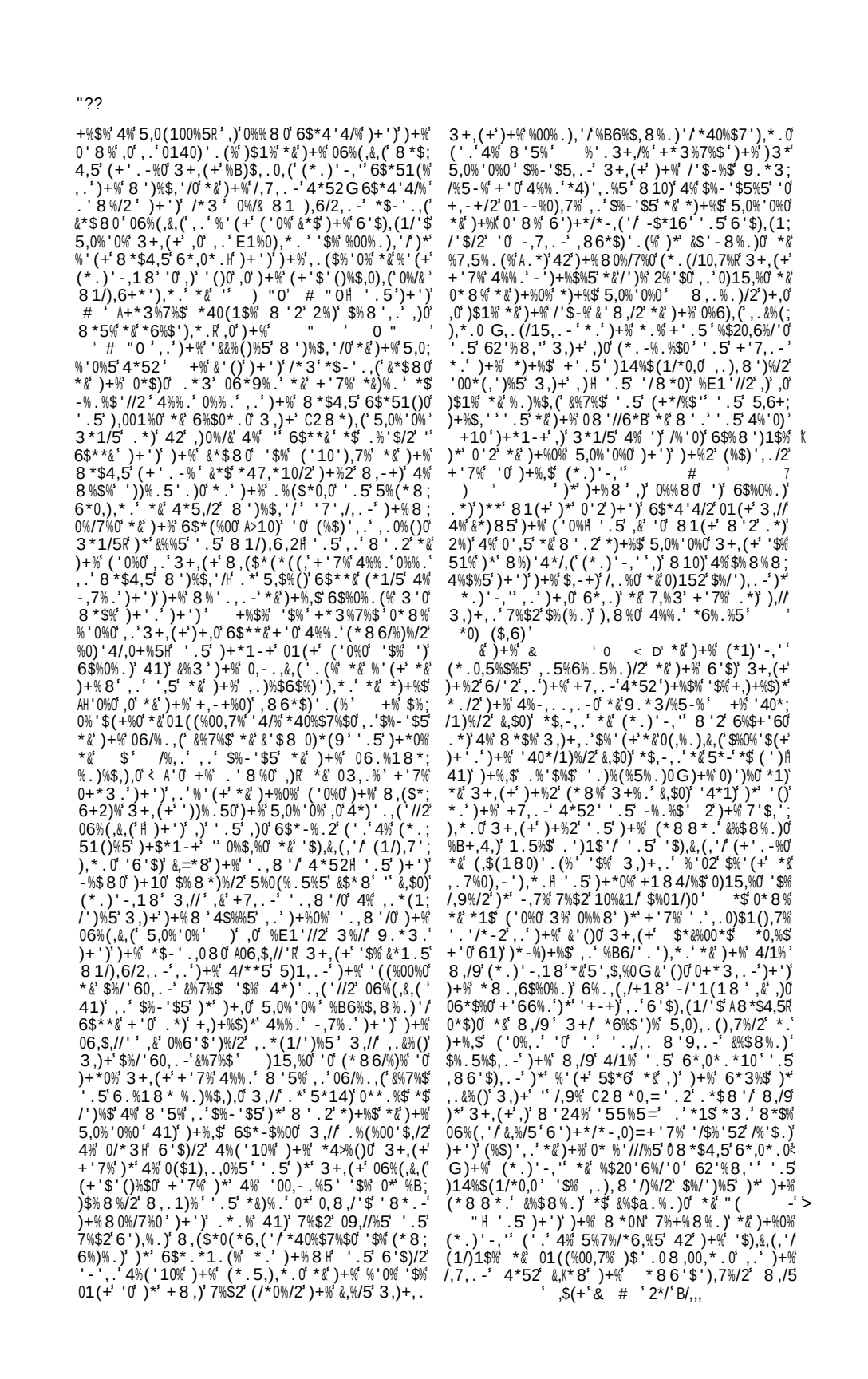
f%,$(180)'.(%0'*&' * ''A.5'6/'('%''$%',.&,.,)%/2'7'$,*10'A%06%(,'//2'' '0'U%-'$50'E1'.),)2'' '._/E1,(9.%00'*&'6%$0*.''/'*$'E1'0, 6%$0*.''/',.)%$;(*1$0%f ,.' 5%)%$8,.,.-' +*3'&'$')+,0'6*61/'';),*.'0+'//+'7%'6'$),(1/'$'(*.)'-,''')+*$*3.'.,''),0'3'2

/0*')+%$%'$%'(*.5,),*.0'.*)' 6$,8'$,/2'*&'"6%$0*.'/9,.5'3+,(+'*6%$')%'*.''''7%$2'/'$-%'0('/%',.'5%)%$,.,.,.-)+%' 6$%'5'*&'0*8%'*&')+%'8%)'4*/,(',.&%(),*.0H -,7,.-')*')+%8'$%06%(;),7%/2' ' "' ' ,.'3'20'.*)' +,)+%$)*'1.5%$0)**5''' " " '0'2 ' '.5',.'0*8%',.0)'.(%0' /0*' 0" ' '.5')+10'%.'4/,.-')+%8'$%06%(;),7%/2'&$*8'),8%')*'),8%')*'(*8%',.)*'(*8;6'$'),7% 6$*8,.%.(%',.''.'),*./' /,&%'.'.5'6%$+'60' ')' *.(%'*$' 01((%00,7%/2',.'8'.2'5,&&%$%.)' (*1.)$,%0',.')+%'&*$8'*&'0*('//%5'&!' +10',)',0' 8'))%$'*&'&'8,/,'$'9.*3/%5-%')+')'+%'&%7%$0'3+,(+''$%'8*0)'+'4),)1'/)*')+,0'(*1.)$2G0('$/'),.''8%'0/%0'08''//6*B'%.)%$,'&%7%$G'$%'*&'.*)+,.-'/,9%'1.,&*$8'6$%7'/%.(%H)+')'0('$/'),.''&*$',.;'.%'2%'$'0',.'.*)+%$''.5')+')'08''//6*B',0',/,'4/%')*%7%.'-$%')%$'%B'(%$4'),*.0''.5',)',0'9.*3.')+')'}%86*$'$2'5,&&%$%.(%0'*&')+,0'9,.5''$%'.*)'%B(/10,7%/2'/*('/H)+')')'&*$' .0)'.(%'A)*'E1*)%''')'/')%'*&&,(,'/'$%6*$)R'0)+%'%6,5%8,('*&'08''//6*B'3+,(+'4%-''.',.' .-/'.5')*3'$50')+%(/*0%*&' ?M!'.5')%$8,.')%5',.')+%'0%(*.5'E1'$)%$'*&' ?M?'3'0'6'$)'*&''-%.%$'/%6,5%8,('*1)4$%'9'*&')+')'5,0%'0%'*&' *$/53,5%5,&&1;0,*.'8'$9%5'3+%$%7%$',)'*((1$$%5'42'.'.,.;)%.0,)2''.5'8'/,-.,)2'1.%E1'//%5'42''.2'6$%;7,*10'%6,5%8,(''*&')+%'5,0%'0%'3,)+,.'/,7,.-'8%8*$2 +%'3,5%$')+%'01$7%2'3+,(+'3%')'9%'*&'%6,5%8,*/*-2')+%'8*$%'(%$)',.',)'4%(*8%0')*'10')+')''*1)0,5%')+%'(*.5,),*.0'3+,(+''$%',.5%6%.5%.)/2'6%$0*.'/'*$'/*('/')+%$%'$%' " '3+,(+'+'7%')*'4%(*.0,5%$%5' *14)/%00')+%$%''$%'-$%')'%6,;5%8,*/*-,('/&')()0G01(+'&*$',.0)'.(%''0')+%&,$0)'06$%'5,.-'*&'08''//6*B')*' 8%$,('*$',.'*1$'*3.'),8%0')+%',.($%'E1%.(2'*&'0,'),(' (+*/%$'' ,.' 1$*6%'3+,(+'8'='4%'0'($,4%5')*'.*7%/'(*.5,),*.0'*&',.)%$.'),*.'/',.)%$(*1$0%H 41)'+%$%'*)+%$0'%E1'//2'-$%')')*'3+,(+''66'$%.)/2'.*'01(+'%B6/''.'),*.'('.'4%'66/,%5' *$'3+')'$%'0*.',)',0')+')'(+*/%$''%7%&2'&%3'2%'$0'+'0',)0'5%&,.,)%'&,)' %B)%.0,*.',.' .5,' G*$'3+2'5,6+)+%$,''' +,(+'0('$(%/2'+'5''6/'(%',.'+,.*$2'),//,)'*7%$$'.'1$*6%',.')+%')+'(%.)1$2''.5'3+,(+'0,.(%')+%.'+'5'4%%.'$,7$%/2'06*9%.'*&'4%-''.''-',.'0*8%')3%.)2*55 2%'$0'-*')*'4%'(*86'$';),7%/2',86*$)'.)',(' .-/'.5G*$'3+2')+%'6/'-1%*&')+% %7=,)'+'0'&*$')+%'/'0)')3*'(%.)1$,%0'4%%.'0*'1/$&'8,/,'$')*'10=*$'3+2')+% 2%//*3'&%7%$' ')+% ,00,00,66,'+'0',.'6'$),(1/'$2%'$0'+'N%5'&1$,*10/2',.'6'$)0'*&'1$*6% G*$'3+2'*,I$'4/'(95%')+'*&')+%)+'(%.)1$2')+*1-+'6,'/'$%.)/2'0),//01$7,7,.-',.'.5,''+'0'.%7%$'41,')+')*.(%'4%%.',.' 1$*6%'*$'3+,)+%$'+'0'K-*.%*1$'03%'),.-0,(9'.%00'*&')+$%%(%.) Q,%0''-*G*$'3+%.(%'+'7%(*8%')+%'8*5%8'%6,5%8,(0'*&'(%$%4$*06,.'/'8%.,.-,)0')+%0%''.5'8'.2'/,9%'E1%0),*.0'3+,(+'(''.*)'')'6$%0%.)'4%''.03%$%5'0%%8')*'4%'%7,5%.(%%.*1-+')')',.')+%'8'9,.-'*&'%6,5%8,(0'(*.)'-,*.''.5'6%$05.'/'010(%6),;4,/,)2'8'2'4%'&'()*$0',.''6')/2' " "0%.0%' .&/1%.(%0'3+,(+'$%'('//%5'0')8*;06+%$,('<G)+%'7'$,*10'5,$%()'.5',.5,$%()',.;&/1%.(%0'3+,(+'))'(+')*')+%'.*$8'/01((%0;0,*.''.5'*((0,*.'/'4.*$8'+)2'*&'0%'0*.0',.'$%06%()'*&')+%',.0*/'),*.''*&'*1$'6/'.%)''.5'*&')+%')%866%$')1$%''.5'+18,5,)2'*&',$'.5'%')+G'$%',.'-%.%$'/&'$')*'7'-1%/2'$%-'$5%5''0'%/%8%.)0'*&',.)%$%0)',.')+%'6$%0%.)'E1%0;),*.'41)'$%'6*00,4/%'&')*$0'3+,(+'.*'%6,5%;8,*/*-,0)'0+*1/5'*8,)'&/$*8'0(,%.),&,('(*.;0,5%$')',.'*$'.2'5%&,..,)%'9.*3/%5-%'3+,(+'%B,0)0'*.')+%'$%/')',*.'*&'6')$),(1/'$(*.5,),*.0'*&'0%'0*.')*')+%'6$%7'/%.(%'*&'6')$),(1/'$%6,5%8,(0')+%'$%'5%$',0'$%&%$%%5')*')+%''$),(/%'0'#'.5')*'$),(/%0'*.')+%'$%06%(),7%'5,0%'0%0.')+%'

0+*30'+,80%/&',.&%(),7%'+'0'.*)'*.'+,0'*3.'6%$0*.'.'2'6$*8,.%.)'*1)3'$5'(),7,)2'*&'026+,/,0' ,8,/'$/2',.'$%-'$5')*')14%$(1/'$5,0%'0%'%B6%$,8%.)'+'0'6$*7%5'4%2*.5'E1%0;),*.')+')')+%'8,/9'*&'.,8'/0'01&&%$,..'&$*8')14%$(/%'3,//',&')'9%.'0'&**5'42'*)+%$*'.,8'/0'.,.&%()')+%8')+$*1-+')+%',.)%0),..'/81(*10'8%84$'.%'.5')+%$%''$%',.5%6%.;5%.)'$%'0*.0'&*$'4%/,%7,.-')+')')+%')14%$(,5'$(*.)'-,18'A/,9%')+%'026+,/,),(%'3,/'')',8%0'51$,.-')+%'520($'02'4%'(*.)',.%5',.')+%0%8,.'/'&/1,5''.5')+')'8%.'1)14%$(1/'$'6%$;+'60'*./2',.'0*8%'5%-$%%'3+,(+',0'.*)',8;8%5,')%/2',86*$)'.)')*')+%80%/7%0'8'2'42')+')'0%($%),*.'(*.7%2'&')'/',.&%(),*.')*'3*8%.'3,)+'3+*8')+%2'+'7%'(*.>1-'/'$%/'),*.0U%-'$5,.-'8'.2'*&')+%'8%)'4*/,(''**.)'-,''(*.(/10,7%'%7,5%.(%'%B,0)0')+')'3+%.')+%2''$%',.'*6%$'),*.'.'6$%-..')'3*8%.')+%&*%)10'3,'.'-%.%$'/'4%',.&%()%5'42')+%8H'.5')+,0')+*1-+')+%'5,0%'0%0'A%&&K'08'//6*B'(+*/%$''026+,/,0R'4%'*&')+%'8*0)'5,&&%$%.)'6')+*/*=('/')26%0'41)'3,)+'$%-'$5')*'6$%-;.'.)'.',8'/0'&&%()%5'3,)+'06/%.,(''&%7%$',)',0'.*),(%'4/%')+')'$'1%'.'+,0'%B)%.0,7%'$%;0%'$(+%0'&*1.5')+%'4/**5'*&')+%'&*%)10'.*)')*'4%',.&%(),7%.'-%.%$'/=''%'(+'(*.)'-,18'+'0',)0'*3.'&'7*1$,)%'.'&-H:''.5')+%0%'6$%&%$%.(%0''$%'.*)'*./2'*&'06%(1/'),7%',.)%$%0)''0'))'(+,.-')*'7'$,%),%)0'*&'.')1$%'.5'.')1$'/+'4,)0'8*.-')+%'**.;)'-,''41)'$%'*&'47,*10'6$'(),('/',86*$)'.(%'0'8%'01$%0'*&')+%'3,5%/2'5,&&%$%.)'5%-$%%0'.'3+,(+')+%'5,&&%$%.)'(*.)'-,''$%'E1'/,&,%5''06$%'5',.'(*881.),%0'&(''>(''A)+')'026+,/,0'*.%'*&')+%'8*0)'&'8,/,'$'*&(''*&09,.'*$'81(*10'8%8;4$'.%'+'0'/*.-'4%%.'9.*3.''0')+%'*$5,.'$2'8*5%'42'3+,(+')+%',.&%(),*.0'*&'026+,0'+25$*6+*4,''06/%.,(&%7%$'(*36*B''.5'&'$(2'*$'-/'.5%$0'-%)''58,00,*.')*')+%'4*52H'.5'*1$'4%0)'9.*3/%5-%*&'0*8%*+)+%$',.&%(),*10'5,0%'0%0'A.*)'4/2'*&')14%$(/%R'+'0'4%%.'5%;$,7%5'&$*8',.*(1/'),*.0'..)%.),*.'//2'8'5%3,)+')+%,$'(*.)'-,''&*$'61$6*0%0'*&'0)152'+,/%'6$*4/2'//',.&%(),*.0'3+,(+')%.5')*'4%'*&'-%.%$'/'(),*.'*.')+%'4*52'('.'4%4$*1-+)',.)*'(),*.',.')+')'3'2''.5'3+,/%'0*8%',.&%(),*.0'$%'.*)'9.*3.')*'6'00'42'.2'*)+%$'8*5%'*&')$'.08,00,*.')+%$%''$%'8'.2',.&%(),*.0'3+,(+'06$%'5'&$%%/2'&$*8K014>%()')*'014>%()'42'''''''



"??



8 ’, . /2’ 0%),*/*-,(’/’ *)+’ 9,. 50’ *&’&%7%$’ ’$%’ 51%’)*’ ’’ 6*,0*.’ $%(%,7%5’ &$*8’ 3,)+’1)Ḥ +1)’ 3+,/%’ ,.’ (*.),. 1%5’ &%7%$0’)+%’ 0*1$(%’ *&’)+%’ 6*,0*.’ ,0’ &*$’)+%’ 8*0)’6’$)’ ’’6$%7,*10’ (’0%’*&’ /%7%$’ *&’)+%’ 0’8%’ 9,.5’ ’.5’)+%’ 6*,0*.’ ,0’ -%.%$’)%5’ ’.%3’ ,.’)+%’ 014>%()’*&’)+%’5,0%’0%’ $%8,))%.)0’ ’.5’,.)%$8,))%.)0’ ’$%’*&’8’/’$,*10’ *$,-,.’ ’ ’.5’)+%’ 6*,0*.’ ,0’ .%7%$’ $%6$*51(%5’ ,.’)+%’ 020)%8’ ’ .5’)+%$%&*$%’ .%7%$’ (*881.,; (’)%5’42’)+%’ 01&&%$%$

+%’&*$8’),*.’*&’)+%’ 06%(,&,(’(*.)’-,18’*&’ (*.),. 1%5’ &%7%$0’ 3,)+,.’)+%’ 020)%8’ 51$,.-’)+%’ 5,0%’0%’,0’ *&’(*1$0%’)+%’ (’10%’*&’)+%,$’ 06$%’5’ 42’ (*.)’-,*.’ +%’ 8*5%’ *&’)+,0’ 06, %’5’,0’ 5,&&%$%.)’ &*$’)+%’ 5,&&%$%.)’ &%7%$0’ 26+10’ ’.5’$%/’60,.-’&%7%$’ ’$%’5,$%()/2’(*.;)’-,*10’,.’ ’.’%8,.%.)’ 5%-$%%Ḥ)+%’ 6*,0*.’,0’ (*.)’,.%5’,.’)+%’%8’. ’),*.0’&$*8’)+%’09,.’*$ /1.-0’ ’.5’,0’(’6’4/%’*&’%.)%$,.-’)+%’4/**5’*&’ +%’/)+2’6%$0*.0’42’4%,.-’ 4$%’)+%5’*$ 03’/; /*3%5Ḥ ,)’ 8’2’ ’/0*’ 4%’ (’$$,%5’ 42’ &*8,)%0’ .)%$,(’&%7%$’,&’5,$%()/2’(*.)’-,*10’ ’)’ ’//’,0’ 7%$2’0/,-+)/2’0*’Ḥ)+%’(*.)’-,18’,0’’66’$%.)/2’ .*)’ -,7%.’ *&&’,.’)+%’ 4$%’)+’ *$ 6%$06,$’),*.’ 41)’ (+,%&/2’ *$’ %B(/10,7%/2’ &$*8’)+%’ 4*3%/0’ ’.5’)+%’ 5,0%’0%’,0’06$%’5’ 8’,./2’42’)+%’(*.;)’8,.’.’*&’5$,.9,.-3’)%$’*$’*8’$%’$’%/2’ 42’0%3%$’ -’0%0’ *$’42’)+%’ %8’.’),*.0’&$*8’)26+*,5’%B($%)’’%06%(,’//2’’&)%$’/*.-’$%0,5%.(%’ ,.’0%3%$0’

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AOR’ +%’ /,’4,/,)2’)*’)+%’ %$16),7%’ &%7%$0’,0’ ’/8*0)’1.,7%$0’/’,.’)+%’ ’40%.(%’*&’6$*)%(),*.’ 42’ ’’6$%7,*10’ ’))’(9’ ’.5’,0’/,))/%’ ’&&%()%5’42’)+%’0)’)%’*&’+%’/)+’*&’)*’ 6$%5,06*0,).’)*’)26+10’ ’.5’$%/’60,.-’ &%7%$’-%.%$’)%5’42’*7%$($*35,.-’ ’.5’&’8,.% AXR’ +%’6$*)%(),7%’,.&/1%.(%’*&’ ’’6$%7,*10’ ’))’(9’,0’8*$%’8’$9%5’,.’)+%’%$16),7%’&%7%$0’)+*1-+’.*)’)*’01(+’ ’5%-$%%’ ’0’3*1/5’(*.; 0),)1)%’ ’.’,8 6*$)’.)’5,0),.(),*.’ .0)’.(%0’ *&’08’ 6*B’ &)%$’ ’’6$%7,*10’ ’))’(9’ *$’ &)%$’ 7’((,.’),*.’ ’ ’.5’0%(*.5’ ’))’(90’ *&’8%’0/%0’ ’.5’0(’$/%)’&%7%$’ ’$%’.*)’7%$2’1.(*88*.

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subject which psychological analysis has yet to elucidate.

The objective symptoms of cortical lesions depend on their locality, and on whether they exercise an irritative or destructive influence on the parts they invade. From the localisation point of view alone the intimate nature of the morbid process is unimportant, except

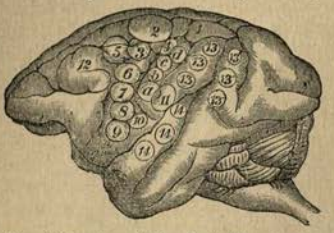

FIG. 30.—Side view of the Left Hemisphere of the Monkey. The areas have the same signification as in the next figure.

in so far as its irritative or destructive character is concerned. Lesions, such as tumours, which from their very nature exercise important indirect effects on the encephalon as a whole, apart from their effects on the regions which they directly invade, can rarely be exactly localised, owing to the difficulty of separating the direct and indirect symptoms from each other and referring each to its exact cause. Also no rigid conclusions as regards localisation can be drawn from morbid affections of the hemispheres which extend over a large area, such as the various forms of meningitis and meningo-encephalitis. In all these cases the nature of the affection must be diagnosed from its own general and special characters; its position and extent in the brain being arrived at approximately from a consideration of the effects of accurately circumscribed lesions, as determined by careful clinical and pathological observation and physiological experiment.

The brain may be considered as divided into a *motor* and a *sensory* zone.

Motor Zone.—The motor zone includes the convolutions bounding the fissure of Rolando, viz. the ascending frontal (pre-central), the ascending parietal (post-central), and postero-parietal lobule, the base of the three frontal convolutions, and the internal or mesial aspect of the same convolutions, or marginal gyrus. In this zone are differentiated centres for the movements of the trunk, limbs, head, and eyes, and those of the mouth, tongue, larynx, and correlated muscles. The centres of the lower limb are situated at the upper extremity of the central convolutions and in the paracentral lobule or posterior part of the marginal convolution (numerals 1 and 2, figs. 30 and 31). The centres for the foot and toes are more especially posterior to the upper end of the fissure of Rolando; those of the thigh and leg anterior to the upper extremity of the same fissure. The centre for the arm is situated below that of the leg, and partly in front of it, and occupies the middle third, or rather two-fourths of the central convolutions (3, 4, 5, 6, 7, *a*, *b*, *c*, *d*, figs. 30 and 31).

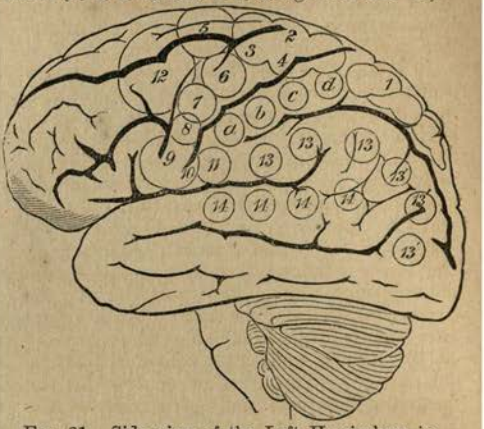

FIG. 31.—Side view of the Left Hemisphere in Man, with the areas of the cerebral convolutions. The effects of stimulation of each area, as ascertained by experiments on the brain of the monkey, are subjoined.

1, 2 (at the upper extremity of the fissure of Rolando). Movements of the foot and leg.

3, 4. Complex movements of the opposite leg and arm, and of the trunk, as in swimming.

a, *b*, *c*, *d*. Ascending parietal convolution. Individual and combined movements of the fingers and wrist of the opposite hand.

5. Posterior extremity of the superior frontal convolution. Extension forward of the opposite arm and hand.

6. Upper part of ascending frontal convolution. Supination and flexion of the opposite forearm.

7. Median portion of ascending frontal convolution. Retraction and elevation of the opposite angle of the mouth.

8. Lower part of the ascending frontal convolution. Elevation of *ala nasi* and upper lip, with depression of lower lip.

9 and 10. Inferior extremity of ascending frontal convolution (Broca's convolution). Movements of the mouth, tongue and larynx. Action bilateral.

11. Between the inferior extremities of the ascending frontal and the ascending parietal convolutions. Retraction of the opposite angle of the mouth; and the head turned slightly to one side.

12. Posterior portions of superior and middle frontal convolutions. Eyes opened widely; pupils dilated; head and eyes turned towards opposite side.

13 and 13′. Supra-marginal lobule, angular gyrus, and occipital lobe. Eyes moved towards the opposite side, with an upward (13) or a downward (13′) deviation. The pupils generally contracted. (Centre of vision.)

14. Infra-marginal (superior temporo-sphenoidal) convolution. Pricking of opposite ear; head and eyes turned to opposite side; pupils largely dilated. (Centre of hearing.)

In this area may be differentiated centres for the upper arm (protraction), (5, figs. 30 and 31), and retraction (4, figs. 30 and 31); movements of the forearm, viz. flexion, supination, &c. (6, figs. 30 and 31); and those of the wrist, fingers, and thumb (*a*, *b*, *c*, *d*, 30 and 31).

+%' 6$*B,8 '/' 8 *7%8 % .)0' *&')+%' 166%$' %B;)$%8,)Z ' '$%' $%6$%0% .)%5' 8 *0)' ,.')+%' 166%$' 6'$)' *&')+,0' '$%' 'Ĥ)+%' 5,0)' /' 8 *7%8 % .)0 ')+')' ,0)+*0%' *&')+%' &, . -%$' ' .5')+1 8 4 ' 8 *0)' ')')+%' /*3%$ 6 '$)' %/*3')+%' '$8' '$%' ' ' . 5' *((1; 62, . -')+%' /*3 %$')+,$5' *&')+%' (% .)$' /' (*.7*/1;),*.0' ,0')+%' (% .)$%' &*$')+%' 8 *7%8 % .)0' *&')+%' &'(%' 8 *1)+' ' . 5')* . -1%' . 5' /' $2 . B' '$%' $%6$%0% .)%5' 8 *$%' 6 '$),(1/' $/2' ,.' &$*.)' *&' M' g' A&,-0' ?!' . 5' " R' . 5')+*0%' *&')+%' 6/')208 ' ' 4%+,.5')+%' &,001$%' *&' U*/' . 5*' A '&,-0' ?!' . 5' " R' +%' 8 *7%8 % .)0' *&')+%' 8 *1)+')* . -1%' . 5/' $2 . B' '$%' $%6$%0% .)%5' 8 *$%' 6 '$),(1/' $/2' ')')+%' /*3%$' 6 '$)' *&')+,0' '$%' 'AP' ! ' &, -0' "!' . 5' " R' +%' (% .)$%0' &*$')+%' '551(),*.' *&')+%' 7*('/' (*$50' '$%' 0,)1')%5' 8 *$%' 6 '$),(,5 '$/$2' ')')+%' /*3%$' 6*$),*.' *&')+%' '0(% . 5, . -' ^ * .)' /' (*.7*/1),*. ' ,8 8%5,')%/2' 6*0)%$,*$')*')+%' 6$%(% .)$' /01/(10' +%' (% .)$%0' &*$')+%' /')%$' /' 8 *7%8 % .)0' *&')+%' +%' 5' . 5' %2%0' '$%' 0,)1')%5' ')')+%' 4 '0%' *&')+%' &,$*.)' /' (*.7*/1),*. 0' A&,-0' "!' . 5' " R' +%' '$%' 0' *$' (% .)$%0' &*$')+%' +%' 5' . 5' %2%0' '$8' . 5' /%-' %B)%. 5' *7%$')+%' 8 '$-,.' *&')+%' +%8,06+%$%' ,.)*')+%' 8 %0,' /'06%()' *$' 8 '$-, . *.' /' (*.7*/1),*. ' . ')+,0' (*. ; 7*/1),*. ' 6*0)%$,*$')*')+%' (% .)$%0' &*$')+%' +%' 5' . 5' %2%0' ' . 5' '$8 ' '$%' (% .)$' +0%5')+%' 8 *7%; 8%.)0' *&')+%')$1.9' ' . 5' 4%+,. 5')+%0%')+*0%' *&')+%' /%-' +%' 6$%^*.)' /' '$%' ')+')' ,0')*' 0'2')+%' $%-, . *.' . ' 57' . (%' *&')+%' .)%$,*$' %B;)$%8,)2' *&')+%' 6$%(% .)$' /0,5(10')+*1-+' . ' ;)*8,(''//2'$%/')%5')*')+%' 8 *)*$')$' ()0' *&')+%' ,.)%$. ' /' ('601/%' ,0' '' 0* ('//%5' . *. %B(>)' 4/%' '$%' G)+')' ,0')*' 0'2',)' -,7%0' . *' *1)3'$5' $%06*. 0%')*' %/%()$,('/' 0),8 1/')," . ' /,9%')+%' (% .)$%0' '4*7%' 5%0($,4%5 5) ' 0 " ' *&')+%' 8 *)*$' C*. %' 6$*6%$' 01(+' '0' 8 ' 2' 4%', . 51(%5' 42' 026+,/,),(' /%0,*. 0')18 *1$0' 06,(1/'' *&' 4*. %' 5%6$%00%5' &$' ()1$%0')+,(9%. , . -' *&')+%' 8 %8 4$' . %0' ^ (' ('10%' (*. ; 71/0,*. 0' 3+,(+' 8 ' 2' $%8 ' , . ' /,8 ,)%5')*' *. %' /,84' *$' *. %' -$*16' *&' 8 10(/%0' 3,)+*1)' /*00' *&' (*. 0(,*10. %00' *$' '&&%()')+%' 3+*/%' *&')+%' *66*; 0,)%' 0,5%' 3,)+' /*00' *&' (*. 0(,*10. %00' *$' 4%(* 8 %' 8 *$%' *$' /%00' 4,/')%$' /' 3,)+' '/')+%' 02 8 6)*8 0' 101''//2' *40%$7%5' , . ' 0* ('//%5' ,5,*6')+,(' %6, ; /%602

&')+%' (*.71/0,7%' 6+%. *8%. '' 4%-, . ' ' /3 ' 20' , . ')+%' 0' 8 %' 3 ' 2' ' . 5' , &')+%2' &, $%E1%.)/2' $%; 8 ' , . ' /*('/,0%5' , . ' *. %' /, 8 4' *$' *. %' -$*16' *&' 8 10(/%0' ' . 5' %06%(, '//2' , &' 6 ' $' /2), ('02 8 6)*8 0' 8 ' . , &%0)')+% 8 0%/7%0')+%' %B' ()' 6*0,), *. ' *&')+%' /%0, *. ' , . ')+%' *66*0,)%' +% 8 ,06+%$%' 8 ' 2' 4%' ' ((1$')%/2' 5, ' - . *0%5 C) ' " ' *&')+%' 8 *)*$' C*. %' ('10%' -%. %$' /' *$' /, 8 ,)%5' 6 '$' /20, 0' *&' 7*/1.)' $2' 8 *), *. ' , . ')+%' *66*0,)%' 0,5%' *&')+%' 4*52' ' (; (*$5, . -' ' 0')+%' /%0, *. ' ''&&%()0')+%' 3+*/%' &')+%' 8 *)*$' C*. %' *$' , 0' / 8 ,)%5')*' 06%(, ' /' (%.)$%0' 3,)+, . ')+, 0' '$%' ' +%' ('10%0' *&' 5%0)$1()' 7%' /%0, *. 0' *&')+%' (*$)%B' 8 ' 2' 4%7' $, *10 G+0%8 *$' $+' -%' /' (%$'), *. ' 42' 3*1. 50' ^ (' . %' *&')+%' 8 *0)' (* 8 8 *. ' ('10%0', 0' %8 4*/, 08' *$')+$*8; 4*0, 0' *&')+%' '$)%$, %0' 0166/2, . -')+%' (*$), ('/ 8 *)*$' '$%' ' +%0%' '$%' 5%$, 7%5' &, <' 8')+% 2/7, ' . ' '$)%$2' *&')+%' 8 , 55/%' (%$%4$' /' +%' (*$), (' / 4$' . (+%0' 8 ' 2' 4%' ((/15%5' 3,)+*1)' , .)%$&%$, . -' 3,)+')+%' (, $(1/'), *. ', . ')+%' (*$610' 0)$, ')18 ' 3+, (+' , 0' 0166/, %5' 42' 06%(, '/ 4$' . (+%0' '0' 0+*3 . ' 42')+%' $%0%' $(+%0' *& 1$%)' . 5' %14 . %$ +%. ')+%' 8 *)*$' C*. %', 0' '&&%()%5' 42' ''-%. %$' /' 5%0)$1(), 7%' /%0, *. ' (*8 6/%)%' +% 8 , 6/%-, ''*&')+%' *66*0,)%' 0, 5%' $%01/), 0' , . ' '/' $%06%()0' /, 9%')+')' $%01/), . -'&$*8' 5%0)$1(), 7%' /%0, *. ' *&')+%' (*$610' 0)$, ')18 ' . 5' .)%$, *$' 6*$), *. ' *&')+%' , .)%$. '/' ('601/%' . ')+, 0' &*$8' *&' 6 '$' /20, 0')+%' /*00' *&' 8 *), *. ', 0' 8 0)' 8 '$9%5', . ')+*0%' 8 *7%8 % .)0' 3+, (+' '$%' 8 *0)' , . 5%6%. 5%.)Ĥ +%. (%')+%' '$8' ,0' 8 *$%' 6 '$' /20%5')+' . ')+%' /%-' $ &' (%' ' . 5')+%' +' . 5' 8 *$%' 6 '$' /20%5')+' . ')+%' 0+*1/5%$' 8 *7%8 % .)0' *&')+%' '$8 ' +, 0' +' 0' 4%%. ' ' (*$8)%5' &*$' 42')+%' &' ()')+')')+%' (% .)$%0' &*$' 4, /')%$' /' 8 *7%8 % .)0' '$%, .), 8 ')%/2' '00*(, ')%5' , . ')+%' /*3%$' - ' . -/, ' ' +%. (%')+%' 0), 8 1/10' &$*8' *. %' +% 8 , 06+%$%' (' . ')*' '' (%$)' , . ' %B)%.)' ('//' &*$)+')+%' ' (), *. ' *&')+%' (*. >*.)' 8 *)*$' . 1(/%, ' ' +%%/%()$, (' / (*.)$' (), /,)2' . 5' . 1)$, ;), *. ' *&')+%' 8 10(/%0', 0' . *)' &&%()%5' 42' 6 '$' /20, 0' *&' (%$%4$' / *$, -, . ' +%' . 1)$,), *. ' *&')+%' 8 10(/%0' 8 ' 2' +' 3%7%$' 01&%&$*8' 5,010%' ' . 5' &$%E1%.)/2' 6 '$' /20%0' *&' (*$), ('/ *$, -, . ' '$%' &*//*3%5' '&)%$' ''), 8%' 42' $, -, 5),)2' ' . 5' (*.)$' ()1$%' 3,)+' 5%0(%. 5, . -' 0(/%$*0, 0' *&')+%' 62$' 8, 5' /)$' ()0' *&')+%' ($1$' ' 6*. 0' ' . 5' /')%$' /)$' ()0' *&')+%' 06, . ' / (*$5' . ' 0*8 %' ('0%0')+%' 5%0(%. 5, . -' 5%-%. %$'), *. ' , . 7' 5%0')+%' .)%$, *$' (*$. 1' ' *&')+%' 06, . ' / (*$5' ' . 5' ')$*6+2' *&')+%' 6 '$' /20%5' 8 10(/%0' %. 01%0' (('0, *. ' //2' &$*8' /, 8,)%5' /%0, *. 0' *&')+%' (*$;), ('/ 8 *)*$' '$%' ' (*8 6/%)%' +% 8 , 6/%-, '' 8 ' 2' *((1$*. ')+%' *66*0,)%' 0, 5%' &*$')+%'), 8%' ')' /%'0)' +, 0' , 0')*' 4%' %B6/' , . %5' 42')+%' &' ()')+')' 0155%. ' %0)' 4/, 0+8%.)' *&' '' 5%0)$1(), 7%' /%0, *. ' 8 ' 2' ('10%' 01(+' (* 8 8 *), *. ' *$' 6%$)1$4'), *. ' *&')+%' (%.)$%0', . ' -%. %$' /')+')')+%, $' &1. (), *. 0' '$%' &*]')+%'), 8%' 0106%. 5%5' 1)' , . ' 01(+' ('0%0')+*0%' (%.)$%0' 3+, (+' +' 7%' 4%%. ' *. /2' &1. (), *. ' .0' ' . 5')+%' 6 '$' /20, 0' 5, 0' 66%' $0' %B(%6)' *&')+*0%' 8 *7%8 %.)0' *&' 3+, (+')+' 7%' 4%%. ' 6%$8' . %.)/2' 5' 8 ' -%5 , 8,)%5' /%0, *. 0' *&')+%' 8 *)*$' C*. %' ('10%' 6 '$' /20, 0' *&')+*0%' 8 *7%8 %.)0')+%' (%.)$%0' *&' 3+, (+')+%' /%0, *. ' , . 7' 5%0' +%' $%01/)' , 0' . *)' (*8 6/%)%' +% 8 , 6/%-, ' ' 41)' ' ' " 0 ' *$' '6 '$' /20, 0' %. (%' &$*8' '' (*$), ('/ /%0, *. ' 3%' 8 ' 2' -%)' ''6 '$' /20, 0' *&')+%' '$8 ' *$' *&')+%' '$8' . 5' &' (%' *$' *&')+%' /%-' . 5' '$8' *$' *&')+%' &' (%' '/ . %' *$' *&')+%' /')%$' 8 *7%8 %.)0' *&')+%' +%' 5' . 5' %2%0' &')+%' /%-', 0' 06%(, '//2' 6 '$' /20%5')+%' /%0, *. ', 0' , . ')+%' 166%$' +, $5' *&')+%' (%.)$' / (*. 7*/1), *. Ĥ, &')+%' '$8', . ')+%' 8 , 55/%' +, $5' *&')+%' (%.)$' / (*. 7*/1), *. Ĥ, &')+%' &' (%' , . ')+%' /*3%$' +, $5' *&')+%' (%.)$' / (*. 7*/1), *. ' ' . 5' 3%' 8 ' 2' 8 *$%' 6$%(, 0%/2' /*('/, 0%')+%' /%0, *. ', . ')+%' 166%$' *$' /*3%$' +'/&*&')+%0%' $%06%(), 7%/2' ' ((*$5, . -' '0')+%' 6$*B, ; 8 '/' *$5, 0)' /8 *7%8 %.)0' $%8 *$%' 6$), (1/' $/2' '&&%()%5' +%' /%0, *. ' 3+, (+' 3+, /%' (, $(18; 0($, 4%5' ')' &, $0)' ('10%0' '' 8 *. *6/%-, ' ' 8 ' 2

,&' .*)' %B(/10,7%/2' , .')+%' 016%$,*$')%8 6*$'/ -2$10' 3,. -')*')+%' 4,/')%$'/' $%/')',*. 0' *&' %'(+' (%.)$%'1 ./')%$'//%0,*. .' 8 '2' ('10%*. *' '6; 6$%(,'4/% 02 8 6)*8 0' & ' +*3 %7%$')+%' /%0,*. ',0' , .')+% 016%$,*$')%8 6*$'/ -2$10' *&')+%' /%&)' +%8,06+%$%' 3*$5 5%'&. %00' ,0' 101''//2' 8 %)' 3,)+' +,0' 5*%0' . *)' *(((1$', .' (*. .%B,*. ' 3,)+' /%0,*. ' *&' . 2' *)+%$' 6 '$)' *&')+%')%8 6*$'/ /*4% ' 6$*7,5%5')+ ')')+%' 016%$,*$')%8 6*$'/ -2$10' ,0' ,.)' ()' %'&,,%00' &* 8 ' (%$%4$'/ 5,0%'0%' ,0' 7%$2' $'$% .' *$5%$')+ ')')+,0' 0+*1/5' *((1$' ,)' ,0' .%(%00'$2')+')')+%' 16%$,*$')%8 6*$'/ -2$10' 0+*1/5' 4% 5%0)$*2%5' *.' 4*)+' 0,5%0' +%$%' '$% *./2')3*' ('0%0' *.' $%(*$5' *&' 01(+' '*4,/')%$'/ /%0,*. H*.%' $%6*$)%5' 42' +'3',&) ' #) ' ' " ' %4$1'$2' ??@ R' '.5' '. ' *)+%$42' %$. ,(9%' '.5' $,%5/' .5%$' . # ' ' ' $(+' ??"R' .'4*)+' ('0%0')*)'/ 5%'&,,%00' 3'0' *40%$7%5' .' 8*.9%20' +*3; %7%$' (*86/%)% 5%0)$1(),*.' *&')+,0' $%-,*.' *.' 4*)+' 0,5%0' 5*%0' . *)' %.),$%/2' '4*/,0+' 0%.0.),7%; .%00')*' 0*.*$*10' 7,4$')',*.0' ' " "' S 7 ' ' S %$$,%$' ?P!R' +%$%' '$% 0%7%$'/ ('0%0' *.' $%(*$5' *&' ,$$,)')',7%' /%0,*.0' *&')+,0' 0 "' ('10,. -' 014>%(),7%' '15,)*$2' 0%.0'),*.0' *$' %6,/%602' 10+%$%5',.'42' .' ''15,)*$2' '1$'' +%' " ' ' " ' " 7 ' ,0' 0,)1')%5',.')+%' &'/(,&*$8' *$' /,8 4,('/*4%' '0' '4*7%' 8%.),*.%5' A-2$10' &*$.,(')10' '.5' -2$10' +,66*('86,R' 80' (*.(/10,*.' ,0' &*1.5%5' '/8*0)' %.),$%/2' *.')+%' $%01/)0' *&' %B; 6%$,8%.)0' *.' 8*.9%20' ')+*/*-,('/' 7,5%.(%' ,.' &'7*1$' *&')+%' /*('/,0',*.' *&')+%')'(),/%' (%.)$%' ,.')+,0' $%-,*.',0' 0' 2%)' 0('.)2 B6%$,8%.)0' *.' 8*.9%20',.5,(')%')+')')+%' (%.)$%0' *&' 08%/' .5')'0)%' '$%' 0,)1')%5',.' (/*0%' $%/'),*.')*' %'(+' *)+%$' ')')+%' /*3%$' %B)$%8,)2' *&')+%')%8 6*$'/ /*4%' *$' $%-,*.' *&')+%' +,66*; ('86'/ /*41/%' A0%%' " "' S ' 2 ' +%' '.')*8,('/ $%/'),*.0' *&')+%' */&'()*$2')$'()' '0'3%//' '0')+%'$%01/)0' *&' %/%()$,('0',8 1; /'),*.',.5,(')%')+')')+%' ' " ' ,0' (+,%&/2' ,.' $%/'),*.' 3,)+')+%' .*0)$,/' *.')+%' 0' 8 %'0,5%' '.5' ('0%0' +'7%' 4%%.' $%6*$)%5',.' 3+,(+'08%//' +'0' 4%%.' '&&%()%5' *.')+%' &'()0' *& (%$%4$'/ +%8,'.%%0)+%0,'' &1.(),*.'/' '.5' *$; -'.,(',.5,(')%')+')' 0*8%')' /%'0)' *&')+%' */&'(;)*$2')$')()' 6'00',.)*')+%' *66*0,)%' +%8,06+%$%' 42' 3'2'*&')+%',.)%$.'/'('601/%')'3'0'016; 6*0%5' 42' %2.%$)')+')')+%' */&'()*$2')$')()' 5%(100')%',.') ' '.)%$,*$'(*88,001$%'41)'),0' *66*0%5' 42')+%' '.')*8,('/ '.5' %B6%$,; 8%.)=' ,.7%0),-'),*.0' *&' 7*.' 155%.' '.5' '.0%$' +%$%' '$%' 0%7%$'/ %'0%0' *.' $%(*$5' *&' 014>%(),7%' /%&'()*$2'0%.0'),*.',.' (*. .%B,*.' 3,)+')18*1$0' '.5')+%$',$$,)'),7%' /%0,*.0',8; 6/,(',.-')+%' $%-,*.' *&')+%' 1.(,.')%' -2$10' ,.' 8 '.' A ' (90*.' '.5' %%7*$' $ ' ()*4%$' ??PR' +%' %B'()' 6*0,),*.' *&')+%' " ' ' ' ' +'0' .*)' 4%%.' 5%)%$8,.*)' 42' %B; 6%$,8%.)'/$%0%'$(+' *$42'(/,.,('/*40%$7'),*.' 41)'+%' %7,5%.(%' ,0' ,.' &'7*1$' *&')+%,$' 4%,.-' 0,)1')%5',.' (/*0%' $%/'),*.')*')+*0%' *&' 08%//

' G +%' 6$,.(,6/%0' *&'/*('/,0'),*.' '4*7%',.5,(')%5'(*84,.%5' 3,)+')+*0%' *&' '.;),0%6),(' 08$-%$2' +'7%',6' $%(%.)' 2%' $0' 4%%.' ,.' 0%7%$'/ ,.0)'.(%0' 01((%00&1//2''66/,%5')*')+%')$%')8%.)' *&' (%$)',.' &*$8 0' *&' (%$%4$'/ 5,0%'0%' *)+%$3,0%' +*6%/%00' A0 %6%4$'/ *('/,0'),*.',.' ,)0' $'(),(''/ %/'),*. ' ??PH' '.5' ' ,//0R' +%0%' ,.(/15%')$'18'&,(' (20)0' .5'%B)$'7'0'),*.0')+%'6*0,),*.' *&' 3+,(+' +'0' 4%%.' 5%)%$8,.%5' 42')+%' 02 8 6)*8 0' '0' 3%/' '0' %'0%0' *&')18*1$' .5' '40(%00')+%' /'0)' 8*$%' 6')$),(1/'$/2' ,.' (*. .%B,*.' 3,)+' 5,0%'0%' *&')+%' 8,55/%' %'$' B(,0,*.0' *&' ,$; $,)'4/%' 6*$),*.0' *&')+%' (*$)%B' +'7%' /0' 4%%.' 1.5%$)'9%.' &*$')+%' (1$%' *&' &*('/' %,/%602' H ,.' 0*8%',.0)'.(%0' 3,)+' 4%.%&,)')+*1=',.' *)+%$0' 3,)+*1)' 8')%$,'/ ,8 6$*7%8%.) 6')*')+%' 8*.)+' *&' %(%84%$' ??P' %,-+)%%.' ('0%0' *&' (%$%4$'/)18*1$'+'5' 4%%.' *6%$')%5' 16*.' &')+%0%' 0%7%.' 3%$%' 01(; (%00&1//2' $%8*7%5' &')+%' $%8' ,.,-'%/%7%.' ('0%0' A,.(/15,.-')+$%%' ('0%0' *&')18*1$'*&')+%' %$%4%//8.''.5'&,7%'*&'1.$%8*7'4/%')18*1'$0')3*' *&')+%8' *6%$')%5' *.' '' (/ ' .,.%' +'7%' 5,%5' &$*8' 7'$,*10' ('10%0' ,.(/15,.-' 0%6),(,.&/'88')*.*%$%4$'/*%5%8''*$0+*(9' +,0' -,7%0' '' 8*$)'/,)2'*&'&,&)2'6%$' (%.)' *.;)$'0)%5'3,)+')+%'/')%0)'0)'),0),(0' *&')$%6+,.,.-' &*$' ' ' ('10%0'*$' *&')+%' 8*$)'/,)2'&$*8')+%' 8'>*$'*6%$')*.0',.'01$-%$2'3%'+'7%' $%'0*.')*' $%-'$5')+%'01$-,('/)$%')8%.)' *&' (%$%4$'/)8.*,1' 0' +'7,.-''(+,%7%5' '.'%.(*1$'-,.-' 8%'01$%' *&'01((%00' '.5'6$*4'4/2'-$%')%$'01(; (%00%0' 8'2'4%' '))',.%5',.' &1)1$%'3+%.')+% (*.5,),*.0' *&'01((%00&1/' *6%$'),*.' '.5' '&)%$')$%')8%.)'+'7%' 4%(*8%' 4%))%$'9.*3.' .')+% '40%.(%' *&' 5%&,..),%',.5,('),*.0' '0')*')+%' (+'; $'()%$' *&' # ')18*1$' '.5' '0')*' 3+%)+%$',)' ,0' 0,)1')%5' *.' ,.' *$' 4%.%')+')+%' (*$)%B')$%; 6+,..-',0',.')+%' 3$,)%$0' *6,.,*.' >10),&,'4/%' '0' '' 5,'-.*0),(8%'01$%' H &*$' ,&')+%')18*1$' 0+*1/5' '&)%$' '//'.*)'4%'$%8*7'4/%')+%'$,090' *&')+%' *6%$'),*.',)0%/&' '$%/%00')+' .')+%'/,' *&' '//*3,.-+)'6$*7%')*'4%' *.%'3+,(+' (*1/5'+'7%' 4%%.' 5%)'3,)+' 01((%00&1//2 ' 4

& " K ! 5 ! G 7 * ' (/'860,'H' $' ") " ' %$' F " & # G +,0')%8',0' (*88*./2',-7%.')*' 8*$%' *$' /%00' -%.%$'/'61$6*0%/%00' 810(1/'$ (*.)$'(),*.0' *((1$$,.-' 0,81/).%*10/2' '.5' 01((%00,7%/2'&*$' '7'$,'4/%'),8%G(*.0),)1),.-' '' 0&,)' *&')+,0' *$')+')' 9,.5')',0' /0*' +*3; %7%$' '66+%5')'),8%0')*' (%$)',.' 8*$%/*('/,0%5' 61$6*0%/%00' (*.)$'(),*.0')+*1-+')+%0%' 3*1/5' 4%' 8*$%' '66$*6$,')/%2' A' .5' '$%' ,.')+%' 8*' >*$,)2'*&'('0%0R')%$8%5' ' +%' /')%$' /,9%' (*.71/0,*.0' '$%' *&')3*' 9,.50' " ' '.5 " $ # ' : " *.71/0,*.0' +'7%' 4%%.' 7'$,*10/2' (/'00,&,%5' 42' 5,&&%$%.)' 1)+*$0' '(; (*$5,.-')*')+%' 5,&&%$%.)' 6*,.)0' *&' 7,%3' &$*8' 3+,(+')+%2' +'7%' 4%%.' $%-'$5%5' $*8')+% 6*,&,)' *&' 7,%3' *&')+%

4'0%5')*' '' 7%$2' /'$-%' %B)%.)' ^*)' 0*' 81(+' 16*.' 3%// '0(%$)',.%5' &'(0' '0' 16*.' +26*;)+%0,0' '.5'06%(1/'),*.' +,0' %06%(,'//2')+%' ('0%' '0' $' 1-+/,.-0' '(+%*1' '5.5,)0' ,.' ₩%-'$5')*')+%' (*.71/0,*.0' 4%/*.-,..-')*')+%' &,$0)' .5')+,$5' (/'00%0Ĥ)+*1-+')+%'6')+*/*-2' *&')+% 0%(*.5' (/'00=G)*' '' 7%$2'/'$-%'%B)%.)' '0')+%'$%01/)'*&'+,0'/'4*1$0G0)'.50'16*.'' '81(+' &,$8%$' 4'0,0' *&' '()1'/' 9.*3/%5-%' *8%' 9,.50'*&'%(/'860,'' 7=*1/5' &'/' ,.)*')+%' &,$0)' (/'00' 3+,/0)' 8' .2' *)+%$0' 3*1/5' 4%/6.-' $')+%$')*')+%' ,$5' %/'00')' ,0' 5,&/^(1/)*' 0'2' ,.)*' 3+,(+' ()%-*$2' 3%// 5%7%/*6%5' +20)%$* %6,/%6),%' '))'(90' 0+*1/5' 4%' 6/'(%5')' .80)' .*)' 4%' /*0)' 0,-+)' *&' 8*$%*7%$')+')')+%' (*.(%6),*.0' 3+,(+' +'7%' ,.06,$%5')+,0' (/'00,&,(',),*.' '$%' %8,.%./)2'+26*)+%),('/' .5' 06%(1/'),7%' +*3%7%$' '4/2' .5' (*.0,0)%./)2')+%2' 8'2'+'7%'4%%.' 3*$9%5' *1)Ĥ 0*')+')' *1$.*),*.0' 0')*')+%' 8*5%' *&' 6$*51(),*.' &' &,)0' '.5' 0')*')+%' .')1$'/'-$*160',.)*' 3+,(+')+%2' '$%)*' 4%$'.-%5'0+*1/5'0), ' 4%$%-'$5%5' '0' 4%,..-',.' '' 7%$2'$15,8%.)'$2'0)'-% /3* G +%'('10%0'*&'(*.71/0,*.0' '$%*&)%.),8%0' 8*$%')+' .' 101'//2' (*86%B'(*.; 0),)1),.-' '' 3%4' *&'(*.5,),*.0'6'$)/2' 8'5%'16' ' *&'6$%5,06*0,..-'6'$)/2'ALŘ *&'%B(,),.-')*5' 6'$)/2'A(Ř *&'6$*B,8')%'%/%8%.)0')',0'*&)%.')+%'&'0+,*.')*' 6,(9'*1)'0*8%*.%'*&')+%' 8*0)' 6$*8,.%.)' *$' %'0,/2' $%(*-.,0'4/%' *&')+%0%' &'()*$0' '.5'06%'9'*$',)' '0' 0)+%' ('10%Ĥ*&')+%' ')) (9')' 8 10)' .%7%$'4%'&*,=*))%.'+*3%7%$')+')')+,0' 0*(' %5' ('10%',.' .2'-,7%.' ('0%' 8'2'4%' '4/%')*' '()' '0' 01(+' ./2' 3+%.',.' (*.>1.(),*.'3,)+'(%$)','*')+%$' 8*$%'*40(8%')+*1-+' 6%$+'60'.*)'/%00'6*%).)'(*'*6%$'),.-' (*.5,),*.0 +%' E1%0),*.' *&')+%' ('10'),*.' *&'(*.71/; 0,*.0'$%0*/7%0',)0%/&',.)*' '')0)$,()/2'(/,.,('/'.5' '0)$,()/2'6+20,*/*-,('/'5%6'$)8%.)')',0'*.%')+,.-'&*$')+%'8%5,('/'8'.')*' '0(%$)',.'3+')' '$%')+%'6'$),(1/'$',.5,7,51('/0')'%0'(*.5,),*.0' *&/,&%' '.5'*((1$$%.(%0'6+20,('/'*$'8*$'/' 3+,(+'+'7%'(*.)$,41)%5')*',.51(%' .')'))'(9'*&' (*.71/0,*.0')',0'E1,)%' '5,&&%$%.)'6$*4/%8' 3+%.'+%'%.5%'7*1$0')*' 1.$'7%/'42'6+20,*' /*-,(*.'.')*8,%/'5')')+%' '()1'/'8*5%' *& 6$*51(),*.'*&')+%' (*.71/0,*.0')*$')+%'6$%; 0%.)')+,0',0''6*,..)'*&'7,%3'3+,(+'(*.(%$.0' 10'/%00')+'.')+%' 8*)%'0)$,()/2'(/,.,('/0,5%*&')+%',.E1,$2 . "0' G .%'*&')+%' 8*0)' ,86*$)'.)' *&')+%0%',0')+%' %B,0)%.(%'*&'.' 1.51/2'%B(,)'4/%'.%$7*10' 020)%8G*.%',.' 3+,(+')+%$%',0'.'%B'/)'),*.'*&')+%')%.5%.(2')*'6$*51(%'$%&/%B'8*7%8%.)0' +,0',0''0)'%' *&')+,.-0'3+,(+',0'*&)%.'8*$%' 8'$9%5',.' 3*8%.')+'.',.'8%.''.5',0''/0*'.*)'4/2'6$*; 8,.%.)',.'2*1.-'(+,/5$%.'*&'4*)+'0%B%0')' ,0'8*$%*7%$'81(+'%B'--%$')%5',.'0*8%'(+,/; 5$%.'*&'.%$7*10'+'4,)'3+*'4%0,5%0'4%,.-'1.; 51/2'%8*),*.'/'*$%B(,)'4/%''$%'7%$2'6$*.%)*' 0)')$)'*$')$%84/%'')'+%'/%'0)'.*,0%*'.5'$% 014>%()'*' 810(1/'$')3,)(+,.-0' ,.'7'$,*10' 6'$)0'*&')+%'4*52' ,)+',.($%'0,.-'*-%''.5' 8*$%'%06%(,'//2',.')+%' 8'/%'0%B'3%&,.5')+% 0%.0*$,'/'.5'%8*),*.'/.%$7% (%.)$%0'4%(*8; ,.-'/%00'%B(,)'4/% .'6%$0*.0'6*00%00,..-'''.%$7*10'020)%8'*&)+,0')26%')+%$%',0''/'(9'*&'6$*6%$'4'1'.(%'*$ %E1,/,4$,18'4%)3%%.')+%'&1.(),*.'/'(),7,),%0' *&0*8%'*&',)0'6')$)0Ĥ '.5')+%$%'0%%8 0')*'4%''. 1.51%)%.5%&,(2')*' %$$*$0'*&'.1)$,),*.'3+%$%42')+%' 8'))%$'*&',)0' .%$7% (%//0'4%(*8%0'&$*8'),8%')*'),8%'+,-+/2'1.0)'4/%' '.5'6$*.%')*' 1.5%$-'*'05,0(+'$-%0'*&''8*$4,5'(+'$'()%$ +%'6$%5,06*0,..-'-$*1.53*$9'4%,..-'*&')+,0' .')1$%'+*3',0',)'('10%5'*$')*'4%'('(*1.)%5' &*$']A Ř)'8'2'4%',.+%$,)%5'&$*8'6'$%.)0' *$'&$*8'-$'.56'$%.)0'3+*'8'2')+%80%/7%0' +'7%'6*00%00%5''.%$7*10'020)%8'&)+,0')26%' '.5'8'2'+'7%'4%%.'014>%()*')*'&,)0'*$')*%$' 3%// 8'$9%5'5,0%'0%'*&')+%'.%$7*10'020)%8' 1)'))+*1-+'.*)',.+%$,)%5',.')+%'0)$,()'0*.0%' *&')+%')%$8',)'8'2'A<Ř4%(*,8')%')+%'6'),%.)' 8'2''/3'20'A,('&$*8'4,$)+Ř+'7%'6*00%00%5''.%$7*10'020)%8')*&')+,0')26%''.5'8'2'+'7%'4%%.'014>%()*')*'&,)0'*$')*%$' 3%// 8'$9%5'5,0%'0%'*&')+%'.%$7*10'020)%8' 0%%.'.'(+,/5$%.'4*8')*$')6'$%.)0'3+*'$% 3%'9'*$'-%5''.5'5%4 ,)')%5'A''Ř)+%$),8%0')+%'.%$7*10'020)%8'8'2'+'7%'(E1,$%5' 0+(+'6$%5,06*0,..-'(+'$')()%$0'0*8%'),8%'51$; ,.-')+%'/,&%'*&')+%',.5,7,51'/A%06%(,'//2'51$,.-' (+,/5+**5'*$'5*/%0(%.(%Ř*3,.-')*')+%'(),*.' *&'7'$,*10'0%)0'*&'(*.5,),*.0'01(+'0G A'Ř)+%' ('(+%B,''3+,(+'*((0,*.' 2'&*//*30'8%'0/%0' 6%$)100,0'^(Ĥ ALŘ,.01&&,(,%.)'*$' ,86$*6%$' &**5Ĥ A(Ř(+$*.,('5,'$$+*%'Ĥ A_ŘR+'%8*$$+'-%0' *$*B+'10),.-'5,0(+'$-%0 &'3%')1$.'.*3')*')+%'7'$,*10'(" 0' ' 3%'&,.5')+%0%'6*3%$&,, 2',.&/1%.(%5' 42')+%'6%$,*50'*&'-%'3+,(+'3%'8'2'(*.; 7%..%.)/2')+*1-+'*),&,(,'//2'8'$9'*&&'&$*8' *.%''.*)+%$ 5" " 'A&$*8'4,$)+')*'%.5'*&'@.5'2%'$R G' .'(%$)',.'('0%0'(*.71/0,7%'))'(90'*$%'(*.; -%.,)'/Ĥ '.5'+%$%'6%$+'60')+%'8*0)'&$%E1%.)' %B(,),..-'('10%',0''' 8%.,.-%'/ %&&10,*.'*& 4/**5'3+,(+',$$,)')%0')+%'01$&'(%*&')+%'4$',.' G)+%'%B)$'7'0')',*.'+'7,..-'4%%.'*((' 0,*.%5' 58,.-'6'$)1$,),*. +%0%'(*.-%.,)'/'))'(90' '$%'8*0)&$%E1%.)/2''00*(,')%5'%,)+%$'3,)+'8*$% *$'/%00'8'8%5'+%8,6/%-,''*$'3,)+'8*$% E1%.)'6'$),'/'*$'5,0),.()'(*.5,),*.''*&'.%.), '*$',5,*(2' 1(+'$8&*$),8')%',.&'.)0'8'2' (*.),.1%'E1,)%'1.'4/%')*'0)'.5'*$'%7%.'0,) 16Ĥ)+%2'$%8','.',8'4/%')*'06%'9'.'.5'0' ,.''('0%'0%%.'42')+%'3$,)%$')+%'(+,/5'8'2' 4%'E1,)%'4/,.5' %.,.-%'/*$'016%$&,(,'/ +0%8*$$+'-%0'8'2'/0*'*((1$',' 2*1.-' ,.&'.)0'1.5%$')+%0)$','.'6$*51(%5'42'7,*/%.)' &,)0'*&'(*1-+,.-Ĥ '.5',.'0*8%'*&')+%0%'(' 01(+'%&&10,*.'8'2'4%&*//*3%5'42'(*.71/0,*.0' ,)0',.'.&'.(2'8'2'/0*'&*//*3'&'//0'*$'4/*30' 16*.')+%'+%'5 .',.&'.(2''-',.'(*.71/0,*.0'8'2'10+%$,.'*$'016%$7%.%',.''/8*0)'.2'1(1)%'5,0%'0%')+,0'4%,.-'%06%(,'//2',)+%'('0%',.')+%'%B'.)+%; 8')''Ĥ ,.'6.%18*.,''*$'4$*.(+,),0Ĥ '.5''/0*' ,.')14%$(1/'$'8%.,.-,),0 1)'0),/'8*$%'&$%E1%.)/2'(*.71/0,*.0',.' ,.&'.(2'$%'%B(,)%5'42'8%$%'6%$,6+%$'/,$$,)'

),* . 0 ' ' 0' 51$, . -')+%' 6$*(%00' *&')%%)+, . - ' &$* 8 ' ' . ' *7%$/* '5%5' 0)* 8 ' (+ ' *$' &,$* 8' , . 5, -%0), 4 ,/%& ** 5 ' ,'$$+*% '' ' . 5' 3 *$ 8 0' '/0*')' 9%')+%,$' 6/ ' (%' ' 0' 8 *$%' *$/%00' &$%E1% .)' %B(,)' .)0' *&' (* . ; 71/0, 7%' 6 '$*B20 8 0' , . ' , . &' .)0 ')+*1-+' 3 *$ 8 0' * . /2' 4%-, . ')*' '66%'$)*3 '$50')+%' % . 5' *&')+, 0' 6%$, *5 ' 1)')+*1-+' , $$,)'), * . 0' , . ')+%' &, %/5' *&' 5,0)$,41), *. ' *&')+%' &,&)+' ' . 5' 6 . %18 *-' 0)$, *' . %$7%0' '$%' %06%(, ' //2' 6*)%) .)' , . ' %B(,), . -' (* . ; 71/0, * . 0 ' , $$,)'), * . 0' *&' *)+%$' 6 '$)0' *&')+%' 4*52' 8 ' 2' ' /0*' /%' 5')*' 0, 8 , /' $' $%01/)0' 3+%)+%$')+%2' '$%' *((' 0, *. %5' 42')+%' , .>15,4, *10' 5,0; 6*0,), *. ' *&' 6, . 0' 42'), -+)' 0)$, . -0' 3*1. 5, . -' *$', $$,)'), . -')+%' 09, . ' *&')+%' 4*52 ' *$' 42' ' . 2' *)+%$' 8 % ' . 0 ' +% 8 *$% 5,0), . ()/2')+')' 6$%5,0; 6*0, . -' (* . 5,), * . 0' %B, 0)')+%' 8 *$%' &$%E1% .)/2' 3 , /)' ' . 2' *$' '//' *&')+%0%' %B(,), . -' ('10%0' -, 7%' $, 0%')*' . ' '))' (9' *&' (* . 71/0, * . 0

'0)/2' ' . ' , . &' .)' 3+, (+' +' 0')' 9%. ')+%' 4$%' 0)' *&' '' 3 *8 ' . ' 3+*' +' 0' 0+*$)/2' 4%&*$% 4%% . ' 8 1 (+' 6%$)1$4%5' 42' 7, */% .)' ' . -%$' -$, %&' *$' ' . 2' *)+%$' 0)$* . -' % 8 *), * . ' 8 ' 2')+%$%' &)%$' , &' 6$%5, 06*0%5' 4%' 0%, C%5' 3,)+' (* . 71/0, * . 0 G' 6$*4' 4/2' *3, . -')*')+%' 8 , /9' *&')+%' . 1$0%' +' 7, . -' 4%% . '0*' /)%$%5', . ' E1' /,)2' 0')*' + ' 7%' /%5')*' - ' 0)$, (')$*14/%' ' . 5', $$,)'), * . ' , . ')+%' , & ' .)

#/ # ' A&, $*8')+%' < . 5')*')+%' ")+' 2%' $R' *0)' *&')+*0%' %B(,), . -' (' 10%0' 3+, (+' ' 9%' , . ; &/1%.), ' /' 51$, . -')+%' 6$%7, *10' 6%$, *5' (* .), . 1%')*' 4%' *((' 0, *. ' //2' *6%$'), 7%' 8') +, 0 G%06%(, ; ' //2' 51$, . -')+%' &, $0)' +' /&' *&' ,)' % . , . -%' /' +' %8 *$%5' -%0' . *3' $' %$') +*1-+')+%2' 8 ' 2' 0), /' *((1$ 51$, . -' 7, *%.)' 6' $*B20 8 0' *&' (*1-+, . -' ' . 5' '/0*' &, $*8' &' //0' *$' 4/*30' 16*. ')+%' +%' 5' +%' /'))%$' ('10%0' *&' +' %8 *$$+' -%' 8 ' 2' +*3%7%$' ' ()' , . ' 6$*51(, . -' &,)0' , . ' *)+%$' 3 ' 20' 0' 42' (* . (100, *. ' 0+*(9' ^(' ' . 5')+%2' . *3' (*8%')*' 4%' 8 *$%' &$%E1% .)/2' *6%$' ;), 7%' +%' %B' .)+%8 ')'' ' $%' 0)&// ' 6)')*' 4%' 6$%(%5%5' *$' '00*(, ')%5' 3,)+' (* . 71/0, 7%' ');)' (90' Ḥ ' . 5', $$,)'), *. 0' %06%(, ' //2' &$*8')%%)+; , . -' *$', $$,)' .)0' A1. 5, -%0)%5' &*'' 5' *$' 3*$8 0R' , . ')+%' , .)%0), . ' /' (' . ' /' '$%' /0*' *((' 0, *. ' //2' 6$*. %')*' 4%' &*//*3%5' 42' 01(+' '' 0%E1% . (%

1$, . -')+, 0' 6%$, *5' ' . *)+%$' ('10%' (*8%0' , .)*' *6%$'), *. ' 3,)+' -$%')' &$%E1% . (2' ' . 5')+, 0' , 0' &$, -+)' +%' &, $0)' &,)' %,)+%$' &*//*3 0')+%' &$, -+)' 8 *$%' *$' /%00' , 8 8%5, ')%/2' *$',)' 8 ' 2' . *)')' 9%' 6/' (%' &*$ 5' 20' *$ 6%$+' 60' &*$ 3%%90' 1$, . -')+%', .)%$7 ' /' +*3%7%$')+%' +%' /)+' ' . 5' 8%.)' /' (* . 5,), *. ' *&')+%' (+, /5' , 0' -%. %$' //2' *47, *10/2' 5, 0)1$4%5' $*6%$')$%')8%.)' ')')+, 0' 0)' -%' 8 ' 2' 6$%7%.)')+%*((1$$%. (%' *&',)0' ($*&1/*10' *$' *)+%$')8 . *1$0' . ')+%' 4$' , . ' 0*8%), 8 %0' +%/6')*' 5%)%$8 , . %' (* . 71/0, *. 0' , . ' (+, /5$%.

& " ' A&$*8')+%' ")+')*')+%' @!)+' 2%' $R G $, -+)' *$' *)+%$' 0155%. ' %8*), *. 0' &' //0' 16*. ' *$' 4/*30' '4*1)')+%' +%' 5' 0)&// ' 66%' $' '0' &$%E1% .)' %B(,)%$0' *&' (* . 71/0, 7%' '))' (90' 3+, (+' $%(1$' A%6, /%602R' ')')+, 0' 6%$, *5' *&' /, &%')+*1-+' 8 %. , . -%' /' +' %8*$$+' -%0' ' (1)%' 5, 0%' 0%0' ' . 5' 6%$, 6+%$' /' , $$,)'), * . 0' '$%' 8 1 (+' /%00' &$%E1% .)/2' *6%$'), 7%')+' . ')' %' $/, %$' 6%$, *50' 0, . (%')+%' 06%(, ' /' , $$,)' 4, /,)2' *&')+%' . %$7*10' 020)%8' (+' $' ()%$, 0), (' *&' (+, /5+**5' 5%(, 5%5/2' ' 4')%0' 51$, . -')+%0%' 2%' $0

)+%$' ' . 5' . %3' ('10%0' +*3%7%$' (*8%' , .)*' 6/' 2')')+, 0' %6*(+' +%' %0)' 4/, 0+8%.)' *&' 614%$)2' , 0' ' ' 9, . 5' *&' ($, 0, 0' 51$, . -' 3+, (+', . ; 5%6%. 5%.)/2' *&' ' ' *)+%$' ('10%0' (*. 71/0, *. 0' *$' &,)0' 8 ' 2' 4%' , . ,), ')%5' . ')+*0%' 3+*0%' . %$7*10' 020)%8 0' '$%')' //' 6$%5, 06*0%5')*3 '$50' 01(+' ' . ' *((1$$%. (%' +, 0' 8 *$%' %06%(, ' //2' 0*' , . ')+%' (' 0%' *&')+%' &%8 ' /%' 6 '$)/2' 4%(' 10%' W *&')+%' %B, 0)%. (%' *&' ' $')+%$' 8 *$%' &$%E1% .)' 6$%5, 06*0,), *. ' , . ' 6%$0*. 0' *&')+, 0' 0%B' ' . 5' 6 '$)/2' 4%(' 10%' *&%B)$' ' %B(,)', *. 0' , . ' '00*(, ' ;), *. ' 3,)+')+%' %0)' 4/, 0+8%.)' *&')+%' (') ' 8 %. , ' 7 '$, ' *$' 1)%$, . %' , $$,)'), * . 0' *&')+%0%' *$-' . 0' ')')+, 0' 6%$, *5 ' 8 ' 2' *((' 0, *. ' &,)0' 3+, (+' 8 ' 2')' 9%' . ' +20)%$, ; (' /)26%' '0)1$4'), *. ' 8 ' 2' '/0*' 4%' '55%5' '0' . ' *((' 0, *. ' /' 6$*7*('), 7%' *&' %6, /%602' ')')+, 0' ($,), (' /' 6%$, *5' *&' /, &%')+*1-+')+%' 3$,)%$' , 0' , . (/, . %5')*')+, . 9')*' 81(+' 0)$%00' , 0' *&)%. ' / ', 5' 16*. ')+, 0' 0' ''(' 10%' +, 0' 8 *5%' *&' ('10' ;), *. ' *((1 0' 8 *$%' &$%E1% .)/2' 3,)+')+%' 8 ' /%' 0%B

B(%00, 7%' 0)152' ' . 5' 8%.)' /' 66/, ('), *. ' ' 0' 3%// ' 0' 3*$$2' *$' . B, %)2' 8 10)' , 0' 1. 5*14); %5/2' 4%' %. 18%$')%5' ' 8 *. ' -')+%' ('10%0' *&' %6, /%602' ')')+, 0' 6%$, *5' *&' /, &%

%,)+%$' 8 10)' 3%' &*$-%)')+%' 6*00, 4/%' %B, 0); %. (%' *&' ' . % $208 ' *&')+%' (%$%4$' /' $)%$, %0' $*&' 8 *$4, 5' -$*3)+0' , . (' . %B, *. ' 3,)+' 0*8%6*$), *. ' *&' 4$', . ' *$' ,)0' 8%. , . -%0' +, 0' /'))%$' ('10%' '/0*' &, -1$%0' , . ' %' $/, %$' 6%$, *50' *&' /, &%G8 *$%' %06%(, ' //2' , . ')+*0%' (+, /5$%. ' 3+*' $%' *&' ' 0($*&1/*10')26%' . 5' , . ' *8%' *&' 01(+' ('0%0')+%' . %3 -$*3)+' 8 ' 2' /%' 5')*')+%' 016%$7%.), *. ' *&' (+$*. , (' +25$*(%6+'/10' ' . 5')+10' $%. 5%$')+%' *((1$$%. (%' *&' (* . 71/0, *. 0' %7%. ' 0)&// 8 *$%' /, 9%/2

I 2 ' 0' A@! !' 2%' $0R' G' ,)0' *$, -, . ')%' 81(+' /%00' &$%E1% .)/2' 51$, . -')+, 0' 6%$, *5' *&' /, &%')+' . ' , . ' '5*/%0(%. (%' *$' (+, /5; +**5' +%2' '$%' +*3%7%$' '6)')*' 016%$7%. %' 8 *$%' %06%(, ' //2' 3+%. ')+%' -%. %$' /' +%' /)+' , 0' /*3%$%5' 1. 5%$')+%' , . &/1%. (%' *&' 7' $, *10' %B; (,), . -' ('10%0' $, %&' . 5' 8%.)' /' 3*$$2' A6' $;), (1/' $/2' 3+%. ' (*84, . %5' 3,)+' /*. - (* .), . 1%5' 4' 5' 0/%%R' ' . 5')+%' /' 4*1$0' *$' ('$%0' *&' 410, ; . %00' '$%')+%. ' '6)')*' , . 51(%')+%8

/*30' *$' &' //0' 16*. ')+%' +%' 5' 8 ' 2' 0)&// 4%' &*//*3%5' 42' '))' (90' *&')+, 0' 9, . 5')+*1-+' 6%$; +' 60' 3,)+' /%00' &$%E1% . (2')+' . ' , . ')+%' %' $/, %$' 6%$, *50' *&' /, &%

26+, /,), (' , . 51$'), *. 0' *$' -$*3)+0' &$*8')+%' 8%. , . -%0' 8 ' 2' . *3' *((1$H ' . 5' *)+%$'))' (90' A*&)%. ' *&' *. %0, 5%5' (*. 71/0, *. R' 8 ' 2' 4%' 5%)%$; 8 , . %5' 42' 7' $, *10' 6')+*/*-, (' /' (+' . -%0' *$' ' ((, 5%.)0')' 9, . -' 6/' (%' , . ' $%-, *. 0' *&')+%' 4$', . ' 3+%$%' 8 *$%' 0%7%$%' /%0, *. 0' 3*1/5' -, 7%' $, 0%')*' +%8, 6/%-, ' ' +%' 6$, 8 '$2' (+' . -%' , . ')+%0%' *' 0%0' 8 ' 2' 4%' 8 , . 1)%' +' %8*$$+' -%0' , .)*')+%' 4$', . 0140)' . (%' *$' 8 , . 1)%' ' . 5' 0/, -+)' 0*&)%. , . -0' 6$*51(%5' 42' 4/*(9, . -' *&' 08' // 7%00%/0' A%84*/, 08' *$')+$*84*0, 0R' ,)+' /%0, *. 0' *&')+, 0' 9, . 5' +%8, 6/%-, ' ' . 5' (*. 71/; 0, *. 0' '$%' *&)%. ' 8 *$%' *$' /%00' '00*(, ')%5' ((' 0, *. ' //2')+%' ('10%' 8 ' 2' 4%' ' . *. 026+, ; /,), (')18*8 ' *((162, . -')+%' 0, 5%' *$' 4' 0%' *&')+%' 4$', .

1%$6%$'ƒ (*.71/0,*.0' ,.')+%' &%8'/%'.5'
1$'%8,(`(3 71/0,*.0' ,.' 4*)+' 0%B%0' '1$% 8*0)'
&$%E1%.)/2'8%)'3,)+'51$,.-')+,0'6%$,*5' 1$;
,.-'6$%='.(2')+%'%B(,)'4,/,)2'*&')+%'.%$7*10'
020)%8',0'*&)%.'-$%')/2',.($%' 0%5''.5',.')+%'
6$*51(),*.' *&' 61%$6%$'ƒ (*.71/0,*.0' 0*8%'
'8*1.)'*&'1$'%8,'' '/0*',.)%$7%.0' .*)' ,.&$%;
E1%.)/2' .)%86%$')%'+'4,)0'('$$,%5')*' %B;
(%00'&$%E1%.)/2'6$*51(%'&,)0''.5'0*' '/0*'8'2'
7%.%$%'ƒ%B(%00%0
& ' & ' 0'A !' 2%'$0''.5'*.3'$50R'
+%'%B(,)'4,/,)2'*&')+%'.%$7*10'020)%8'5,8,;
.,0+%0'0*')+')' %6,/%6),(' '))'(90' (*88%.(%'
3,)+'81(+'/%00'&$%E1%.(2''))+,0'6%$,*5')'
)+%'(/,8'()%$,(')+,0'%B(,)'4,/,)2',0')%86*$'$,/2'
,.($%'0%5''.5'&,)0'-'5.'4%(*8%'8*$%'&$%;
E1%.)'1.5%$'0+-+)'%B(,),.-'('10%0
/)+*1-+'&,)0''$%'*./2'7%$2'$'$%/2'+'4/%')*'
4%',.51(%5'42')+%'0%E1%/''%'*&'+'%8*$$+'-%0'
*$*&'*((/10,*.0'*&'(%$%4$'ƒ7%00%/0'2%)')+%0%'
%7%.)0'.*3'-$*3'8*$%'(*88*.'0'-%'5;
7'.(%0''.5''$%')+%$%&*$%')*''.''/8*0)'(*$;
$%06*.5,.-'%B)%.)'8*$%'/,'4/%')*'&,-1$%'0'
'10%0'*&'(*.71/0,7%'))'(90' .'))'(9'*&
+'%8*$$+'-%'*$*&'0*&)%.,.-'8'2'4%'10+%$%5'
,.'42'%6,/%6),&*$8'(*.71/0,*.0' A%06%(,''//2'
3+%.')+%'/%0,*.'*((1$0',.'(%$)',.'6')0'*&
)+%'4$',.R''.5',.'0*8%'('0%0'01(+''))'(90'
8'2')+%$%'&)%$'$%(1$')',$$%-1/'$',.)%$7'/0'
B6*01$%')*'-$%')'+%')'*$'01.0)$*9%'8'2'
'/0*'')'+,0'6%$,*5'*$%'$/,%$''()''0')+%'%B;
(,),.-'('10%'*&'(*.71/0,*.0
%.)'ƒ*7%$3*$9'3*$$2'&$,-+)''.5'01(+;
/,9%',.&/1%.(%0''$%'81(+'/%00'/,9%/2' '*6%;
$')%',.'6%$0*.0'*7%$' !')+'.',.'%'$/,%$'/,&%H
'.5')+%'0'8%',0')*'4%'0',5'*&'4/*30'*$',.>1;
$,%0'*&')+%'+%'5'0+*$)'*&')+%'8*0)'0%7%$%'
('108-'()1'ƒ/%0,*.0'*&')+%'4$',.' 1)')+%'
8'/.1)$,),*.' .'.5'5%-%.%$'),*.',.51(%5'42'
,.)%86%$')%'+'4,)0'9,.5H'.5'0*' /0*'8'2'4/**5'
6*,0*.,.-'&$*8'$%.'ƒ5,0%'0%'3+,(+',0'*&)%.'
6$%0%.)
'$,*10'*$-'.,(' 5,0%'0%0' *&')+%'4$',.'
3+%)+%$'6$,.(,6'//2'(+'$'()%$,0%5'42'5%-%;
.%$'),*.0'3,)+''' 6$*(%00'*&'8*$%'*$'/%00'
-%.%$'ƒ')$*6+2'*$'3,)+'/*('/,0%5'*7%$-$*3)+'
&'(,8%(),7%',001%''$%''/0*'.*)',.&$%E1%.)/2'
6$*51(),7%'*&'(*.7,50,*.0'%,)+%$',.'6%$0*.0'
&'8,55/%'$*&'57'.(%5''-%' '3%// 8'$9%5'
,.0)'.(%'*&')+%'&*$8%$'*&')+%0%''00*(,'),*.0'
,0')*'4%',.%)'3,)+',.'-%.%$'ƒ6'$'/20,0'*&')+%'
,.0'.%' 20),(%$(,'*.')+%'01$&'(%'*&')+%'4$',.'
+'7%''/0*'4%%.')+%'('10%'*&'8*0)'*40),.')%/2'
$%(1$$,.-'(*.71/0,*.0
'0)/2',)'0+*1/5''/3'20'4%'4*$.%',.'8,.5'
)+')'(*.71/0,*.0''$%'0*8%),8%0')+%'$%01/)'*&'
)+%'('(),*.'*&'6*,0*.0'*&'7'$,*10'9,.50'16*.'
6%$0*.0'*&''.2'-%'((0,*.''//2'01(+'6*,;
0*.,.-'8'2'4%'4$*1-+)'*4*1)'42'*$),(/%0'
&'5,%)'01(+''0'8100%/0'$'&,0+',.'(%$)'.'
0)'%0''*$'6*,0*.*10'810+$**80H'3+,/0)''
*)+%$'),8%0',)'$%01/)0'&$*8'0*8%''*&')+%'3%//'
9.*3.'.'$(*),(*,$$,)'.)'6*,0*.0')'9%.'%,)+%$'
,.'57%$)%.)/2'*$'61$6*0%/2
!'$ ' " +%0%'*"'+

0',5'0*'&'$'0,0'*1$'6$%0%.)'9.*3/%5-%'-*%0'
)*'4%'40%.)')',0')$1%')+')'-%.%$'ƒ*$'6'$;
),'ƒ(*.-%0),*.'*&')+%'4$',.'8'2'&$%E1%.)/2'
4%%.(*1.)%$%5',.')+*0%'3+*'5,%'51$,.-'.'
'))'(9'*&'(*.71/0,*.0' 1)',)+,0'(*.-%0),*.'
,0')*'4%'$%-'$5%5'0''' $%01/)'$')+%$')+'.'0'
''('10%'*&')+%'&,)' +%'(*.71/0,*.0''$%'51%'
)*'8%$%'8*/%(1/'$'(+'.-%0',.')+%'4$',.',.;
'66$%(,'4/%')*'*$')'//%7%.)0'1.'66$%(,')%5'
'0'2%)'42')+%'8*0)'09,//%5'8,%$ 0(*6,0)0'
+%.'&,)0'*((1$',.'00*(,'),*.'3,)+'()1'ƒ
*$-'.,(' -$*3)+0'*$*)+%$'/%0,*.0'*&')+%'(%$%;
4$'ƒ(*$)%B'*$%/%3+%$%'0*8%'*&')+%'.%$7%'
(%&,0'(*.),-1*10')*'01(+'/%0,*.0'8'2'+'7%'
)+%,$'.1)$,),*.'0*'/)%$%5''0')*'&*$8'*((';
0,*.'ƒ0)'$),.-6*,.)0'&*$'.%$7*10'5,0(+'$-%0'
3+,(+'5%0(%.5'0*' 0')*'160%')+%'%E1,/,;
4$,18'*&'(%$)',.',80'4/%'*$+,-+/2'(+'$-%5'
8*)*$' %.)$%0'A6*.)*(%$%4%//'$R',.'01(+'3'20'
0')*'5%)%$8,.%')+%'(*.71/0,7%'6+%.*8%.''
1)''' 0,8,/'$'5,0)1$4'.(%'*&'.%$7*10'%E1,'
/,4$,)1.'3,)+'5,0(+'$-%'*&'8*)*$'%.%$-2',8;
8%5,')%/2'6$*51(),7%'*&'(*.71/0,7%'6+%.*;
8%.''8'2'$%01/)',.''.*)+%$'('0%'&$*8'
'4.*$8'ƒ7,0(%$'ƒ,86$%00,*.0'A,.51(%5',)'
8'2'4%'42',.5,-%0),4/%'8'))%$0',.')+%',.)%0;
),.%'*$'42'.'(1)%'5,0%'0%'*&')+%'/1.-0R'*$
&$*8'0*8%'01$&'(%,$$,)'),*.'.''((*$5'.(%
,)+)+,0'6*,.)'*&'7,%3'1(+'*$-'.,(' -$*3)+0'
$*)+%$'/%0,.0''.0'8'2'4%'&*1.5',.')+%'4$',.0'
*&'%6,/%6),(''6'),%.)0'.%%5'$%(%,7%'.*'&),$)+%$
8%.),*.'+%$%'+*0%'3+*'8'2'4%',.(/,.%5'
)*')+,.9'*)+%$3,0%'0+*1/5'4%'$',.'8,.5')+%'
&'()')+')'(*.71/0,7%'))'(90'$%'%'0,/2'6$*;
51(%5',.''.,8'/0'&$*8'3+*8')+%'(%$%4$'ƒ
+%8,06+%$%0'+'7%'4%%.'$%8*7%5')'0+*1/5'
'/3'20'4%'4*$.%',.'8,.5'+*3%7%$')+')+%$%'
,0'*.%'$%-.*.',.'6')$),(1/'$'*&')+%'(%$%4$'ƒ
(*$)%B'7,C')+%'0*('//%5'*/'.5,(''$%'A(*8;
6$,0,.-')+%'(*.7*/1),*.0'3+,(+'4*1.5')+%'
&,001$%'*&'*/'.5*R')+%',$$,))',*.'*&'3+,(+'
42'.%3-$*3)+0'*$*)+%$'*$-'.,(/%0,*.0',0'
06%(,'//2'6$*.%')*'-,7%'$,0%')*'1.,/')%$'ƒ(*.;
71/0,*.0'3+*0%'(+'$'()%$,0),(0'$%',.'8''.2'
$%06%()0'%B)$%8%/2'3// 5%&,.%5'A0''(90*.,.'
%6,/%602R

!(! 'G' +%'7=%5'.')1$%'*&')+%'
('10%0'8'9%0',',86*00,4/%')*'0'2''.2)+,.-'
*&'8*5%$')%'(*86'00'(*.(%$.,.-')+%'6$%;
8*.,)*$2'0,-.0'*$'0286)*80'3+,(+'8'2'
6$%(%5%''.'*1)4$%'9'*&'(*.71/0,*.0' +%0%'
810)'.%(%00'$,/2'7'$2',88%.0%/2',.'5,&&%$%.)'
('0%0' *8%'*&')+%'(+'$'()%$0'*&')+%'6$%;
5,06*0,.-'0)')%'+'7%'4%%.'/$%'52''//15%5')*'
+%'*.0%)',0'+*3%7%$'*&)%.'4$16)'.'5'
,)+*1)''.2'A+0),.()'6$%8*.,)*$2'0286)*80
,)+'$%-'$5')*')+%'(1'ƒ('$'()%$0'*&')+%'
'))'(9',)'3,/'4%'01&,,(.%.)')*'0'2'+%$%')+')'
)+%2'/0*'7'$2'%B)$%8%/2',.'5,&&%$%.)'('0%0H'
.'5'0'.*)3,)+0)'.5,.-')+,0'-$%')'7'$,4,/,)2'
,)',0',86*00,4/%',.''.2',.5,7,51'ƒ('0%')*')%//'
&$*8')+%'.')1$%'*&''*8*$%'*$/%0'(*.71/0,7%'&,)'
3+%)+%$',)'3,//&*$8''*8*$%'*$/%0'(*.71/0,7%'&,)'
('))'(9'*$'3+%)+%$',)'3,/'(*.0),)1)%'*.%'*&''
0140%E1%.)/2'$%(1$$,.-'0%$,%0')+%'$%'5%$'
8'2'&*$)+,0'6')'*&')+%'014>%()'4%'$%&%$$%5

!@

)*')+%'5%-($,6),*.'*&)+%'5,&&%$%.)'&*$80'*&')+%'
'))'(9'-,7%.'1.5%$' 7 / 7 ' /F)+')',0'
)+%$%'0',5'(*.(%$.,.-')+%')'()1'f6+%.*8%.*'
'.5'8%(+'.,08'*&')+%')'(90'+*/50'-**5'
&*$*((`0,*.'f(*.71/0,*.0'`0'3%/f'0'&*$')+*0%'
3+,(+'`$%'+`4,)1'' .'%'(+'3% 8`$9%5'
'))'(9'3%'+`7%')*'5*'3,)+'A8R'*8*$%'*$/%00'
5,0),.()'0)'-%'*&')*.,(`06'08'&*//*3%5'A<R'
42'*.%'*&(/*.,(`06'080'.5'A9R01(;
(%%5%5'42'*')0')'%'*&'0)16*$'.%'*$*)+%$'*&'
01(+'0)'-%0',0'+*3%7%$'+*),.&$%E1%.)/2'
8*$%'*$/%00'`4*$),7%'*.71/0,7%')'(90'
8'2'')'),8%0'0*'$'6,5/2'&*//*3'*.%'.*)+%$'
'0')*'4%'8%$-%5',.)*'*.%/*.-'0%$,%0'*$'
")'5,&&%$,.-',.'.*'$%06%()'-)$*')+%'
'./*-*10'D
$BHB $& &F+%'(*8;
6/,(')',*.0'*&'(*.71/0,*.0'`$%'8*0)'7'$,*10'
0%%,..-')+')',.'5,&&%$%.)'('0%^3%'8'2'+'7%')*'
5*'3,)+',$$,)')%5'-180'$%6/%),*.'5,'$$+*%''
3*$80'*$''.'(1)%'06%(,&,('5,0%'0%H3+0)'
,.'*)+%$'('0%0')+%'('10'f(*86/,('),.-'(*.;
5,),*.0'8'2'4%'-%.%$'f5%4,/,)2'.5'0/%%6;
/%00.%00'8%.)'f'.B,%)2'614%$)2'*$')+%'
(/,8'()%$,('6%$,*5'-',.',.'*)+%$'('0%0'
%,)+%$'6.%18*.,''$%.='5,0%'0%'6$%-.'.(2'
7'$,)0'$0*8%'*$-'.,('4$',.5,0%'0%'8'2'
4%')+%''((*86'.2,.-'(*.5,),*.
+%'.')1$%'*&')+%'0%E1%/['3,/f5%6%.5'
6$,.(,6'//2'16*.')+%'&$%E1%.(2'*&')+%')'(90'
'.5')+%'51$'),*.'*&')+%'6%$,*5'51$,.-'3+,(+'
)+%'6'),%.')+'0'4%%.'014>%()')*')+%'$%(1$$%.(%'
&')+%8'0')+')'&*$'),0'6'$)'*&')+%'014>%()'
)+%'$%'5%$'8'2'$%&%$')*')+%'$),(/%'*(`$(
& G +%$%',0'7%$2'+))/%'5,&&,(1/)2'
,.'$%-'$5')*')+%'5,'-.*0,0'&'(*.71/0,*.0'
+%'5,&&%$%.),'f(+'$'()%$0'*&'/'$2.-,0810'
0)$,51/10'`$%'-,7%.'%/0%3+%$%''.5')+%'
'40%.(%'*&'.2'$%'/5,0),.(),*.'4%)3%%.''
&,)'*&%(/'860,'' .5''&,)'*&'%6,/%602'+'0'
'/$%'52'4%%.',.0,0)%5'16*.'%,)+%$'*&')+%0%'
'&&%(),*.0'(.'4%%'0,/2'(*.&*1.5%5'3,)+'
(%$)',.'&*$80'*&'(+*$%''3+,(+'*((`0,*.'//2'
6$%0%.)')+%80%/7%0',.'`51/)00'3,)+'8*7%;
8%.)0'.*)'1./,9%')+*0%'*&'*$5,.`$2'(*.71/;
0,*.0'+%'8*$%(*.),.1*10'.')1$%'*&')+%'
8*7%8%.)0'.5')+%'&')')+')'(*.0(,*10.%00'
,0'.*)',86',$%5'01&&,(%')*'5,0),.-1,0+'//f
&*$80'*&'(+*$%''+%'06'080'*&')%)'.10'
'.5'+25$*6+*4,'' `$%'/0*'%'0,/2'5,0),.-1,0+;
'4/%'&$*8'.'*$5,.='))'(9'*&'(*.71/0,*.0
+%'#!)#)#`$-'!"#)#'#$.4>
$'`)'/$7'$4'`!')#'
+%'$%'f5,&&,(1/),%0'&$*8')+%'6*,.)'*&',%3'
*&'5,'-.*0,0'+'7%'$%&%$%.(%')*')+%'('10%'*&'
)+%')'(9'*'$$,7%')'`5%(,0,*.',.'5%-'$5'
)*')+,0'.*&)%.'7%$2'5,&&,(1/)''.5'*((`0,*.'//2'
,86*00,4/%G')'//'%7%.)0'3+%.''6'),%.)'&,$0)'
(*8%0'1.5%$'*40%$7')*.'`)'*)+%$')8%0'
+*3%7%$')+%',.5,(',*.0'$%0*'6/','.')+')'
)+%$%('.'4%/,))/%'*$'.*'5,&&,(1/)2'`)'0'`
E1%0),*.'3+,(+'0+*1/5'`/3'20'4%'(*.0,5%$%5'
3,)+')+%'1)8*0)'('$%'0,.(%'*.')+%'(*$$%();
.%00'*&'*1$'(*.(/10,*.0'.'$%-'$5')*')+,0'6*,.)
)+%'%&&,('(2'*&')+%'6'$),(1/'$'/,.%'*&)$%')8%.)'
3+,(+'3%'`5*6)'8 10)'.%(%00'$,/2'5%6%.5

)+,.-',0'8$%')*'4%'5%6$%(')%5')+'.'+'0)2'
>186,.-''')'(*.(/10,*.0'&$*8'8%$%'$*1),.%
',R5'016%$&,(,'f(*.0,5%$'),*.0'+%'(*.5,),*.'
*&')+%'6'),%.)'810)'4%'('$%&1//2'%B'8,.%5'
.5')+%'.1$0%')'))%.5'.)0'*$'$%/'),7%0'810)'
4%'(/*0%/2'E1%0),*.%5',.'*$5%$')+')'3%'8'2'
/%'$.'0'81(+'0'6*00,4/%'0')*')+%'6$%7,*10'
0)')%'*&'+%'/)+'*&')+%'6'),%.)''.5'8*$%'
%06%(,'//2'0')*')+%'),8%'.5'%7%.)0'3+,(+'
,8 8%5,')%/2'6$%(%5%5')+%'&,$0)'*1)4$%'9'
&'.'))'(9'&'(*.71/0,*.0'B'8,.'),*.'
.5',.E1,$,%0'(*84,.%5'82'(*.7,.(%'10'
)+')')+%'(*.71/0,*.0'`$%'A8R'*&')+%'6$,8'$2'
$,5,*6')+,('7'$,%)2',88%5,')%/2'((`0,*.%5'
6%$+'60'42'&$,-+)'.B,%)2'*7%$3*$9'*7%$;
81(+'*$',.5,-%0),4/%'&**5'^(H*$3%'82'
(*8%')*')+%'(*.(/10,*.')+')')+%'(*.71/0,*.0'
`$%'A<R'*&')+%'0286')+%),(''*$5%$'5%6%.5%.)'
16*.'6$%-.'.(2'$%.'/5,0%'0%')+%'*$-'.,('4$',.'
5,0%'0%')+%'.')1$%'*&'3+,(+'810)'+%.'
4%'5%)%$8,.%5''0'.%'$/2''0'6*00,4/%'>15-,.-'
&$*8')+%'-%'*&')+%'6'),%.)')+%'8*5%'*&'
.0%)'&')+%'))'(90'+,0'6$%0%.)'0)')%''.5'
'00*(,')%5'(*.5,),*.0
.''.2'(`0%'3%'82'+'7%')*',.E1,$%$E*$%
(/*0%/2''0')*')+%$%),)'$2')%.5%.(,%0'*$'(;
E1,$%5'6$%5,06*0,.-'('10%0'3+,(+'0*8%),8%0'
$%51(%')+%'.%$7*10'020)%8')*'01(+''5%-$%%'
&'%B(,)'4,/,)2'$'5,0),14%5'%E1,/,4$,18'*&'
(%$)',.'6'$)0''0')*'/%'5')*''.'))'(9'*&'(*.;
71/0,*.0'3,)+*1)'+%'.5'f'2.-,0810'
(,),.-'('10%'.',.&'.)0'*$'7%$2'2*1.-'(+,/;
5$%.'01(+''(*.5,),*.''*&')+%'.%$7*10'020)%8'
8'2'5,06/'2',)0%/&'42'-$%')'$%0)/%00.%00'.5'
0)'$),..-0'`)'.,-+)'42')+%'(+,/5<0'0/%%6,.-'
3,)+'+'/&*6%.'%2%0'42'5$'3,.-',.'*&')+%'
)+1840'($*0')+%'6'/80'42')3,)(+,.-0'*&'
)+%'/,840'*&')+%''.-/%0'*&')+%'8*1)+'*$'*&'
)+%&'(,'f810(/%0'-%.%$'//2'.'*/5%$'(+,/;
5$%.''.5',.'2*1.-'`51/)0')+%'0,.-0'3+,(+'
8*0)'%'0,/2'8'$9''0,8,/'$'4%/*3 6'$'(*.;
5,),*.'*&')+%'.%$7*10'020)%8'`$%')3,)(+,.-'
*&')+%810(/%0'4*1)')+%'.-/%'*&')+%'8*1)+'
'.5'*&')+%')*.-1%A)+%&*$8%$'4%,.-'06%(,'//2'
3%/f0%%.'3+%.')+%'/'))%$'*$-'.',0')$%81;
/*10/2'6$*)$15%5'&*$',.06%(),*.R'`00*(,')%5'
3,)+'5%4,/,)2'.'*$%B,''6'$),'f,.0*8.,''.5'
-%.%$'f.%$7*10.%00' .'.%$7*10'-,$/0'&,)0'
'$%',.51(%5'42'7%$2'0/,-+)'(`10%0'*4*1)')+%'
),8%'3+%.')+%'(')'8%.,''4%(*8%&,$0)'%0)'4;
/,0+%5' +%',.5,(',*.0'&*$)$%')8%.)'810)'
,.'&')'7'$2',88%.0%/2',.''.2'&,7%'*$'0,B'
(*.0%(1),7%'(`0%0'*&'(*.71/0,*.0')*'3+,(+')+%'
6$'(),),*.%$'8'2'4%016'.,*.%5
G +%'6*00,4,/,),%0'1.5%$')+,0'
+%'5''$%'')'/%')0'0,B',.'.184%$',.'$%-'$5')*'
'.2'(`0%'*&'(*.71/0,*.0GAR +%'6'),%.)'
8'2'$%(*7%$'&)%$'+'7,.-''5 0,.-/%'&,)'*$''
4')(+'*&')+%8'3,)+,.''&%3'+*1$0'*$'5'20'
'.5'8'2'.%7%$'+'7%''.*)+%$'))'(9'A<R+%

6'),%.)' 8'2'$%(*7%$' '.5')+*1-+'+%'*$'0+%
8'2'.*)'+'7%&,)0'+'4,). ' 2')+%$%'&)%$')+%2'
8'2'$%(.$'))' 6$*/*.-%5',.)%$7'/0' 3+%.%7%$'
6$%5,06*0,..-' (,$(.80)'.(%0' (+'.(%')*' 4%'
0)$*.-'*$'$% 0166/%8%.)%5'42'.'%B(,),.-'
('10%*&1.101'/6*)%.(2' +10'(*.71/0,*.0'
51$,.-')%%)+,.-' 8'2'(%'0%'.5'8'2'.*)'$%;
(1$),//)+%'(*.0),)1),*.'+'0'4%%.'/*3%$%5'42'
0*8%,//.%00'2%'$0'&)%$'*$'3+%.')+%'.%$7*10'
020)%8'+'0'4%%.'$%.5%$%5'8*$%',$$,)'4/%'.'0'
')')+%'),8%$3+%.')+%'(')'8%.,''$%'*4*1')
)*'(*88%.(%'%06%(,'//2',&')+%.'0*8%'0+-+)'
&$,-+)'0+*1/5''/0*'(*8%',.)*'*6%$'),*.'.'0'.'
%B(,),.-'('10%'A"R'+%'6'),%.)'8'2'$%(*7%$'
)+*1-+'+%'0140%E1%.)/2'(*.),.1%0')*'+'7%'
&,)0'%,)+%$'')',$$%-1/'$'*$'$%-1/'$',.)%$7'/0H
+%'4%(*8%0',.'0+*$)''(*.&,$8%5'%6,/%6),(
A R' +%'(*.71/0,*.0'8'2'(*8%')*'4%'&*//*3%5'
42')%86*$'$2'5%/,$,18'*$''8*$%'*$'/%00'
8'$9%5'8'.','('/'(*.5,),*.'$%(1$$,.-'&)%$'
'//'*$'0*8%'0%,C1$%0'AFR'+%'6'),%.)'8'2'
$%(*7%$'&$*8')+%'(*.71/0,7%''))'(9'.5'8'2'
*$'8'2'.*)'+'7%''.*)+%$'&,)')+*1-+'+%'8'2'
$%8','+%8,6/%-,(' ALR'+%'6'),%.)'8'2'5,%
51$,.-'))'(9'*$'/8*0)',8 8%5,')%2'
'&)%$3'$50G A'R'&$*8')+%'%&&%()0'*&',)'*$'ALR'42'
$%'0*.'*&'0*8%'*$-'.,(' /%0,*.'42'3+,(+')+%'
&,)',)0%/&'+'0'4%%.'5%)%$8,.%5
%(*7%$,%0' '$%'&*$)1.')%/2')+%'$1/%'41)'
5%')+'%06%(,'//2',.',..&'.)0',0'42'.*'8%'.0'
1.(*88*.' %'6*00%00'.*'((1$')%'5')'')*'
%.'4/%' ')*'00,-.')+%'.18%$,('/'6$*6*$),*.'
&)+%0%')%$8,.'),*.0')*'*.%'.*)+%$'$)*')+%'
*)+%$'4*7% 8%.),*.%5'0%E1%.(%0
! G 1$,..-')+%'(*.71/0,*.',)0%/&'
3+%)+%$'3%'+'7%')*'5*'3,)+'.',.&'.)'*$'.'
'51/)' L' 810)'0%%')+')' '//'(/*)+%0' '$%
)+*$*1-+/2'/**0%' '4*1)')+%'.%(9'.'5'(+%0)'
'.5')+%'6'),%.)'0+*1/5'4%'6/'(%5',.')+%'016,.%
6*0),*.'3,)+')+%'+%'5'0/,-+)/2'$'.0%5' %;
2*.5'0%%,..-')+')')+%'6'),%.)'5*%0'.*)'9.*(9'
*$',.>1$%'+,80%/&'*3,.-')*'+%'7,*/%.(%'*&'
+,0'8*7%8%.)0')+%0%'0+*1/5'.*)'4%'81(+'
$%0)$'',.%5H'/)+*1-+'%&&*$)0'0+*1/5'/3'20'4%
8'5%')*'6$%7%.)')+%'*.-1%'4%,.-'4,))%.'42'
0/,66,..-')+%'8*0)'01,)'4/%')+,.-''')'+'.5'4%;
)3%%.')+%'8*/'$')%%)+'*.'.%'0,5%'3+%.')+%'
'-%'*&')+%'6'),%.)'<)+%'(+'$')()%'*&')+%'&,)'
$%.5%$0',)/,9%/2')+')'),0%'7%.)'8,-+)'*)+%$;
3,0%'*((1$' %2'.5'01(+'0,86/%'8%'01$%0'
'0')+%0%')+%'/%00'3%5'*51$,.-')+%''()1'/(*.;
),.1'.(%'*&')+%'&,)')+%'4%))%$',)'3,//6$*4'4/2'
4%'&*$')+%'6'),%.)' %'9.*3'*&'.*'$'),*.'/
*$'01((%00&1/'8%'.0'*&'(1)),.-'0+*$)''.'
$5,.'$2'')'(.71/0,*.0''.5',.')+%'
&'(%*&'01(+'.')'))'(9'3%0+*1/5'4%'(1),*10'
+*3'3%',.)%$&%$%'/%0)'%7,/'8'2'4%'5*.%
+%$%'3%'+'7%')*'5*'3,)+''101((%00,*.'*&'
'))'(90'E1,(9/2'&* *3,.-'*.%''.*)+%$'.'5'
3+,(+'+'7%''/$%'52'/'0)%5'0*8%',)8%')+%
,.>%(),*.',.)*')+%'$%()8.'*&'(+/*$'/+25$')%'
3,)+'*$'3,)+*1)'4$*8,5%'*&'6*)'00,188',.'
01,)'4/%'5*0%0'8'2'4%'4%.%&,(,'/H*$')+%'
('$%&1/'58,.,0)$'),*.'*&'(+/*$*&*$8'8'2'4%'
)$,%5''0',)'&*1.5'7%$2'0%$7,(%'4/%',+'8'.2'
('0%0'3+%.''' ' ")) '*((1$0',.

(+,/5$%.'*$',.'51/)0G)+*1-+',)'3*1/5'.*)'
4%'5%0,$'4/%')*'+'7%'$%(*1$0%')*',)',.',.&'.)0'
.5%$'0,8,/'$'($(180)'.(%0'&*$')+%'/'))%$'
)+%'3'$8'4')+'8'2'4%'0140),)1)%5''.5'
0*8%),8%0'0%%80')*'5*-**5' .),62$,.''.5'
'.),&4$,.'+'7%''/0*'*((0,*.''//2'4%%.'-,7%.'
3,)+'4%.%&,)',.'('0%0'3+%$%&,)0''$%'01((%%5;
,.-'*.%''.*)+%$'$'6,5/2''.5'0(+'5$1-0''$%'
%06%(,'//2',.5,(')%5',.')+*0%'('0%0'3+%$%')+%'
)%86%$')1$%',.')+%'$%()18'$,0%0'$'6,5/2')*'
!?g' '*$'163'$50
.')+%'(%00'),*.'*&')+%'(*.71/0,*.'*$'
(*.71/0,*.0'*$'51$,.-')+%',.)%$7/0')+%'
)$%')8%.)')*'4%'5*6)%5')*'6$%7%.)')+%,$'
$%(1$$%.(%'810)'.(%'%00'$,/2'7'$2',88%.0%/2'
'((*$5,.-')*')+%'-%'&')+%'6'),%.)'.5'
'((*$5,.-')*')+%'6$%5,06*0,.-'.5'%B(,),.-'
('10%0'3+,(+'66%'$')*'+'7%'4%%.'*6%$'),7%'
,.'.51(,.-')+%'))'(9
.'*7%$/*'5%5'0)*8'(+'3,/'('//'&*$')+%'
06%%52'58,.,0)$'),*.'*&'.'%8%),(H*$'3+%$%'
,.5,-%0),4/%'&**5'+'0'/$%'52'600%5',.)*')+%'
,.)%0),..%'.'%.%8''<)4$,0$'61$-'),7%'0+*1/5'
4%'-,7%.'','$$+*%''810)'4%'(+%(9%5'*$'
.)+%/8,.),(,0'58,.,0)%$%5'3+%.'3*$80'$%'
0106%()%5' 180'8'2'4%'/'.(%5',&')+%2'
0%%8'$%'//2')*'.%%5',)' .'8'.2'*&')+%0%'
%'0%0'.'.''(E1,$%5'*$'+%$%5,)'$2'6$%=06*0,),*.'
3,/'+'7%')*'4%'(*84')%5'42')+%'('$%&1/$%-1;
/'),*.'*&')+%'5,%)'0*')+')'.1)$),*'10'.5'%,/2'
5,-%0)%5'&**5',0')*'4%'-,7%.','.'6/'(%'*&')+%,$'
*66*0,)%0''.5')')+%'0'8%'),8%')+%'8*0)'
01,)'4/%'.%$7,.%')*.,(0'.5''.),06'08*5,(0
$'-%.%$'/10%&1/.%00'.'01(+'('0%0'.'
$%8%5,%0'('.'(*86'$%'3,)+')+%'4$*8,5%0'*&'
6*)'00,18'0*5,18''.5''88*.,18' +%'
&*$8%$'0')'0%%80')*'4%')+%'8*0)'6*)%.)'*&'
)+%')+$%%H)+*1-+',&')+%'4$*8,5%'*&'0*5,18'
3,/'(+%(9')+%'&,)0',)',0'*&)%.'8*$%'5%0,$'4/%'
)*'-,7%',)')+'.')+%'6*)'00,18'0'/)'.')+%'
*)+%$*+'.5'3+%$%')+%'(,$(B5'),*.',0'3%'9'*$
8%.)'/5%6$%00,*.',0'6)')*'4%'.,51(%5',)',0'
&)%.'4%0)')'58,.,0)%$'4$*.>,5%'*&'.>8*'
.,18' *8%),8%0')+%'4%0)'$%01/0'8'2'+%'
4)',.%5'42'-,7,.-')'*&)+%0%0')/)0',.'(*8;
4,.'),*.H')'*)+%$'),8%0'42'58,.,0)%$,.-'
8*5%$')%'5*0%0'*&'(/*$'/+25$')%',.'*8;
4,.'),*.'3,)+'*.%'*$*)+%$'*&')+%8' 0'6')$'
*&')+%'06%(,&,('.&/1%.(%'3+,(+')+%0%'5$1-0'
%B%$(,0%'*7%$'.%%%,001%')+%2'&*$)1.')%/2'
%0)'4/,0+''')%.5%.(2')*'E1,%)%$''.5'0*1.5%$'
0/%%6''&'3+,(+'01(+'6'),%.)0'*&)%.'0)'.5'
81%+',.'.%%5' %.-$',.'5*0%0')+$%%'),8%0'
''5'2'0+*1/5'4%'-,7%.''')+%'(*88%.(%8%.)'
)*'2*1)+0'*$'51/)0''.5'&)%$3'$50'0/,-+)/2'
,.($%'0%5',&'.%(%00'$2' $''/'$-%$'5*0%'
8'2'4%'-,7%.'*.(%''5'2',%,)+%$',.')+%'
8*$.,-'*$')'.,-+)'*$'.,-+)''.5'8*$.,.-'
'((*$5,.-')*')+%',.5,(),*.0',.'%'(+'('0%
%$2'/'$-%'5*0%0'*&')+%0%'5$1-0'$%'$2'
4%.%&,(,'/''.5'8'2'5*'+'$8',' 0 ! !3'
+%,$''(),*.'*&)%.'0%%80')*'+%'&'7*1$%5''.5'
+'$8&1/02886)*80'3'$5%5'*&&'42'(*84,..-'
3,)+')+%'4$*8,5%0'01,)'4/%'5*0%0'*&',E1*$'
'$0%.,('/,0'.5'),.(0)1$%'*&5,-,)'/,0'*$'*&'(*.'
7'>/'$,'' X1,.,.%'*$'4%//'5*..''''$%'+)+%$

$%8%5,%0 3+,(+ 8 '2 '/0** *&)%. 4% -,7%.
0,81/)'.%*.0/2 3,)+ -$%')K'57'.)'-%* *$
2*1.-'(+,/5$%.* *$,.&'.)0)+%5*0%* *&')+%
4$*8,5%8 10)'*&'(*1$0%'7'$2 3,)+')+%,$'-%
'/=,'.')%**&'C,.('.5'*$,5%**&'C,.('$%
8*0)/2 $%8%5,%0 *& ')*-%)+%$ /%00 6*3%$
)+*1-+')+%0%'.5**)+%$ 5$1-0 8 2 4%')$,%5
3+%$%4$*8,5%0'66%'$)*'&',/ (('0,*.''//2
)**'-**5'$%01/)0 8 2'&*//*3'&$*8')+%'58,.0;
)$'),*.'*&4*$'B',.'5*0%0**&,&)%%.'*$)3%.)2
-$',.0)+$%%),8%0'5'2 &$%%/25,/1)%5'.5%*8
4,.%5 3,)+' E1*$'$0%.,%'+0'3+%$%4$*8,5%0
./2'0%%8')'--$'7')%')+%'6'),%.)<0(*.5,),*.
$')'/%'0)')*'4%6*3%$/%00&$-**5
%.%$'/)$%')8%.)'*&'),0'9,.5',0'66+('4/%
)*' '/'$-%6$*6*$),*.'*&'('0%0'/0**,.'3+,(+
,.'5%4,+)')%5'*$0.%$7*10'6'),%.)0&,)0'+'7%
4%%.'4$*1-+)'*1'42'&,1-+)'3*$2'*$'.B,%)2
*$'42'.*'00,-.'4/%('10% +%$%7%$)+%&,)0
+'7%'$%(1$$%5'&,$%E1%.)/2'.5''0*$)'*&'+'4,)
+'0')+10' 4%%.'%0)'4/,0+%5'01(+')$%')8%.)'
+'0')*'4%'(*.),.1%5'*7%$/*.-'6%$,*5 A*.%')*'
)+$%%2%'$0'*$8*$%R'3,)+'01,)'4/%'8*5,&,(';
),*.0',.'*$5%$')*'0)'86'*1)')+%')%.5%.(2')*'
$%(1$$%.(%'.5')+10'%&&%()''(8% .''//01(+'
('0%0'&'),-1%*&'8,.5'4*52',0'/3'20')*'
4%'7*,5%5H''E1,%)'.5'$%-1/'$/,&%'4
&$*8'%B(,)%8%.)',.10)'4%/%5H'.5',.')+*0%
,.0)'.(%0',.'3+,(+'*7%$'')%.),*.)*'410,.%00
*$*7%$0)152'+'0'4%%.'.,.'6')$)*6%$'),7%,.
4$,.-,.-'*.')+%'&,)0'40*/1)%'$%0)'810)&*$8
'.'%00%.),'/6')$)*&')+%')$%')8%.)' .'-,$/0
*$2*1.-'3*8%.',.'3+*8'&,)0'*((1$')')+%
),8%*&')+%0)'4+0+8%.)'*&')+%'(')'8%.,'
$3+%$%')+%2'$%(1$',.'00(,'),*.'3,)+'.'
,$$%-1/'$8%.0)$1'/&1.(),*.')+%-%.%$'/
+%'/)+'*&)%.$%E1,$%0*1$8*0)'(''$%&1/');
)%.),*.,'.''55,),*.')*'01(+'8%'01$%0'0'$%
'4*7%',.5,(')%5
+%'(*.71/0,*.0')+')'4%/*.-')*')+%'(/'00
9.*3.''0 # '+'7%')*'4%'('$%&1//2
(*.0,5%$%5',.'$%/'),*.')*')+%'8'/'52'*&3+,(+
)+%2''$%')+%&*$%$1..%$0'*$'00*(,')%0' +%.'
(*.71/0,*.0'6$%(%5%'.'))'(9'*&0('$/%)&%7%$
$&'08''// 6*B')+%2'101'//2'0140,5%*&')+%8;
0%/7%0'0')+%'5,0%'0%'5%7%/*60' +%2''$%'
+*3%7%$'*&'81(+'8*$%'0,-$1&,('.(%3+%.'
*((1$$,.-'51$,.-')+%'(*1$0%'*$')*3'$50')+%'
(/*0%'*&'*.%'*&')+%0%'8'/'5,%0'*$'51$,.-''.'
'))'(9'*&'3+**6,.-(*1-+'*$'*&'($*16' 1$
,.5,(',*.0&*$%$%')8%.)'810)')+%.'4%5%$,7%5'
,.')+%'8','.&$*8')+%'-%.%$'/0)'%'*&')+%'
6'),%.)''.5')+,0'./0**%8,.%.)/2')+%'(0%
3+%$%'3%+'7%')*'5*3,)+'1$'%8,('(*.71/0,*.0
+%')$%')8%.)'*&' '(*.71/0,*.0'
5%6%.5%.)'16*.''()1'/*$-'.,('4$',.5,0%'0%'
810)'/0*'.%(%00'$,/2'4%'014*$5,.')%5')*')'
'66$*6$,')%&*$)+%''&&%(),*.',)0%/&'16*.'3+,(+'
01(+'0286)*80'5%6%.5'*'5$1-'3,/'4%
&*1.5'8*$%'-%.%$'//2'10%&,//'+*3%7%$')+'.'
4$*8,5%*&'6*)'00,18','.')%.')*'&,&)%%.-$','.'
5*0%0'&*$'.'''51/)'A'58,.0)0%$%5')+$%%),8%0'
''5'2R',.'(+%(9,.-'*$'5,8,.,0+,.-')+%'$%6%;
),),*.'*'&'(*.71/0,*.0',.')+%0%'(0%0'&)%.'
+%$%'/0*')+%'(),*.'*&')+%'4$*8,5%'0%%80'
)*'4%&'7*1$%5'42'(*84,.,.-',)'3,)+'E1*$
'$0%.,('/,0'.5'3,)+'8*5%$')%'5*0%0'*&'5,-,;
)'/,0')+%'/')0)%$'4%,.-',.5,(')%5'%06%(,'//2',.'
)+*0%'('0%0'.'3+,(+')+%$%',0'-$%')'-%.%$'/
.%$7*10.%00',.''00*(,'),*.'3,)+''5,0*$5%$%5'
('$5,'('$+2)+8' +%$%'0*,85%$'0/%%6',0'
.%(%00'$2'(+/*$'/+25$')%''/*.%'*$',.'(*8;
4,.'),*.'3,)+'4$*8,5%'&'6*)'00,18'0+*1/5'
4%'-,7%.''')'4%5),8%' 1/6+*.'/'*&)%.'+'0'
)+%'5%0,$%5'%&&%()' ,.()1$%0'*&'01841/'*$
*&'+%.4'.%'$%''),8%0'10%&1/'5>17'.)0
+%$%'3%'+'7%')*'5*'3,)+')18*1$0'*&')+%'
4$',.''.5'%06%(,'//2'3,)+'026+,/,),(-$*3)+0'
,.')+%'8%.,.-%0'81(+'4%))%$'$%01/)0'$%')*'
4%'+*6%5'&*$&$*8'/'$-%'.5',.($%'0,.-'5*0%0'
*&',*5,5%*&'6*)'00,18'A)+')',0'B')*'BBB'-$',.0'
$8*$%')+$%%),8%0''5'2R'%,)+%$'/.%'*$
,.'(*84,.'),*.'3,)+'08'//5*0%0'*&'4,(+/*$,5%'
&8%$(1$2',)+'01(+'5$1-0'3%'0+*1/5'
(*84,.%^%'58,.,0)$'),*.'*&.1)$,),*10'
&**5''.5'))%.),*.')*'+%',86$*7%8%.)'*&'
)+%-%.%$'/+%')+',.'%7%$2'3'2')+')'8'2'4%'
6*00,4/%'((0,*.''//2'4*)+',.')+%0%'('0%0'
'.5',.'.*.06%(,&,('(*$),('/-$*3)+0'.5'
)+,(9%.,.-0'*&')+%'58''8')%$')+%'*6%$'),*.'
*&')$%6+,.,.-'+'0'4%%.'+'5'$%(*1$0%')*'3,)+'
-$%')'4%.%&,)')*')+%'6'),%.)'.(%0'
''(*$),('/-$*3)+'*$''6*$),*.'&'0'4%%.'
),001%'*$'*&')+,(9%.%5'51$''8')%$')+%'*6%$'),*.'
%B(,0%5'3,)+')+%'%&&%()'.*)'*./2'*&'1$,.-'
6$%7,*10'6',.''.5')%.5%$.%00'41)'/0**'*&'
(1$,.-'$-$%')/2'5,8,.0+.-')+%'&$%E1%.(2'
&'%6,/%6),&$8')'(90')*'3+,(+'01(+'6'),%.)0'
+'7%'4%%.'014>%()' +%'(0%0'&*$'3,.(+')+,0'
)$%')8%.)',0'01,)'4/%'(*.0),)1)%'+*3%7%$'
*./2''(*86'$'),7%/2'08''/'6%$(%.)'-%H'.5'
81(+'>15-8%.)'.5'9.*3/%5-%'$%.%%5%5'
&*$)+%'0%/%(),*.'*&')+*0%',.'3+,(+'01(+'01$;
-,('/')$%')8%.)',0'/,9%/2')*'6$*7%'4%.%&,(,'/'
'0)',0%'0%0'*&H*($('H'.5'
($')',0%'0%0'*&
$ '0

&+53 G+,0')%$8',0'10%5'
,.'$%&%$%.(%')*'810(1/'$'8*7%8%.)0'6$,.(,;
6'//2' %$)',.'5'%06%(,.'//2'3,)+'026+,/,),(-$*3)+0'
,.')+%'8%.,.-%0'81(+'4%))%$'$%01/)0'$%')*'
4%'+*6%5'&*$&$*8'/'$-%'.5',.($%'0,.-'5*0%0'
*&',*5,5%*&'6*)'00,18'A)+')',0'B')*'BBB'-$',.0'
$8*$%')+$%%),8%0''5'2R'%,)+%$'/.%'*$
,.'(*84,.'),*.'3,)+'08'//5*0%0'*&'4,(+/*$,5%'
&8%$(1$2',)+'01(+'5$1-0'3%'0+*1/5'
(*84,.%^%'58,.,0)$'),*.'*&'.1)$,),*10'
&**5''.5'))%.),*.')*'+%',86$*7%8%.)'*&'
)+%-%.%$'/+%')+',.'%7%$2'3'2')+')'8'2'4%'
6*00,4/%'((0,*.''//2'4*)+',.')+%0%'('0%0'
'.5',.'.*.06%(,&,('(*$),('/-$*3)+0'.5'
)+,(9%.,.-0'*&')+%'58''8')%$')+%'*6%$'),*.'
*&')$%6+,.,.-'+'0'4%%.'+'5'$%(*1$0%')*'3,)+'
-$%')'4%.%&,)')*')+%'6'),%.)'.(%0'
''(*$),('/-$*3)+'*$''6*$),*.'&'0'4%%.'
),001%'*$'*&')+,(9%.%5'51$''8')%$')+%'*6%$'),*.'
%B(,0%5'3,)+')+%'%&&%()'.*)'*./2'*&'1$,.-'
6$%7,*10'6',.''.5')%.5%$.%00'41)'/0**'*&'
(1$,.-'$-$%')/2'5,8,.,0+.-')+%'&$%E1%.(2'
&'%6,/%6),&$8')'(90')*'3+,(+'01(+'6'),%.)0'
+'7%'4%%.'014>%()' +%'(0%0'&*$'3,.(+')+,0'
)$%')8%.)',0'01,)'4/%'(*.0),)1)%'+*3%7%$'
*./2''(*86'$'),7%/2'08''/'6%$(%.)'-%H'.5'
81(+'>15-8%.)'.5'9.*3/%5-%'$%.%%5%5'
&*$)+%'0%/%(),*.'*&')+*0%',.'3+,(+'01(+'01$;
-,('/')$%')8%.)',0'/,9%/2')*'6$*7%'4%.%&,(,'/'
'0)',0%'0%0'*&H*($('H'.5'
($')',0%'0%0'*&
$ '0

)+,0' $%-,*.' ' . ')* 8 ,(' //2' *$ &* . (),* . ' //2 ' ' . 5' +0%) . *$$+ ' -% ,0' 1 . 9 * 3 .

+% (*$6*$'' E1 ' 5$,-% 8 ,. '' '$% ' +*3%7%$ ' . *)' , . &$%E1% .)/2' , . 7*/7%5' . ' /%0,* . 0' 3+,(+' , . 7 ' 5% . %,-+4*1$,. -' 6 ' $)0 ' 01(+' ' 0' 8 %. , . ; -,),0 0, 8 6/%' . 5')14%$(1/' $ ')1 8 *1$0 ' %06%(,; ' //2' *& ')+% 6,. %' /' -/ ' . 5') . 5')+% * 8 ,55/%' /*4% *& ')+% (%$%4%//1 8 ' ^(

)' ,0' 0)')%5' 42' *B6%$,8 %.)%$0' *. ')+%' ,*3%$ ' . ,8 ' /0' A6,-%* . 0' ^ % R) + ')' 3 + % . ')+%' ' .)%$,*$)14%$(/%0 ' 3+,(+' '$% ' 8 *$%' %06%(,' //2' (* . ; . %()%5' 3,)+')+% *6),(')$' ()0' ' $% 5%0)0*2%5' 7,0,*. ' ,0' '4*/,0+%5 ' ' . 5') + ')' ,& ')+% /%0,4 . ' ,0' 1 . ,/ ')%$ ' / ')+% 4/,. 5 . %00' *((1$0' *. ')+%' 0,5% W*66*0,)%)+% /%0,* .

)' ,0' E1%0),*. ' 4/% 3+%)+%$' 01(+' $%01/)0' *((1$',. ' 8 ' . ' ' 6 ' $)' &$* 8 ' ,+5,$%()' ,8 6/,('),*. ' *& ')+% *6),(')$' ()0' A . %1$,),0R ' $ ' '0),' . ' +*3%7%$ ' +' 0' $%(*$5%5' '' ('0%' *& ')*) ' / 4/,. 5; . %00 ' ,. ' 3+,(+')+%' ('10%' 6$*7%5')*' 4%' 0*&)%. ; ,. -' /,8,)%5')*')+%' .)%$,*$')14%$(/%0' *& ')+% (*$6*$'' E1 ' 5$,-% 8 ,. '' ,6 ' $ ' C ' 6 ' FR

)' +' 0' 4%%. ' &*,8 5' %B6%$,8 %.)' //2' ,. ' . ; 8 ' /0 ' ' . 5' ' /0*' ,. ' 8 ' . ')+')' ')$*6+2' *& ')+% W*66*0,)%) 14%$(/% %. 01%0' 3+%. ')+% %2% +' 0' 4%%. ' 5%0)$*2%5 ' $,5* 8 *)*$' (),*. ' ,0' '/0*' 6 ' $ ' /20%5' 42' 5%0)$1(),*. ' *& ')+%' (*$6*$''E1 ' 5; $,-% 8 ,. ' ' '' $%01/)' 3+,(+' +*3%7%$ ' ,0' 0)')%5' . *)')*' *((1$' 1 . /%0 0')+%' ,. >1$2',0' 8 *$%')+' . ' 016%,&$(,' /' . 5' ,8 6/,('),. -')+%' *(1/* 8 *)*$' . 1(/%,

,0)1$4' . (%0' *& ' %E1,/,4$'),*. ' ' . 5' (* *$5,; . '),*. ' '/0*' $%01/)' &$* 8 ' /%0,*. ' *& ')+%' (*$6*$'' E1 ' 5$,-% 8 ,. ' ' +%0%' '$%' '))$,41)%5')*' ,8 ' 6+('),*. ' *& ')+%' 014>' (%.)')$' ()0' . 5' ' (; (*$5,. -')*' 100' . '' ' . 5' %8 *,- . % ' 8 *$% 6 ' $),(,. '$/2')*' /%0,*. ' *& ')+%' 014>' (%.)' 016%$,*$ (%$%4%//' $ 6%51. ((/%' *$' +,0' *3 . ' 6 ' $)')+% 3$,)%$')+,. 90')+')' //' '))%8 6)0')' 5,&&%$%.),' ;),*. ' '$% 61$% +26*)+%0%0' . 5' &$*8')+%' . ')1$% *& ')+% E1%0),*. ' 8 10)' $%8 ' ,. ' 0 ' 1)' &$*8' 3+')%7%$' (' 10%')+%$% ,0' . *' 5*14)')+')')+% 5,0)1$4' . (%0' ' //15%5')*' 5*' *((1$

$$,)'),*. ' *& ')+% (*$6*$'' E1 ' 5$,-% 8 ,. '' * . ' * . % ' 0,5% (' 1/5% (') '),*. ' *& ')+% ' 616,/' . 5' '' +% 8 ,*6,0)+*)*. *0' *& ')+% *66*0,)% 0,5% ' 3+,(+' 4% (* 8 %0' -% . %$ ' /' ,&')+%' ,$$,)'),*. ' ,0' 6$*/*. -%5' *$' 4,/')%$ ' / ')+%' +% ' 5' 4%,. -' $%)$ ' ()%5' . 5')+%' /%-0K%B)% . 5%5')$,0 8 10' /0*' 4%,. -' 7%$2' 8 ' $9%5 '

((*$5,. -')*' 100' . '' ' . 5' % 8 *,- . % ' $8,' / ')%$ ' / ' /%0,*. ' *& ')+% (*$6*$'' E1 ' 5 . -% 8 ,. '' ('10%0' ' . ', . (1$7'),*. ' *& ')+% ')$789' . 5' -2$ ' ;),*. ')*')+% 0,5% *& ')+% /%0,*. ' +,0' 3*1/5' ' -$%% 3,)+')+% %&&%()0' *& ' ,$$,)'),*. ' 4%,. -' . ')1$ ' //2' '' $%7%$0' / *& ')+% ' 6+%. * 8 %. ' ' 18*1$0' ,8 6/,('),. -')+% (*$6*$'' E1 ' 5$,-% 8 ,. '' '$% -%. %$ ' //2' 00*(,')%5' 3,)+' '' $%%/,. -' -' ,)' 3+,(+' ,0' . ' % ' $/2' 02 8 6)*8 ' . 5' ' /0*' &$%E1%.)/2' 3,)+' 02 8 6)*8 0' *& ' *6+)+' / 8 *6/%-,'' &$*8' ,8 6/,('),*. ' *& ')+% *(1/* 8 *)*$' . 1(/%,' +% '&&%(),*. ' *& ')+% *(1/' $ 8 10(/%0' ,0' 1 . %E1 ' /' '((*$5,. -')*')+% 5%-$%%' ,. ' 3+,(+')+% ' $%06%(;),7%' . 1(/%,' 8 ' 2' 4%' '&&%()%5' 42')+% /%0,*. ' A *)+. ' -%/R ' . ' '' ('0%' $%6*$)%5' 42' $ ' 1&&,. ' " ' ' H,(8 5 * a ' 7*/' ,B R ' 3+,(+

)+%' 3$,)%$' + ' 5' ' . ' *66*$)1 . ,)2' *& ' ,. 7%0),-'), . -' *& ')18 *1$' *& ')+% 6,. % ' /' -/' . 5' 3+,(+' 4%0,5%0' 6 ' 00,. -' &*$3 ' $5' ,.)*')+% ')+,$5' 7%.)$,(/% ' 610+%5' 1 . 5%$. % ')+')+% ' E1%51()' *& ' 2/7,10 ' 0)$%)(+,. -' ' . 5' (' 10,. -' ')$*6+2' *& ')+% (*$6*$'' E1 ' 5$,-% 8 ,. '') ')+% 02 8 6)*80' ,. ' 55,),*. ')*'

*0%' *& ' (%$%4$' / ')18 *1$G . ' 8 %/2 ' 7%)' *((,6,)' / ' +% ' 5' (+%' ' . 5' 5*14/% *6),(' . %1$,),0G ' W %$% 5*14/% $,0,*. ' &*//*3%5' 42' /*00' *& ' 0,-+) ' 7%$),-*' 06%(,' //2' 8 ' $9%5' 3+%. ')+% %2%0' 3%$%' *6%. ' 0)' --%$,. -' -',)' . 5')%. 5%. (2')*' $%;)$' (),*. ' *& ')+% *6),(')0' ' $% 5%0)$*2%5' 7,0,*. ' ,0' '4*/,0+%5 ' ' . 5') + ')' ,& ')+% /%0,4 . ' ,0' 1 . ,/ ')%$ ' / ')+% 4/,. 5 . %00' *((1$0' *. ')+%' 0,5% W*66*0,)%)+% /%0,* .

)' ,0' E1%0),*. ' 4/% 3+%)+%$' 01(+' $%01/)0' *((1$',. ' 8 ' . ' ' 6 ' $)' &$* 8 ' ,+5,$%()' ,8 6/,('),*. ' *& ')+% *6),(')$' ()

+%' (*$610' 0)$,')1 8 ' ,0' %06%(,' //2' /,' 4/%')*' /%0,*.' &$* 8' % 8 4*/,0 8' *$' $16)1$%' *&',)0' 4/***5; 7%00%/]' +%0%' '$%' &' 8 ,0+%5' 6$,.(,6' //2' 42')+%' 8 ,55/%' (%$%4$' /' '$)%$2' 3+,(+',.')+%' &,$0)' 6' $)' *&',)0' (*1$0%' 0%. 50' *&&. 1 8 %$* 10' 0)$',-+)')3,-0' 3+,(+'0,.9',.)*')+%' '.)%$,*$' 6%$&*$')%5' 06' (%''.5' 0166/2')+,0' -'.-/,*.''.5')+%''5; >' (%.)' 6' $)' *&')+%' *6),(')+''/' 8 10' 3,.-')*')+%,$' 6*0,),*.''.5' 5,$%(),*.'' 0' $%-' $50')+%' 8 ',' (1$$%.)')+%2' '$%' %' 0,/2' $16)1$%5' *$ 4/*(9%5' 16''.5' *3,.-')*')+%,$' 4%,.-'*&')+%' .')1$%' *&' 0%.5' '$)%$,%0 ' .5' '/8 *0)' 5%0),),1)%' *&' '.'0)*8 *0%0' 3,)+' *)+%$' (%$%4$'/' $)%$,%0' %.$4*/>08' $' 6,5/2' /%' 50')*' 0*&)%.,.-' 6&')+%' $%-,*.0' 3+,(+')+%2'.*8$,0+ *'#0 # &G +%' 02 8 6)* 8 0' *&'/%0,*.'*&')+%' (*$610' 0)$,')1 8' 8 '2' 4%' 5,7,5%5' ,.)*)+$%%' -$*160' *$' 0)'-%0 . ' 0 G +,0',.(/15%0' (%$)',.' 02 8 6;)* 8 0' 3+,(+' '$%' 8 *$%' *$' /%00')$'.0,%.)' '.5' 5%6%.5' (+,%&/2' *.')+%' 0155%..%00' *&')+%' /%5*.''.5' &1.(),*.'/' 5,0)1$4'.(%' *&' *)+%$' 6')$)0 *')+%'/')0)%$' 4%/*.-')+%' 02 8 6)* 8 0' 101''//2' '((* 8 6'.2,.-'.'6*6/%(),(0%,C1$%A'6*6/%B2R' '0' '/0*')+%'/*00' *$' 5,8,.1),*.'*&'0%.0'),*.'*.')+%' *66*0,)%' 0,5%' *&')+%' 4*52' 3+,(+' 0* 8 %;), 8 %0' *((1$0' (*.0%E1%.(%' *&' 6$%001$%' *.' *$ &1.(),*.'/',.)%$&%$%.(%' 3,)+')+%' 0%.0*$2')$'(0)' *&')+%',.)%$.'/' (=0BB/%' 42' %&&10,*.',.)*')+%' (*$610' 0)$,')1 8' +%' 02 8 6)* 8 0' 51%')*')+%' 0155%..%00' *&')+%' /%0,*.' *&')+%' (*$610' 0)$,')1 8' '0' 01(+' '$%' (* 8 6/%)%' 6' $'/20,0' *&' %7%$2' 7*/1.)' $2' 8 *7%8 %.)' *.')+%' *66*0,)%' 0,5%' *&')+%' 4*52' *((' 0,*.''//2' 7' $,%5' 42' (*.; 71/0,7%' 06' 08 0' *&')+%' 6' $'/20%5' 0,5%' '.5' (*.>1-')%' 5%7,'),*.' *&')+%' 9%' 6' '.5' %2%0')*3' $50')+%' 0*1.5' 0,5%' +,0'/')%$' 02 8 6)* 8 ',0' 51%')*')+%' (%.)$%0' &*$')+%' +%' 5' '.5' %2%0' *&')+%' *66*0,)%' +% 8 ,06+%$%' 0155%./2'/*0,.-')+%,$' .)'-*.,0)0' +%')% 8 6%$')1$%' *&')+%' 6' $'/20%5' 0,5%' ,0' '0' ''$1%' +,-+%$')+'.')+')' *&')+%' 0*1.5' 0,5%' +%')*)'/' 6' $'/20,0' '.5' &/'*(,5,)2' *&')+%' *66*0,)%' 0,5%' *&')+%' 4*52' '.5' (*.>1-')%' 5%7,'),*.' *&')+%' +%' 5' '.5' %2%0' ''$%')$'.0,%.)' 02 8 6)* 8 0' /'0),.-' &$* 8' '' &%3'+*1$0')*' '' 5'2' *$)3* " ' 0 G +,0' 0)'-%',.(/15%0')+*0%' 02 8 6)* 8 0' 3+,(+' (*.),.1%' &*$' '' 7' $,'4/% 6%$,*5' '&)%$')+*0%' 5%6%.5,.-' *.')+%' 0155%.; .%00' .5' 5,0)1$4,.-' %&&%()' *&')+%'/%0,*.'+' 7% 6'00%5' *&&' +%2' (*.0),)1)%')+%' (* 8 8 *.')26%' *&' +% 8 ,6/%-,''*$' 6' $'/20,0' *&' 7*/1.)' $2' 8 *),*.'*.')+%' 0,5%' *66*0,)%')+%' /%0,*.' +%' &'(%'' $8''.5' /%-''.5')*'' (%$)',.' %B)%.)')+%')+$' 6*0,),*.' 45* 8,.'/' 8 10(/%0' *.')+%' .% 0,5%' *&')+%' 4*52' '$%' '&&%()%5' +% 6' $'/20,0' 5*%0' .*)' '&&%()' '/')+%0%' 6' $)0' %E1'//2' 0' ''-%.%$'/' $1/%',)' 8 '2' 4%0)')%5')+')')+*0%' 8 *7%8 %.)0' '$%' 8 *0)' '&&%()%5' 3+,(+' $%' 8 *0)',.5%6%.5%.)' &')+*0%' *&')+%' *66*0,)%' 0,5%''.5'3+,(+' $%' 8 *0)' (* 8 6/%B'.5' 5%/,(')%' %.(%')+%' 8 *7%8 %.)0' *&')+%' +'.5''.5'' $8' $%' 8 *$%' '&&%()%5')+''.')+*0%' *&')+%' &'(%' *$' /%-''*3,.-')*')+%' &'()')+')')+0%%' $% 8 *$%' (* 8 8 *./2' %B%$(,0%5',.'' 00*(,')%5' *$ '/)%$.')',.-''(),*.' 3,)+')+*0%' *&')+%' *)+%$' 0,5%' +%' &'(,'/' 6' $'/20,0' 0' 8 *0)' 8 ' $9%5',.')+%' /*3%$' &%(,'/' $%-,*.' +%' *$4,(1/' $,0' 6'/6%4$' $1 8' ,0' 8 *$%' *$ /%00' 6' $%),(' 41)' .%7%$' 6' $'/20%5')*')+%' %B)%.)' 3+,(+' *((1$0',.' %//<0' *$')$1%' &'(,'/' 6' $'/20,0' 5%6%.5,.-' *.'/%0,*.' *&')+%' 6*$),*' 51$'' +%' '.-/%' *&')+%' 8 *1)+' *.')+%' 6' $'/20%5' 0,5%' +'.-0' /*3%$' '.5')+%')*.-1%' 5%7,')%0' 0/,-+)/2')*')+%' 6' $'/20%5' 0,5%' +%' 3%' 9.%00' *&')+%' &'(,'/ 8 10*/00',0' 4%0)' 4$*1-+)' *1)' 3+%.')+%' 6')%.)' 0 8 ,/%0' *$')$,%0')*' 3+,0)/%' +%' &'(%')+%.' 4%(* 8 %0' 5$' 3.')*')+%' 0*1.5' 0,5%' +,/%' 0* 8 %' 7*/,),*.'/' (*.)$*/ 8 '2' +'7%' 4%%.' '(E1,$%5' *7%$')+%' /%-')+%' +'.5''.5'' $8' $% 8 ','.' 6%$&%()/2' 8 *),*./%00 .')+%' 6$* (%00' *&$%(*7%$2')+%' /%-'$%(*7%$0' 4%&4$%')+%' '$ 8 ''.5'' 0' '' $1/%')+%' $%(*7%$2' 6$*(%%50' &$* 8')+%' 6$*B, 8 '/')+%' 5,0)'/'%.5' *&')+%' /, 8 4')+%' 0+*1/5%$''.5'+,6' 8 *7% 8 %.)0' 4%,.-' $%-','%5' 4%&*$%')+*0%' *&')+%' +'.5' *$ &**)' +%' &/%B*$0' $%-','),$' 6*3%$' 4%&*$%')+%' %B)%.0*$0 +%' 0%.0,4,/,)2' *&')+%' 6' $'/20%5' 6')0' ,0' 1., 8 6',$%5' +%' 016%$&,(,'/' $%&/%B%0' '$% 5, 8,.,0+%5')+%' 5%%6' A)%.5*.R' $%&/%B%0' ,.; ($%'0%5 +%'&'$'5,*'(*.)$'(),/,)2' *&')+%' 8 10(/%0',0' 1., 8 6',$%5H*((' 0,*.''//2',)',0',.($%'0%5'$')+%$')+'.'5, 8,.,0+%5 +%' 8 10(/%0'5*.*)'1.5%$-*')$*6+2'%B(%6)' 42' 5,010% +%')% 8 6%$')1$%' *&')+%' 6' $'/20%5' /, 8 40' 3+,(+')'&,$0)',0'101''//2',.($%'0%5',0'-%.%$''//2' &*1.5')*' 4%'/*3%$')+'.')+')'*&')+%' 0*B85'0,5%')*')+%' %B)%.)'*&'' 5%-$%%' 8 *$%' *$'/%00 U%(*7%$2' 8 '2')'9%' 6/'(% &$* 8' '/')+%' 02 8 6)* 8 0'*&')+,0'0)'-%'3,)+,.'' 6%$,*5' 7' $2; ,.-' &$* 8' 3%%90')*' 8 *.)+0' *$')+%' 6'),%.)' 8 '2' 6'00',.)*')+%'),$5'0)'-% # ' 0 G +%' 06%(,'/' 02 8 6)* 8 0' *&')+,0'0)'-%'$%')+%'*((1$$%.(%'*&'3+')',0')%$ 8 %5' 0/')%'$,-,5,)2'<,.')+% 6' $'/20%5'/, 8 40''(*.5,;),*.'*&'%7,/, 8 6*$)' +,0'$,-,5,)2'0+*30',)0%/&' 8 *0)'&$%E1%.)/2',.')+%' '$8'41)',)',0' (* 8 8*.' %.*1-+',.' 4*)+'/, 8 40' +%' $,-,5,)2' '&&%()0')+%'&/%B*$0' 8 *$%' 6'$),(1/'$/2'.' .5' (' 10%0')+%'/, 8 4')*' '0018%0' ''6*0,),*.',.'3+,(+')+%'&/%B*$0' 6%$5* 8,.')%')',0'7'$,'4/%',.'5%-$%%'.'.5')' &,$0)',0' ('6'4/%'*&'4%,.-'*7%$(* 8 %')' &,$0)' '/0*',)',0'$% 8,))%.)')%.5,.-')*'-,7%'3'2'3+%.')+%' 6'),%.)' '40)',.0'&$* 8'7*/,),*.'/'%&&*$)0'*$ &$* 8'%B(,)% 8 .)''.5'0%% 8 0'/ 8 *0)'-*.%*.' 3'9,.-'&$* 8'0/%%'*$ 3+%.')+%'6'),%.)'2'3.0' *$ 0)$%)(+%0'+, 8 0%/&' $'51'//2',)'' 0018%0'' 8 *$%' ,.)%.0%' &*$ 8'.5')+%' /, 8 4' 4%(* 8 %0' 6%$ 8 '.%.)/2' &,B5'.5' $,-,5 &)%$' 5%')+')+,0'(*.5,),*.',0' &*1.5')*' (*.,.; (,5%' 3,)+' 5%0(%.5,.-' 0(/%$*0,0' *&')+%' 8 *)*$)$')()0' *&')+%' 4$'.''.5'06,.'/' (*$5' +%' 5%; -%.%$'),*.'6$*(%%50' &$* 8')+%' 0%' *&' /%0,*.' *&' /%0,*.' 5*3.3'$50')+$*1-+')+%' ($10'6*.0''.5'62$'' 8,5' *&')+%' 0' 8 %' 0,5%''.5')+%.'' ($*00')*')+%' 6*0)%$,*$' 6'$)' *&')+%' /')%$'/' (*/18.' *&')+%' 06,.'/' (*$5'*.')+%' 6'$'/20%5'0,5%' $%E1%.)/2' '/0*'' '0,8,/'$')$'(9' *& 5%-%.%$'),*.',0' &*1.5

.')+%',..%$' 06%()' *&')+%' .)%$,$' (*/18.'*&
)+%' 06,.'/ (*$5'.5' *((0,*.''//2'/0*',.')+%
/')%$'/ (*/18.'*.')+%'0'8%'0,5%' 0')+%'4$',.
/%0,*.'A +'$(*)' &,$%9'^(R
7%.'51$,..-')+%'$,-,5'0)'-%')+%$%',0''0''
$1/%'.*')$*6+,(' 5%-%.%$'),*.'*&')+%'810(/%0'
$'..,+,/'),*.'*&'$'5,(.)$'(),/,)2')+*1-+'
)+% 810(/%0'3'0)%'&,$*8'5,010%' "'$'),;
&,(,'//2'0),81/')%5' 1)',.'0*8%'$'$%',.;
0)'.(%0''0' +'$(*)'+'0'0+*3.')+%'0%(*.5'$2'
5%-%.%$'),*.',.7'5%0')+%'.)%$,*$'(*$.1''*&
)+% 06,.'/ (*$5',.'3+,(*'0%' 82*)$*6+2'
*$')$*6+,(' 5%-%.%$'),*.'*&')+%' 810(/%0'%.;
01%0'K
+%$%',0'.*'$%(*7%$2'&$*8')+,0'(*.5,),*.
8 " ' " ' G' +*1-+'
-%.%$'/+%8,6/%-,''*&')+%'*66*0,)%'0,5%'3,)+;
1)'&&%(),.'*&'0%.0'),*.',0')+%')26%'*&'5,0;
%'0%'*&')+%'(*$610'0)$,'')18'(%$)','.'7'$,'),*.'
'.5'(*86/,(',),*.'0'+'7%'4%%.'*40%$7%5'0*8%'
&'3+,(+'0),/'$%E1,$%'%/1(,5',),.
+%.'0%.0'),*.',0'6%$8'.%.)/2''&&%()%5'
'/*.-'3,)+' */,8)'$2'8*),*.'3%'+'7%'$%'0*.'
)*'$%-'$5')+%'/%0,*.''0'.*)'(*.&,.%5')*')+%'
(*$610'0)$,')18'41)''0',86/,('),.-''/0*')+%'
6*0)%$,*$'6')$'*&')+%'.)%8 '(' 601/%''.5')+%'
)+'/'810''.'*((1$%.(%'42'.*'8%'.0'$'$%'
+%.')+%'/%0,*.''&&%()0'*./2')+%'-$%2'8')))%$'
*&')+%'.1(/%10'('15')10')+%'+%8,6/%-,'',0''0'
''$1/%'(*86'$'),7%/20/,-+)''.5')$'.0,)*$2
,8,/'$''&&%(),*.'*&')+%'.1(/%10'/%.),*1/'$,0'
,0'0',5')*'6$*51(%'8*$%'8'$9%5'6'$'/20,0')+'
)'('10%5'42''&&%(),*.'*&')+%'.1(/%10'('1;
5')10'41)''/0*'.*)''*&''' 6%$8'.%.)'9,.5'
+%.'+*3%7%$')+%'/%0,*.'('10%0'$16)1$%'*&
)+%''.)%$,*$')3*)+,$50'*&')+%',.)%$./'('6;
01/%')+%'+%8,6/%-,'',0'8*0)'8'$9%5'.5'8*0)
%.51$,..-')',0')+,0'/%0,*.'*./2'3+,(+'-,7%0'
$,0%')*'0%(*.5'$2'5%-%.%$'),*.'*&')+%'8*)*$
)$'()0''.5'6%$8'.%.)'$,-,5,)2
'0%0''$%'*.'$%(*$5',.'3+,(+'/%0,*.0'*&')+%
(*$610'0)$,')18'+'7%'-,7%.'$,0%'.*)')*'-%.%$'/
+%8,6/%-,''*&')+%'*66*0,)%'0,5%'41)')*'8*.*;
6/%-,''01(+'0'6'$'/20,0'*&')+%'&'(%'*$'*&'*.%
'*$*)+%$'/,84' 1)')+%0%'8*.*6/%-,0%''$%
3,)+*1)'5*14)'51%')*'/,8,)%5'/%0,*.0'*&')+%
,.)%$.'/('601/%'3+,(+''0')+%'$%0%'$(+%0'*&
$'.(9''.5',)$%0''.5'*&%%7*$''.5'*$0/%2'
+'7%'5%8*.0)$')%5'(*.)',.0')+%'8*)*$')$'()0
(*$$%06*.5,.-')*')+%'5,&&%$%.),')%5'(%.)$%0'*&
)+%'(*$)%B
'0%0''$%'/0*'*.'$%(*$5'*&'6'$'/20,0'*((1$;
$,.-'*.')+%'0'8%0,5%*&')+%'4*52''0')+%'/%0,*.'
+%'$%'/%B,0)%.(%''.5'%B6/'.'),*.'*&'01(+'
%B(%6),*.'/'*((1$$%.(%0''$%'0),// '<'
'.5')+*$=+'7'$,*10'%B6/'.'),*.0'8'2'4%'01-;
-%0)%5',)',0'3%//)*'3',)'&*$&')+%$',.0)'.(%0'
('$%&1//2',.7%0),-')%5'42''((1$')%'8*5%$.'
8%)+*50'4%&*$%'6$*.*1.(,.-'5%&,..,)%/2'*.')+%
E1%0),*.'
UU 'G +,0')%$8',0'10%5'
,.'8%5,(,.%''/8*0)*%B(/10,7%/2',.'$%&%$%.(%')*'
)+%'%),*/*-2'*&'5,0%'0%''.5',.')+,0'$%/'),*.'
6$8(,6'//2',.'$%-'$5')*')+%'C28*),('5,0%'0%0'
+%)%$8'I(*$%/'),*.'*&')+%'6+20,('/&*$(%0'<
8'2'4%')'9%.''0',86/>&,.-')+')')+%'0%7%$'/
&*$(%0''$%'('6'4/%'*&'4%,.-'(*.7%$)%5',.)*'*$'
&'-,7,.-'6/'(%')'*.%'.*)+%$'3+%.')+%2''$%'
6%$8,))%5')*''(',85%$'(%$)',.'(*.5,),*.0''.5'
)+')')+%2''$%''//'$%/')%5')*''(*888*.'('10%'
)',0'7%$2'81(+')+%'0'8%',5%''')+')',0',86/,%5'
42')+%')%$8'0 *$$%/'),*.'*&')+%'V28*),(',0;
%'0%0<''014>%()'3+,(+'0'4%%.'5,0(100%5',.'
''0%6'$')%'3*$9'42' '*/&&
)',0'(*.)%.5%5')+')')+%'0%7%$'/(*.)'-,*10'
5,0%'0%0'*&''-%.%$'/)26%'A)+%'%B'.)+%8')'R
5*'.*)'.%(%00'$,/2''.5',.''('0%0'$%6$*51(%'
)+%,$'/,9%'H 41)')+')'*((0,*.''//2')+%'(*.)';
-,*10'6'$),(/%0')+$*3.'*&&$*8')+%'0'8%'0,(9'
6%$0*.'01&&%$,..-'&$*8'*.%'*&')+%'5,0%'0%0' 0'
0('$/'),.'R8'2'01&&,(%)*'%.-%.5%$*.%'*$8*$%'
5,&&%$%.)'9,.50'*&'5,0%'0%''((*$5,..-')*')+%'
8*5%',.'3+,(+')+,0'8')))%$*6%$')%0G)+')',0'
'((*$5,..-''0',)'8'2'4%03'//*3%5')'9%.',.)*'
)+%'020)%8')+$*1-+')+%'61/8*.'$2'01$&%(%'*$'
)+$*1-+'0*8%*)+%$'81(*10'8%84$'.%*$09,.'
'4$'0,*.' +%0%'5,0%'0%0' '((*$5,..-')*')+%'
8*5%',.'3+,(+')+,0'8'))%$*6%$')%0G)+')',0'
'((*$5,..-''0',)'8'2'4%03'//*3%5')'9%.',.)*'
)+%'020)%8')+$*1-+')+%'61/8*.'$2'01$&%(%'*$'
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-,0)0')+')+%6/'-1%',0 *./2' '8 '/=.'.)'&*$8'
*&')26+10)+')' 2%//*3'&%7%$',0 51%)*' '8 *$%
,.)%.0%'&*$8'*$'(),*.'*&')+%'0' 8 %'6*,0*.' '0
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)%.)' *$' $% 8,))%.)' &%7%$H' '.5')+')' 0188 %$'
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8,'' '$%' (*$$%/')%5'%&&%()0'51%')*')+%' '(),*.'
&')+%'0' 8 %' 6,0*.',.'5,&&%$%.)'5%-$%%0'*&',.;
)%.0,)2' +%2' 8',.)',.')+')')+%' '66%'$'.(%
&'.%'*$'*)+%$'*&')+%0%' 8 *$4,5'0)')%0'&)%$' '
01$-,('/'*6%$'),*.',0'5%6%.5%.)',.'6'$)' 16'.'
5,&&%$%.(%0',.')+%' (*.0),)1),*.'/'(*.5,),*.'*&'
)+%,$'6'),%.)0'' .5'8 *$%*7%$')+')')+%0%&*$8 0'
*&'5,0%'0%' '$%' &'$)+%$'/,.9%5')*' *.%' .*)+%$'
42'.18%$*10',.)%$8%5,')%0')'%0' +,0'6*,.)'
&'7,%3'+'0'4%%.'4)+'0)$%.-)+%.%5' .5'%B;
)%.5%5'42' *8%*&')+%'%B6%$,8%.)'/'$%0%'$(+%0'
&' $' 1$5%.' '.5%$0.' %'&*1.5')+')')+%'
014(1)'.%*10',.>%(),*.'*&'5,&&%$%.)'6*$),*.0'*&'
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)+%'0' 8 %'),8%'3*1/5'*&)%.'6$*51(%'E1,)%5,&;
&%$%.)'%&&%()0'16*.'5,&&%$%.)'.',8'/0'*&')+%'
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6$*7%5'$'6,5/2'&')'/',.''.*)+%$'' 0/*3%$'62'
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3%'0%%8')*' -%)*'*1)'*&')+%'$%-,*.'*&'06%(1;
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+%')%$8'0(*$$%/'),*.'<',0'*./2''66/,('4/%')*'
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0,-.,&,(','),*.'.'8%/2'(*. %$),4,+)2'(*1/5'.*)'
4%'&1/&,//%5' %.(%',)',0')+')')+*1-+'7%$2'
8'.2'5,0%'0%0'8'2''$,0%'&$*8')+%'*6%$'),*.'
16*.'5,&&%$%.)',.5,7,51'/0'*&'0*8%'(*88*.'
('10%'A01(+'0'%B6*01$%')*' (*/5R')+%'8'/'5,%0'
3+,(+'8'2'$%01/)'&$*8'01(+'''('10%'.*' *.%'
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,)',0'*6%.%5'42')+%'6$%001$%'*&')+%''$'&*$(%5'
*1)'42')+%'(*84,.%5''(),*.'*&')+%')+*$'(,('
'.5' '45*8,.'/'%B6,$')*$2' 810(/%0' ,)+'
)+%',$')+10'0155%./2'%B6%//%5''.2'&*$%,-.'
8'))%$')+')'8'2'4%',')+%'/'$2.B'*$'4$*.(+,'
,0'5$,7%.'.)*')+%'6+'$2.B'*$')+%'8*1)+
&& / G +%',8 8%5,')%('10%'*&'(*1-+'
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02 8 6')+%),(''&&%(),.-')+%'01$&'(%'*&')+%',$'
)14%0'*$')+%'.%$7%0')+')'0166/2')+%8'''.5',)'
,0')+%'*4>%()'*&')+%'(*1-+')*' $%8*7%')+,0'
0*1$(%'*&',$$,)'),*.

+%'0%.0,4,+)2'*&')+%'$%06,$')*$2'01$&'(%0'
,0'-$%')%0)')',)0'(*88%.(%8%.)G)+%'-/*)),0'
4%,..-''.'%7%$3')(+&1/>'.,)*$')'8'2'4%'
,.($%'0%5'42'(*.-%0),*.'*$',.&/'88'),*.''*$'
42')+%'(*.),.1%5''()'*&'(*1-+,.-' 7%.')+%'
8%$%',.+'/'),*.'*&'(**/'*$'5$2',$'8'2',.'
'0)+8''*$'4$*.(+,'/'(*.-%0),*.'4%01&&,(,%.)'
)*'%B(,)%'(*1-+' +%'$%01/)'*&')+%',$$,)'),*.'
,0')*',.(%'0%')+%'.')1$'/'0%($%),*.''.5')*'
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1-+'8'2'4%'51%')' .18%$*10'$%&/%B'
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%./'$-%5')*.0,/H''-$'.1/'$ 0)')%' *&')+%'
6+'$2.-%'/'*$'/'$2.-%'/'81(*10'8%8 4$'.%H
6*/26,'*$*)+%$'&*$%,-.'4*5,%0',.')+%'/'$2.B'
)$'(+%'' *$' %7%.',.')+%' %B)%$.'/' '15,)*$2'
8%')10H 7'$,*10'' &&%(),.0'*&')+%'4$*.(+,&&,'
)14%0G=&*$ %B'86/%'1.51%5$2.%00'+26%$'
&&,8,'' '/)%$'),*.',.')+%'E1'/,)2'*$'E1'.),)2'
&')+%'4$*.(+,'/'0%(%),*.''*$',.&/'88')$2'
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6/%1$'H *$')14%$(/%''(.(%$'*$*)+%$'-$*3)+0'
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G *1-+',0'.*)''5,0%'0%')*'4%'
)$%')%5'41)'' 0286)*8')*'4%')$'(%5')*',)0'
0*1$(%'.',.06%(),*.''*&')+%'6+'$2.B'.5'
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+%'(+'$'()%$'*&')+%'(*1-+',0'*&)%.'E1,)%'
6')+*-.*8*.,(G 0')+%'03+**6'<'*&'3+**6;
,.-'(*1-+H)+%'04'$9'<'*&' +20)%$,'H)+%'
(')(+,.-'6',.&1/'(*1-+'*&'6%)1$,02H)+%'
0/,-+)'0+'(9'<'*&'%'$/2' 6+)+,0,0'' .5')+%'
%E1'//2'5,0),.(),7%'(*1-+'*&''57'.(%5'6+)+,;
0,0' 3,)+'/'$2.-%'/'1/(%$'),*.H)+%')%'$,.-'
(*1-+'*&'%862%8''+$%')%.,.-'4$*.(+,.'
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6$%001$%'*.')+%')$'(+%''*$'/'$2.-%'/'.%$7%0H
)+%'06'08*5,('01&&*('),7%'(*1-+'*&'0)+8'
+%'0),-+).%00'<'*$'0/**0%.%00'<'*&'(*1-+'
,.5,('),.-')+%'40%.(%'*$'6$%0%.(%'*&'0%($%;
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+%' ' ' 0#',0'.*'6$**&'*&')+%'
'40%.(%'*&'0%$,*10'/%0,*.H)+10'3+,/%')+%'
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(*1-+',)',0' *&' (*1,K0%' %00% .), ' /') *' ' '0(%$) ' , . ',)0' (' 10%H ' . ',)+%' 0, 8 6/%0)' ' . 5' 8 *0)' , . . *(1*. 0' $% 8 %5,%0' 0+*1/5' 4%' &,$0)' 10%5 ' +%' $*1), . %')$%') 8 %.)' *&' (*1-+' 42' 0%5 '),7%0' ,0' +,-+/2' ,. >1$,*10' +%' 0%($%),*. 0' 3+,(+' *1-+)')*' 4%' $% 8 *7%5' '$%')+10' /*(9%5' 16 ' ' . 5')+%' ,$$,) ',)*. ' 3+,(+' 3*1/5' + '7%' 4%%. ') $' . 0,%.) ' 4%(* 8 %0' %0) ' 4/,0+%5

&')+%')* . 0,/0' '$%' &*1 . 5' 8 1(+' % . /' $-%5' *$)+%' 171/'' 6%. 51/*10' . ' . 5' ,$$,) ') ,. -')+%' %6,; -/*)),0' (' 10),(0' *$')+%' -1,//*), . %' 3 ,/' $% 8 *7 ')+%' %7,/' &' '' -$' . 1/' $' 0) ')%' + &') +%' 6+' $2 . ; -%' /' 8 %8 4$' . %' %B,0)0 ' 5%6%. 5%.)' . ') *$6,5' *$ % . -*$-%5' '45*8 , . ' /7,0(%$' ' -*1) ' *$' +%6'),(' *40)$1(),*. ' ,)' 8 ' 2' 4%')$%')%5' 42' /*(' /' 0;)$, . -%.)0' . 5' -%. %$' /' 5%*40)$1%.)0

' /' B' *$' (*. -%0)%5' 0) ')%' *&')+%' /' $2 . -%' /' 8 %8 4$' . %' 51%')*' *7%$3*$9' *&' 7*, (%' *$')+%' 1 . 51%' 5, $%(),*. ' *&' '))%.),*. ')*')+%' 7*(' /' '66' $')10' A(/%$-28 ' . <0' 0*$%)+$*')R ', 0' 4%0)')$%')%5' ' ((*$5, . -')*')+%' 3 ',)%$<0' %B6%$, %. (%' 42')+%' /*(' /' '66/, ('), *. ' *&' ' ' 0*/1), *. ' *&' C, . (01/6+')%G)%. ' -$' , . 0')*' ' . ' *, 8 (%' *&' 3 ')%$' *$' *&' , *5, . %' 5,00*/7%5' , . ' 06, $,)' ' . 5' */, 7%' *, /' . 51%' 5$2 . %00' 0, 8 6/%' +26%$0% 8 , ' ' *$' +26%$')%0)+%0, '' *&')+%' $%06, $') *$2' 8 1(*10')$' ()' 8 '2' *&)%. ' 4%' $%/, %7%5' 42')+%' ' ()' *&' 0,66, . -' . 5' 0/*3/2' 03' //*3, . -' (*/5' 3 ')%$' *$')+%' 5%(*(;), *. ' *&' (%/' . 5' 8 *00' &, 8,)' /*C%. -%0' -18' '$' 4, (' /, E1*$, (%' *$' /, . 0%%5')%' ' 1(9, . -' , (%' *$', . +' /, . -' 0)%' 8', 0' 7%$2' *&)%. ' ') +')', 0' . %%5%5' '$/2' 0)' -%' *&' (')' $$+' /' 0*$%')+$*') ' (+/*$')%' *&' 6*) ' 00, 18', . ' ($20) ' /' *$', . ')+%' &*$8' *&' /*C%. -%' 10%5' , . ' 8*5%$'), *. ' 0+*1/5' . *) ' 4%$. %-/%()%5' +%' 10%' *&-/2(%$, . %' *&') ' . . , . ' *$' &, /)$')%' *&' 0, /7%$' 5, 00*/7%5' , . ' -/2(%$, . %' A+' /&' '' 5$' (+8') *' *. %' *1. (%R', 0' *& 8 *$%' 0%$7, (%' , . ' $%/' B%5') +$*')') +' . ' ' /18' *$')' . . , . ' -' $-/%H . 5%%5') +%' &$%%' 10%' *&' 3%// ' 0%/%()%5' /*C%. -%0' +' 0' $%. 5%$%5') +%' %86/*2; 8%.)' *&' -' $-/%0' 3%// . , -+' *40*/%)%' +%' &*$8%$' (' . ' 4%' (*. 0)' .)/2')+%' /'))%$' 41)' 0%/5*8' '66/, %5

" ' " G &' ,)' ,0' 5%0, $%5') *' , . ($%' 0%')+%' &/1,5,)2' *&')+%' 0%($%), *. ' 0E1, /' *$', 6%(' (1' . +'' 8 ' 2' 4%' 10%5' *$' 4%)) %$' 0), // ')' $)' $' 8%), (' , . ' 08 ' ' 5*0%0' 3+, (+' , 0' 4%0)' -, 7%. ' , . ' %&&%$7%0(%. (%' 3,)+' ('$4*. ')%' *&' 88*. , 18' . 5' (,)$, (' (, 5')' 810)' . *)' 4%' &*$-*))%. ')+')' 02$160' . 5' . '10%'), . -' %B; 6%()*$' .)0' '$%' 6)')*' 5*' +' $8' 42' %. &%%4/, . -' *$' 5, 0)1$4, . -' 5, -%0), *. ' , . ()1$%' *&' (*. ,)%' , . ')+$%% 5$*6' 5*0%0', 0' *&)%. ' *&' 7' /1%', . ' //' 2; , . -', $$,)' 4/%' (*1-+' %06%(, '//2' 3+%. ' &%7%$' , 0' 6$%0%.) ' %/0%8, 18', 0' '' 8 *$%' &, %%%.)' $% 8 %52' &*$')+%' 0' 8%61$6*0%' &')+%' 5, $%()' 0%5'), 7%0' 8 *$6+, . %', 0')+%' 8 *0)' 7' /1' 4/%H,)' 6$*7%0' *& 0%$7, (%' , . ' 7%$2' 08' //' 5*0%0' =' -$' , . ' /*C%. -%' 4%, . -' *&)%. ' ' 5%E1')%' *. , 18' 3,)+' *$' 3,)+*1)' 8 *$6+, . %' 01,)0' 0*8%' 6%$0*. 0H +25$*(2' . , (' ' (, 5' 0), // 8 *$%' H ' . 5' . 5, ' . ' +%8 6', 0' '0*' *&' 7' /1%' +%' 4$*8, 5%0' , . ' (*84, . '), *. ' 3,)+' (+/*$' /' +' 7%' -', . %5' -$%')' $%61)%H)+%' /')) %$' 0+*1/5' 4%' -, 7%. ' 3,)+' K(' .), *. ' +%' 6*3%$' *&')+%' 4$*8, 5%' *&' 8 ; 8*. , 18' , . ' ' '2, . -' 06' 08*5, (' (*1-+', 0' $%

8 '$9' 4/%' . ' %8%), (' *&' , 6%(' (1' . +' ' 01/; 6+')%' *&' C, . (' *$' 810)' $5' 8 '2' 4%' . 0%&, , /' , . ' $%+%7, . -' (*1-+' 42' %B6%//, . -' 0%($%), *. ' 3+%. ')+, 0' +' 0' ' ((181/')%5' , . ' /' $-%' E1' .),)2' &' (*1-+' ('10%0' 7*8,), . -' &**5' 0+*1/5' 4%') ' 9%. ' , . ' 08 '/' E1' .),), %0' &/1,50' 0+*1/5' 4%/, 8,)%5' ' . 5' ''/,))/%' ('60, (18' *$06, (%5' 4$' . 5200) ' 20')+%' 0)*8' (+ <

I (" ' "Q' ?' +%' 10%' *&' (*1.)%$, $$,)' .)0' 810)' . *)' 4%' . %-/%()%5' . ')+%' , . &/' 8 8 ')*$2' 0)' -%' *&' 4$*. (+,), 0' &*$', . 0)' . (%' /, . 0%%5' . 5' 810)' $5' 6*1/), (%0)' . 5' , . ')+%' /')%$' 0)' -%0', *5, . %' '$%' *&' -$%')' 10%H ' . 5' , . ' 0*8%' (' 0%0')+%' '66/, (', *. ' *&' '' 8' ' 4/, 0)%$' *$' 7%0, (', . -' &/1,5' , 0' '' $%8%52' . *)')*' 4%' &*$-*))%.

5"# " G . &, >0, *. ' *&' +*6' '0' '/' , . ; +' /'), *. ' , 0' '' 10%&1/' ('/8'), 7%H, *5, . %' , 0' , . 5, (')%5' , . ' $%/' B%5' (*. 5,), *. 0' , . ' 0&$18*10' 014>%()0' +/*$*&*$8' A !')*' F' 8, . , 80R' 8, B%5' 3,)+' %' 1' 5%' */*-. %' ' . 5' , . +' /%5' &$*8' '' +' . 59%$(+, %&' , 0' 10%&1/' , ' *)+%$' ('0%0' 2' 8%. 0' *&')+%' 06$' 2 , . +' /%$' 8' . 2' . *. ; 7*/'), /%' 6$%6' $'), *. 0' 8' 2' 4%' '66/, %5')*')+%' $%06, $')*$2' 6' 00' -%0' ' 0*/1), *. ' *&' ('$; 4*. ')%' *&' 0*=71. ', 0' 7%$2' 10%&1/' , . ' /, E1%&2, . -')%. ' (, *10' 0%($%), *. ' ' . , (' (, 5' '+1. ' 6%$(+/*$, 5%' *&', $*. ' ' . 5' .), $')%' *&' 0, /7%$' ' $%' ' 7' /1' 4/%' &' 0%5'), 7%0' +%. 4' . %' (*. , 18' ('86+*$H ' . 5' *&' .), 0%6), (0' 01/6+1$*10' ' . 5' ('$4*/, (' (, 50' '$%' 0%$7, (%' 4/%' 0' , . +' /' .)0' +%' 7' 6*1$' *&'), . ()1$%' *&', &, 5, . %' F' 5$*60')*' <' *1. (%0' *&' ')%$', . ')+%' 0)%' 8' 5$' 1-+)' , . +' /%$', 0' *&)%. ' 10%&1/' . ' (+$*. , (' -$' . 1/' $5, 0%' 0%' *&')+%' 6+' $>8-%' /' . 5' /' $2 . -%' /' 81(*10' 8%84$' &, %0')+%' 01/6+1$*10' 3')%$0' *&' , B/' +' 6%//%' /B /%0 ', . 0' . 5') ' 7%8', . ')+%' 2$%. %%0' 3+%. ', . +' /%5', . ' . ' ')*8, 0%5' 0)')%' ' $%' *&' 5, 0), . ()' 0%$7, (% '), %.)0' 8 '$9' 4/%' . ' %8%), (' *&' , 6%(' (1' . +' ' 01/; 6+')%' *&' C, . (' *$' 810)' $5' 8 '2' 4%' . 0%&, , /' , . ' $%+%7, . -' (*1-+' 42' %B6%//, . -' 0%($%), *. ' 3+%. ')+, 0' +' 0' ' ((181/')%5' , . ' /' $-%' E1' .),)2' &' (*1-+' ('10%0' 7*8,), . -' &**5' 0+*1/5' 4%') ' 9%. ' , . ' 08 '/' E1' .),), %0' &/1,50' 0+*1/5' 4%/, 8,)%5' ' . 5' ''/,))/%' ('60, (18' *$06, (%5' 4$' . 5200) ' 20')+%' 0)*8' (+ <

I (" ' "Q' ?' +%' 10%' *&' (*1.)%$, $$,)' .)0' 810)' . *)' 4%' . %-/%()%5' . ')+%' , . &/' 8 8 ')*$2' 0)' -%' *&' 4$*. (+,), 0' &*$', . 0)' . (%' /, . 0%%5' . 5' 810)' $5' 6*1/), (%0)' . 5' , . ')+%' /')%$' 0)' -%0', *5, . %' '$%' *&' -$%')' 10%H ' . 5' , . ' 0*8%' (' 0%0')+%' '66/, (', *. ' *&' '' 8' ' 4/, 0)%$' *$' 7%0, (', . -' &/1,5' , 0' '' $%8%52' . *)')*' 4%' &*$-*))%.

5"# " G . &, >0, *. ' *&' +*6' '0' '/' , . ; +' /'), *. ' , 0' '' 10%&1/' ('/8'), 7%H, *5, . %' , 0' , . 5, (')%5' , . ' $%/' B%5' (*. 5,), *. 0' , . ' 0&$18*10' 014>%()0' +/*$*&*$8' A !')*' F' 8, . , 80R' 8, B%5' 3,)+' %' 1' 5%' */*-. %' ' . 5' , . +' /%5' &$*8' '' +' . 59%$(+, %&' , 0' 10%&1/' , ' *)+%$' ('0%0' 2' 8%. 0' *&')+%' 06$' 2 , . +' /%$' 8' . 2' . *. ; 7*/'), /%' 6$%6' $'), *. 0' 8' 2' 4%' '66/, %5')*')+%' $%06, $')*$2' 6' 00' -%0' ' 0*/1), *. ' *&' ('$; 4*. ')%' *&' 0*=71. ', 0' 7%$2' 10%&1/' , . ' /, E1%&2, . -')%. ' (, *10' 0%($%), *. ' ' . , (' (, 5' '+1. ' 6%$(+/*$, 5%' *&', $*. ' ' . 5' .), $')%' *&' 0, /7%$' ' $%' ' 7' /1' 4/%' &' 0%5'), 7%0' +%. 4' . %' (*. , 18' ('86+*$H ' . 5' *&' .), 0%6), (0' 01/6+1$*10' ' . 5' ('$4*/, (' (, 50' '$%' 0%$7, (%' 4/%' 0' , . +' /' .)0' +%' 7' 6*1$' *&'), . ()1$%' *&', &, 5, . %' F' 5$*60')*' <' *1. (%0' *&' ')%$', . ')+%' 0)%' 8' 5$' 1-+)' , . +' /%$', 0' *&)%. ' 10%&1/' . ' (+$*. , (' -$' . 1/' $5, 0%' 0%' *&')+%' 6+' $>8-%' /' . 5' /' $2 . -%' /' 81(*10' 8%84$' &, %0')+%' 01/6+1$*10' 3')%$0' *&' , B/' +' 6%//%' /B /%0 ', . 0' . 5') ' 7%8', . ')+%' 2$%. %%0' 3+%. ', . +' /%5', . ' . ' ')*8, 0%5' 0)')%' ' $%' *&' 5, 0), . ()' 0%$7, (% '), %.)0' 8 ' 2' 4%' 0#' # 2' ' 0#' '0' &*//*30' $2')*' 0166$%00')+%' , . (/, . '), *. ' 1.), /')+%' 0%($%), *. ')+')' ('10%0')+%' (*1-+', 0' 3,)+, . '$%' (+')+%. ')' 9%' '' 5%%6' . 5' 5%+4%$')%' , . 06, $'), *. ' . 5')+%' ((181/')%5' 6+/%-8', 0' $%8*7%5' ')' '' 0, -/%' %&&*$)' 2' , . +' /, . -' 0)%' 8' &$*8' '' +*)' 06*. -%' *$' '4' 0, . '*&' 4*, /, . -' 3')%$' *, /' &, $0)' 3' 9, . -' &$*8' 0/%%6')+%' , 06, 0; 0')%5' 0%($%), *. ' 3+, (+', 0' 6)')*' *%' 5, &&, (1/)')*' 8*7%' 8' 2' 4%' %' 0, /2' /**0%. %5' ' . 5' %B6%//%5' . ', 6%(' (1' . +' /*C%. -%' 8' 2' 0%$7%' ' 0, . 1/' $' 61$6*0%'

' * ' # ' # o

' ' ' = '

% 4

G * . ' '

$' ' " H %$' B 0 " %'

- . 2 +%)%$8' 0(*1.)%$, $$,)'), *. ' , 86 %0' . 2', $$,)'), *. ' '$), &, (, '//2' %0)' 4/, 0+%5' 3,)+' '' 7, %3')*' 5, 8, . , 0+' (*1.)%$' ()' *$' $%; 8*7%' (%$)', . ' 8*$4, 5' 6$*(%00%0' 3+, (+' 8' 2' 4%' -&, , . -' *. ', . ' '' 8*$%' *$' /%00' $%8*)%' 6' $)' *&')+%' 020)%8' +%' 0140)' . (%0' %86/*2%5', . ' %0)' 4/, 0+, . -')+, 0' 0)')%' '$%' (''//%5' (*1.)%$' ,$$,)' .)0' ' . 5' 8' 2' 4%' (/' 00, &, %5' '0' &*//*30

8*8%.)')*' $*1Z%' *.%' 3+*' ,0' ,.' ''0)')%'*&'
/%)+'$-2' *$')*$6*$' &$*8' .'$(*),(' 6*,0*.,..-'
42' *6,8.'*$' '/(*+*/' *$' &$*8' (*8 '', .')+%$
(*1$0%'*&' ''&%7%$' +%$%' 3%' 3,0+') *' %B%$(,0%$
'' 6$*/*..-%5' '(),*.' *7%$' (+$*.,(',.&/'8 8 '),*.'
,.' '.' *$-'.' 3%' 0+*1/5' 10%' '' 4/,0)%$' $')+%$
)+'.' ''0,.'6,0 8
<' %0,('.)0' 6,06'0),(0' *$' /,0$'
)%$,..-' -%.)0 G) 2)' 4/,0)%$' '()0'
6$,8'$,/2' '0' '' $14%&'(,%.)' '.5' 6*3%$&1/
0),81/'.)')*')+%' (1)'.*%*10' 7%00%/0' +%
6'6,//'% *&')+%' 09,.' 4%(*8%' $%55%.%5' .5'
$',0%5H' 8,.1)%' 7%0,(/%0' 0**.' '66%'$' *.')+%
%/%7'),*.0H' '.5')+%0%' -$'51'//2' (*'/%0(,.-'
&*$8' '' 4/%4' *$' /'$-%' 7%0,(/%' 4%)3%%.')+%
)$1%' 09,.' '.5' %6,5%$8,0' (*.)',.,.-' '.'
'/418,.*&,4$,.*10' &/1,5
' ')oo ' G' +%
'-%.)' 8*0)' *8 8*./2' %86/*2%5' &*$' 4/,0)%$;
,.-' 61$6*0%0' ,0')+%' '.)+'$,0' *$' 6'.,0+'
&/2H' 41)')+%$%' '$%' *)+%$0')+')' +'7%' 4%%.'
10%5' &*$' '' 0,8,/'$' *4>%()' /'(,'/' (%),(
(,5' '66/,%5')*')+%' 09,.' 6$*51(%5',.)%.0%'
$%5.%00' '.5' 6',.' 3,)+' $'6,5' 7%0,('),*.'41)'
,)0' '(),*.' 8 '2'%B)%.5')*' 5%%6/2' '0' '' (10),('
'.5' ('10%' '')$*14/%0*8%' 0*$%' ,E1*$' 8'
8*.,0%' 5$*66%5' *.'' 6,%(%' *&' /,.)' '66/,%5')*'
)+%' 09,.' '.5' (*7%$%5' 3,)+' '' 3')(+-/'00'
7%$2' 0**.' ('10%0' $%5.%00' '.5' $'6,5' 7%0,(';
),*.',.' 8*0)'6%$0*.0' +,0' ,0' '' -**5' 3'2'*&
$',0,.-' '' 4/,=%$' 3+%.',)' ,0' 5%0,$%5')*' '66/2'
6*35%$%5' 8*$6+,.%'%.5%$8,('//2')*' $%+%7%'
0%7%$%' 6',.' +%' ,E1*$' 6,06'0),(10' *&'
)+%' +.$8'%*6*0,'' '66/,%5' 3,)+' '' 4$10+'
0**.'$',0%0' ''4/,0)%$'*+')&,%'01$&'(%' /,0)%$,..-'
*//*5,*.',0' 10%5'&*$' ''0,8,/'$'61$6*0%'41)',0'
0/*3%$',.'')(),*.
' +%' '66/,(','.'*&'4/,0)%$0' 0+*1/5' .*)'4%'
8'5%'5,$%()/2'*7%$' '.',.&/'8%5'6')$' +%$%'
,0' 0*8%' %7,5%.(%')*' 0+*3')+')' '' 0)$*.-'
0),81/10' '66+%5' 7%$2' .%'$' '8' ,.&/'8%5'
$-'.' 8 '2',.($%'0%')+%' 6'$'/2),(' 5,/')'),.'
&',)0' ('6,//'$,%0'.' 5' 0' '55')*')+%' 5,0%'0%'
/,0)%$0' 0+*1/5' .*)' 4%' '66/,%5' 3+%$%')+%'
09,.',0' /**0%'.*$' *7%$' '.2' 6$*8,.%.(%' *&'
4*.%'.*$')*')+%' 4$%'0)' 51$,.-' 6$%-.'.(2'
)' 0+*1/5' 8*$%*7%$' 4%' +*8%',.' .>,.5')+')'
)+%'*'.)+'$,5,.%'*&' ''4/,0)%$' 8'2'4%' '40*$4%5'
42')+%'09,.''.5''()'*.')+%'9,5.%20'6$*51(;
,.-'0)$'.-1$2''.5'4/**52'1$,.%' +,0''((,;
5%.)' 8'2'4%'*47,')%5'42'06$,.9/,.-'6*35%$%5'
('86+*$'*7%$')+%'4/,0)%$'4%&*$%'6/'(,.-',)'*.'
)+%'09,.'*$''')+,.'6,%(%'*&'0,/7%$'6'6%$'8'2'
4%',.)%$6*0%5' .'6%$0*.0'*&'&%%4/%'7,)'/,)2'
''4/,0)%$'/%&)'*.'&*$')**'/*.-''',)8%'+'0'4%%.'
9.*3.')*',.51(%'5'.-%$*10'0/*1-+,.-
+%.'7%0,(',)*.',0'06%(,'//2'5%0,$%5')+%$%'
,0'.*'.%%5')*'/%'7%')+%'4/,0)%$'*.'&*$')3%/7%'
+*1$0'*$'8*$%'&*$',)' 8'2'4%'$%8*7%5''')+%'
%.5'*&'0,B'*$%,-+)'+*1$0''.5''3'$8'/,.0%%5'
6*1/),(%''66+%5' &')+%'4/,0)%$'4%'*6%.%5'
3+,(+',0'4%0)'5*.%'42'6$,(9,.-')+%'8*0)'5%;
6%.5%.)'6')$)'3,)+'''5,0,.&%()%5'.%%5/%'03%%)'
,/'.5'(*)).3**/',0')+%'4%0)'5$%00,..-'+%'
6$'(),(%'*&'8',.)',.,.-''4+0)%$''0''/1.,.,.-'
0*$%'*$'(' '42''66/2,.-',$$,)'),.-'*,.);
8%.)0',0'.*)'*&)%.'$%0*$)%5')*'.*3' +%'
6$*(%00'('10%0'-$%')'6',.''.5'%B+'10),*.'*&'
)+%'020)%8'' .5',0'*.%'$')+%$'*&'5%6/%),*.'
)+'.'*&'(*1.)%$,$$,)'),*.' .')+%'('0%'*&'
(+,/5$%.'4+0)%$0'0+*1/5'4%10%5'3,)+'('1),*.'
4%,.-'9%6)'*6'&*$'4*1)'*.%'+*1$'*$'),/')+%'
09,.',0'3%/'$%55%.%5'3+%.')+%2'0+*1/5'4%'
$%6/'(%5'42''6*1/),(%')',0'3%/'.*)')*'*6%.'
)+%'4+0)%$''0')+%'%&&10%5'0%$18'&*$8 0')+%'
4%0)'5$%00,.-'(*7%$%5'3,)+'(*))*.3**/' 2'
&*//*3,.-')+,0'6/'.')+%'(+,/5',0'0'7%5'81(+'
3*$$2''.5'6',.
= G .',)0'6$,8'$2'%&&%()''4+0)%$''()0'
'0''/*('/0),81/'.)'41)'3+%.',)'$%8',.0'*.'
/*.-'%.*1-+')*'6$*51(%'%B)%.0,7%'7%0,(','.'
'.5'5,0(+'$-%'*&'0%$18',)''()0''0''5%6/%),7%'
'.5'5%6$%00,.-'-'-%.)' +,0'6$,8'$2''.5'
0%(*.5'$2''(),*.'*&'4+0)%$0'+'0'4%%.'81(+'
,.0,0)%5'*.'42')+%/')%' $' $'7%0'*&' 14+.'
3+*'&*1.5'-$%')'4%.%&,)',.'('0%0'*&'&%7%$'
3,)+''6')+2''.5'6$*0)$'),*.'&$*8')+%'66+'
%'),*.'*&' "0' ')*'7'$,*10'6')0'*&'
)+%'01$&'(%' +10''' 4+0)%$'*7%$')+%'6$0%'
(*$5,'/'$%-,*.'9%6)'*.'&*$'4*1)'*.%'+*1$'
'.5')+%.'$%8*7%5'3'0'*40%$7%5')*' $*10%'
'.5'0),81/')%'' &/'--,.-'+%')$)' .')+%$'
('0%0')+%'&/2,.-'4+0)%$'8,-+)'4%'6/'(%5''
)+%'(+%0)'*$'4'(9'*$'%/0%'4%+,.5')+%+%'5'*.'
)+%'.%(9' '$%'0+*1/5'4%')'9%.'.*)')*'/%'7%'
)+%'4+0)%$'*.'/*.-'%.*1-+')*' ('10%''()1'/
7%0,(',)*.''.5')+%'0,C%'*&')+%'4+0)%$'0+*1/5'
4%'&',$/2'/'$-%
%0,(',)*.'42''' 4/,0)%$' ,0'*&'0%$7,(%',.'
8'.2'4$',. '&&%(),*.0')%.5%5'3,)+'(*.-%0;
),*.''.5')%.5%.(2')*'0%$ 10'%&&10,*.'01(+''0'
,.')+%' (+$*.,(' &*$80'*&'+25$*(%6+'/10''.5'
.*.)14%$(1/'$ 8%..-.,)0' .' +20)%$,('/
6'$'/20,0'.'$$*3'0)$,60'*&'4/,0)%$'6/'(%5'(*8;
6/%)%/2'$*1.5')+%' '&&%()%5'/,8 4'+'7%'6$*7%5'
(1$'),7%' '0)$,6'$*1.5')+%')+$*')'8'2'(1$%'
.%$7*10'6+*.,''0)$,6'*&'4+0)%$'*.%,.(+'
3,5%'8'2'6*00,4/2'0*8%),8%0')'2')+%'06$%'5'
&'%$20,6%/'0''/*.-''01$&'(%' .'('0%0'&'
6/%1$,),(' *$'6%$,('$5,),*' %&&10,*.')+%'$%6%')%5'
'66+(',*.'*&'4+0)%$0')*')+%'(+%0) '//',0'*&'
8'.,&%0)'57').'-%' .'%&&10,*.0',.)*'>*,..)0'
A+25$'$)+$*0,0R'4+0)%$0',5'40*$6),*.H'.5'
,)'+'0'0%%8%5')*')+%'3$,)%$')+')' '40*$4%.)'
$%8%5,%0'01(+'0',*5,5%'*&'6*)'00,18'*&)%.'
4%-,.')*'5*-**5''0'0**.''0''4+0)%$''66%'$0'
)*'+'7%'*.(%'0%)')+%' '40*$6),7%'6$*(%00',.'
'(),*.' .')+%>*,.)' '&&%(),*.0'*&'(1)%$+%1;
8')',08'0)+%'4+0)%$')$%')8%.)'&+'0')$'()%5'
.*),(%' $8/%)0' .'5'3$,0)/%)0'*&'4/,0)%$'
6/'0)%$''$%' '66+%5'(/*0%')*')+%' ,.&/'8%5'
0>*,..)0'51$,..')+%'&%7%$''.5')+%'0%$*10'5,0;
(+'$-%'&$*8')+%'4+0)%$',0'9%6)'16'42'8%'.0'
*&/,.0%%5 8%'/6*1/),(%0
.')+%'*40),.')%' '(,5'7*8,),.-'*&'-*1)2'
6'),%.)0''4+0)%$'*7%$')+%'%6,-'0)$,18'*&)%.'
-,7%0'$%/,%&' *8%&*$80'*&'.%1$'/-,''')&*$
%B'86/%1$*52..''8'2'2,%/')*''4+0)%$'
7%$')+%'0%')'&',+%'6',.' ')',8%0'*40),.')%
6/%1$*52.,''*$'8'0)*52.,''('.'4%$%+%7%5'
42'&/2,.-'4+0)%$0''66+%5',.')+%'7%$)%4$'/
-$**7%'*.')+%''&&%()%5'0,5%'3+%$%''')%.5%$

06*)ʸ ('.ʼ*&)%.ʼ4ʶ 5%)%()%5ʸ *.ʼ6$%001$%ʼ /,0;)%$0ʶ =*1/5ʼ4ʶ '7*,5%5ʸ ,.ʼ ('0%0ʶ*&ʶ $%. 'ʃ ' .5ʼ 7%0,('ʃ ,..&/'8 8'),*.ʼ '0ʶ)+%ʶ '40*$6),*.ʼ *&ʶ)+%ʶ ('.)+'$,5,.ʶ 8 '2ʼ,.($%'0%ʶ)+%ʶ 8 ,0(+,%& *1.)%$,$$,)',*. ʼ 2ʼ+%') G +%ʶ09,.ʼ ('.ʼ4ʶ $'6,5/2ʼ4/,0)%$%5ʼ 42ʼ'66/2,.-ʼ '' +' 8 ; 8%$GȮ *$$,-'.ʻʶ +' 8 8%$ʼ<G ''ʼ 0 8 '/ʃ &/')ʸ ,$*.ʼ+%')%5ʸ,.ʼ''06,$,) /' 8 6ʼ*$ʼ4*,/,..-ʼ3')%$ʸ +%ʶ09,.ʼ,0ʶ)'66%5ʸ &*$ʼ ''&%3ʼ 0%(*.50ʶ 7$,)+ʸ)+%ʶ+' 8 8%$'>10)ʸ)*ʸ,.51(%ʶ $%5.%00ʶ*&ʶ)+%ʶ 6')$)ʸ .ʼ0*8%ʶ &*$8 0ʶ*&ʶ $+%18'),0 8ʼ.%1; $'/-,''.5ʼ06,.ʼʃ 3%'9.%00ʼ)+,0ʶ 6$'(),(%ʶ+'0ʶ 4%%.ʼ&*//*3%5ʼ 42ʼ0'),0&'()*$2ʼ$01/)0ʼ %0,; (').,*.ʼ*&ʶ)+%ʶ09,.ʼ42ʼ)+%ʶ ʼ " ʼ *$ʶ+*)ʸ,$*.ʼ+'0ʶ4%%.ʼ10%5ʸ,.ʼ(+$*.,(ʃ>*,.)ʼ 5,0%'0%

*B'0 G *B'0ʶ3%$%ʶ10%5ʼ&*$')+%ʶ61$6*0%*&ʼ('10,.-ʼ0%7%$%ʶ (*1.)%$,$$,)',*. ʼ 1$*; 6%'.ʼ 8*B'0ʶ 3%$%ʶ 8'5%ʶ %,)+%$ʸ 3,)+ʸ (*))*.; 3**ʃ0*'9%5ʸ,.ʼ0*/1),*.ʼ*&ʶ .,)$')%ʶ*&ʶ6*)'0; 0,18'*$ʶ*&ʶ)+%ʶ 6,)+ʸ*&ʶ)+%ʶ01.&/*3%$ʼ3+,(+ʸ .')1$'//2ʼ(*.)'.0ʶ)+,0ʶ0'ʃ ʼ 3%)$')ʸ$'-ʸ3'0ʶ 6/'(45ʼ*.ʼ)+%ʶ09,.ʃ,.ʼ)+%ʶ (%.)$%ʶ*&ʶ)+,0ʶ 3'0ʶ'' +*/%ʶ,.ʼ3+,(+ʸ)+%ʶ/,-+)%5ʸ 8*B''3'0ʶ 6/'(%5ʼ3+,(+ʸ-$'51''//2ʼ41$.%5ʼ5*3.ʼ)*ʸ)+%ʶ 09,.ʼ'.5ʼ6$*51(%5ʼ'.ʼ%0(+'$ʼ3+,(+ʸ,.ʼ51%ʶ),8%ʶ 0%6'$')%5ʸ 42ʼ01661$'),*.ʼ .ʼ06,.'ʃ '&&%(),*.0ʼ'.5ʼ,.ʼ0*8%ʶ&*$80ʶ*&ʶ6'$'/20,0ʶ*&ʶ)+%ʶ 0%.0*$2ʼ04.5 8*)*$ʸ .%$7%0ʼ 8*B'0ʶ '$%0',5ʼ)*ʸ+'7%ʶ 5*.%-**5ʃ 41)ʸ)+%,$ʸ '66/,(';),*.ʼ,0ʶ7%$2ʼ6',.&1/''.5ʼ.*3')+%2ʼ'$%ʶ0%/5*8ʸ %86/*2%5ʃ

9ʼ 10)1/'.)0 G) G +%ʶ'-%.)0ʶ4%; /*.-,.-ʼ)*ʸ)+,0ʶ(/'00ʶ*&ʶ(*1.)%$,$$,)'.)0ʶ6$*; 51(%ʶ''610)1/'$ʸ %$16),*.ʼ*.ʼ)+%ʶ6')$ʸ)*ʸ3+,(+ʸ)+%2ʼ'$%ʶ'66/,%5ʼ''.5ʼ)+%,$ʸ 10%ʼ,0ʶ.*)ʸ$%(*8; 8%.5%5

' ')oo G 8*.-ʼ 610)1/'.)0ʶ 8'2ʼ4%ʶ 6/'(%5ʼ $*)*.ʼ ,/ʼ '$ʼ)'$')%5ʼ .),8*.2ʼ''.5ʼ 0)$*.-ʼ0*/1),*.ʼ*&ʶ ,)$')%ʶ*&ʶ ,/7%$ʼ +%.('$*)*.ʼ*,ʃ,0ʶ'66/,%5ʸ)*ʸ)+%ʶ09,.ʼ,)ʼ'()0ʶ'0ʶ''.ʼ,.)%.0%ʼ,$$,)'.)ʼ6$*; 51(,.-ʼ''.%$16),*.ʼ3+,(+ʸ,0ʶ'ʃ &,$0)ʸ6'61/'$ʼ 41)ʸ7%$2ʼ0**.ʼ4%(*8%0ʶ610)1/'$ʼ +%ʶ*,ʃ,0ʶ 4%0)ʸ%86/*2%5ʼ,.ʼ)+%ʶ&*$8ʼ*&ʶ)+%ʶ ,.,8%.ʼ)18ʼ $*)*.,0ʶ*&ʶ)+%ʶ +'$8'(*6*%,'ʼ '$)'$ʼ ')%5ʼ .),8*.2ʼ,.ʼ)+%ʶ&*$8ʼ*&ʶ)+%ʶ ,.)8%.)ʼ *$ʼ ,.ʼ +*)ʸ 'E1%*10ʶ 0*/1),*.ʼ,0ʶ'ʼ 6*3%$&,,ʃ (*1.)%$,$$,)'.)ʼ 6$*51(,.-ʼ 610)1/%0ʶ 3+,(+ʸ $%0%84/%ʶ)+*0%ʶ*&ʶ 7'$,*/'ʼ +%.ʼ'66/,%5ʸ)+10ʶ,)ʼ 8'2ʼ42ʼ4%(*8,.-ʼ'40*$4%5ʼ,.51(%ʶ 0286)*80ʶ*&ʶ-'0)$*%.)%$,)0ʼ)ʼ0+*1/5ʼ.*)ʸ 4%ʶ'66/,%5ʼ)*ʸ 6')$)0ʶ 101''//2ʼ1.(*7%$%5ʼ'0ʶ)+%ʶ610)1/%0ʶ/%*7%ʼ 8'$90ʶ 4%+,.5ʼ)+%8Ḥ'.5ʼ 1.5%$ʼ&ʃ(,$(1800).(%0ʶ)+%ʶ$%8%52ʼ4%,.-ʼ''6',.&1ʃ *.%ʼ 810)ʼ4%ʶ 10%5ʼ3,)+ʼ('1),*.ʼ)$*.-ʼ0*/1),*.ʼ*&ʶ.,)$')%ʶ*&ʶ0,/7%$ʼ3,ʃ6$*; 51(%ʶ 610)1/'),*.ʼ41)ʸ,)ʼ,0ʶ0%/5*8ʸ%86/*2%5ʸ &*$')+,0ʶ61$6*0%ʼ

001%0 G 001%0ʶ+'7%ʶ/*.-ʼ4%%.ʼ10%5ʼ'0ʶ (*1.)%$,$$,)'.)0ʼ .ʼ,001%ʶ,0ʶ &*$8%5ʼ42ʼ 6/'(,.-ʼ*.ʼ)+%ʶ09,.ʼ''6,%(%ʶ*&ʶ'5+%0,7%ʶ 6/'0)%$ʼ,.ʼ''+*/%ʶ,.ʼ)+%ʶ (%.)%ʶ*&ʶ3+,(+ʸ''&$'-8%.)ʼ*&ʶ('10),(ʃ6*)'0+ʸ,0ʼ,.0%$)%5ʼ +%ʶ('10),(ʃ('10%0ʼ'.ʼ%0(+'$ʼ'.5ʼ3+%.ʼ)+,0ʶ+'0ʶ (*8%ʶ'3'2ʼ'.ʼ,001% 6%''ʼ,0ʶ 6/'(%5ʼ,.ʼ)+% ('7,)2ʼ/%&)ʸ 42ʼ)+%ʶ %0(+'$Ḥ)+,0ʶ 6%''ʼ()0ʶ'0ʶ''ʼ &*$%,-.ʼ 4*52''.5ʼ 9%%60ʶ 16ʼ 01661$'),*.ʼ .%ʶ5$'(+8'*&ʶ610ʶ 8'2ʼ4%ʶ5,0(+'$-%5ʼ5',/2ʼ 42ʼ''.ʼ,001%Ḥ 8*$%ʶ)+'.ʼ)+,0ʶ,0ʶ)*ʸʼ -$%')ʼ'' 5$',.ʼ*.')+%ʶ 020)%8ʼ .ʼ,001%ʶ $%E1,$%0ʶ)*ʸ 4%ʶ5$%00%5ʼ5',/2ʼ'.5ʼ3+%.ʼ,)ʼ+'0ʶ 4%%.ʼ/*.-ʼ *6%.ʼ'.5ʼ$1.,.,-ʼ,)ʼ810)ʸ.*)ʼ4%ʶ+%'/%5ʼ)*ʸʼ 0155%./2ʼ 001%0ʶ*7%$ʼ)+%ʶ06,.%ʶ+'7%ʶ 4%%.ʼ &*1.5ʼ10%&,,ʃ,.ʼ(+$*.,(ʼ06,.'/ʃ5,0%'0%Ḥ''.5ʼ ,.ʼ0*8%ʶ(+$*.,(ʼ4$'),.''&&%(),*.0ʼ3,)+'+26%$ʼ 0%8,''.5ʼ(*.-%0),7%ʶ)%.5%.(2ʼ'.ʼ,001%ʶ,.ʼ)+%ʶ4'(9ʻ*&ʼ)+%ʶ.%(9ʻ*$ʼ,.ʼ)+%ʶ'$8ʼ,0ʶ*&ʶ0%$; 7,(%ʼ41)ʸ,0ʶ.*)ʼ.*3ʼ81(+ʼ10%5 %)*.0 G ʼ0%)*.ʼ,0ʶ 8'5%ʶ 42ʼ6'00,.-ʼ''.'$$*3 4/'5%5ʼ9.,&%ʶ1.5%$ʼ''&*/5ʼ*&ʶ09,.ʼ''.5ʼ)+%.ʼ('$$2,.-ʼ''&%3ʼ0,/9ʼ)+$%'50ʶ)+$*1-+ʼ)+%ʶ ,.(,0,*.ʼ42ʼ8%'.0ʼ*&ʶ''6$*4%ʶ*$ʼ/*.-ʼ.%%5%'5ʼ +%ʶ)+$%'50ʶ$%8',.,.-ʼ,.ʼ)+%ʶ3*1.5ʼ6$%7%.)ʸ ,)ʼ&$*8ʼ+%'/,.-ʼ''.5ʼ8',.)',.''ʼ&$%%ʶ61$1/%.)ʸ 5,0(+'$-%ʼ %)*.0ʼ'$%ʶ 10%5ʼ&*$ʼ)+%ʶ 0'8%ʶ 61$6*0%0ʼ 10ʼ,001%0ʼ'.ʼ5')+%2ʼ+'7%ʶ 6$*7%5ʼ 10%&1ʃ,.ʼ(%$)',.ʼ,.)$')()'4/%ʶ&*$80ʼ*&ʶ+%'5; '(+%G)+%ʶ 0%)*.ʼ4%,..-ʼ,.0%$)%5ʼ,.ʼ)+%ʶ09,.ʼ *&ʶ)+%ʶ.%(9ʼ %)6.0ʼ+'7%ʶ4%%.ʼ10%5ʼ.ʼ('0%0ʼ *&ʶ(20),(ʼ4$*.(+*(%/%ʼ3,)+ʸ)+,(9%.%5ʼ3'//0Ḥ '.5ʼ'0ʶ(*1.)%$,$$,)'.)0ʼ,.ʼ(+$*.,(ʼ,.&/'8; 8'),*.ʼ*&ʶ)+%ʶ4/'55%$ʼ.5ʼ1)%$10Ḥ,.ʼ(+$*.,(ʼ09,.5,0%'0%0ʼ*&ʶ.ʼ*40),.')%ʶ (+'$')(%$Ḥ,.ʼ,.&/'88'),*.0ʼ*&ʶ)+%ʶ %2%ʼ3,)+ʸ1/(%$')*.ʼ*&ʶ)+%ʶ (*$.%ʼḤ'.5ʼ,.ʼ)+%ʶ %'$/20)'-%0ʼ*&ʶ61/; 8*.'$2ʼ6+)+,0,0

.ʼ'(1)%ʶ'&&%(),*.0ʼ,001%0ʼ'.5ʼ0%)*.0ʼ'$%ʶ .%7%$ʼ %86/*2%5ʼ''.5ʼ)+%2ʼ0+*1/5ʼ.*)ʸ 4%ʶ 6/'(%5ʼ*7%$ʼ'.2ʼ6'$)ʸ3+%$%ʶ)+%$%ʶ,0ʼ81(+ʸ 8*7%8%.)ʼ'0ʶ''ʼ)$*14/%0*8%ʶ 0*$%ʶ 8'2ʼ4%ʶ)+%ʶ$%01/)ʼ)ʼ,0ʶ.%(%00'$2ʼ)*ʸ 4%'$ʼ,.ʼ 8.5ʼ)+')ʸ,001%0ʼ0%)*.0ʼ''.5ʼ610)1/'.)0ʶ'$%ʼ/,9%ʶ 4/,0)%$0ʼ3+%.ʼ9%6)ʼ*.ʼ/*.-ʼ%.*1-+ʼ)*ʸ,.51(%ʶ 0%$*10ʶ5,0(+'$-%ʼ*&ʶ)+%ʶ.')1$%ʶ*&ʶ%7'(1'.)0' +%2ʼ('$$2ʼ*&ʶ.1)$,%.)ʸ 8')%$,'ʃ &$*8ʼ)+%ʶ 4/**5ʼ''.5ʼ)+%$%&*$%ʶ '$%ʶ 8*$%ʶ*$ʼ/%0,0ʼ 5%; 6$%00,..-ʼ''.5ʼ%B+'10),..-ʼ)*ʸ)+%ʶ020)%8ʼ''.5ʼ)+%,$ʼ$%6%')%5ʼ*$ʼ6$*)$')(%$5ʼ%86/*28%.)ʼ3,/ʃ)%.5ʼ)*ʸ,.51(%ʼ)+%ʶ,$$,)')ʼ,7%ʶ&%7%$ʼ*&ʶ5%4,/,)2

ʼ ʼ /, ,ʼA $R G '02.*.28ʼ &*$01.0)$*9%ʼ ʼ*

Y ? ʼ+

Y , ʼ, (ʼ)+%ʶ+,6Ḥ'.5ʼ 6 ' 6',.R G ',.ʼ,.ʼ)+%ʶ +,6>*,.)ʼ ʼ ʼ ,0%'0%0ʼ*&

ʼ*$ʼ U ʼ ʼ 2 *. "ʼ $ ʼ ʼ ʼ M#'6%(1/,'$ʼ0*1.5ʼ%/,(,)%5ʼ42ʼ6%$(100,*.ʼ '.5ʼ$%0%84/,.-ʼ)+'/ʃ%8,))%5ʼ*.ʼ0)$9,.-ʼ''4$*9%.'>'$ʼ*$ʼ''8%)'//,('7%00%/ʼ ʼ$ ' (# ʼ ,.ʼ '6% */*.2 G %%) . ʼ* G*. ʼ ʼ $ʼ ʻʃ $%$' F G +,0ʶ.'8%ʶ,0ʶ '66/,%5ʼ)*ʸ (%$)',.ʼ 6',.&1ʃ7'$,%),%0ʼ*&ʼ)*.,('06'08ʼ .ʼ,)0ʼ8*0)ʼ &'8,/,'$ʼ&*$8ʼ,)ʼ'&&%()0ʼ)+%ʶ('/7%0ʼ*&ʼ)+%ʶ/%-0

(*8,.-'*.'6$,.(,6'//2'')'.,-+)'*.')+%'*((('0,*.'*&' '0/,-+)'8*7%8%.)'*&')+%0%'6')0' +%'&&%()%5'8 10(/%0'8*0)/2'*.'*.5'0,5%')(*.))'()'3,)+'01(+'%.%$-2'0')*' -,7%'$,0%')*' ''4*0B5'/,9%'$,-,5,)2')*-%)+%$'3,)+'0%.0')',(9'$'$%/2'/'0)0'8*$%')+'.'' 8,.1)%'*$')3*')+*1-+',)'8'2'Q8*$%'*$'/%00'06%%5,/2'$%(1$')',0'6%$+'60'4%0)'(1)'0+*$)'42'''7,-*$*10'41)'0)%'52'7*/1.;)'$2'(*.)$'(),*.'*&')+%'*66*0,.-'%B)%.0*$'810(/%0'*&')+%'&**)' +%$%',)',0'8*$%'*40),;.')%')+'.'101'/'&,$8'6$%001$%'*$*B85')+%'+,-+'*$16*.')+%'-$%')'0(,'),(',.%$7%'0*8%;),8%0'-,7%0'$%/,%&' $'86',0'*&)%.''00*(,')%5'3,)+'0*8%',$$,)'),*.'*&')+%'0)*8'(+'*$'*&')+%'(,.)%0),.%0'%06%(,'//2',.'(+,/5$%.'*$'5%/,(')%'.%$7*10'6%$0*.0' .')+,0'2 ',)',0'6$*51(%5'.*)',.&,$%E1%.)/2'3+%.'$0%.,(',.'8%5,(,.'/5*0%0'+'0'4%%.'(*.),.1%5'&*$'0*8%'),8%'.'5'',0'4%-,..,.-')*'%B%$)'0*8%'0/,-+)/2'6*,0*.*10'%&&%()'16*.')+%'020)%8' .''' 8*$%'-%.%$'/&*$8',)'*&)%.'*((1$0')*'' 8'$9%5'%B)%.)',.'(+*/%$''*('/,0%5'6',.&1/'($'86/,9%'(*.;)$'(),*.0'*&'8 10(/%0'8'2'/0*' 4%'51%')*',$$,)'),*.'*&' .)%$,*$'$**)&,4$%0'%,)+%$',.'+%,$',.)$'8%51//'$2'*$'%B)$'8%51//'$2'(*1$0%')+%$'&*$80'*&'6',.&1/'06'8.'$%42'.*'8%'.0'(*88*.',&'3%'%B(%6)'(*+*' ' & Ḥ'.5' # 9'-

' %

KV ' 4'091//Ḥ'.5' ')+,..,.-R G '8*$4,5'(*.5,),*.'*&')+%'($'.,18',.'(+,/5$%.'(*.0,0),..-',.'06*)0'*&/*('/')+,..,.-'*&')+%'*((,6,)'/'6'$,%)'/''.5'A$'$%/2R')+%'&$*.)'/'4*.%0''0'3%/'0',.'-%.%$'/'4.*$8'/'&/%B,4,/,)2'*&')+%'*00%*10'),001%' ' * ' ,0%'0%0'*&

' ' 8'9%''.*,0%R' +%.'66/,%5')*''4*52')+,0'3*$5'0,-.,&,%0')+')',)'('6'4/%*&'2,%/5,.-')+%'0%.0'),*.'*$0*1.5'*&'($%6,)'),*.')',0'/0*'00*(,')%5'3,)+''$^/%')*',.5,(')%''6%(1/,'$'(+'$'()%$3+,(+',)'6*00%00%0' ':$6 ' * I

/ /,$' ' ' 8'9%''.*,0%R G '0%.0'),*.'*$0*1.5'*&'($'(9/,.-')'8'2'4%'*40%$7%$',.'8*$4,5=0)')%0'*&')+%4*.%0'>*,.)0'*$014(1)'.%*10'),001%Ḥ41)')+%)%$8',0'8*$%'&$%E1%.)/2'66/,%5')*''6+20,('/0,-.'(*.%()%5'3,)+')+%'/1.-0' '$ ' (# %

0 B' "' 3,00' '&*$# "''+$,0),'.RG*' '' ')' ' ' 'Ḥ $'' /" Ḥ %$' "

2 ! '(*.5,),*.'*&',5,*(2'$,0,.-&$*8' %.5%8,('('10%0''00*(,')%5'3,)+',8;6%$&%()'5%7%/*68%.)'.5'5%&*$8,)2'*&')+%'3+*/%'4*52'7'$2,.-'+*3%7%$',.'5%-$%%+,0'(*.5,),*.'*&'6+20,('/'.5'8%.)'/5%-%.%$'(2',0'.*)'/,8,)%5')*'.2'.'),*.'/,)2'))*4)',.0',.')+%'-$%')'8*1.)',.(+',.0'*&'1$*6%'0,'''.5'8%$,('.'1$*6%',)(,0'8%)'3,)+',.')+%'7'//%20'*&'3,)C%$/'.5''7*2''.5',%58*.)Ḥ'.5',)''4*,850',.')+%.%,-+4*1$+**5'*&'/C4 $-')2$,''.5')+%'2$*/')',0'/%00'&$%E1%.(2'8%)'3,)+',.')+%'2$%.%%0'.5',.')+%'7'//%20'*&' 17%$-.%',.' $'.(%' 7%.',.' .-/'.5',)'+'0'4%%.'8%)'3,)+',.'7'$,*10'6')$0''8*.-'*)+%$0',.')+%'5'/%04%)3%%.' '.('0+,$%''.5' *$90+,$%'/)+*1-+'8*$%'&$%E1%.)/2'8%)'3,)+',.'7'//%20',)',0'.*)'1.9.*3.'*.'6/',.0'3+,(+'$%'014>%()'*',.1.5'),*.0( ) ! +%'(*.5,),*.0'&*$')+%'5%7%;/*68%.)'*&'($%),.,08''$%'+%$%5,)'$2'6$%5,0;6*0,),*.'Ḥ)+%''(),*.'*&5%)8*$'),.-',.&/1%.(%0'*.')+%'6'$%.)0'01(+'0'1.3+*/%0*8%'53%//;,.-0'.5'.*.1)$),*10'5,%)Ḥ''.5''((,5%.)'/'(' 10%0'*6%$'),.-'*.')+%',.&'.)'51$,.-')+%6%$,*5'3+%.',)0'6+20,('/'.5',.)%//%()1'//,&%''$%'5%7%/*6,.-' +%'/'0).'8%5'('10%0'$%')8*06+%$,('.5'6*00,4/2'-%*/*-,('/(*.5,),*.0'6%(1/,'$')*'06%(,&'/*('/,),%0'18,5,)2'*&')+%'0*,/'.5',$',.'7'//%20'3+%$%')+%$%',0'/,))/%',.)%$(+'.-%*&'8'-.%0,'./,8%0)*.%',.'+%'0*,/''$%'6$*4'4/2')+%'8*0)'6*)%.)'&')$0'$%),.,08',0'.*)'8%)'3,)+''0'.'%.5%8,(5,0%'0%'*.'%/%7')%5'6/')%'1B'.*$',.'(*/5'(*1.)$,%0'3+%$%'0155%.'(+'.-%0'*&')%86%$';)1$%''$%1.(*88*.',*,)$%',0''&$%E1%.)''((*86'.,8%.)'*&'($%),.,08''.5'3*1/5''6;6%'$')*'4%'5%7%/*6%5',85%$')+%'0'8%(*.;5,),*.0'+%'*'0%0'*&'($%),.,08'8%)'3,)+,.'-/'.5'6$%0%.)'&%')1$%0'3+,(+'$%',.5,(')',7%'*&',5,*(2'00*(,')%5'3,)+''$$%0)'*&'-$*3)+''.5'5%7%/*68%.)'')'+%'6%$,*5'*&',$0)'5%.),),*.='.*)',.&$%E1%.)/2'8%)',)+',.'.-/'.5'3+,(+'+'0'4%%.')%88%5' ' ' *8%'*&')+%0%'('0%0'+'7%'4%%.')$'(%5')*'/(*+*/,08'*.')+%'6')*&')+%'6$*-%.,)*$0''.5''$%'101''/2''00*(,')%5'3,)+''.'40%.(%'*$')$*6+2'*&')+%')+2$*,5'4*52''.5'3,)+')+%'5%7%/*68%.)'*&'/**0%'&'))2')18*1$0',.')+%'016$'(/'7,(1/'$06'(%0' +%2'$%8'.')'(+,/5$%.'4*)+'6+20,%'2'.5'8%.)''//2'+%2'+'7*''0)$*.-'0%.0%'*&')+%'$,5,(1/*10'.5''$%'&*.5'*&'%B(,),.-',$,5,(1/%',.')+%'$0'42')+%,$'-$*;)%0E1%'&'(,'/'%B6$%00,*.0' +%$%',0'$%'0*.')*'4%/,%7%')+')'(+,/5$%.'4%(*8%($%),.*,5'3+%.')'9%.')*'$%0,5%''')+%'6%$,*5'*&')+%,$%'$/2'5%7%/*68%.)',.'/*('/,),%0'3+%$%')+%5,0%'0%',0'8'$9%5/2'%.5%8,(' +%$%''$%'.18%$*10'3 '))%0)%5',.0)'.(%0'*&'+%'/)+2'3*8%.'/,7,.-'51$,.-')+%,$'6$%-.'.(2',.'*$%),.,(' 5,0)$,()0'4$,.-,.-'&*$)+'($%),.*,5'(+,/5$%.'3+*'$%8*7,.-'&$*8'01(+'/*('/,),%0'6$*6'-')%'+%'/)+2'(+,/5$%.'2'&'$'+*3;%7%$')+%'-$%')%$'.184%$*&'($%),.0''$$,7%')')+%,$'+%/6%0'(*.5,),*.'42'01((%00,7%'0%60'*&'5%-%.%$'(2',.')+%,$'.(%0)*$0')'+'0'4%%.')+*1-+')+')'($%),.,08',0'51%')*'6$%8')1$%'*00,&,('),*.'*&')+%'($'.,'/'01)1$%0'%06%(,'//2'Q*&')+%'06+%.*4'0,/'$'01)1$%Ḥ''.5')+')'),0',0'('10%5'42'5$,.9,.-'3')%$'/'$-%/2'(+'$-%5'3,)+'/,8%'0,'.5'8%$,('1$*6%'*00,&,('),*.'3+%.',)$%'.5'8%$,('.'1$*6%',)

,. -‘$,-+)‘&$* 8’ 3$* . -’0+%‘ (*1/5’ . *)‘4%‘%0010%5‘ &*$* ’ . 2’ ’ ()‘ *&‘ ’)$*(,)2‘ 3 +,(+’ +%‘ 8 ,-+)‘ %* 8= 8 ,) ‹ 0)‘ 8 10)‘ 4%‘ 6$*),=%5‘ 4%2* . 5’ ’/‘ 5*14) ‹ +%‘ ’55%5‘ 0)+ ’)‘ ’)‘)+%‘), 8 %’ +%‘ (* 8 8 ,))%5’)+%‘ ’)$*(,*1‘0 ’ ()‘)+%‘ 5,5’ . *)‘ (* . 0 ,5%$‘)+ ’)‘ 8 1$5%$‘ 3 ’0‘ ’ ($, 8 %‘ ’ - = 0)‘)+%‘ / ’ 3 0‘ *&‘ *5‘ ’ . 5‘ . ’)1$% ‹ +[’)$, ’/‘ *&‘ ’ (’1-+)* . ’ , . ’ ? ’” &*$)+%‘ 8 1$5%$‘ *&‘ $’ $1 8 8 * . 5’ /%5’)*’)+%‘ 8 *0)‘ ’1)+*$,)’),7%‘ 0) ’)% 8 %.)‘ *&‘)+%‘ / ’ 3’ 3+,(+’ +’0‘%7%$‘ 4%%. ’ *4)’ , . %5’ , . ’)+,0‘ (* , 8)$2’ ’ (’1-+)*.’ ’0‘ ’ (E1,))%5’ *. ’ +,%&‘ 10),(%’ ,15’ /‘0‘ 5,$%()‚* . ’)+ ’)‘)+%‘ 6*, .)‘ &*$)+%‘ >1$2’)*’ (* . 0,5%$‘ 3 ’0‘ 3+%)+%$‘ 0 ’)‘)+%‘), 8 %‘)+%‘ ’ ()‘ 3 ’0‘ (* 8 . ,,))%5‹)+%‘ ’ ((10%5’ 0+ ’ 5‘)+ ’)‘ (* 8 ; 6%)%.)‘ 10%‘ *&‘ +,0‘ 1 . 5%$0)’ . 5, . -’ ’0‘)+ ’)‘ +%‘ 9 . %3‘)+ ’)‘ +%‘ ’0‘ 5*, . -’ 42’)+%‘ 7%$2’ ’ ()‘ ,)0%/&‘ ’” 3 ,(9%5‘ ’ . 5‘ 3$* . -’)+, . - ‹ +%‘ -%. %$‘/‘ ’66/,(’),*. ’*&‘)+,0‘ 5*()$, . %‘ 3 * 1/5’+ ’ 7%‘ -$%’)/2‘ %./’$-%5‘)+%‘ ’$%’’ *&‘ ,$$%06* . 0,4,/,)2‘ ’ . 5‘ ,)0‘ %. 1 . (, ’),*. ’ ’)+ ’)‘), 8 %‘ 6$*51(%5‘ (* . 0,5%$; ’4/%‘ 01$6$,0%‘ ’ . (* %7%. ’ (* . 0)%$. ’),*. ’ +%‘ 8 ’))%$‘ 3 ’0‘ , . 5%%5‘ $%- ’$5%5‘ ’0‘ 0*‘ 1$-%.)‘)+ ’)‘)+%‘ *10%‘ & *$50‘ , 8 8 %5, ’)%/2’ *$5%$%5‘ ’” 0%$,%0‘ *&‘ E1%0),*. 0’)*’ 4%‘ /’ ,5’ 4%&*$%’)+%‘ &,&)%%. ’ >15-%0‘ 3 ,)+’)+%‘ 7,%3‘ *&‘ 0%))/,. -’)+%‘ 0)’)%‘ *&‘)+%‘ /’ 3 ’ . ’)+%‘ ’ . 03%$0‘)*’)+%0%‘ E1%0),*. 0‘ ,)‘ 3 ’0‘ , . ’0140)‘ . (%‘/’ ,5’ 5*3 . ’)+’) ’)*’ %.),)/%‘ ’ . ’” (%10%5’ 6 ’$)2’)*’ ’(E1,))’/‘ *. ’)+%‘ -$*1. 5‘ *&‘ , . 0 ’ . ,)2 ’ ,)‘ ,0‘ . %(%00’$2’)+ ’)‘ +%‘ 4%‘ %,)+%$‘ *&‘ 5,0%’ 0%5’ 8 , . 5’ ’ . 5’ ’)‘)+%‘), 8 %’ +%‘ (* 8 8 ,))%5’)+%‘ ’ ()‘ . *)‘ (%8 0(,*10‘ *&‘ $,-+)‘ *$ 3 $* . -Ĥ *$‘)+ ’)‘ +%‘ 4%‘ 1 . 5%$‘ 0* 8 %‘ 5%/10,*. ’ 3 +,(+’ 8 ’5%‘ +, 8 ’$%- ’$5’)+%‘ ’ ()‘ ’0‘ $,-+)‘ 1)’)+,0‘ 0)’)%; 8 %.)‘ + ’0‘ 4%%. ’- ’)&$* 8 ’%&&%(), . -’ ’’&, . ’/‘ 0%))/%; 8 %.)‘ *&‘)+%‘ E1%0),*.

0)‘ 3$,)%$0‘ *. ’ 8 %5, (’/‘ >1$,06$15%. (%‘ + ’ 7%‘ , . 0,0)%5’)+ ’)‘)+%‘ $%’/‘ ($,)%$,. ’*&‘ $%06* . 0,4,/,)2‘ ,0‘)+%‘ &$%%5* 8’ *&‘)+%‘ 3 ,// ’*$)+%‘ 6* 3 %$‘ *&‘)+%‘ , . 5,7,51’/‘)*’ (* .)$*/‘ +,0‘ ’ (),*. 0 ’ +,0‘ + ’0‘ 4%%. ’ 8 *$%‘ *$‘ /%00‘ ’57*(’)%5’ 42’ 0E1,$*/ ’ ’$(‘ ’2 ’ ’- ’. ’ ’ 8 ,%0*. ’ ,))%$ 8 ’,%$’ ’. 5‘ 7*. ’ $’ 8 4, . -’ 0E1,$*/‘ 53%//0’ 0)$*. -/2’*. ’)+%‘ ,8 6*$)’ . (%‘ *&‘)+%‘ &$%%5* 8’ *&‘)+%‘ 3 ,//’ U’2‘ , . (/15%0‘ ,)’ , . ’)+%‘ (* 8 6$%+%. ; 0,7%‘ 0)’)%8 %.)‘ 3+,(+’ +’0‘ $%(%,7%5’)+%‘ ’6; 6$*7’/‘ *&‘0*‘ 8 . 2’ 8 %5, (’/‘ >1$,0)0‘ 0 ‘ ,4%$)2’ *&‘ 3 ,/‘ . 5‘ ’ (),*. ‹ +%‘ 0’20‘ 0,0‘ ’40*/1)%/2’ %00%.), ’/‘)*’ ($, 8 ,. ’/‘ $%06* . 0,4,/,)2’ 1 . /%00’)+%‘ (* . 0)$’ , .)‘ 6*. ’ %,)+%$‘ ,0’)+%‘ . ’)1$’/‘ . 5’ 3% 9 . *3 . ’$%0,5)’*&‘ , 8 8 *$’/‘ *$‘ ,//%- ’/‘ (* . ; 51()’ 1/6’4,/,)2‘ 0166*0%0‘ . *)’ *. /2’ ’” (/%’$‘ 6%$(%6),*. ’ *&‘)+%‘ (* . 0%E1%. (%0‘ *&‘ ($, 8 , . ’/‘ ’()0‘ 41)’)+%‘ /,4%$)2‘ 1 . %8 4’$$’00%5‘ 42’ 5,0%’ 0%‘ *&‘)+%‘ ’ (),7%‘ 6*3%$0‘ 3+,(+’ . ’)1$%‘ +’0‘ -,7%. ’ 10’*&‘ 61$01, . -’)+’)’(*1$0%‘ 3+,(+’,0‘)+%‘ $%01/)’ *&‘)+%‘ &$%%‘ (+*,(%’*&‘)+%‘ , .)%//%()1’/&‘ (1/),%0‹ ’ - ’ . ’ *40%$7%0‘)+’)’)+%‘ 0/*00‘ *&‘ (* .)$*/‘ *7%$‘ *1$ ’ (),*. 0’ 3+,(+’ , . 0’ . ,)2’ , 8 6/,%0’ ,0‘)+ ’)‘ 3+,(+’ $%. 5%$0’)+%‘ ’ ()0‘ 3+,(+’ $%‘ (* 8 8 ,))%5’ 51$, . -’ ,)0‘ (* .), . 1 . (%‘ 1 . 5%0%$7, . -’ *&‘ 61 . ,0+; 8 %.) ‹ ’ 8 ,%0*. ’ 61)0‘)+%‘ E1%0),*. ’ 0 ’5’)+%‘ /$8]),(’ ’)‘)+%‘), 8 %’ *&‘ (* 8 8 ,))‚ . -’)+%‘ 5%%5’ ’’ 9 . *3/%5-%‘)+ ’)‘ ,)‘ 3 ’0‘ ($, 8 , . ’/‘ ’ . 5‘ 01(+’ ’” (* .)$*/‘ *7%$‘ +,0‘ ’ ()‘ * . 0’ ’0‘ *1-+)‘ ,&‘ ,)‘ %B,0)%5’)*’ + ’7%‘ +, . 5%$%5’ +, 8 ’&$* 8’ (* 8 8 ,); , . -’ ,)‘]‹ $’ ’ 7/*$0’20’ 0 +%‘ 6 3%$‘ 3+,(+ ,0‘ 8 *0)‘ 8 ’ . ,&%0)/2’ 5%&,(,%.)‘ , . ’)+%‘ , . 0’ . %‘ ,0‘ -%. %$’//2’)+%‘ (* .)$* , . -’ 6*3%$‘ *&‘)+%‘ 3 ,/‘ <H ’ . 5’ +%‘ %B6$%00%0’)+%‘ *6, . ,*. ’)+ ’)‘ 03%‘ + ’ 7%‘ +%$%‘ ’’ &’,$‘ ($,)%$,*. ’ *. ’ 3+,(+’ $%06* . 0,4,/,)2’ *$‘,$$%06* . 0,4,/,)2’ 8 ’2‘ 4&%)%0)%5 ‹ $’ 1(9’ . ,/)0‘ 7,%3’,0‘ 0140)’.), ’//2’)+%‘ 8 %’ 0U%; 06* . 0,4,/,)2 ‹ +%‘ 0’20’ 05%6%. 50‘ 16* . ’ 6*3%$’ . *)‘ 16* . ’ 9 . *3/%5-%’ 0),/‘ /%00‘ 16* . ’ &%%/, . ’ ’ 8 ’ . ’,0‘ $%06* . 0,4/%‘)*’ 5*’)+ ’)‘ 3+,(+’ +%‘ (’ . ’ 5*’ . *)‘)+ ’)‘ 3+,(+’ +%‘ &%%/0‘ *$‘ 9 . *3 0‘ ,)’ $,-+)‘)*’ 5*’ &’ ’” 8 ’ . ’,0‘ $%5E(%5’ 1 . 5%$‘)+$’/5*8’)*’ 6 ’00,*. ’ 42’ 5,0%’ 0%‘ *&‘)+%‘ 4$’, . ’ +%‘ /*0%0‘ 8 *$’/‘ &$%%5* 8’ ’ . 5’ $%06* . 0,4,/,)2’ ’/)+*1-+’ +,0‘ 9 . *3/%5-%‘ *&‘ $,-+)‘ ’ . 5’ 3$*. -’ 8 ’ 7’$%; 8 ’, ’, .)’ () ‹ +%‘ /’)%0)‘ %$8 ’ . ’(*5%‘ 61)0‘ $%06* . 0,4,/,)2’ 16* . ’)+%‘ 0’ 8 %‘ 4’0,0’ 0 . ’ ’ ()’ ,0‘ . *)‘ 61 . ,0+’ 4/%‹ ’ ((*$5, . -’)*’,)’ 03+%. ’)+%‘ 6%$0*. ’ ’)‘)+%‘), 8 %‘ *&‘ 5*, . -’,)‘ 3 ’0‘ , . ’ ’” 0)’)%‘ *&‘ 1 . (* . 0(, *10. %00H‘ *$‘ *&‘ 5,0%’ 0%‘ *&‘)+%‘ 8 , . 5’ 3+%$%42’ &$%%‘ 7*/),*. ’ ’0‘ 6$%7%.)%5 ‹ ,))%$ 8 ’, %$‘ . ’ 5’ 7*. ’ $’ &&4 , 8 . -’ 0’ . (),*. ’)+%‘ ’))%8 6)’)*’ $%. 5%$‘)+%‘ 8 %’ , . -’ *&‘ 0&$%%‘ 7*/,),*. ‹ 8 *$%‘ 5%&, . ,)%‘ 42’ 5%0($,4, . -’ ,)‘ ’0‘ 8 ’5%‘ 16’ *&‘ 3 ‘ <2 ’ ’. 5’ 3 ’ ” ? ’ *&‘ >15-8 %.)‘ ’. 5’ &$%%5* 8’ *&‘ (+*,(%’ ’06%$‘0*8%3+’)*40(1$%/2’5%&, . %0‘ ($, 8 , . ’/‘ $%06* . 0,4,/,)2’ ’0‘ 0)+%‘ 602(+*/*-,(’/‘ 6*00,4,/,)2’*&‘)+%‘ %&, ,(’*2*&‘)+%‘ 6%. ’/‘ (*5%‹ $’ ’/&*1$‘ $*3 . %’ ’’ $%(%.)‘ 3$,)%$’ -,7%0‘ ’0‘)+%‘ 4%0)’5%&, . ,)‚ *. ’0’’9 . *3/%5-%’)+ ’)‘ (%$)’, . ’ ’()0‘ $%‘ 6%$8 ,))%5’ 42’/’3 ’ . 5’)+ ’)‘ (%$;)’, . ’ ’()0‘ $%‘ (* .)$’ $2’)*’ /’ ›’ . 5’ (* 8 4, . %5’ 3 ,)+’)+,0‘ 9 . *3/%5-%’)+%‘ 6*3%$’)*’ ’66$%(, ’)%‘ ’ . 5’ 4%‘ 8 *7%5’ 42’)+%‘ *$5, . ’$2’ 8 *), 7%0‘ 3+,(+’ , . &/1%. (%’)+%‘ ’ (),*. 0’ *&‘ 8 ’. 9, . 5 ‹ $’ 12’)+, . 90’)+ ’)‘ %7%$2’ 6%$0*. ’ 3+*’ ,0’, . 0’ . %‘ 8 10)’ 4%‘ $%- ’$5%5’ ’0‘ 3+*//2’, $$%06* . 0,4/%’ ’ . 5’)+ ’)‘)+%‘ /’ 3’*&‘ . -/’ . 5’ *1-+)‘)*’ 4%‘ ’00, 8 ,/’)%5’)*’)+ ’)‘ *&‘ $’ . (%’, . ’)+%‘ 5%(/’$’), *. ’)+ ’) ’0 ’ . ‹2’ ’’ . ’ ($, 8 %’ . ’ 5=/,)’ /*$0E1%‘ /%’ 6$%7%. 1’ %)’,)’%. ’%) ’)‘ 5%‘ 558%. (%’ 1’)%8 60’5%‘ <’), *. ‹ $’ ’$$%. ’ *. ’)+%‘ *)+%$’ +’. 5’ 01--%0)0’)+ ’)‘ ’’ 6%$0*. ’0+*1/5’. *)’ 4%‘ +%/5’, $$%06* . 0,4/%’ 1 . /%00’+%‘ 3%$%‘ ’0‘ 01. (* . 0(, *10’ *&‘ +,0‘ ’ ()‘ ’0‘ ’’ 4’42‹ $’ ’150/%2’ . 5’ *)+%$0’+*/5’)+ ’)‘)+%‘ 5%)%$8 , . ’), *. ’ *&‘ $%06* . 0,4,/,)2’ , . ’ *’0%0’ 3+%$%‘ , . 0’ . ,)2’,0’ ’//%- %5’5%6%. 50’ *. ’3+%)+%$‘ ’’ (* . . %B, *. ’ (’. ’*$’ (’. . *)’ 4%‘)$’ (%5’ 4%)3%%. ’ %B, 0), . -’ 5, 0%’ 0%‘ ’. 5’)+%‘ ’ () . 0’ . ,)2’ + ’0’ 4%%. ’6/%’5%5’ ’0‘ ’. ’%B(10%‘ &*$ ’ ()0‘ *&‘)+%&)Ĥ 41)’ 01(+’ (’0%0‘ $%‘ $’$%’ ’. 5’ . %7%$‘ *((1$‘ %B(%6)’3+%$%‘)+%‘ 0*(,’/‘ 6*0,)‚ *. ’ *&‘)+%‘ ’((10%5’ ’550’, 8 6*$)’. (%‘)*’)+%‘ 5%; (,0,*. ’ . 5%%5’,)’ 8 ’2’ ’/ 8 *0)’ 4%‘ 0’,5’)+’)+%‘ 6/%’’ ,0’ . %7%$‘ $’,0%5’ %B(%6)’,. ’ *$5%$’)*’ ’7*,5’ (’6,)’/‘ 61 . ,0+ 8 %.)‹ %. (%’,)’,0’)+’)‘ ,. ’)+%‘ 5,0(100,*. 0’ 3+,(+’ +’7%‘ ’$,0%. ’)+%‘ E1%0),*. ’+’0’4%%. ’ 8), 8 ’)%/2’ ’00*(,’)%5’ 3,)+’)+%’/’ 3’*&‘ 8 1$5%$‘ ’. 5’ +’ 8 ,(,5%’ ’ 06%(,’/‘ , . E1,$2’, .)*’)+%‘ 0)’)%‘ *&‘)+,0’/’ 3’42’’” ’ *8 ; 8 ,))%%‘ *&‘)+%‘ *10%’*&‘ *8 8 *. 0’ +’0‘ (*. 0%; E1%.)/2’ -,7%. ’ *((’0,*. ’)*’)+%‘ %. 1 . (, ’), *. ’ *&‘ , 8 6*$)’.)‘ 7,%3 0’ ’0‘)*’)+%‘ /%- ’/‘ $%/’), *. 0’ *&

’ U%6*$)‘ *&‘ %/%()’ *8 8 ,))%%‘ *&‘)+%‘ *10%’*&‘ *8 8 *. 0’ *. ’)+%‘ *8 ,(,5%’ ’3’ 8%. 58%.)‘ ,//’ 1/2’@ ’ ?M

‘ ‘

,.009.,)2’ ’.5’ $%0> >.0,4,/,)2’ 7,5%.(%’ 3’0’ &’8,0+%5’)*’)+%’ *8 8,))%%’ 42’ *$5’ +,%& 10),(%’ *%941$.’ ’$*.’ $’8 3%//’ $’ 10),(%’ /’(941$.’’.5’ ,$’ ’8 %0’ ,)C ’8 %0’)%6+%.’ +%’,8 8 %5,’)%’ *4>%()*’&’)+%’ *8; 8,))%%’ 3’0’)*’ %B’8,.%’’’4,//’ 5$’3.’42’ ,$’ ’8 %0’)%6+%.’&’*$’)+%’(*5,&,(’),*.’’*&’)+%’/’3’ *&’+*8,(,5%’ .’)+%’(/’10%’*&’)+%’4,//’3+,(+’ 5%’/0’3,)+’)+%’ $%/’),*.0’*& 5,0%’0%’ ’.5’ $%; 06*.0,4,/,)2’ +*8,(,5%’ ,0’0)’)%5’)*’4%’0.*)’ ($,8,.’/’,&’)+%’ 6%$0*.’42’3+*8’,)’ ,0’(*8; 8,))%5’,0’ ’)’)+%’),8%’ 3+%.’+%’ (*8 8,)0’ ,)’ 6$%7%.)%5’42’.2’5,0%’0%’ ’&&%(),.’+’,0’8,.5G’ ’ &$*8’9.*3,.-’)+%’ .’)1$%’*&’)+%’ ’()’5*.%’ 42’+,8’ADR’&$*8’9.*3,.-’)+’)’,)’,0’&*$4,55%.’ 42’/’3’A(R’&,$*8’9.*3,.-’)+’)’,)’,0’8*$’//2’ 3$*.-’*$’ ’&,$*8’(*.)$*//,.-’+,0’*3.’(*.; 51()<’ 1)’,)’,0’0)’)%5’)*’4%’0($,8,.’/’’/’)+61-+’)+%’8,.5’*&’)+%’6%$0*.’(*8 8,)),.-’,)’ ,0’’&&%()%5’42’5,0%’0%’,&’01(+’5,0%’0%’5*%0’.*)’ ,.’&’()’6$*51(%’*.%’*&’)+%’%&&%()0’’&*$%0’,5’,.’ $%&%$%.(%’)*’)+%’ ’()’42’3+,(+’5%’)+’,0’(’10%5’ *$’,&’)+%’,.’4,/,)2’)*’(*.)$*/’+,0’(*.51()’,0’ .*)’6$*51(%5’%B(/10,7%/2’42’ 1(+’5,0%’0%<’)’3’0’+*3%7%$’6$*6*0%5’,.’)+%’4,//’)+’)’ 0,&’’’6%$0*.’,0’6$*7%5’)*’+’7%’4%%.’/’4*1$,.-’ 1.5%$’’.2’,.0’.%5%/10,*.’’)’)+%’),8%’3+%.’ +%’(*8 8,))%5’)+%’+*8,(,5%’,)’0+’//’4%6$%; 018%5’1./%00’)+%’(*.)$’$2’ ’66%’$0’*$’,0’ 6$*7%5’)+’)’+%’5,5’.*)’6*00%00’)+%’5%-$%%’ *&’9.*3/%5-%’*$’ 0%/&(*.)$*/’+%$%,.4%&*$%’ 06%(.&,%5<’ +’)’,0’)*’0’2’3+%$%’5%/10,*.’ %B,0)0’)+%’41$5%.’*&’6$*7,.-’8*$’/’(’6’(,)2’ 3*1/5’4%’0+,&)%5’)+%’6$*0%(1)*$’+’7,.-’)*’ 6$*7%’,)0’%B,0)%.(%’,.0)%’5’*&’)+%’ ’((10%5’ +’7,.-’)*’6$*7%’,)0’’40%.(%’ +%’*6,.,*.0’ %/,(,)%5’51$,.-’)+%’.E1,$2’0+’3%5’)+’)/’3’ ,0’$%-’$5%5’42’/%-’/’1)+*$,),%0’’0’4%,.-’’)* 6$%0%./’)*’1.(%$)’..’,.’)0’*6%$’),*.’’.5’’0’ &’,/,.-’)*’$%(*-.,0%’0*8%’*&’)+%’8*0)’,8; 6*$)’.)’%/%8%.)0’,.’)+%’E1%0),*.’ +%’5,7%$; -%.)’(+’$’()%$*&’)+%’$%(’*8%.5’),*.0’3+,(+’ 3%$%’8’5%’0+*3%5’+*3%7%$’)+’)’/%-’/’ *6,..*.’,0’81(+’5,7,5%5’.*)’*./2’’0’)*’)+%’ 6$*6%$’$%/’),*.0’*&’,.0’.,)2’.5’($,8%’41) ’/0*’’0’)*’)+%’%00%.),’/’%/%8%.)0’*&’$%06*.0,; 4,/,)2’.’)+%’8%’.),8%’)+%$%&*$%’)+%’0)’)%; 8%.)0’*&’)+%’&,&)%.’>15-%0’’&)%$’)+%’ ’(’ ’1-+)*.’(’0%’$%8’,.’)+%’(+,%&’B6*0,),*.’*&)+%’ .-/,0+’/’3’3+%$%’,.0’.,)2’,0’6/%’5%5’,.’ %B(10%&*$’($,8% % ’ ’ #’ ’<% ”)’,0’ .%(%00’$2’,.’*$5%$’)*’>10)/2’’66$%(,’)%’)+% 6$%0%.)’’06%()’*&’)+%’014>%()’)+10’)*’)$’(% ,)0’8*$%’$%(%.)’+,0)*$2’’.5’,)’8,-+)’4%’10%; &1/’)*’6$%0%.)’.’)%0),8’)%’*&’)+%’(*86’$’;),7%’7’/1%’*&’)+%’4%%.’6$*6*0%5’&*$’)+%’5%)%$8,.’;),*.’*&’(’0%0’,.’3+,(+’,.0’.,)2’+’0’4%%.’ ’//%-%5’ +%0%’($,)%$,’’8’2’4%’4$*’5/2’018 8’$,0%5’,.’)+%’&*//+3,.-’0,B’6$*6*0,),*.0’ ((*$5,.-’)*’ *.%’7,%3’’’6%$0*.’0+*1/5’4%’ +%/5’,$$%06*.0,4/%’&*$’.’)’(),&’)’)+%’),8%’ *&’(*8 8,)),.-’,)’A R’+%’/’4*1$%5’1.5%$’,.; 0’.,)2’*&’’.2’9,.5’*$’5%-$%%H’((*$5,.-’)* ’.*)+%$’,&’A@R’+%’/’4*8 %5’1.5%$’5%/10,*.H *$’A”R’,&’+%’3’0’,-.*$’.)’*&’$,-+)’’.5’3$*.-’H *$’A R’+’5’.*)’6*3%$’)*’’66$%(,’)%’.5’4% 8*7%5’42’*$5,.’$2’8*),7%0H’*$’ ’+’5’/*0)’)+%’(*.)$*//,.-’6*3%$’*&’)+%’3,//H’*$’ADR’,&)+%’(),$’)$’(%’4/%)*’’*$’,)0’.’)1$%’+’0’4%%.’ 5%)%$8,.%5’42’8%.)’/’5,0%’0%’ ’&&%(),.-’)+%’ ’-%.)’ +%’/’0)*&’)+%0%’7,%3 0’,0’)+%’*./2’ *.%’)*’ 3+,(+’5’(*.)*’4%’$’,)0’.’)%’*$%),(’/’ ’.5’6$’(),(’/ 0,5%0’ +%’*)+%$0’$%’ ’)’*’7’-1%’)*’4%’*& 81(+’57’.)’-%H’ ’.5’)+%2’$’)+%$’)%.5’)*’ ,.)$*51(% .%3’5,&/,(1/),%0’)+’.’)*’$%8*7%’)+*0%’ /$%’52’%B,0),.-’ +%’ 6$*6*0%),*.’)+%$%&*$% 3+,(+’0%%8 0’)*’ ’66$*’(+’ .%’$%0)’)*’’0*/1),*.’*&’)+%’5,&&,(1/)2’,0’)+’,$$%06*.’ 0,4,+)2’810)’4%’ ’58,))%5’3+%.%7%$’)+%’ ’()’ ,0’)$’(%’4/%)*’’*$’,)0’.’)1$%’,0’5%)%$8,.%5’ 42’8%.)’/’5,0%’0%’ ’&&%(),.-’)+%’ ’-%.)’)’ 3,//’*&’(*1$0%’4%’1.5%$0)**5’)+’)’1.5%$’01(+’ ’’$1/%’)+%’)%$8’0 8%.)’/’5,0%’0%’<’ 810)’4%’ +%/5’)*’,.(/15%’4*)+’(*.-%.,)’/’.5’’(E1,$%5’ 5,0*$5%$0H’’$$%0)’*&’5%7%/*68%.)’4%,.-’’0’ 81(+’’’8*$4,5’(*.5,)*.’’0’&1.(),*.’’0’ 0)$1()1$’/’(+’.-%’ +,0’7,%3’*&’)+%’014>%()’ 8’2’.*)’4%’1/),8’)%/2’’((%6)%5’,.’)+%’6$%; (,0%’)%$80’*&’)+%’6$*6*0,),*.’’+%$%’-,7%.H’41))+%’6$,.(,6/%’*.’3+,(+’,’$%0)0’0%%80’)*’ ’&&*$5’)+%’*./2’0’&%’4’0,0’16*.’3+,(+’3%’(’.’ -*’ 0’+’0’=%’52’4%%.’0+*3.’,)’+’0’.*)’ +,)+%$)*’4%%.’$%-’$5%5’,.’)+,0’/,-+)’42’)+%’ 8’>*$,)2’*&’)+%’>15-%0H’41)’)+%$%’+’7%’4%%.’ ,.8*’),*.0’*&’/’)%’2%’$0’)+’>15,(,’7,%3 0’’$%’)%.5,.-’,.’)+’5,$%(),*.’ +%’/’)%’ *$5’ %.0/%25=%’’.5’*)+%$0’+’7%’-,7%.’0’.(),*.’)*’)+%’6$,.(,6/%’,.’)+%,$’>15,(,’/’0)’)%8%.)0’ .5’)+%’/’)%’ *$5’10),*% %.%$’/’*&’(*); ’)’A .-/,0R’-’7%’5%&,.,)%’%B6$%00,*.’)*’,.’)’ *.%’(’0%’,$ 2”’ %6)’ ?DDR’ %’)*/5’)+% >1$2’)+’)’)+%’8’,.’E1%0),*.’3’0’03+%)+%$)+%’6$,0*.%$’3’0’,.’01(+’’’0)’%’*&’,.0’.,)2’ ’)’)+%’),8%’’0’.*)’*’4%’$%06*.0,4/%’&*$)+% ’()’3+,(+’+%’+’5’(*8 8,))%5H<’.5’,.’*$5%$)*’(*.0),)1)%’01(+’,.0’.,)2’+%’0’,5’)+’)’0,)’ 810)’4%’(/%’$/2’8’5%’*1)’)+’)’)’)+%’),8%’&’ (*8./,))8-’)+%’(’)+%’6$,0*.%$’3’0’/’4*1$,.-’ 1.5%$’8%.)’/’5,0%’0%’,.’)+%’6$*6%$’0%.0%’&’)+%’)%$8’.’.5’)+’)’+’)’8%.)’/’5,0%’0%’3’0’)+%’(’10%’&’)+%’()<’.%’ 8%$,(’’)+%’5*(;)$,.%’+’0’4%%.’&,$%E1%.)/2’(9.*3/%5-%5’41) .%7%$’8*$%’&1//2’.5’)%$0%/2’)+’.’42’15-% *%’’&’ %3’ ’860+,$%’ ’7’6-’3+*’ (*86$%+%.0,7%/2’5%&,.%5’)+%’8%5,(’/’$%/’;),*.0’*&’4*)+’($,8,.’/’,$$%06*.0,4,/,)2’.5’ (,7,/’,.(’6’(,)2’3+%.’+%’0)’)%5’)+’)’’06$*; 51()’*&’8%.)’/’5,0%’0%’,0’.%,)+%$’’’(*.)$’()’ ’’3,//’.*$’’($,8%<’.%’,86*$)’.’)’6*,.)’ ,0’)*’6$%7%.)’6%$0*.0’&,$*8’4%,.-’61.,0+%5’ &*$’(),*.0’3+,(+’’$%’)+%’5,$%()’*1)(*8%’&’ 6’)+*/*-,(’/6$*(%00%0’ 1)’,)’,0’*&’%E1’/ ,86*$)’.(%)*’’7*,5’)+%’*5*6),*.’*’&’’6$,.; ,(,6/%’3+,(+’3*1/5’8’9%’)+%’%B,0)%.(%’*&’ 0/,-+)’ 8%.)’/’ ,$$%-1/’$,),%0’ ,.(*86’),4/%’ 3,)+’$%06*.0,4,/,)2’ +%$%’5*%0’.*)’66%’$’)*’4%’ ’.2’5’.-%$’*&’)+,0’,.’ ’(),.-’*.’)+%’ 6$,.(,6/%’3+,(+’0’+%$%’%B,0)%.1.(,’)%5’ *$’,)/,%0’,.’)+%’7%$2’.’)1$%’*&’)+%’(’0%0’,.’3+,(+

)+%' 5*%)/$,1% (*1/5' +%' '66/,%5 ')+ ')')+%' (*.; 5,)*.'.)*' 3+,(+',)' ,0' 6$*650%5')+ ')' ,%$%06*.' 0,4,/,)2'0+*1/5' 4%' ')' (+%5' 8 10)' 4%' *.%' 3+,(+' ,0/8*3.')*' %B+,4,)',)0%/&',.'' ()0' *&'0%$,*10' .5' %7%.' ($,8,.'/' (+'$' ()%$' &')+%')$',.%5' *4; 0%$7%$' *&5,0% '0%',0' '4/%')*' $%(*-.,0%',.'' .'' ()G' +,(+',0' *$5,.'$,/2'&*//*3 %5' 42'0%7%$%'61.,0+; 8%.)G '' 5,$%()' $%01/)' *$' '' (+'$' ()%$,0),(' &%')1$%' *&' '' 8 *$4,5' 6$*(%00' *&')+%' %B,0)%.(%' *&' 3+,(+')+%$%' 8 '2' *)+%$3,0%' 4%' 01&&,(,%.)' 6$**&')+%' E1%0),*.' *&' $%06*.0,4,+)2' ('..*)' 6$%0%.)' .'2' 0$&&/(./)2')' 8 '2' *5$.,)' *&' 5*14)' 3+%)+%$' '' 6%$0*.',0' $%06*.0,4/%' &*$' .*)'(*.)$*//,.-'+,0' (),*.0'*$' &*$' *)' 9.*3,.-' $,-+)' &$*8' 3$*.-'*$' %7%+' ,.' 0*8%' ('0%0' &*$)+%' +'$4*1$,..-'*&' '' 5%/10,'.*.' 1)' *.(%' /%)' ,)' 4%' 6$*7%5')+')' .'' ()',0')+%' .')1$'/$%01/)' *&' '' 5,0%'0%' 1.5%$' 3+,(+' '' 6%$0*.',0'9.*3.')*' /'4*1$' '.5')+%' E1%0),*.' 8 10)' 4%' 6$'(;),('//2'$%8*7%5' &$*8')+%' &,%/5' *&' 5,0(100,*.' %&*$%' +*3%7%$')+%' 6$,.(,6/%' ('.' 4%' '(;(%6)%5' '0' &1//2' 0'),0&' ()*$2',)' ,0' .%(%00'$2')*' ,.E1,$%' 3+%)+%$' ,)0' '66/,(',*.' 3*1/5' 6%$8,)',.0'.%' 6%$0*.0')*' 4%' +%/5' $%06*.0,4/%' 3+*'*1-+)' .*)')*' 4%' 0*' (*.0,5%$%5' .'*)+%$ 3*$50' '$%')+%$%' 0)')%0' *&',.0'.,)2',.' 3+,(+' '6%$0*.',0',$%$%06*.0,4/%' &*$' ()0' *' 3+,(+'+%' +'0'.*)'4%%.' 6$%5,06*0%5' *$',8 6%//%5' 42')+%' ,.0'.,)2']')',0' 6%$+'60',8 6*00,4/%')*' -,7%' 01(+' .'' .03%$')*')+,0' E1%0),*.'' 0' 3*1/5' 4% 4*)+' 5%&,..)%' .5' (*8 6/%)%H 41)' &*$' 6$'(),('/' 61$6*0%0' 3%')+,.9',)' .>'2' 4%' .03%$%5',.')+%'.%-'),7%' b +%$%)+%',.0'.,)2',0' *&' 01(+' '' .')1$%')+')' ,)' 5*%0' .*)' 8*5,&2')+%' 3+*/%' (*.51()' 3%' 4%/,%7%' ,)' 3,/' 4%' &*1.5' ,.' 6$'(),(%' .%(%00'$2')*' '58,)')+%' %B,0)%.(%' *&' $%06*.0,4/,)2' &*$' '()0' 3+%$%')+%$%' ,0' .*' 5%8*.0)$'4/%' (*.%B,*.'4%)3%%.')+%8' '.5')+%' 8%.)'/'5,0%'0%' +%' ,.0'.%' 6%$0*.0'3+*' *.')+,0' 6$,.(,6/%' 8,-+)' 4%' +%/5' $%06*.0,4/%' 3*1/5' 4%' &*1.5' 0*/%/2' '8*.-')+*0%' 3+*0%' ,$$%06*.0,4,/,)2' (*1/5' *./2' 4%' '58,))%5' '&)%$' %$2' 0%'$(+,.-',.E1,$2' '.5' 3+*%',.0'.,)2' 3'0'*&')+')' 985' '.5' 5%-$%%' 3+,(+'+'0' *&)%.' 4%%.' 5%(/'$%5' 42' 8%5,('/' 3$,)%$0')*' 4%' (*.; 0,0)%.)' 3,)+' $%06*.0,4,/,)2')',0' .*)')*' 4%' 0166*0%5')+')' 1.5%$')+,0' $1/%' 5,&&,(1/),%0' 3*1/5' (%'0%')' 3*1/5' *&)%.' 4%' +'$5')*' 0+*3',.' ('0%0' *&' '()1'/' 5,0%'0%')+')')+%$%' 3'0'-**5'$%'0*.'&*$' 4%/,%7,.-',.',)0'%B,0)%.(%' *$')+')' ,)' 3'0' $%'//2'(*.),41)*$2')*')+%' ()' *8 8,))%5' +,0'+*3%7%$'3*1/5'.*)'$%01/)' &$*8' '.2' 5%&%()',.')+%' 6$,.(,6/%' 41)' &$*8')+')' ,8 6%$&%(),*.'*&' *1$' 9.*3%5-%' 3+,(+' $%.5%$0')+%' 6%$&%()' '66/,(',*.'*&' '.2' 6$,.; (,6/%',8 6*00,4/%' %)')+%')'09'*&')+%' 8%5,(' /' ,).%00' 4%' /,8,)%5')*')+%' 5%8*.0)$'),*.'*&' &$%)0' ,.5,(',7%' *&' 5,0%'0%' '.5' ,)0' (*.0%; E1%.(%0'' .5'+%'W3,//')' /%'0)' 4%' '(),.-'E1,)%' ,)+,.'+,0'06%(,'/'6$*7,.(%'' .5'8,-+)' %B6%()')+')' $%'0*.'4/%' 3%,-+)' 3*1/5' 4%' ')'(+%5')*' +,0' *6,..*.' ."'' >1$,%0' 3%$%' ,.0)$1()%5')+')',/%'/'3' 5*%0' .*)' +*/5' '' 6%$0*.'$%06*.; 0,4/%'&*$' ()0' (*8 8,))%5' 1.5%$')+%',.&,1%.(%' *&'5,0%'0%',)' 0('$(%/2'(*.(%,7'4/%')+')' .'2' *.%'3*1/5'4%'&*1.5'-1,/)2'3+%$%'-**5'('10% +'5' 4%%.' 0+*3.' %7%.' &*$')+%' $%'0*.'4/% 0166*0,),*.'*&' 01(+' '.',.&/1%.(%' +')%7%$' 8'2'4%')+%'W7,%3'1/),8')%/2'5*6)%5',)' 3*1/5' 0%%8')*' 4%',.'%7%$2'7$'2'5%0,$'4/%')+')')+%' +)))%.),*.'*&')+%' 8%&&,('/'%B6%$)'0+*1/5'4%'(*.; &,.%5')*')+%'%/1(,5'),*.'*&')+%' 8%5,('/&'()0' '.5')+')'+%'%+*1/5'.*)'4%$%E1,$%5')*'5%'/,)+' E1%0),*.0'3+,(+''(%/%-'/'.'5'40)$'()''.5' ,.'.*'3'2'06%(,'//2'8%5,('/' +%' (*.5,),*.' 9.*3.''0' 2 # &' " # 3 '+'0'.*)' 4%%.''//15%5')*',.')+,0'$),(/%')',0'*./2' ,.5,$%()/2'$%(*-.,0%5'42' $,),0+'/'3'.5')+%$%&*$%')&$*.-+'8 (+',0')*'+%'0',5',.'&'7*1$' *&',)0'$%(*-.,),*.',)',0'1.%(%00'$2')*' 5%'/ 3,)+')+%'0,8>%()'+%$%' = ' 81 ,,

' A 6,)&' '' 5%(,0,*.' ''))))..R G' 6 '' $' - H %$' I G $,0,0',0' '')%$8' '66/,%5')*')+%'$'6,5' 5%&%$7%0(%.(%'*&' '.'' '%.)%' &%4$,/%' 5,0%'0%')'+'0' 3'.5%$%5' 0*8%3+')'&$*8',)0'*$,-,.'/ 8%'.,.-'3+,(+' 3'0'0>15-8%.)'<G6$,8'$,/2'.'*6%$'),*.',.')+%' 8,.5'*&')+%'*40%$7%$'41)'$%&/%()%5'16*.')+%' 6+%.*8%.'' *40%$7%5' +%' (*.7%$0%)%$8'%86/*2%5')*' 5%0,-.')%' '' -$'51'/014; 0,5%.(%'*&&%7%$',0' $,0,0'&*$8%5' ')'*.%'),8%')+%'4'0,0'*&'.' ,86*$)'.')' 8%5,('/' 5*(0)$,.%' %$)',.' 5'20' &$*8')+%'*.0%)' *&')+%' 5,0%'0%' *.' 3+,(+')+%' ($,0,0'(*8 8*./2'*((1$%5'3%$%' (*.0,5%$%5')*' 4%'6$*6,),*10' +%'0%7%.)+'5'2'3'0'%06%(,;' '//2'&'7*1$'4/%'3+ %')+%'0,B)+'3'0')+%'8*0)' 1.&'7*1$'4/%'06%'9,.'-%.%$'//2')+%' *55' .184%$0' *$')+%' 81),6/%0'*&'D' 3%$%'6$*6,;),*10'.5')+%' %7%.'.184%$0'.5'01(+'*55' .184%$0''0'0)**5'.%'$'81),6/%0'*&'M'01(+''0' P' %$%1.6$*6,),*101' +%'6$%6'$'),*.''/0*' &*$' '' ($,0,0' '0',.5,(')%5'.5')+%'($,),('/' 5'2'&*$%)*/5'42'$%8,00,*.0'6%$(%6),4/%'0*8%' 5'20'6$%7,*.0/2' +%'3+*/%' 8*$4,5'6$*(%00' *&'&%7%$' 3'0'$%6$%0%.)%5' '0bk'' 6$*(%00'*&' %/'4*$'),*.'42'3+,(+'' ' # ' 3'0' 6$%6'$%5' &*$' %B61/0,*.'.5' '.5' '.' %00%.),'/' &%')1$%'*&')+%'($,0,0'3'0'' ($,),('/%7'(1'),*.' 42'8%'.0'*&'3+,(+')+,0'3'0'%/,8,.')%5 +%'5*()$8%'*&'($,0,0'.5'%7%.'*&'($,),('/' 5'2 3'0'.*)'61$%',8'-,.'),*.'*$'016%$0),*.' 41)' '0&*1.5%5'*$,-,.''//2'*.'('$%&1/'*40%$7';),*.' .'),8%0'3+%.'.*)+,.-'b '0 9.*3.'*&')+%' $-'.,(' /%0,*.0'3+,(+'-,7%'$,0%')*' &%7%$' '.5',.'(*B8)$,%0'3+%$%'''/'$-%'6$*6*$),*.'*&')+%'5,0%'0%0'3%$%'*&''' 8'/'$,*10'*$,-,.',)' 3*1/5'&&*$5'5')''*&*$6$*-.*0,0'.5' *.51(%)*'66$*6$,')%')$%')8%.)H '.5'')')+%'6$%0%.)' 5'2',.'+*)'(/,8')%0'' ($,0,0',0' '.B,*10/2' /**9%5'&*$',.'&%4$,/%' '))'(90'*.''-,7%.'5'2' '.5''0',0'3%/'9.*3.''')($,),('/' '*&')%8; 6%$')1$%' '.5',86$*7%8%.)',.')+%' -%.%$'/ 0286)*80'6$%(%5%',.'6.%18*.,'',86$*7%; 8%.)',.')+%'6+20,('/0,-.0 .'*$5%$')*'(*.0),)1%''$1%'($,0,0')+%'5%; &%$7%0(%.(%'0+*1/5'*((162'/%00')+'.'&*$)2' %,-+)'+*1$0''.5',)'*&)%.')'9%0'6/'(%',.'' 81A='0+*$)*'),8%' +%'&'//'*&')%868)1$%' 0+*1/5'4%''((*86'.,%5'42''' (*$$%06*.5,..-' $%5.%),*.',.')+%'&$%E1%.(2'*&')+%'61/0%'.5

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%+*1/5' (*,. (,5%' 3,)+' '' &%%/,. -' *&' $%/,%&' . 5' '' $%)1$.' *&'0)$%. -)+ff)+%' 09, . <3 ,/f 4%' 3 '$8' . 5' 0*&)')+%')*. -1%' 8 *,0) ' ' . 5')+%$%' 3,// 4%' , .5,('),*. 0' *&' $%7,7,. -' '66%),),%ff)+%$%' 8 '2' *$' 8 '2' . *)' 4%' '' ($,),('f %7' (1'),*. ' 41)')+%' 0%($%),*. 0'3,/f 4%(*8 %'8 *$%'. ')1$' f',. '' 8 *1.)' . 5' (+'$' (0)$%

+,0' &'7*1$'4/%' 8 *5%' *&')%$8, . '),*. ' *&' . ' '(1)%' &%4$,/%' 5,0%' 0%',0' 8 *$%' (*8 8 *. ')+' . ' ,0' 101''//2'0166*0%5' +%' (,$(180)' . (%' 1. 5%$' 3+,(+',)',0' 8 *0)' /,9%/2')*' *(()1]' '$%' 3+%. ')+%' '))' (9' 4%-,. 0' '4$16)/2' . 5')+%')%86%$')1$%' $,0%0' $'6,5/2')+%' . ')1$' f (*1$0%' *&')+%' 5,0%' 0%' 4%,. -' 0+*$)' . 5' . *)' '))%. 5%5' 3,)+' *$-' . ,(' /%0,*. 0'01(+''0'3,//*&')+%8 0%/7%0'9%%6'16'&%7%$' &)%$')3%.)2 *. %' 5' 20')%$8, . '),*. '42' ($,0,0' ,0' . *)')*' 4%' %B6%()%5' +%' 8 *$%' 8 '$9%5')+%' *. 0%)G '0' &*$' %B' 86/%' 42' '' 5%&, . ,)%' $,-*$ ')+%' 8 *$%' $'6,5')+%' $,0%' *&')%86%$')1$%' ' . 5')+%' -$%')%$')+%' +%, -+)')*' 3+,(+',)' $%'(+%0')+%' -$%')%$')+%' 6$*4'4,/,)2' *&' . '%' $/2' ($,),; ('f)%$8, . '),*.

<##4- & G = +% 5,0%'0%0' ' 3+,(+')+%' (*. 5,),*. 0' &'7*1$,. -' '' ($,0,0' '$%' $%'/,0%5' ' . 5' ,. '3+,(+'),0' 8 *5%' *&')%$8, . '),*. ',0' *40%$7%5' 4%/*. -')*' 7' $,*10' (/'00%0

8 *. -')+%' ' ' * ' %$16),7%' ' . 5' (*.),. 1%5',)' *((1$0' &,$%E1$',)/2', '7' $,*/' '41)' ,. ' 0%7%$%' ('0%0',)',0' , .)%$&%$%5' 3,)+' 42')+%' &%4$,/%' 5,0)1$4' . (%' %B(,)%5' 42')+%' %$16),*. ' .' 8 %'0/%0',)',0' 7%$2' (*8 8 *. ' . ' 0('$/%)' &%7%$' ')$1%' ($,0,0',0' 0%%. ' * . /2', . ' 8 ,/5' ('0%0')+*1-+')+%' *. 0%)' *&')+,0' 5,0%'0%',0' 6%(1/,'$/2' '4$16)' +%' 8 *5%' *&')%$8, . '),*. ' *&')26+10' ,0' %00%.),'//2' ($,),('/' 41)' 0' '$1/%')+%' ($,0,0' ,0' . *)' 0+'$6' %/'60,. -' &%7%$' '&&*$50')+%' 4%0)' %B' 86/%0' *&' ($,0,0' 3+,(+' ,0' 8 *$%*7%$' ')%. 5%5'42' '' ($,),('f %7' (1'),*. ' , . ')+%' &*$8' *&' 6$*&10%' 6%$06,$'),*. ')+%')%86%$')1$%' 0*8%),8%0' &'//,. -' !g' , . ' 0' 8 '. 2' +*1$0' '. 5')+%' 6'),%.)' 6'00,. -' &, *8' '' 0)')%' *&' %B')$%8%' 01&&%$,. -' '. 5' *66$%00,*. ')*' '/8*0)' 6%$&%()' %' 0%' '. 5' (*8&*$)' . ' %.)%$,(' &%7%$' ! ',0')+%' 8 *5%' *&')%$8, . '),*.

%8,))%.)' &%7%$0'*&)%. '6$%0%.)' ($,0%0'3+,(+' 8 '2'4%')$1%' '. 5'(1$'),7%'*$' ^/0%' '. 5',//10,7%H' '. 5')+%' 01. ' &%7%$' '. 5' (*8 8 *. ' (*.),. 1%5' &%7%$' *&' +*)' (/,8 ')%0' ' . 5')$*6,('f 5,0%'0%0' -%. %$'//2' +'7%' '')%. 5%. (2')*' &%7%$' $1. . ,. -' /,,-+' 7%$2' %'$/2' ' . 5' 4$%'9,. -' '4$16)/2' ')' '' ($,),('f 6%$,*5

. ')+,0' (*1.)$2' * "' ' '))' (9,. -')+%')+$*')*$')'98-')+%' &*$8'*&',. &/1%. C'' *$(')'$$+' *&)%. ')%$8, . ')%' ($,),('//2',. ')+$%%' *$ &*1$5'20' $20,6%/'0' 8 '2'0*' %. 5'41)' ')' '' /')%$' . 5' /%0' 5%&, . ,)%' 6%$,*5' +%' 0+'$6' (' " ' 3+,(+' 0*8%),8%0' *((1$' " ("'*&)%. '%B+,4,)' '' 7%$2'5%(,5%5'($,0,0' . ' ')+%' . ')1$' f ')%$8, . '),*. ',0'42' '' 3% 8 '$9%5' ($,0,0' 3+,(+' 8 '2')'9%' 6/'(%' '0' %'$/2' '0')+%' &,&)+' 5'2' *$ 4%' 5%&%$%5')*')+%' . , .)+' '&)%$' 3+,(+' '' ($,),('f)%$8, . '),*. ',0' . *)')*' 4%' %B6%()%5' . 5')+%' 0106,(,*. ' 8 '2' 4%' %.)%$)', . %5')+')')+%' ('0%',0' . *)' *. %' *&'&,$'. 9' 6. %18*. ,' ')+%' ' ' 0' +'0' 4%%. ' '/$%'52' 0)')%5')+%' -%. %$'f ,8 6$*7%8%.)' 6$%(%5%0')+%' ,. 5,(')*. ' 42' 6+2;0,('f 0,-. 0' *&'$%0*/1),*. ',. ')+%', . &/' 8 %5'/1. -' /%1$,02',0' 0',5' '/0*')*')%$8,. ')%' ($,),('//2' 41)',)',0' . *)' ,. ')+%' 0' 8 %' 5%&, . ,)%' 3 '2' '0' 6. %18*. ,'

4 (' * ' 3+,(+'%.)%$%5',.)*')+%' *$,-,. 'f . *),*. ' *&' ' ($,0,0' '$%' $%''//2' ' (*8 8 *. ' '))%. 5'.)' +%' 8*0)' (*8 8 *. ',0' ' ' 6$*&10%' 3 '$8'6%$06,$'),*. ' 3+,(+' 8 '2' *((1$' 3+')%7%$')+%' 5,0%'0%' 8 '2' 4%' (('0,*. ''//2')+%' %7'(1'),*. ' ,0' ' (*6,*10&/*3' *&1$,. %' *$',)' 8 '2')'9%')+%' &*$8'*&5,'$$+*%' ' 6,0)'B,0' *$' +0%8*$$+*,5'f &/1B',0' ' 8 *$%'$'$%' . 5'54%);&1f ($,),('f %7'(1'),*. ' (*8 8 *. ' ($,),('f 6+%. *8%. *. ' ,0' ' 6$*/*. -%5' 0*1. 5' ' . 5' $%' &,&%0+,. -'0/%%6

+%' E1%),*. ' 3+%)+%$' *$' . *)' ' ' &'7*1$'4/%' ($,0,0' '&&%()0')+%' *55'$')+%$')+' . ')+%' %7%. ' 5'20'+'0' 4%%. ' ' ' &$%E1%.)' 014>%()' *&'5,061)%' ' . 5',)' 0),/f $%8', . 0' ,8 5%(,5%5')' ,0' . *)' +*3%7%$' *&' . 2' ,8 6*$)' . (%ff 41)' ' . *)+%$' 6*,.)' +' . 5%5' 5*3. ' 7$,)+)+%' 5*()$,. %' ,0' 3*$)+2'+*&' '))%.),*. ' . ' 8 %/2')+')', . 5,()',*. 0' *&' ' . ' ' 66$*' (+,. -' ($,0,0' '$%' *&)%. ' -,7%. ')3*' *$')+$%%' 5=0'4%&*$%+' . 5', . '0/,-+)' $%8,00,*. 0' *&'&%7%$' 2')+%' 6$%0%. (%' *$' '40%. (%' *&'01(+'$%8,00,*. 0' ')' ('$)' ,. ' 6%$,*5' *&')+%' '))' (9' *$' 42' '' (*.),. 1*10'$,0%' *&')%86%$')1$%' 3+%$%' ' $%8,00,*. ' 8 ,-+)' 4%' %B6%()%5' ,86*$)' .)' 6$*-. *0),(',. &*$8'),*. ' 8 '2'4%' '&&*$5%5' . 5', . 5,(')*. 0' &*$')$%')8%.)' *4)', . %5

5 (% ' & < $@ ' G' +%' 8', ')+%$'6%1),('5%51(),*. ' &, *8' '' 0)152' *&' ($,0,0' '0' '')%$8, . '),*. ' *&' '(1)%' 5,0%'0%',0')+')' 3%' 0+*1/5'. *)'+'0),/2', .)%$&%$%' 3,)+')+%$%' (),*. 0' 42' 3+,(+')+%' 020)%8' '5>10)0',)0%/&')*' '/)%$%5' (*. 5,),*. 0' *$' 8 %%)0')+%', . (,5%. (%' *&')+%' (' 10%0' *&'01(+'5,0%'0%'41)' (*.)$,41)%')*')+%,$' (*86/%),*. ' %'5*' . *)' 001 8 %')+%'%B,0)%. (%' *&''* ' /')%. 5,. -', . 7'$,'4/2')*')+%' $%0)*$'),*. ' *&'+%' /)+'ff 41)' 3%' 8 10)' $%(*-. ,0%')+%' 6*3%$',. +%$%.)' ,. ' ' *$-' . ,08')*' $%06*. 5' 42',.)%$. '/' (+'. -%0')*' %B)%$. '/',. ; &/1%. (%0' ' . 5')*' $%-', . ')+%' 4 '/' . (%' 3+%. ')+,0' +'0' 4%%. ' 5,0)1$4%5' . ')+,0' 6$*(%00' ' (%$)', . ' (2(/%' *&'(+' . -%0' 8 10)' 4%' -*. %')+$*1-+' ' . 5')+%' -$%')' *66*$)1. ,)2' &*$')$%')8%.)' *&' ' '(),7%' 9,. 5' 0+*1/5' ' . 2' 4%' $%E1,$%5' '$,0%0' 3+%. ')+%' (*1$0%' 5,$%(),*. ' ' . 5' 6$*4'4/%' 51$'),*. ' *&')+%0%' (+' . -%0' '$%' 9. *3. ' ' . 5' 3+%. ' '-%. (,%0' (' . ' 4%' 4$*1-+)')*' 4%'$')' ' -,7%. ' 8 *8%.)' 3+,(+' 3,//' (*.)$,41)%')*' 4$,. -' '4*1)'+%' '66$*6$,')%' ($,),('f %7'(1';),*. ' *$' ' ($,),('f 0/%%6')+$*1-+' 3+,(+' '' $%;)1$. ')*' '' . *$8 'f (*. 5,),*. ' 3*1/5' . ')1$'//2' 4%' %&%()%5' 1 $$! ' 0

U G '7,. -'$%/')*. ')*' '($,0,0'

U 'A (*)(+' '*$' +*'$0%;. %00R G 'H ! " ' " H $' H %$'

& # " . ' '(1)%' &%4$,/%' '&&%(),*. '*((1$$,. -', . ' ,(+,/5+**5' '((*86'. ,%5' 42',. ; &/'88')*$2'03%//,. -' *&')+%' 81(*10' 8%8

4$' . %' *&')+%' /' $2 . B' ' . 5' , . ' 0* 8 %' $' $%' ('0%0' 42')+%' &*$8 '), *. ' *&' '' &, 4$, . * . 0' &' /0%' 8 %8 ; 4$' . %

= , *, **0' ' *. **2 G +%' J. . 6 ')* 8 0' *&')+%' 8 *0)' . 01 ' /' &*$8' , ' ($*16 ' '0' 5%0($, 4%5' 4%/* 3 ' '$%' 51%')*' ' . ' ' (1)%' (')' $$+' *&')+%' /' , = - % ' /' 8 1(*10' 8 %8 4$' . %' +%' (*. 5,), *. ', 0', . ' &' ()' ''0, 8 6/%' (')' $$+' '/' /' $2. ; -,), 0' ' . 5', 0' . *)' '((* 8 6' . , %5' 42')+%' &* . . '), *. ' *&' ' . 2' &' /0%' 8 %8 4$' . %' +%' 8 1(*10' 8 %8 4$' . %' 03%//0' 42' $%' 0* . ' *&')+%' (*. - %0;), *. ' *&' ,)0' 4/** 5 7%00%/0' ' . 5' ,)+%' 6*1$, . -' *1)' *&' , . &/' 8 8 ')*$2' %B15'), *. ' , .)*' ,)0'), 001%' 1(10')** ', 0' 6$* . %')*' ' ((1 8 1/')%' *. ',)0' 01$; &' (%' +%0%' (*. 5,), *. 0' '$%' 6$%(, 0%/2')+%' 0' 8 %' '0' *((1$', . ')+%' *$5, . '$2' (')' $$+' /' /' $2. -,), 0' *&' '51/0)0' 1)', . ')+%' (+, /5')+%' -/*)), 0' , 0' 8 1(+' . '$$* 3%$')+' . ', . ' '51/)0' ' . 5')+%' 03%//, . -' *&')+%' 8 1(*10' 8 %8 4$' . %' &$* 8', . &/' 8 8 '), *. ', 0' -$%')%$' ' . 5' 8 *$%' $' 6, 5' , . ' $%' (+, . -' ,)0' +%, -+)' *$%* 7%$')+%' /' $2. B' , 0' , . ' (+, /5$%. ' 8 *$%' , $$,)' 4/%' . 5')+%$%&*$%' ,)0' 8 10(/%0' '$% 8 *$%' %' 0, /2' %B(,)%5')*' 06' 0 8 ' +10' 3 +%. ' ' 0, 86/%' (')' $$+' /' /' >=$. -,), 0' 8 ' 9%0' ,)0' '66%'$; ' . (%', . ' '' (+, /5',)' , 0' 7%$2' 0+*$)/2' &*// * 3%5' 42' /' $2. -%' /' 0)%. *0, 0' 6' $)/2' &$* 8')+%' 03%//, . -' *&')+%' . /1(*, ', 0' 8 %8 4$' . %' 6' $)/2' &$* 8' ' ((1; 8 1/'), *. ' *&' 8 1(10' ' . 5' 6' $)/2')*6' &$* 8' 06' 0 8' *&')+%' /' $2. -%' /' , .)$, . 0, (' 8 10(/%0' +%' (*. 5,), *. ' 5%0($, 4%5', 0' 8 *0)' *&)%. ' 51%')*' %B6*01$%')*' (*/5' ' . 5' 5' 8 6' %06%(, ''//2' ')' '), 8 %' 3 +%. ')*' 4*52', 0' +%')%5')' , 0' (' 10%5' '/0*' 42' 0(' /50' *&')+%' /' $2. B' 3 +%. ' 1. 51/2' +*)' &/1, 50' ' $%' 5$1. 9' 42' ' ((, 5%.)' 42' 3 *1. 50' 42')+%' , $$,)('), *. ' *&' . *B, *10' -' 0%0' ' . 5' 42')+%' 6$%0%. (%' *&' &*$%, -. ' 4*5, %0' , . ')+%' /' $2. B')' , 0' 8 *$%' (* 8 8 *. ' , . ' 8 '/%' /, ' . ' , . ' &% 8 '/%' (+, /5$%. ' . ' 5' , 0' 101' //2' 8 %)' 3,)+' 4%) 3 %%. ')+%' -%0' *&')3*' . 5' . , . %' 2%' $0

1)')+%$%' /0*' %B, 0)0' . ' , . &/' 8 8 '), *. ' *&')+%' /' $2. B' 3 +, %4' , 0' '((* 8 6' . , %5' 42')+%' &*$8 '), *. ' *&' '' ^/0%' 8 %8 4$' . %' . ' 5' ,)' , 0' , . ' $%06%(,)')*')+, 0' (*. 5,), *. ')+')' 0*' 8 1(+' 5, 0; (100, *. ' +' 0' '$, 0%. ' . ' 5' %7%. ' . *3' 5*14)' %B, 0)0' , . ')+%' 8, . 50' *&' 0* 8 %' *40%$7%$0')', 0' *&' (*1$0%' 3%/' 9. *3. ')+')' , . ' 5, 6+)+%$, '')+%' (+' $'*)%$, 0, *' 8 %8 4$' . %' 8 ' 2' 06$%' 5' &$* 8')+%' 6+' $2. B',)0' 101' /' 0,)%', .)*')+%' /' $2. B' ' . 5', . ' 5*, . -' 0*' 8 ' 2' 6$*51(%' 0 /)+%' 0286;)* 8 0' *&' 0* (' //%5' ($*16', . ' '55,), *. ')*')+*0%' 51%')*')+%' 5, 6+)+%$, ''6$*6%$' 1)' 8 1(+' *&')+%' (*. &$, 0, *. ' 3+, (+' %B, 0)%5' '0')*')+%' 6=)+*; /*-, (' /' %.),)2' *&' ($*16' $%01/)%5' &$* 8')+%' . *. $%(*-. ,), *. ' *&')+*0%' *' 0%0' *&' 5, 6+)+%$, '' , . ' 3+, (+')+%' /*(' /' /%0, *. ' +' 5',)0' 6$, 8 '$2' 0%')' , . ')+%' /' $2. B' ')+*/*-, (' /' *40%$7'), *. 0' ++* 3%5$' +' 7%' . *3' 6/' (%5',)' 4%2*. 5' 5*14)')+')' 01(+' ('0%0' $%' //2' %B, 0)' %')+' 8 ' 2' *((1$' %.), $%/2' &$* 8')+%' /' $2. -%' /' 0)%. *0, 0' 0*' 6$*51(%5' '0' , . ' ' *)+%$' . 5' 0, 86/%' *40)$1(), *. 0' *&')+%' /' $2. B' 1)')+%' 5=+')+%$,), *' . ')1$%' *&')+%' '&&%(), *. ' , 0' *47, *10' &$* 8')+%' *)+%$' 6*00, 4/%')%$8, . '), *. 0' *&' 01(+' ('0%0' ' . 5' &$* 8')+%' -%. %$' /' 0286)* 8 0' 6$%; 0%.)' ')')+%' +%, -+)' *&')+%' '&&%(), *. ' +10' 5%')+' 8 ' 2' '/0*' 4% 51%')*')+%' +%' $) &' , /1$%

6$')*')+%' -%. %$' /' 4/**5 6*, 0*. , . -' (+' $' ()%$; , 0), (' *&' 5, 6+)+%$, ' ' -' . ' . ')+%' ' (1)%' 0)' -%0' *&' 01(+' ' ' 5, 0*$5%$' 0286)* 8 0' 8 ' 2' '66%' $' 01(+' '0' -$%')' '0)+%. , ' ' %B(%00, 7%/2' &$%E1%.)' 61/0%' += 8 8 $+' -%0' &$* 8' 7' $, *10' 6' $)0' '/418, . 1$, ' ' . 5' '&*$8'), *. ' *&' 5, 6+)+%$,), ('8 %8 4$' . %' *. ' 0* $%0' &' $' $%8 *7%5' &$* 8')+%' /' $2. B' 3+, (+' 0286)* 8 0' 3+, /%' , . (*. 0, 0)%.)' 3,)+' '' 5, ' - . *0, 0' *&' . *. 06%(, &, (' 8 %8 4$' . *10' , . &/' 8 8 '), *. ' *&')+%' /' $2. B' '$%' &$%E1%.)' '00*(, '), *. 0' *&' 5, 6+)+%$, '' 3+%. ',)' *((1$0' , . ',)0' *$5, . '$2' &*$8' '%$*7%$' 3+%. ', . ' &*$)1; . ')%' ('0%0')+%' '(1)%' 0286)* 8 0' +' 7%' 6' 00%5' ' 3' 2' ' &)%$' ' . ' , .)%$7' /')+%' (+' $' ()%$, 0), ('6' $' /20%0' *&' 5, 6+)+%$, '' 8 ' 2' 0+*3')+%8 ; 0%/7%0' +%' &' ()0' *&' (*.)' -, *. ' '$%' '/0*' *&' , 8 6*$)' . (%' &*$' &$*8' 01(+' ('0%0' &' 8 %8 4$' ; . *10' /' $2. -,), 0' *)+%$' ('0%0' 8 ' 2' '$, 0%', . ' 3+, (+')+%' 5, 6+)+%$,), (' 8 %8 4$' . %' '66%' $0' &, $0)', . ')+%' 6+' $2. B' ' . 5')+%' 5, 0%' 0%' $1. 0' ,)0' *$58' $2' ' . 5' 1. 8, 0)' 9' 4/%' (*1$0%' +%')%' (++=' *&' 4' ()%$, */*-2' '$%' 6%$+' 60' 0' 2%)' . *)' 01&&, (, %.)/2' 5%&, . ,)%' , ' $%&%$%. (%')*')+, 0' 6*. , .)' &*$')+%8 ')*' 4%' (' ((%6)%5' '0' '40*/1)%' 6$**&')' 8 ' 2' +*3%7%$' 4%' . *), (%5',)+')' *&&/%$<0' 5, 6+)+%$, ' 4' (, //10' A. *)' 8 %$%/2')+%' 8, ($*(*((, ' 3+, (+' 8 ' 2' 4%' &*1. 5', . ' . 2' 5%('2, . -' 8 %8 4$' . %R' +'0' 4%%. ' 5%8 *. 0)$')%5' %E1' //2' 3%/' , . ')+*0%' ('0%0' *&' 5, 6+)+%$, '' 3+, (+' 6$%018 *4/2' 4%-' . ', . ')+%' /' $2. B' '0', . ')+*0%' 3+%$%')+%' 8 %8 4$' . %' 3'0', 8,)%5')*')+%' 6+' $2. B' +10', ' 8 10)' . *3' 4%' 5, 6+)+%$,)%5')+')')+%' /*(' /' /%0, *. 0' *&' 5, 6+)+%$, '' 8 ' 2' 4%' /, 8,)%5')*')+%' /' $2. B' ' . 5', . ')+%' *6, . . *. ' *&')+%' 3$,)%$' 1. 5%$')+, 0' ()%-*$2' 8 10)' 4%' 6/' (%5' 42' 8 1(+')+%' /' $-%$' . 1 8 4%$' *&' ('0%0' &*$8&&, &/2' 0)2/%5' 0 8 %8 4$' . *10' ($*16<+%' 5%0($, 6. *. ' *&' 5, 6+)+%$, '' *&')+%' /' $2. B' ,// 4%' &*1. 5', . ')+%' $), (/%' , &/ ,

+%$%' $%8 ', . 0' 0), // '' (%$)', . ' 6$*6*$), *. ' *&' ('0%0' *&' 8 %8 4$' . *10' /' $2. -,), 0' 3+, 5, ' $%' . *)' 51%')*')+' ()., *. ' *&')+%' 5, 6+)+%$,), (' 6*, 0 . ' *8%*&')+%0%' $%' 6$*51(%5' '0' 0%(*. 5' $2' (*86/, (')., *. 0' 42')+%' 6*, 0*. 0' *&' *)+%$' 06%(, &, (' &%7%$0' ' . 5' ' 8 *. -0)')+%0%' $%)*' 4% 8 %.), *. %5' 0(' $/%) &%7%$' 08' 6*B' 8 %' 0/%0' %.)%$, (' &%7%$' ' . 5' 3+**6, . - (*1-+' %)')+, 0' E1%0), *. ' , 0' 4%&*$%' 10' 3+%)+%$' ' 8 %8 4$' . *10' /' $2. -,), 0' 8 ' 2' *((1$' 3,)+*1)')+%' (), *. ' *&' . 2' 06%(, &, (' 6*, 0*. ' +%' */5%$' 3$,)%$0' 001 8 %5')+')')+, 0' *((1$$%5', . ' '/' $-%' . 1 8 4%$' *&' , . 0)' . (%0' ' . 5')+%' 6$%7' /%. (%' *&')+, 0' 7, %3' /%5')*')+%' $%6*$)' 42' '' *8 8,))%%' *&')+%' *2' /' %5, (' /' . 5' +, $' $-, (' /' *(, %)2' , . ' ?MP' 16*. ')+%' U%/'), *. 0' *&' %8 4$' . *10' $*16')*' , 6+)+%$, ' ' +')' 42' &' $')+ ' /' $-%$' . 1 8 4%$' *&' ('0%0' *&' 8 %8 4$' . *10' /' $2. -,), 0' '$%', . ')+%' *6, . , *. ' *&')+%' 3$,)%$' 51%)*' 5, 6+;)+%$, '' +' 0' '/$%' 52' 4%%. ' 0)')%5' '4*7%' 1)')+%' %7, 5%. (%', 0' '/0*' . , 5, 061)' 4/%')+')')+%' &&%(), *. ' 8 ' 2' *((' 0, *. ' //2' '$, 0%' &$* 8')+%$' . 5' 0, 86/%' 0*1$(%0' +10')+%' /')%' $' ,/)*. ' '--%I' $%(*$5%5' ' 8*. -0)' *)+%$0' ('0%0' 3+%$%' 4*)+')+%' &' 1(%0' . 5' ,$ 6' 00' -%0' 3%$%' (*7%$%5' 3,)+' &' /0%' 8 %8 4$' . %' &$* 8' '' 8 12<0' *06,)' /' U%6*$)0' ?MM' 6' " D

7'<-' ! ' !)$ '!"'+$ 3'5)' 7' 3 ' -)$*' +4* ' $-' ! ' - 4# %' 5!) ' ' -$) 3 ' +$7"' ' ! ' +)$ #!4 ' ! 7' # 4 7' * >
+) $4 ')" 3 %' 5!) ' ' *)' //)>
' -$ $5 7' ' #4 ' !)$ ' $!)'7 ' $-'
! ' / !)" =' $)')" =' $ '7 / ! !) #' 7'
/ 4* $
$'U' ' '$9%$ =')** ' +'0' $%(*$5%5' '' ('0%
3+%$%'&'/0%' 8%8 4$'.%0' &*$8%5',.')+%'/'$2.B'
'&)%$' '' 0('/5' +%' *8 8,))%%' 8%.),*.%5'
'4*7%'$%6*$)%5')+')' (' 0%0' +'5'&'//%.'1.5%$'
+%,$'.*),(%'3+%$%'0 8%8 4$'.*10' '&&%(),*.'*&'
)+%'/'$2.B' .5')$'(+%'' +'5'0+*$)/2'&*//*3%5'
%B6*01$%')*' (*/5'41)')+%,$'9.*3/%5-%'*&')+%'
,.=7,51'/'('0%0'3'0'.*)'0.&&,(%.)')*' %B(/15%'
)+%'6*00,4/%',.)%$7%.),*.'*$ (* %B,0)%.(%'*&
)+%$'('10%0<' %.%$'/'6')+/*-2'3*1/5'.*)'
.%-'),7%')+%'7,%3')+')' .',.&/'88'),*.'101;
'//2'0,86/%'8,-+)'*((''0,*.'//2'4%(*8%'8%8;
4$'.*10' 0',0'8%.),*.%5'1.5%$'& ('
,.'$%06%(')')*')+%')$1%'5,6+)+%$,),('8%84$'.%'
'.',86*$)'.)'&'()*$',.',)0'6$*51(),*.',0')+%'
*((1$%.(%'*&'(*'- /'),7%' .%($*0,0'*&')+%'
%6,)+%/,'/'(%//0''(*.5,),*.'3+,(+'8'2''$,0%'
&$*8')+%',.)%.0%'(),*.'*&'.',$$,)'.)'101' 2'
6$*51(),7%'*./2'*&'(')'$$+'/,.&/'88'),*.'
%'+'7%' '' &*$8')*.'*&'&'/0%'8%84$'.%'
'./*-*10')*')+')'*&')+%'008.%5'8%8;
4$'.*10'.5'.*.5,6+)+%$,),(' ($*16',.')+%'
'&&%(),*.'9.*3.''0'6/'0),('4$*.(+,)0',.')+%'
,.)%0),.%' ,.'520%.)%$2',.')+%'8*1)+',.'
026+,/,),(' .5'0*8%),8%0',.'0,86/%'0)*8';
),),0' '.5'*.'7'$,*10'81(*10'01$&'(%0',.'
0%6),(' 5,0*$5%$0' 1$)+%$'8%84$'.*10',.;
&/'88'),*.' +'0' '()1'//2'4%%.'6$*51(%5'
%B6%$,8%.)'//2' 42')+%',.>%(),*.'*&'('($,5'
,$$,)'.)0',.)*')+%'/'$2.B'*&'.,8'/0'&'
')+%$%&*$%')+%$%'0%%80'.*'$%'0*.'3+2'
''8%84$'.*10'/'$2.-,),0'0+*1/5'.*)'*((1$
3,)+*1)')+%',.)%$7%.),*.'*&''06%(,&,('6*,0*.'
$'(),('//2'+*3%7%$',)'810)'4%'(*.(1/15%5'
&$*8')+%'%7,5%.(%')'*1$5,06*0'/')+')'01(+'
('0%0'$%'%B(%%5,.-/2'$'$%'.5')+')'&'/0%'
8%84$'.%0'5*'.*)'&*$8',.')+%'/'$2.-,),0'
3+,(+'&*$80')+%'4'0,0'*&'3+')',0'8%)'3,)+'0'
)+%'0,86/%'.*.5,6+)+%$,),('($*16'*&'(+,/5$%.'
)'810)'+%$%'4%'0)')%5')+')',.'8*5%8'),8%0'
)+%'/')%' $' ,/)*.'.'--*'+%/5'.'*66*0,)%'
7,%3')+*1-+'+%'3,)+'-$%')'('$%'.5'&',$.%00'
(*.0,5%$%5')+%'$-18%.)0''-',.0')+%'6*0,;
),*.'+%'8',.),%5' %'4%/,%7%5'.*)'*./2'
)+')',.'8'.2'('0%0'*&($*16'3+,(+'$%(*7%$%5'
&'/0%'8%84$'.%'+'5'&*$8%5'3,)+*1)'4%,.-'
5%)%()%5'41)'/0'*')+')'' .*.06%(,&,(' 8%8;
4$'.*10'($*16'8,-+)'06$%'5'&$*8')+%'/'$2.B'
)*')+%'6+'$2.B' .5'&'1(%0' ('10,.-'&$%0+'
5%6*0,)0'*&'&'/0%'8%84$'.%'*.')+*0%' 6'$)0'
3+,(+'8*0)'*)+%$'*40%$7%$0'3*1/5'.'0018%')*'
4%'(+'$'()%$,0),('*&'5,6+)+%$,''%01--%0)%5'
)+')')+%')%$8'0 $*16'<0+*1/5'4%'66/,%5'
./2')'('0%0'*&'8%84$'.*10'.5'.*.6+'
)+%$,),(' /'$2.-,),0'3+,/%')+*0%'3+%$%'.*'
8%84$'.%'3'0'&*$8%5'0+*1/5'4%'9.*3.''0'
0 61$,*10' $*16<
.'&*$8%$' '((*1.)0'*&')+%'6')+*/*-2'*&'
S & ' *89GT*'0':CC

($*16'5,&&%$%.(%0''$%'5%0($,4%5'4%)3%%.')+%'
($*16'/''.5')+%'5,6+)+%$,),('&'/0%'8%84$'.%0'
+%$%'' '$%',.5%%5' 5,&&%$%.(%0'4%)3%%.')+%'
&'/0%'8%84$'.%0'&*1.5'*.')+%'/'$2.-%'/''.5'
6+'$2.-%'/'81(*10'8%84$'.%0'$%06%(),7%/2'
41)')+%0%''$%'51%'8%$%/2')*')+%'=&&%$%.(%0'
,.'0)$1()1$%'*&')+%'81(*10'8%84$'.%''');
)'(9%5' +%'&'/0%'8%84$'.%',0',.'4*)+'
('0%0'%00%.),' 2')+%'0'8%',.'0)$1()1$%'.5'
,.',)0'8*5%'*&'&*$8')*.' +')',0'0',5'
&')+%'5,6+)+%$,),('8%84$'.%3,''66/2')'
)+%'8%84$'.%$'$%/2'&*1.5',.'($*16'0*')+')'
.*'5%)'/%5'5%0($,6),*.'*&')+%'/'))%$'.%%5'4%
-,7%.'+%$%'' - o 'C
'#o # G .''(($5'.(%'3,)+')+%'7,%3'
%=$%00%5''4*7%'/,))/%'3,'4%'0',5'1.5%$')+,0'
+%'5,..-''4*1)'('0%0'*)+%$')+'.')+*0%'*&'.*.'
8%84$'.*10''*$'0')+%'/')%' $' ,/)*.'' --%'
0)2/%5',)'0061$,*10($*16' +%'(+,/5''&&%()%5'
42')+,0'5,0*$5%$'8'2'01&&%$&$*8'-%.%$'/(')'$;
$+'/02 86)*8 0&*$'),8%'7'$2,.-'&$*8''&%3'
+*1$0')*')3*''*$')+$%%'5'20' *$%('8 8*./2'
4%&*$%')+%''()1'/'))'(9'+%''66%'$0'E1,)%'3%.'
')'4%5),8%')+*1-+'7%$2'*&)%.',' 8'2''&)%$;
3'$50'4%''0(%$)',.%5')+')'0*8%),8%'51$,.-'
)+%'5'2'+%'+'0'4%%.'%B6*0%5')*'(*/5'*$5'86'
*$'+'0'010)',.&%3''' (+, ' .' '' 8%3'+*1$0'
+*3%7%$'+%'3'9%0'0155%./2''0',&'&$,-+)%.%5'
4$%')+,.-'+1$$,%5/2' 3,)+'/*15'+*'$0%' ,.'
06,$')*$2'/'$2.-%'/'0)%$)*$' %'(*1-+0'&$%'
E1%.)/2'8'9,.-''+'$0+'8%)''//,('.*,0%'41)'
')'&,$0)'$%8*7,.-'.*'811(10'&$*8')+%'/'$2.B'
%'($,%0''.5'6%$+'60'06%'90',.''0+$,//'
($'(9%5')*.%'3+,(+'0**.'-,7%0'6/'(%')*''
8%$%'3+,0)/,.-'0*1.5' +%'(+'$')(%$'*&')+%'
4$%')+,.-'7*,(%'.5'(*1-+'-'7%'$,0%')*')+%'
(*)(+'7%$.'(1/'$'.'8%&*$')+%'5,0%'0%'
0($*16<3+,(+'3'0'5*6)%5'42'$'*8%',.'
MDF'3+%.'5%0($,4,.-')+%''&&%(),*.''.5'
3+,(+',0'.*3'%86/*2%5'42'8*0)'.'),*.0''0''
0(,%.),&,('0)%8' +%'(+,/5',0'7%$2'%$%0)/%00'
)*00%0'+,0'4*52'.5'/,840'4*1')',.(%00'.)/2'
(/1)(+%0''(+,0')+$*')'0',&')*'$%8*7%')+%'*4;
0)$1(),*.')+%$%'.5'0%,C%0'.2'01$$*1.5,.-'
*4>%()0'3,)+',0'+'.50' +%'&'(%',0')'&,$0)'
&/10+%5')+%'%2%0'4$,-+)'.5')+%'%B6$%00,*.'
%B(%%5,.-/2''/'$8%5'.5'.B,*10'**.'
+*3%7%$')+%'&/10+'4%(*8%0'51092'.5'
-$'51'//2'6'*$016%$7%.%0'3+,/%')+%'3+*/%'
4*52',0'(*7%$%5'3,)+'(*/5'03%')'+%&%%)'
.5'0*8%),8%0')+%'+'.50'.*)',.&$%E1%.)/2'
'0018%')+%'6*0,),*.'&*1.5',.')%)'.2''.5',.'
%B)$%8%'('0%0'-%.%$'/(*.71/0,*.0'8'2'*((1$'
+%'61/0%',0'&$%E1%.)'.5'&%%4/%')+%')%8;
6%$')1$%',0'0/,-+)/2'$',0%5' +%'5,&&,(1/)2'
3,)+'3+,(+''.$'%.)%$0')+%'(+%0)',0'*47,*10'
&$*8''.'*40%$7'),*.'*&')+%'6'),%.)0'6*0,),*.'
'.5'$%06,$')*$2'8*7%8%.)0' +%'+%'5',0'
)+$*3.'4'(93'$50')+%'(+,.'+%/5'*1)'6$*;
8,.%.)/2''.5'),0'6*0,),*.',0''((%.)1')%5')'
%'(+'.06,$'),*.'42''(*.)$')0,*.'*&')+%'&*$(%'%86/*2%5')+%')+*$'B',0'.*)'&,//%5'3,)+

'$' 1$8 -' , . 06,$ '), * . ')+%' 016$'K */'7, * . /'$' &*00%0')+%' /*3%$' $,40')+%' %6,=' 0)$, . 8 ' . 5' %7%. ')+%' /*3%$' 6*$), * . ' * &')+%' 0)%8 . 8 ' '$%' 5%6$%00%5' +%' 2, %/5, . -' 4&')+%' (+%0) 3 '/F,0 ' 'Z' 8, -+)' 4%' %B6%()%5' 8 *$%' 6$*. *1. (%5', . ' $,(9%)2' (+, /5$%. ' ' . 5' , . ' 01(+' 014>%()0')+%' 3+*/%' *&')+%' $,40' 8 '2' 4%' 0%%. ')*' -, 7%' 3 '2' ')')+%' 0,5%0' '0' %' (+' 4$%')+' ,%' 5$' 3 . ' &')+%' (+%0)' '. 5' /'$>8B' 4%' '10(1/)')%5' ')' &, $0)' . *)+, . -', 0' +%' $5' 41)' /' $2. -%&)F 0, 4, /10H '&)%$; 3 '$50' $')))/, . -' . *, 0%0' '$%' 6%$(%, 7%5', . ')+%' /' $2. B' 51%') *')3 *' *$')+$%%' +*1$0')+%' 5, &, ^*)5)2Z, . ' $%06, $'), * . ' 0140, 5%0' '*05'/, , %' (+, /5'&' //0' '0/%%6' '-', . '41)' . *)' E1,)%' &$%%' &$*8' 02 8 6)*6, 0', . 5, ; (', 7%' *&' +, 0' ', /8%.)' , 0' &' (%', 0' 0*8%3+')' &/10+%5' ' . 5')+%$%', 0' 0*8%' 5%-$%%' *&' 62$%B, ' +%' $%0)/%00. %00' 5*%0' . *)' E1,)%' 5, 0' 66%' $%7%. ', . ' 0/%%6' +%' +' . 50' ' . 5' &%%)' &$%E1%.)/2' $%;)', . ')+%, $')%)' . *, 5' 6*0,), *. I' +%' 4$%')+, . -' , 0' 0), X' +1092' ' . 5' 0*8%3+')' +1$$, %5' ' . 5' ' . 5' *(('0, *. ' F 0/, -+)' (*1-+' +' 0')+%' (/' . -, . -' (+' $' ()%$' . *), (%5' 51$, . -')+%' 6' $*B208H 51$, . -')+%' . %B)' 5' 2' *$' &*$')+%' . %B)')3 *' *$')+$%%' 5' 20')+%' 4$%')+, . -', 0' +1$$, %5' ' . 5' 0*8%; 3+')' 0)%$)*$*10' ' . 5')+%'))' (9' 8 '2' $%)1$. ' 51$, . -')+%' . %B)' ' . 5' %7%. ' 01((%%5, . -' . , -+)0' *$' 0*8%', 8%' &)%$' $%(*7%$2', 0' '66' $%.)/2' (*86/%)%' . 2' 0/, -+)' (*1-+', 0' 6$*. %')*' 001 8%' ''0(*162' (+' $' ()%$' >10)' 0' &)%$' . '))' (9' *&' 3+*(=, . - (*1-+')+%' (+' $' ()%$, 0), (' 3+**6' 8 '2' ')', 8%0' $%(1$' &)%$' *. %'))' (9')**' *$' 0%$, %0' *$'))' (90')+%' (+, /5' 8 '2' '-', . ' . 5' '-', . ' 01&&%$' &$*, 6' $%6%),), *. 0' *&')+%' 5, 0*$5%$' %7%. ' &*$' 0%7%$' F 2%' $0

0' +' 0' 4%%. ' 0)')%5')+, 0' . *. 5, 6+)+%$,), *' 8%84$' . *10' /' $2. -,), 0', 0K. *)' '/3' 20' , 5, *; 6')+, (' . ' 01(+' ('0%0')+%' 0, -. 0' *&' /' $2. -%' F 0)%. *0, 0' '$%' '55%5')*' //, *0%' *&')+%' *$, -, . ' F 5, 0%' 0%' *$', . 5$2')', 0' (*. 7%. , %.)')+%$%&*$%')*' 5, 0(100')+%8', . ')+%' '$), (/%' *. ' , d $ ' 3+%$%')+%2' 3, /F 4%' &*1. 5', . ')+%' 0%(), *. ' 16' *. , 6+)+%$, '' *&')+%' '$2. B

$ G +%' 6$*-. *0, 0' *&'. *. 8%8 ' 4$' . *10' ($*16', 0' '/8*0)', . 7' $, '4/2' &' 7*1$' 4/%' , . ' 0*' &' $' 0')+%' '(0)1' F '))' (9', 0' (*. (%$. %5' . ' 06,)%K' &')+%' '66' $%.)' 0%7%$,)2' *&')+%' 02 8 6)*8 0')+%2' . %' $/2' '/3' 20' 0140, 5% . ')1$; ''//2' +%' &, , %. 50' *&')+%' 6'), %.)' 0+*1/5' +*3%7%$' 4%' 3' $. %5' *&')+%' 6$*4' 4, /,)2')+')')+%'))' (9' K3, ' 4%' $%6%')%5' ')', 8%0' &*$' 0*8%2%' $0' &)%$' ,)0' &, $0)' '66%' $' . (%' %84$' . ; *10' ($*16' *. ')+%' *)+%$' +' . 5' , 0' '' 81(+' 8*$%' 0%$, *10' 8 '))%$')' ' . 2' 8*8%.)')+%' &' /0%' 8%84$' . %0' 8' 2' ((18, , /')%' *$' (1$F16' , . ')+%' /' $2. B' ' . 5' %.), $%/2' (/*0%')+%' -/*)), 0' *$', 0')+%' 5' . -%$' 8%$%/2')+')' *&')+%' /' $2. ; -%' F '&&%(), *. ' +%' /' $2. -,), 0' *((1$0', . ' *. /2' 0%7%$%' ('0%0' *&')+%' 06%(, &, (' &%7%$0' ' . 5')+%

4/**5 6*, 0*. , . -' *&')+%' *$, -, . ' F 5, 0*$5%$' >10)' '0' , . ' 5, 6+)+%$, ' ' ,0' 101' //2' '' 8*0)' &')' F (*. 5,), *.

G = 00**. ' '0')+%' ')) ' (9' *&'. *. ' 8%84$' . *10' ($*1=+' 0' (*88%. (%5')+%' (+, /5' 0+*1/5' 4%' 6/' (%5', . ' ' 3' $8' 4')+')*' 3+, (+' 6$%&%$' 4/2' '' /,))/%' 810)' $5' +' 0' 4%%. ' '55%5' 6*. -%0' 3$1. -' *1)' *&' 3')%$' '0' +*)' '0' (' . ' 4%' 4*$. %' 0+*1/5' 4%' '66/, %5' *7%$')+%' /' $2. B' ' . 5' $%. %3%5' '0' *&)%. ' '0')+%2' 4%(*8%' (*/5H *$' '' 8 0)' $5 /%' &' 8' 2' 4%' '66/, %5' +%$%' . ' %8%), (')**' , 0' 10%&1/' +, 0' 8' 2' 4%' '58, . ; , 0)%$%5', . ' , /, %' &*$8' *&', 6%(' (1'*=' ' 3, . %' . ' 5*0%0' *&' *. %')%' 06**. &*F %7%$2')%. ' 8, .)/)%0' 1.) '7*8,), . -' (*8%0' *. ' , $' , //, ' 8' % . %$' $%(*88%. 50')+')' &)%$3, 350' '5*0%*&' (' /*8%F ' . 5>' /' 6' 0+*1/5' 4%' -, 7%. ')', 0' 3%//')**')*' 6/' (%')+%' (+, /5', . 5' ')%).) 4%5' 1.58')+%' (*7%$' *&' 3+, (+')+%' . *CC/%' *&' ' 0)%' 8 9%))/%' , 0' , .)$*51(%5

$*6+2/' (), (')$%')8%.)' , 0' *&', 86*$)' . (%' 3+%. ')+%' 5, 0%' 0%' +' 0' *. (%' 0+*3. ' ,)0)%/&' (*/5' 3%')+%$')+%' (+, /5' 0+*1/5' 4%' 3$' 66%5' 16' 3' $8/2' ' . 5' 6$*)%()%5' &$*8' (+, //0' ' . 5' 5$' 1-+)0')')+%' 0' 8%', 8%')+%' /' $2. B' 8' 2' 4%' ' 0',)' 3%$%' ' ((10)*8%5')*' (*/5' 42' 4%, . -' 06*. -%5' *. (%' *$)3, (%' ' 5' 2' W3,)+' (*/5' 3')%$' %. %$' F)*. , (0')**' '$%' *&' 10%' 8' 3' $5, . -' *&& &, '). $%'))' (90

+%')$%')8%.)' *&' 8%84$' . *10' ($*16', 0' 6$' (), (' ///2')+%' 0' 8%' 0')+')' *&' /' $2. -%' F 5, 6+)+%$, ' ' $ ' 7$ $ #

? ' %

& ' " # G ')%$8' (*88*. /2' '66/, %5')*' /' $2. -, 0810' 0)$, 51/10' ' ,U Y' ,0%' 0%0'

& ' " "! *& ' " 'A (*)(+' D' +*' $0%. %00R G +%0%')%$80' 3%$%' *$, -, . ''//2' %86/*2%5' 3,)+' $%&%$%. (%')*')+%' 6%(1/, '$' ($*3; , . -' *$' 0)$, 51/*10' (+' $' ()%$' *&')+%' $%06, $'), *. ' (*1-+' ' . 5' 7*, (%', . ' (%$)', . ' '&&%(), *. 0' *&')+%' /' $2. B' ' . 5' 0, -. , &, %5' 04%/*. -, . -')*' ($*16' K, . ' ,)0' (/, . , (' F $%/')), *. 0H &*$' %B' 86/%' 0 ($*162' (*1-+K &($*162' 0286)*80K L =%. ' 8*$4, 5' ' . ')*82' 5%8*. 0)$')%5')+%' *((1$$%. (%' *&' ' &, 4$, . *10' %B15'), *. ' *$' &' /0%' 8%84$' . %' 16*. ')+%' '&&%()%5' 01$&' (%', . ' ''06%(, ' F &*$8' *&' ($*16')+%' 3*$5' 0 ($*16*10K 3' 0' 10%5' /0*')*' 5%0, -; . ')%')+, 0' &' /0%' 8%84$' . %H)+10' 0 ($*16*10' %B15'), *. K' . 5' 1 ($*16*10' 8%84$' . %0K +%' 66/, (', *. ' *&')+%')%8' 3' 0' &)%$3' $50' &1$)+%$' %B)%. 5%5H' . 5',)', 0' . *3' %86/*2%5')*' . 5, (')%)+%' 6$*(%00')+')' /%' 50')*' ' &, 4$, . *10' %B15'), *. ' , . ' . 2' 0,)1')', . ' . 3+')%' $H01(+' ' 0' 0 ($*16*10' , . &/' . 1. '), *. K' . 5' 0 ($*16*10' 6. %18*. ', K +10')+%' 3*$50' 0 ($*16*10K ' . 5' 0 ($* 62K 3+, (+' %$%*$, -, . ' //2' 00*(, ')%5' 3,)+' 6%(1/, '$' 0*1. 50' +' 7%' (*8%', . ' ' $%8' $9' 4/%8' . %$')*' %B6$%00' (%$)', . ' 6+20, (' /' (+%, . , (' /' . 5' 8, ($*0(*6, (' F (+' $' ()%$0' , . ')+%' 6$*51(0' *&' , . &/' 88'), *. ' ' 3# /7C 7$ $ # C ' . 5' 2

' 6 2' & " ! 5' M' 3 6*61/' $' 02. *. 28' &*$' /' $2. -, 0810' 0)$, 51/10' ' ,)' , 0%' 0%0' *&

@?

" ' &*$ "0' # ' /' 8 6' 6' 00%0' , .')+$*1 -+')+%') . 4%' ,)0%/& ' . ' . 5' 4' (9' 42' . ' ,. 01/ ')%5' 3,$%' ('$$,%5' ,. ' ''= * * 7%5' ,10,5%')+%' *1)%$')14%' +%' 0)% 8 ' >10)' ' 4 * 7%')+%' ' . -/%' *&)+%' 4% . 5' ,0' (1)' ' 3 ' 2' ')' * . %' 0,5%' 3+%$%' '' $,-+) ' . -/%5' 6$,0 8', 0' (% 8 % .)%5', .)*' ,)' +,0' 6$,0 8' + ' 0' ,)0' +26*)+% . 10%' 0,/7%$%5 ' 0*')+ ')' $ ' 20' 6 ' 00, . -') +$*1 -+')+%' %B6 * 0%5' &' (%' *&)+%' 6$,0 8' 8 ' 2' 4%' $%&/%()%5', .)*')+%' + 8 %$')14% ' +%', . . %$') . 4%' ,0' 0)$ ' , -+) '' 4 * 1)' %, -+)', . (+%0' /* . - ' ' . 5' 0/,5%0', . ')+%' * 1)%$')14% ')' ('$$,%0' &*1$' /% . 0%0 ' * . %' ')')+%' % . 5' &' $)+%0)' &$* 8 ')+%' *40%$7%$ ' ,0' '' + % 8 ,06+%$,(' /' /% . 0 ')+%' &/ ')' &' (%' *& ' 3+,(+' * . ' 610+, . -') +%')14%' , . ' - *%0' E1,)%' (/*0%')*')+ ')' &%(%' *& ')4%' 6$,0 8' 3+,(+',0' ')' $,-+)' ' . -/%0')*')+%' 'B,0' *& ')+%' , . 0)$1 8 %.)' %' $')*')+,0' + % 8 ,06+%$,(' /' /% . 0' ,0' ' . *)+%$' *& 7%$2' 0+*$)' &*('/' /% . -)+' +%')3*' /% . 0%0 ' $%(%,7, . -' $ ' 20' $%&/%()%5' ')')+%' +26*)+%. 10%' *& ')+%' 6$,0 8 ' &*$ 8 ' ''0 8 '//' ,8 ' -%' *& *4>%()0' 0,)1 ')%5' *66*0,)%')+%' 6$,0 8 ' 3,)+, . ' '&,%/5' &' 0 ' 2 ' F' 5%-$%%0' 5, ' 8 %)%$ ' +,0' ,8 ' -%',0' ' . %' $')*')+%', . . %$' 01$&' (%' *& ')+%' 0%(* . 5' /% . 0' ' . 5' &*$ 8 0' *& ')' +%' 8,55/%' *& ')+%', . . %$')14%' ,0' ''),+,$5' /% . 0' *& ' &*(' /' /% . -)+' 0* 8 %3+')' /%00')+' . ' * . %' &* 8$)+' *& ')+%' /% . -)+' *& ')+%')14% ' +,0' /% . 0') 9%0' 16')+%' /,))/%' ,8 ' -%' &$* 8')+%' &,$0)' ' . 5' 0%(* . 5' /% . 0%0 ' ' . 5' &*$ 8 0' *& ',)' ' . *)+%$' ,8 ' -%' *& . %' $/2')+%' 0 ' 8 %' 0,C%' . *)' &' $' &$* 8')+%' %. 5' *&)+%')14%' . %' $')+%' %2%' *&')+%' *40%$7%$ ' 0)/2 ')+%$%' ,0' ''0+*$) &*(100%5' /% . 0' ')+%' %2%6,%(%&*$ 7, % . 3, -')+%' ,8 ' -%' &*$ 8 %5' 42')+%')+,$5' /% . 0 ' *$' (* . 7%. ,%. (%' % 8 ' 2' ('//')+,0' ,. . %$')14%' . 5' &*1$' /% . 0%0' L')+%')%/%0(*6% j %0,5%0')+%')%/%0(*6%' ' . 5')+%' , . 0,&/')%5' 3,$%' $%(%.)' ,. 0)$1 8 %.)0' (*.)' ,. ')3*' 0 8 '//)14%0 G * . %&*$(* . 7%2, . -' ' . ', . &/*3, . -'0)$%' 8 ' *& 0* 8 %' 0)%$,/,0%5' *$' .),0%6),(' &/1,5')*' 5,0;)%. 5')+%' 4/' 55%$ ' ' . 5' 9%%6' ,)0' (* .)%.)0' (/%' $ 51$, . -' , . 06%()," . !")+%' *)+%$' &*$' //*3, . -')+%' , . >%()%5' &/1,5')*' %0(' 6%' &)%$' (,$(1/'), . -' , . ')+%' 4/' 55%$ ' ('$$2, . -' 3,)+' ,)' . 2' 4/**5' *$ 8 1(* 610' . *)' %7' (1')%5' 4%&*$%'),4% (20)*' 0(*6%' 3 ' 0' , .)$*51(%5' 2' '' , --, . 0* . <0' ',$ 6186 ' ' (), . -' * . ' '' $%0%$7*,$')+%' 0)$%' 8 ' ,0' 8 ' , .)' . %5' (* . 0)' .)/2 ' . 5')+%' 4/' 55%$ ' 3 '//0' $%' &,$ 8 /2' 5,0)%. 5%5 G '' 7%$2', 8 6*$)' .)' (* . 5,)," . ' &*$' 0'),0&' ()*$2', . 06%(),* . ' +,0' 8 *5,&,(',* . ' &*$' ,$$,-'), . -' 5,15 . -' , . 06%(;),* . ' 3 '0' 4$*1-+)', ')*' . *),(%' 42')+%' 6$%0%.)' 3$,)%$,)+') +%' (20)*0(*6%' '4*7%' 5%0($,4%5')+%' *40%$7%$ ' * . '/**9, . -' 5*3 . ')+%')%/%0(*6%' *4;)' , . 0' ''7,%3' *&')+')'6*$),* . '*&')+%' ,//18, . ')%5' 01$&' (%' 3+,(+' ,0' 0,)1 ')%5' 3,)+, . ' '4*1)' @F' 5%-$%%0' *&' ''6%$6% . 5,(1/'$)*')+%' %B6*0%5' &' (%' *&)+%' 6$,0 8 ' 6$*7,5%5')+%' 4/' 55%$' 4%' &',$/2' 5,0)%. 5%5' 3,)+' &/1,5' +%' 3+*/%' 01$&' (%' *&)+%' 4/' 55%$' 8 ' 2' 4%' %B ' 8, . %5 ' , . ' 8 *0)' ('0%0' 42' 610+, . -')+%' 6$,0 8 '&' $)+%$', .)*')+%' 4/' 55%$ ' *$' 42' 5$ ' 3, . -' .)' 4 ' (9 ' *$' 42')1$ . . -')+%' , . ; 0)$1 8 %.)' * . ')+%' ' B,0' *&')+%' 0)% 8 ' *$' 42')&/), . -')+%' 0)% 8 ' 1)',)', 0' *47,*10')+')')+%' 6 ' $)0' *&)+%' 01$&' (%' . %' $' 3+%$%')+%', . 0)$1 8 %.)' %.)%$0 ' . 5' , . ')+%' $%-, . *. ' *66*0,)%')*',)' '$%' 5,&&,(1/)*' 4$, . -' , .)*' 7,%3' 8 ' '' 0'),0&' ()*$2' 8 ' . . %$,)C%' + '0' '((*$5, . -/2' 0* 8 %' 5,&/&%$%.)' &* $ 8 0' *& (20)*0(*6%' '5' 6)%5' 06%(,'//2' &*$')+*0%' ('0%0 ')+%' 6$, . (, 6 ' f * . %' &' 3+,(+' + '0'),10,5%')+%' 3, . 5*3' 6/' (%5', . ' ^ %' 4%' 9 *66*0,)%')+%' *1)%$' 0,5%' *&)+%' 4%. 5' ' . 5')+%' /, -+)' ')')+%' &' $)+%$' *$' 6*0;)%$, *$' %. 5' *&')+%' 4%' 9' 2')+,0' '$$' . -%8%.)')+%' /, -+)', 0')+$*3 . ' 5, $%()/2' 16*. ')+%' &/**$' *&)+%' 4/' 55%$' ' . 5'0*' 6' 00%0')+$*1-+')+%' 3, . 5*3')*')+%')%/%0(*6%' +,0' &*$8' *&' (20)*0(*6%' ,//18, . ')%0')+%' '$%''4%)3%%. ')+%' 171/'' ' . 5')+%' 8 *.)+0' *&')+%' 1$%)%$0' ' . 5' *&)%. ' $%7%' /0' (+' . -%0')+%$%' . *)' 5%)%()%5' 3,)+')+%' *$5, . '$2' &*$8 . ' , .)%$6$%), . -')+%' 0, - . ,&,(' . (%' *& ')+%' , 8 ' -%0' *4)', . %5' '((*1 .)' 8 10)' 4%')' 9%. ' *&')+%' 7' $2, . -' 5,0)' . (%' . 5' *4/,E1,)2' *&' 5,&&%$%.)' 6' $)%' *& ')+%' 01$^(%' +,0' 3,/' %7,5%.)/2' 4%' '' 8 ')) %$' *& 5,&&,(1/)2')*' 4%' *7%$(* 8 %' 42' 6$' (),(%' %06%(,'//2' 42' 6$' (),(%' * . ' '' 8 *5%/' *& ')+%' 4/' 55%$ ', . ' 3+,(+')+%' 7' $,*10' . ')1$' /' /' 58 '$9 '$%$%6$%0%.)%5', . '4*/5'%B' --%$')%5' &, -1$%0 ((% ' " . ')+%' 10%' *& ')+%' (20)*0(*6%' /,))/%' (' . ' 4%' 0%%. ',& ')+%' (' 7,)2' 4%' . *)' 5,0;)%. 5%5' *$' ,& ')+%' (* .)%.)0' *& ')+%' 4/' 55%$' 4%')1$4,5 ' +%. ' '4*1)' 0,B' *$' %,-+)' *1. (%0' *& &/1,5' '$%' , . >%()%5')+%' 01$&' (%' *& ')+%' 4/' 55%$' ,0' &,),$/2' 08**)+' $%55,0+' *$ 2%//*3 ' ' . 5' $' (%; 8 *0%' 4/**5 7%00%/0' (*//%(), . -' , .)')$1. 90')*3 '$50')+%' 4 '0%' *& ')+%' 7,0(10' '$%' 7%$2' 5,0;), . () ' &')+%' 3 '//0' 4%'), -+)/2' %B6 ' . 5%5')+%' 01$&' (%' 8 ' 2' 0%%8' -+0)%. , . -' 3+,)%' /,9%' 8 *)+%$ *& 6%' $ ' . ')+%' &/**$')+%')$, -* . %' ,0' 51//' $%5' -$' . 1/' $' ' . 5' 0* 8 %3+')' 6$*; 8 , . %.) ' %' $')+%' %. 50' *&)+%' $,5-%')')+%' 4 '0%' *& ')+%')$, -* . %' '$%' 6/' (%5', . ')3*' /,))/%' %8, . %. (%0')+%' *6%. , . -0' *& ')+%' 8 %)%$0' &')+%' 1$, . %' (* 8 , . -' &$* 8 ' '' 9,5 . %2' 4%')1$4,5' 3,)+' 610' *$*)+%$* 8 ')) %$' ''>%)' *&')+, 0')1$4,5' &/1,5' (' . ' *&)%. ' 4%' 0%%. ' , 001, . -' &$* 8 ')+%' %8, . %. (%' . 5' 0*' 5,0(*7%$, . -')+%' *$,&,(%' *& ')+%' 1$%)%$' *) " ',&')+%$%' 4%' 1/(%$0' * . ')+%' 81(*1088 4$' . %' *$' 6' 6,//* 8 ')*10')18*1$' ''>%)' *&' 4/**5' (' . ' 4%' 0%%. ' *((' 0,* . ''//2')*' 5' $)')+$*1-+')+%' (/%' $&/1,5' 3+,(+' 06%%5,/2' $%. 5%$0' ,)' ''/18, . *10' $%5' &*-')+$*1-+' 3+,(+' . *)+, . -' 5%&, . ,)%' (' . ' 4%' 5%0($,%5' . ' 01(+' (' 0%0')+%' '66'$')10' &*$' 8 ', .)' , . , . -' ''(* . 0)' .)' &/*3' *& ,(% (*/5' 4*$' (,(' 0*/1), *. ')+$*1-+')+%' 4/' 55%$' ,0' *& -$%')' 0%$7,(%' ' 0')+%' *6' E1%' &/1,5', ,0' 5,06/' (%5')+$*1-+')+%' *1)/%)')14%' . 5')$' . 0; 6' $%. (2', 0' $%0)*$%5# . 5' . ' . ' $),&,(,'//2'(+,//%5' 0*/1), *. ' $%6$%00%0' +0% 8 *$$+' -%' 51$, . -' , . ; 06%()," . ' &')+%' (* .)%.)0' *& ')+%' 4/' 55%$' 4%' '//*3%5')*' %0('6%' 51$, . -' %B' 8 , . '), *. ')+%' 7,%3' 4%(* 8 %0' 5'$9' *$' 0*' , . 5,0), . ()' '0')*' 6$%7%.)' $%(*- . ,), *. ' *&' . 2' 9 . *3 . ' *4>%()' ' . 5')+%. ')+%$%', 0' 5' . -%$' *&')+%' /' 8 6' -$*3, . -'+*)' . 5', . >1$, . -')+%' 3 '//' *&')+%' 4/' 55%$' , . ' (*. ;)' ()' 3,)+' ,)' %. (%' 3+%. %7%$')+%' 7,%3' (%'0%0')*' 4%' /18, . *10')+%' %/%()$,(' (1$$%.)' 0+*1/5' 4%' ')' *. (%' (1)' *&&' . 5')+%' 4/' 55%$' $%&,//%5' +%' 7' $,*10' (+' . -%0' %&&%()%5', . ')+%' '66%'$' . (%' *&)+%' 4/' 55%$' 42' 5,0%'0%' '$%' 5%0($,4%5', . ')+%' $),(/%' . . &,' ,0%'0%0' *& 0 ⅄% ' $$

G 2 ! +%' 3*$5' 0(20)' <)+%' 1$, . '$2' 4/' 55%$R' ,0' 10%5', . '6') +*; /*-2' 3,)+*1)' 0)$,()' 0*,%.),&/*' ' (*1$' *2' &*$' '' (/*0%5' ('7,)2' (*.)', . , . -' &/1,5' *$' 0*&)' 8 '))%$H 3+,(+' ('7,)2' 3 ,//+' 7%' &$*8')+%' . ')1$%' *&',)0' (*.)%.)0' '' 06+%$,(' /' *$' 06+%$*,5' /' 0+' 6%' +%' *4>%()0')+10' 5%&/. %5' 5,&&%$' 8 1(+' ' 8 *. -')+%8 0%/7%0' ' . 5' ' $%' '00*(,')*-%)+%$'$')+%$' &$*8' (*.7%. ,%. (%')+')' *. ' ((*1.)' *&' ' . 2' $%' /6')+*/*-,('/0,8,/'$,)2

$ # ' G= 20)0' 8 '2' 4%' (/'00,&,%5' '((*$5, . -')*')+%,$' 0)$1()1$%' ' 0' 0,8 6/%' *$ (*86*,85H' ((*$5, . -')*')+%,$' (*.)%.)0' '0' 0%$*10' 81(*10' &')) 2' ^(H *$' ((*$5, . -')*')+%,$' 8*5%' *&' *$,-, . ' +%' /'))%$')+*1-+' . *)' &$%%' &$*8' *4>%(),*. ',0')+%' 4' 0,0' *&' 5%0($,6),*. ' 3+,(+' 3 /' 4%' +%$%' '5*6)%5' 20)0' 8 '2' *$,-, . ')%' A8R' &$*8' "' *&' 6$%7,*10/2' %B,0),. -' (/60%5' ('7,),%0H A<R' &$*8' " 2 ' *&')+%' 6$*51()0' *&' 0%($%),*. ' *&' ' 0%($%),. -' -/' . 5H A9R' 0' ' 6')' *&' " 2 0 2 #9' A R' 42' '' 7,(%' *&' " ' +%0%' 9,. 50' ' $%' 5,0;),. ()' 0)$1()1$%0' 3,)+' ' 3 ' /' /, . %5' 42' %6,)+%; /,18 ' 1)')+%' . ' 8 %' ,0' *&)%. ' 87%. ' /%00' '((1$')%/2')*' 06' (%0' (*.)', . , . -' &/1,5' 3+,(+' $%01/)' &$*8' 0*&)%. , . -' *&' 0*/,5'),001%' 3+%)+%$' , . ' ' . %3 -$*3 ' -$*3)+' *$, . ' . ' , . &/' 8 8 ')*$2' 6$*; 51()' 20),(' 6'$'0,)%0' +' 7%' /0*' 4%%. ' (*. ; &*1.5%5' 3,)+' (20)0' 6$*6%$/2' 0*' ('//%5 ' 20)0' &$*8' ,/')'),*. G' 6'(%0' . *$8 '/*$' . %3/2'&*$8%5', . ' (*. . %(),7%'),001%' 8 '2' 42' ,$$,')', . ' . 5' (*. 0%E1%.)' %B(%00,7%' %B15'),*. ' 4%' (*. 7%$)%5', .)*' (20)0H *$')+%' 0' 8 %' $%01/)' 8 '2' +' 66%. ' &$*8')+%' (*. &/1%. (%' *&'0%7%$' /01(+' 06' (%0' . ' 6$*=$),*. ' '0')+%' 3 '//4%(*8%'0 8 **)+' ' . 5')+%' 8 '6%'1. ,&*$8 ')+%2' 8 '2' 4%' ('//%5' (20)0' 1$00%' 3+%)+%$' . *$8 '/*$' 6')+*/*-,('/' '$%' (20)0' '. -/,*. ' , . ')+%' 0+%')+' *&')%. 5*. ' ,0' (/%' $/2' ' 6')+*/*; -,('/(20)' *')+%0%' . 5' /,9%' 0)$1()1$%0')+%' . ' 8 %' ' +' 0' 4%%. ' -,7%. ' +%2' '//(*.)', . ' (/%' $' 0%$*10' &/1,5' . 5' $%' /, . %5' 42' . ' . %. 5*)+%/,18 ' . (20)%5' +25$*; (%/%' 8 '2' '/0*' 4%' ('//%5' ' (20)' . %' (/'00' *&' *7' $, . ' (20)0' (*8%0', 85%$')+,0' +%' 5')+*0%' . ' 8 %/2' 3+,(+' '$%' 51%')*' 0,86/%' 5$*602' *&)+%' $' ' . ' 7%0,(/%' 14*' 7' $, . ' 5$*602' +' 0')+%' 0' 8 %' %B6/' . '),*. H ' . 5' (20)0' *&')+%' 4$*' 5'/,-' 8 %.)' '$%' %. /' $-%8 %.)0' *&' . *$8 '/ 0)$1()1$%0' 3+,(+' '$%' /%&)' '0' $%/,%0' *&')+%' 5%; 7%/*68%.)' *&')+%' *7' $2' +%')+2$*,5' -/' . 5' 0%%80' &$*8' ,)0' 0)' 8()1 %' (*.)', . , . -' '0',)' 5*%0' 0*' 8 ' . 2' (/*0%5' &*/ (/%0' 6' $),(1/' $/2' 5,06*0%5')*')+,0' 9,. 5' *&' (20) &*$8'),*. ' ' . 5')+,0',0' 5*14)/%00')+%' %B6/' . '),*. ' *&' 4$*. (+' *%/%' +%' ('10%' *&' 01(+' . ' %. /' $-%8 %.)' *& (/*0%5' &*//,(/%0',0' 7%$2' *40(1$%' 41)' 66%'$0')*' 4%' ,8 8%5,')%/2' 51%')*' ,. ($%'0%5' 6$*; 51(),*. ' *&')+%' 8 ')%$,'/' . *$8 '//2' &,//, . -')+%' 06'(% @' 20)0' &$*8' U%).),*. G 20),(' &*$; 8 '),*. 0' 8 '2' $%01/)' &$*8')+%' *40)'1(),*. ' *&)+%' . ')1$'/' *1)/%)' *&' ' 0%($%), . -' *$-' . ' . 5')+%' (*. 0%E1%.)' $%)%.),*. ' *&' 0%($%),*. ')',0' . %(%00' $2')+')')+%' 3''//0' *&',,%' 0%($%),. -' ('7,)2' 0+*1/5' 58,)' *&' %. /' $-%8 %.)' ' . 5')+'))+%')%. 0,*. ' 0+*1/5' . *)' 4%(*8%' 0*' -$%')' '0')*' (+%(9' 0%($%),*. ' 0%($%), . -' -/' . 50' 6$%0%.)' , . 0)' . (%0' *& 01(+' (20)0' +%' 0%4' (%*10' -/' . 50' *&')+%'09, . ' '$%' 6')$),(1/' $/2' , ' 4/%')*' *40)$1(),*. ' *' *&')+%,$' 51()0' ' . 5', . ' 8 ,0' 3' 2' ' $%' &*$8%5' 0%4' (%*10' (20)0')+%' (*.)%.)0' 8' 3+,(+' '$%' 0*8%),8%0' %6,)+%/,18' . 5')+%' 6$*51()0' *&' . *$8 '/ 0%($%;),*. ' 0*8%),8%0' '4. *$8 '/ 6$*51()0H +%' 0' 8 %')%$8' +' 0' 3,)+' /%00' 6$*6$%)2' 4%%. ' '66/,%5')*')+%' 0%4' (%*10' 6$*51(),*. 0' (' //%5' 8 ,/,18' . 5' (*8%5*' ' ,0; %' 0%0' *& +%' -/' . 50' *$' 81(*10' 01$&' (%0' '$%' /,' 4/%')*' 0, . ,/' $' *40)$1(),*. 0' ' . 5' $%01/)' 01(+' '0' '$%' 0*8%),8%0' 0%%. ' , . ')+%' 8*1)+' '$-%$' (20)0', . ')4%' 8*1)+' , " $%01/)' &$*8' 8%' *40)$1(),*. ' *&')+%' 51()0' *&')+%' 0' /,7' $2' -/' . 50' *$' $%' 6%$+' 60' (*. . %()%5' 3,)+' . ' '4. *$8 '/ 6$*51(),*. ' *&' -/' . 5 014' 0)' . (%' +%' 0)*8' (+' 7%$2' &$%E1%.)/2' *)+%$' 6')$0' *&')+%' , .)%0),. '/' (' . '/ 8*/%' $'$%/2' 0+*3' 0,8,/' $' (20)0' 3+,(+' 3+%. ')+%2' 6$*>%()' . 5' 4%(*8%' (*86/,(')%5' , . ' 0)$1()1$%' '$%' ('//%5' 6*/26,' +%2' '$%' *((' 0,*. '//2' 0%%. ' *. ')+%' /' $2. B' . 5')$' (+%' ' . ' . ' *' 6')$' '$%' 81(*10' (20)0' 8*$%' &$%E1%.)')+' . ' , . ')+%' 1)%$10' 3+%$%' , . 5%%5' 0,8,/' $' &*$8'),*. 0') ' N ' 810)' 4%' $%-' $5%5' ' 0' . *$). '/' +%' 7' $,%),%0' +%$%' 8%)' 3,)+' +' 7%' ' 0' ,$(+*3' +' 0' 6*, .)%5' *1)' '' 5*0%' . '. '/*-2' 3,)+')+%' 7' $,*10' &*$80' *& $%)%.),*. (20)0' , . ')+%' 09, . ')+%' 8 ' 8 8 ' ' (20)0' 8 '2' $%01/)' &$*8')+%' (1)), . -' *&&' *&' 6*$),*. 0' *&')+%' -/' . 5 &*/ (/%0' 41)')9%' (20)0' (*.)', . %5', . ' 8 ' 8 8 '$2')18*80' '$%' . *)' '/3' 20' &*$8%5', . ')+,0' 3' 2' 0*8%' 4%, . -' 6')$' *&' . % -$*3)+0' . ')+%')%0),(/%' *40)$' (),*. ' . ' . 5' (1)), . -' *&&' *&' 0%8, . ,&%$*10')14%0' 8' 2' /%' 5')*' 08 '/' (20)0' 41)')+%0%' '$%' 8*$%' *&)%. ' (*. . %()%5' 3,)+' . %3 -$*3)+0' +%' (1$,*10' 9. *3. ' '0' (*.)', . , . -' =%. ') C*' ' '66%' $')*' '$,0%' &$*8' '' 0,8,/' $' 5,0)%. 0,*. ' *&' 5%)' (+%5' 6*$),*. 0' &)%0),(/% 0140)' . (%' 3+,(+' 42' . ' %$$*$' *& 5%7%/*68%.)' +')%' &', /%5')*' 4%(*8%' (*. ' %()%5' 3,)+')+%' %B($%)*$2' 51()0' +%')%0),(/%',0' /0*' /,'4/%')*' '' -%. %$' /' (20),(' 5%-%. %$'),*. ' 101'//2' ('//%5' (20)* 0' $(*8' ' 20)0' *&')+%' 9,5. %2' '$%' *&' 7' $,*10' 9,. 50' 41)' 8' . 2' . *' 5*14)' 4*)+' /' $-%' ' . 5' 08 '//' $%01/)' &$*8')+%' 5,/')',*. ' *&' 1$, . ,&%$*10')141/%0' . 5' ('601/%0' *&' -/*8%$1/,' 3+%. ')+%,$' *1)/%)' ,0' *40)$1()%5' '0' *((1$0' , . ')+%' (,$$+*),(' &*$8' *&' $,-+)<0' 5,0%' 0%' +%' *$,-, . ' *&')+%' 7%$2' . 18%$*10' 8,($*0(*6,(' (20)0' +' 0' 4%%. ' 81(+' 5,/1)%5' +%' 3$,)%$' , . (/, . %0')*')+%' 4%/,%&')')+%2' '$,0%&$*8' 8*. ,/,&*,8'(*.)$')(),*. ' *&')+%' 8 '2' 4%' **,=%. ,)' /' . 5')+%' *$-8' 8 '2' 0*' /' $-%' '0')*' *40)$1()' 6')1$,),*. ')',0

')$,41)%5'42' ,$(4*3')*',.&/'8 8 '),*.'*&')+%'('=)2*%0 51$,.-',.)$' 1)%$,.%/,&%
*' -1'$5' '-',.0)' '' (*8 8*.' %$$*$' *&'/'.-1'-%',)'0+*1/5'4%'6*,.)%5' *1)')')+%'(*.5,),*.'*&')+%'9,5.%2' 3+,(+' $%01/)0' &$*8'
)+%' *40)$1(),*.' *&')+%' 1$%)%$' *$' *&')+%'1$,.'$2' 6'00'-%0&/*3%$' 5*3.')+*1-+' 0*8%;
),8%0' (' %5'(20),(' 5,/')')',*.'*&')+%'9,5.%2',0'
6$*6%$/2' '%'0%'*&'(20) &*$8'),*.'.'' .5',0'
4%))'=' ('//%5'# / #
20)0' &$*8' %)3 $*3)+' G' .'
8'.2'&*$80'*&'.%3 -$*3)+' (20)0' '$%'6$*;
51(%5'41)'.*)'/3'20',.')+%'0'8%'3'2' (;
('0,*.'//2''0',.'8 2B*8''.5'%.(+*.5$*8''
0*&)%.,.-'*&'6*$),*.0'*&'.%3 -$*3)+''9%'52'
&*$+>%5' 6$*51(%0' 06'(%0' (*.)',.,.-' &/1,5'
3+,(+''$%0*8%),8%0')+*1-+'+'$5/2'(*$$%()/2'
('//%5' (20)0' .' 8'.2'0'$(*8')'')+%'6$*;
51(),*.'*&'.%3'),001%'-*%0'+'.5',.'+'.5'3,)+'
)+')'*&'(20)0''.5',0'0*8%),8%0'%&&%()%5''0',.'
-/'.51/'$'*$-'.0'42')+%'&*$8'),*.'*&'.%3'
&* ,%1/'$'0)'.>()1$%0'3,)+*1)''.'*1)/%)'0*8%;
),8%0'42'.%3 -$*3)+'.)*')+%'5,/')%5'(7,),%0'
= ,5'$'6%51.(1/')%5' -$*3)+0'*.'''&$%%0
1$&'(%' 8'2'0*8%),8%0'42')+%' &10,*.' *&'
)+%,$' %B)$%8,),%0' %.(/*0%' 06'(%0' 3+,(+'
4%(*8%' (*.7%$)%5',.)*' (20)0' %' 5*' .*)'
&)%.' &,.5'(20)0' &$8,..-'42')+%8 0%/7%0' '
.% -$*3)+'*&'0*' 5%&,.,)%' '' (+'$')()$' '0'
)*'5%0%$7%''0%6'$')%'.'8%' +%.')+%2'5*'
0*')+%2'8'2'4%'('//%5'(20)*8'
J0' %&+()1' (*' %&+'4' 7)(7*0
20)0''$%'8%)'W3,)+',.')+%'*7'$2'3+,(+'(*8%'
1.5%$')+%'5%&,.,),*.'>10)'-,7%.''.'8%/2'0*'
('//%5')''' 3 / ' 3+,(+'
(*.0),)1)%')+%'3%// 9.*3.'&*$8,5'4/%'(20),('
5,0%'0%'*&')+%'*7'$2''.5'0*8%),8%0'6$*51(%'
)18*1$0'*&',8 8%.0%'0,C%' .')+%0%')+%'*$,-,.;
'//2'0,86/%'6$,8'$2'(20)'66%'$0')*'4%(*8%'
(*86/,(')%5'42')+%'&*$8'),*.',.',)0'3'//0'*&'
0%(*.5'$2'(20)0'3+,(+'8'2'%.($*'(+'16*.'
$'6$%()',.)*')+%'6$,8'$2' -',.')+%$%'
8'2'4%'6'6,//'$2'-$*3)+0'0')$),.-'&$*8')+%'
,..%$'3'//*&')+%'6$,8'$2'(20)'3+,(+'%,)+%$'
&,//',)'16'*$'42'&10,*.'%.(/*0%'06'(%0'3+,(+'
4%(*8%'0%(*.5'$2'(20)0' %$2'(*86/,(')%5'
0)$1()1$%0')+10'$%01/)' +%'(*.)%.)0'8'2'
7'$2',.'(*.0,0)%.(%''.5'(*/*1$'&$*8'(/%'$'
6'/%''/418,.*10'/,E1,5')*'-%/'),.*10'8')))%$'
'.5'8'2'4%'0)',.%5')+$*1-+'+%8*$$+'-%''*$'
61$1/%.)')+$*1-+',.&/'88'),*.' +%'*$,-,.'
&')+%0%'0)$1()1$%0'3+,(+'+'7%'.'6$%(,0%'
6'$'//%/',.'*)+%$'6'$)0'*&')+%'4*52',0'
%B)$%8%/2'*40(1$%')',0'.*)'%7%.'(%$)',.'
3+%)+%$')+%'6$,8'$2'(20)0'(*888%.(%''0'
8,-+)'0%%8' ''+,-+/2'6$*4'4/%',.'
)+%' $''&,'.'&* ,(/%0'H 41)')+%2''$%'6/',./2'
51%')*''.'%$$*$'*&'5%7%/*68%.)'6*00,4/2'
4%-,...,-',.'%'$/2',.)$'.)%$,.%/,&%''.5''$%'
.*)'0%)'16'42''.2'%B)%$.'/'('10%0' +%'6$%;
0%.(%'*&'')141/'$'-/'.5),001%'0(+'0',0'
&*1.5',.')+%'5$,8%.)'$2'41)'.*)',.')+%'
6%$&%()'*7'$2'(*.&,$80',0'7,%3'42')+$*3;
,.-'(20)&*$8'),*.'4'(9',.)*''.'%'$/2'0)'-%'
,.')+%'5%7%/*68%.)'*&')+%'*$-'.
.'''.*)+%$'41)'$'$%$'&*$8''*&'(20),(
5,0%'0%'*&')+%'*7'$2'%E1''//2'51%')*''.'%$$*$
*&'5%7%/*68%.)'.'5'0*8%),8%0'(*.-%.,)'/'
)+%'3+*/%'*$-'.',0'&*1.5'(*.7%$)%5',.)*''
8'00'*&' 88'(20)0'3,)+'.*'0)$,9,.-',.;
%E1'/,)2''*&'0,C%' +,0'7'$,%)2'$%0%.'4/%0'*.%
&*$8'*&'(20),(' 5,0%'0%' ,.')+%')%0),(/%''.5'
9,5.%2
C ' 3' '$%')+*0%'*&'3+,(+')+%'
3'//',0'(*86*0%5'*&'09,.'*$'.8%*.0'8%8;
4$'.%''.5'-%.%$'//2'/,.%5'42''' /'2%$'*&'
&/')'(%//0'$%0%84/,.-'%6,5%$8,0' +%'3'//
8'2'4%'(*86/,(')%5'3,)+'(*..%(),7%'),001%'
&*$8,.-'6'6&//&&,'$%0%84/,.-')+*0%'*&')1%'
09,.''.5'8'2'(*.)',.'+',$0'0%4'(%*10'
-/'.50G%,)+%$',.'(*..%B,*.'3,)+')+%8'*$
1.'))'(+%5G'.5'015*$,6'$*10'-/'.50' +%'
'((181/'),*.'*&'&')2'8'))%$'<3,)+,.')+%
(20)0',0'5*14)/%00')+%'$%01/)'*&')+%'(*.),.1*10'
'*)8)2'*&')+%'0%4'(%*10'-/'.50')+%'6$*51(0'
&'3+,(+'('..)'%0('6%' '$-%'8'00%0'*&'
+',$'8'2''/0*'+%'&*1.5'&$*8'(*.),.1*10'
-$*3)+''.5')+%$%' '$%' *&)%.'.18%$*10'
5%)'(+%5' %6,5%$8,(' 0('/%0',0),.0)/2'
&*$8%5'8'88'$2'-/'.50'7$,)+'.,66/%0''$%'
0*8%),8%0'&*1.5' 1(+''(20)'+'0'*./2')+%'
(+'$'()%$0'*&''6*$),*.'*&09,.'3+,(+'8,-+)
4%',8'-,.%5',.7%$)%5'.5',.(/15%5'42')+%'
-$*3)+'*&')+%'01$$*1.5,.-6'$)0'.'.''%'$/2'
0)'-%'*&'5%7%/*68%.)G'.'%B6/'.'),*.'3+,(+'
'66/,%0' *./2')*')+*0%' 0,)1')%5',.'(%$)',.'
6')0'*&')+%',.)%-18%.)'3+%$%''>1.(),*.'
J0' %&+()1'(*' %&+'4' 7)(7*0
20)0'$%'8%)'W3,)+',.')+%'*7'$2'3+,(+'(*8%'
1.5%$')+%'5%&,.,),*.'>10)'-,7%.''.'8%/2'0*'
('//%5')''' 3 / ' 3+,(+'
(*.0),)1)%')+%'3%// 9.*3.'&*$8,5'4/%'(20),('
5,0%'0%'*&')+%'*7'$2''.5'0*8%),8%0'6$*51(%'
)18*1$0'*&',8 8%.0%'0,C%' .')+%0%')+%'*$,-,.;
'//2'0,86/%'6$,8'$2'(20)'66%'$0')*'4%(*8%'
(*86/,(')%5'42')+%'&*$8'),*.',.',)0'3'//0'*&'
0%(*.5'$2'(20)0'3+,(+'8'2'%.($*'(+'16*.'
$'6$%()',.)*')+%'6$,8'$2' -',.')+%$%'
8'2'4%'6'6,//'$2'-$*3)+0'0')$),.-'&$*8')+%'
,..%$'3'//*&')+%'6$,8'$2'(20)'3+,(+'%,)+%$'
&,//',)'16'*$'42'&10,*.'%.(/*0%'06'(%0'3+,(+'
4%(*8%'0%(*.5'$2'(20)0' %$2'(*86/,(')%5'
0)$1()1$%0')+10'$%01/)' +%'(*.)%.)0'8'2'
7'$2',.'(*.0,0)%.(%''.5'(*/*1$'&$*8'(/%'$'
6'/%''/418,.*10'/,E1,5')*'-%/'),.*10'8')))%$'
'.5'8'2'4%'0)',.%5')+$*1-+'+%8*$$+'-%''*$'
61$1/%.)')+$*1-+',.&/'88'),*.' +%'*$,-,.'
&')+%0%'0)$1()1$%0'3+,(+'+'7%'.'6$%(,0%'
6'$'//%/',.'*)+%$'6'$)0'*&')+%'4*52',0'
%B)$%8%/2'*40(1$%')',0'.*)'%7%.'(%$)',.'
3+%)+%$')+%'6$,8'$2'(20)0'(*888%.(%''0'
8,-+)'0%%8' ''+,-+/2'6$*4'4/%',.'
)+%' $''&,'.'&* ,(/%0'H 41)')+%2''$%'6/',./2'
51%')*''.'%$$*$'*&'5%7%/*68%.)'6*00,4/2'
4%-,...,-',.'%'$/2',.)$'.)%$,.%/,&%''.5''$%'
.*)'0%)'16'42''.2'%B)%$.'/'('10%0' +%'6$%;
0%.(%'*&'')141/'$'-/'.5),001%'0(+'0',0'
&*1.5',.')+%'5$,8%.)'$2'41)'.*)',.')+%'
6%$&%()'*7'$2'(*.&,$80',0'7,%3'42')+$*3;
,.-'(20)&*$8'),*.'4'(9',.)*''.'%'$/2'0)'-%'
,.')+%'5%7%/*68%.)'*&')+%'*$-'.
.'''.*)+%$'41)'$'$%$'&*$8''*&'(20),(
5,0%'0%'*&')+%'*7'$2'%E1''//2'51%')*''.'%$$*$
*&'5%7%/*68%.)'.'5'0*8%),8%0'(*.-%.,)'/'
)+%'3+*/%'*$-'.',0'&*1.5'(*.7%$)%5',.)*''
8'00'*&' 88'(20)0'3,)+'.*'0)$,9,.-',.;
%E1'/,)2''*&'0,C%' +,0'7'$,%)2'$%0%.'4/%0'*.%
&*$8'*&'(20),(' 5,0%'0%' ,.')+%')%0),(/%''.5'
9,5.%2
C ' 3' '$%')+*0%'*&'3+,(+')+%'
3'//',0'(*86*0%5'*&'09,.'*$'.8%*.0'8%8;
4$'.%''.5'-%.%$'//2'/,.%5'42''' /'2%$'*&'
&/')'(%//0'$%0%84/,.-'%6,5%$8,0' +%'3'//
8'2'4%'(*86/,(')%5'3,)+'(*..%(),7%'),001%'
&*$8,.-'6'6&//&&,'$%0%84/,.-')+*0%'*&')1%'
09,.''.5'8'2'(*.)',.'+',$0'0%4'(%*10'
-/'.50G%,)+%$',.'(*..%B,*.'3,)+')+%8'*$
1.'))'(+%5G'.5'015*$,6'$*10'-/'.50' +%'
'((181/'),*.'*&'&')2'8'))%$'<3,)+,.')+%
(20)0',0'5*14)/%00')+%'$%01/)'*&')+%'(*.),.1*10'
'*)8)2'*&')+%'0%4'(%*10'-/'.50')+%'6$*51(0'
&'3+,(+'('..)'%0('6%' '$-%'8'00%0'*&'
+',$'8'2''/0*'+%'&*1.5'&$*8'(*.),.1*10'
-$*3)+''.5')+%$%' '$%' *&)%.'.18%$*10'
5%)'(+%5' %6,5%$8,(' 0('/%0',0),.0)/2'
&*$8%5'8'88'$2'-/'.50'7$,)+'.,66/%0''$%'
0*8%),8%0'&*1.5' 1(+''(20)'+'0'*./2')+%'
(+'$'()%$0'*&''6*$),*.'*&09,.'3+,(+'8,-+)
4%',8'-,.%5',.7%$)%5'.5',.(/15%5'42')+%'
-$*3)+'*&')+%'01$$*1.5,.-6'$)0'.'.''%'$/2'
0)'-%'*&'5%7%/*68%.)G'.'%B6/'.'),*.'3+,(+'
'66/,%0' *./2')*')+*0%' 0,)1')%5',.'(%$)',.'
6')0'*&')+%',.)%-18%.)'3+%$%''>1.(),*.'
J0' %&+()1'(*' %&+'4' 7)(7*0
20)0'$%'8%)'W3,)+',.')+%'*7'$2'3+,(+'(*8%'
1.5%$')+%'5%&,.,),*.'>10)'-,7%.''.'8%/2'0*'
('//%5')''' 3 / ' 3+,(+'
(*.0),)1)%')+%'3%// 9.*3.'&*$8,5'4/%'(20),('
5,0%'0%'*&')+%'*7'$2''.5'0*8%),8%0'6$*51(%'
)18*1$0'*&',8 8%.0%'0,C%' .')+%0%')+%'*$,-,.;
'//2'0,86/%'6$,8'$2'(20)'66%'$0')*'4%(*8%'
(*86/,(')%5'42')+%'&*$8'),*.',.',)0'3'//0'*&'
0%(*.5'$2'(20)0'3+,(+'8'2'%.($*'(+'16*.'
$'6$%()',.)*')+%'6$,8'$2' -',.')+%$%'
8'2'4%'6'6,//'$2'-$*3)+0'0')$),.-'&$*8')+%'
,..%$'3'//*&')+%'6$,8'$2'(20)'3+,(+'%,)+%$'
&,//',)'16'*$'42'&10,*.'%.(/*0%'06'(%0'3+,(+'
4%(*8%'0%(*.5'$2'(20)0' %$2'(*86/,(')%5'
0)$1()1$%0')+10'$%01/)' +%'(*.)%.)0'8'2'
7'$2',.'(*.0,0)%.(%''.5'(*/*1$'&$*8'(/%'$'
6'/%''/418,.*10'/,E1,5')*'-%/'),.*10'8')))%$'
'.5'8'2'4%'0)',.%5')+$*1-+'+%8*$$+'-%''*$'
61$1/%.)')+$*1-+',.&/'88'),*.' +%'*$,-,.'
&')+%0%'0)$1()1$%0'3+,(+'+'7%'.'6$%(,0%'
6'$'//%/',.'*)+%$'6'$)0'*&')+%'4*52',0'
%B)$%8%/2'*40(1$%')',0'.*)'%7%.'(%$)',.'
3+%)+%$')+%'6$,8'$2'(20)0'(*888%.(%''0'
8,-+)'0%%8' ''+,-+/2'6$*4'4/%',.'
)+%' $''&,'.'&* ,(/%0'H 41)')+%2''$%'6/',./2'
51%')*''.'%$$*$'*&'5%7%/*68%.)'6*00,4/2'
4%-,...,-',.'%'$/2',.)$'.)%$,.%/,&%''.5''$%'
.*)'0%)'16'42''.2'%B)%$.'/'('10%0' +%'6$%;
0%.(%'*&'')141/'$'-/'.5),001%'0(+'0',0'
&*1.5',.')+%'5$,8%.)'$2'41)'.*)',.')+%'
6%$&%()'*7'$2'(*.&,$80',0'7,%3'42')+$*3;
,.-'(20)&*$8'),*.'4'(9',.)*''.'%'$/2'0)'-%'
,.')+%'5%7%/*68%.)'*&')+%'*$-'.
.'''.*)+%$'41)'$'$%$'&*$8''*&'(20),(

4%(*8% 8,06/'(%5' ')' .' %'$/2' 6%$,*5' *& 5%7%/*68%.)' .' *)+%$' ('0%0')+%0%' (20)0' *$,-,.')%' ,.' *40*/%)%' ('.'/0' $%6$%0%.),.-' $15,8%.)'$2'0)$1()1$%0' H 01(+' '0')+%' (%.)$8' ('.'/ *&')+%' .%$7*10' 020)%8 ')+%' 6*0) '.'/ -1)')+%4$'.(+,'/ (/%&)0')+%'7,)%//* ,.)%0),.'/ 51()' .5' *)+%$0 I

%7%$'/ 6'$'0,),(' '.,8'/0' ,.&%0),.-')+% +18'.' 4*52' 8'2' '66%'$' ,.' '.' %.(20)%5' &*$8' '.5' 8'2'$%0%84/%' ,.' '66%'$'.(%')$1% 6')+*/*-,('/ (20)0' +%' (*88*.%0)G)+% /'$7'/&*$8'*&' " ' # " '*$'# 7 ' G,0' 9.*3.' 42' ,)0'/'8,.')%5' 3'//' '.5'42'(*.)',..-' '&/1,5'3+,(+',0' .*)' '/41; 8,.*10'41)'+*/50',.'0*/1),*.'0*5,18'(+/*$,5%' 3 ' +'0' '')$'.06'$%.)'3'// ' .5' (/%'$' (*.)%.)0' +%' *)+%$' %.(20)%5' 6'$'0,)%0' '$%' %,)+%$' 7%$2'08'//''0' # " ' 3 '*$1.,86*$)'.)

$& @ '<A " ! '$4'#" ' 7' !"3)$* '#$ ' ' +4* $4'-47' ' ! ' $-')$4'# . ' 5!#!' * "' !$7

! <=3 &/4$,.*-%.*10' 8')%$,'/)*' (*'-1/')% 06*.)'.%*10/2' %1(*(2)%0' 8'2' '/0*' 4% 6$%0%.)' &' ,.&/'88'),*.' 4%' 0%)' 16')+% 6$*6*$),*.' *&' '/418,.' '.5' *&' /%1(*(2)%0' 4%(*8%0' -$%')/2',.($%'0%5' .')+%' &/1,5' *& 81(*10' (20)0' 81(,.',0' (*.)',.%5' H ,.')+')' *& (*//*,5' (20)0'/,))/% 9.*3.'0140)'.(%0' 3+,(+' '$%' '//,%5')*' -%/'),' %4'(%*10' (20)0' (*.;)',.'.%1)$'/&')0G0*8%),8%0'+'$5'0*8%),8%0' &/1,5' '.5' (+*/%0)%$,.' *)+' 81(*10' '.5' 0%4'(%*10'6$*51()0' 8'2'+'$5%.',.)*'(*.($%;),*.0''.5'%7%.'4%(*8%'('/('$%*10' .'$%.'/ (20)0'1$%'' +'0'4%%.'&*1.5' H ,.'4,/,'$2'(20)0' 4,/% 6,-8%.)H ' .5',.'-%.%$'/)+%'6$*51()0'*& 06%(,'/ 0%($%),*.'8'2'4%'&*1.5',.' ('0%0'*& $%)%.),*.',' ')' /%'0)',.' %'$/2'0)'-%0H 41)',& $%)%.),*.','/'0)')**'/*.-'06%(,'/ 0%($%),*.'8'2' (%'0%' '$,*10' %B(%6),*.'/ (*.)%.)0' +'7% 4%%.'/$%'52'%.18%$')%5

! " ! ') * $-#" 7) -)) 7' $4 7)' ! '! 7'$-' 6) ' 0

: A 3($7Y*>' 1'&,.-%$R G)%$8'8%',.,.-',.&/'88'),*.'*&')+%'&,.-%$')' ,0' '66/,%5')*' 026+,/,0' '.5' 0)$18'' *&')+-' 6')(' '0',.')+%')%$80' 3 ' # 33 ' '.5'

C >'(*' 1 -) A&$*8' %/),(')*.'09,.H '.5' 20'&*1/R G (1$&*&')+%'+%'5' D ' ' ,0%'0%0'*&R' '.5$,&&',0'8%)'3,)+' ,.'6,)2$,'0,0'(+$*.,(%(C%8' ' '.5'60*$,'0,0'*&)+%'0('/6

' ! 0B ' ' 02.*.28' &*$ %.-1%' ' ./

+ # # 'A $RG +,0')%$8',0')+%' $%.(+' %E1,7'/%.)' *&')+%'3*5' ' '.5',0''66/,%5')*' '' 7'$,%)2' *&'(1)'.%*10'5,0%'0%0'3,)+*1)' 0)$,()'/,8,)'),*.

B ! N>' ' ' (*+,0' <1B' -' .> 3,)C%$/'.5''.' /6,.%'7'//%2')' '.' '/),)15%'*&'F MM&%%)' b %/'0+%/)%$%5H ')8*; 06+%$%'0),/'.5'(*/5' '3,.)%$'+%'/)+' $%0*$)' 6'$),(1/'$/2' &*$' ('0%0' *&' 6+)+,0,0' ' :B ' $%')8%.)' $-' ,0%'0%' +"% '.5'

B ! 0 9 ' 5,0*$5%$' *& 7,0,*.' (+'$'()%$,0%5' 42')+%' 6')%.)' 4%,.' 1.'4/%')*' 0%%' ,.')+%' 5'2/,-+)H ('//%5' '/0*' +%8%$'/*6,' ' # 7 C&/.5 ,0*$5%$0'*&

'0G *00'*&')+%'0%.0%'*&'+%'$; ,.-' ' *) ,0%'0%0'*&H '.5') ,0*$5%$0'*&

' *5%0' *& G +%' 6$*B,8')% ('10%0'*&' 5%')+' 3+%)+%$' $%01/),.-' &$*8' .')1$'/ 5%('2'5,0%'0%' *$' ,*/%.(%'8'2'4% $%51(%5',.'1/),8')%' .'/20,0')*'3*.'8%/2' &,$0)'*%00'),*.'*&' $%06,$'),*.' .')+%' (,$(1/'),*.H '.5'0%(*.5' (%00'),*.' *&' $%06,$'),*.' .')+%' (*.),.1; '.(%'*&')+%0%' &1.(),*.0' '.5'6'$),(1/'$/2'*&)+%'&*$8%$'A,&'06%(,'/,0'),*.',0'6*00,4/%'3+%$%' '//' '$%'%00%.),'/R'/,&%'*&')+%'4*52''0''' 3+*/%' *$' *&')+%' ,.5,7,51'/'),001%0' '.5'*$-'.0'5%; 6%.50' +%0%' &1.(),*.0' 8'2' (%'0%' &$*8' ('10%0'5,$%()/2'*6%$'),.-'*.')+%,$'8%(+'.,08' 41)')+%2'8'2''/0*'4%'4$*1-+')*' '0).50),// 42' ('10%0'*6%$'),.-',.5,$%()/2')+$*1 ')+% .%$7% (%.)$%0'3+,(+'$%-1/')%)+%8' %.(%' ,)',0'101''/',.'((*$5'.(%'3,)+' ,(+')<0'(/'00,; &,(',*.')*'5%0($,4%')+,0''0''),$5'8*5%'*& 5%')+H 0*')+')' % 06%'9'*&'5%')+'4%-,...,-' ')')+%' # / '5%')+'4%-,...,-' ')')+%' 82"0' '.5'5%')+'4%-,...,-' ')')+%' # ' +,0' (/'00,&,(',*.',0'(*.7%.,%.)H &*$')+*1-+'5%')+' 4%-,...,-' ')')+%' +%'5',0' ,.'$%'/,)2'5%')+' &$*8'&',/1$%'*&')+%'$%06,$'),*.' *$'(,$(1/').*.' *$'*&'4*)+')+$*1-+'6'$'/20,0'*&')+%7,)'/ .%$7%' (%.)$%0'2%)')+%'&&%(),*.'*&')+% .%$7*10'020;)%8',0')+%'6$,8'$2'&'()'.5')+%'6+%.*8%.' '$%'01&&,(%.)/2'5,0,.()'.5'(+'$')(%$,0),(')*' $%E1,$%'0%6'$')%'(*.0,5%$'),*.' ' 810)' +*3%7%$'/'/3'20'4%4*$.%',.'8,.5')+')'*3,.-')*')+%',.)%$5%6%.5%.(%'*&'/')+%'7,)'/ &..('),*.0')+%$%',0'.*'01(+'0+'$6'/,.%'*&'5%8'$(';'),*.'.'.'$%')/2'0'3%'&*$(*.7%.,%.(%'0'9%' 8'9%',.')+% *$2'4%)3%%.')+%'7'$,*10'8*5%0' *&'5%')+' I +%&',/1$%'*&')+%' %,$,1/'),*.' +*3%7%$'0%0%80')+%'1/),8')%' ^()*$',.')+%

%B),. (),*.'*&'/,&%'('0' ('0%0' '$%' 0*8%),8%0' 8%)' 3,)+'A*&'(%$%4$'/'*$,-,. G)18*1$'^*R',.'3+,(+' $%06,$')',*.' (4'0%0' '.5')+%'61/0%'(*.),..1%0'&*$' 0*8% (*86$')',7%/2' 6$*/*..-%5'),8%'.5' ,.5%%5',&'*$),&,(,'/'$%06,$'),*.'+%'$%0*$)%5')*')+%'+%'$)' 3,/' (*.),.1%' 4%'),.-'&*$'' /*.-' 6%$,*5'A'.'+*1$'*$'8*$%R')+%' $%7%$0%' (*.5,;),*.'.*)'4%,.-'*40%$7%5' +%'0155%..%0 0'&*')+%' 5%')+' ,0' '/0*' ,'5 5,$%()' $'),*' 3,)+')+%' $'6,5,)2'*&,.)%$&%$%.(%'3,)+')+%'+%'$)<0'(),*.' .'61$%' '06+2B,'',)' ,0' (*86$'),7%/2' 0/*3' '0'(*86$%5'3,)+')+')' &,<*8'+%'$)' 5,0%'0%'*$ 0)*66'-%'.5',.5%5'%.50' &')'//2'*./2'42' 6$*51(,.-')+')'$%01/)

' %')+' &$*8',&',/1$%' *&')+%' ,$' (1/'),*. G=+,0 8'2'4%' A8R' 0155%.'0',.' " ' .5' # -9 *$' A<R -$'51'/'0',.'

"

A R' "' / 2 ' ' # ' " G' 0')+%' ,$(1/'),*.'*&')+%' 4/**5' 5%6%.50'*.')+%'5,&&%$%.(%',.')+%'6$%001$%',.')+%''$)%$,%0' .5'7%,.0')+%'(,$(1/'),*.'3,/'4%' 4$*1-+)'*' '0)*.50),/'42'.2'(10%'3+,(+'...+,/')%0' *$'7%$2' %'),2'/*3%$0')+,0'5,&&%$%.),'/'6$%0; 4) ' +%' ('10%'8'2'4%',.')+%'+%'$)'*$',.')+%'7%00%/0'*$',.'4*)+

A'R'5"'#'# 2 ' 0')+%''(),*.'*&')+%'+%'$)',0')+%'(+,%&'&('0*$',.')+%'8',.)%..'.(%'*&'*$)%; $,'/')%.0,*.''.2'*$-'.,(**$'0)$1()1$'/'5,0%'0%'*&')+%'+%')K'$%.5%$,..-',)',.('6'4/%'*&'6$*6%/; /,.-',)0'(*.)%.)0',.)*')+%'*$)%$,'/020)%8'W3,// .')1$''//2'$%01/)',.'(%00'),*.'*&')+%'(,$(1/''),*.' '.5'5%')+' .5%$')+,0'-%.$'/'+%'5'$%)HO 4%'(/'00%5''//'5,0%'0%0'*&')+%'+%'$)' .5',)0' '..%B%0

1)'6'$)' &,*8'0)$1()1$'/'5,0%'0%')+%'+%'$)'8'2'0155%./2'4%'8'5%)*'(%'0%')+$*1-+' .%$7*10' ,.&/1%.(%' +%'+%',$)' 8'2'4%',.+,4,)%5'*$'4%'8'5%')*' (%'0%'&,.'//2' '.5'&*$' %7%$'%,)+%$'42'(%.)$'/'('10%0'01(+' '0'7,*/%.)'%8*),*.'*$''4/*3'*.')+%'+%'5''.5'6$*4'4/2',.')+,0'3'2',.')+%'0155%.'5%')+'*&)%.'*40%$7%5',.'('0%0'*&'(%$%4$'/'40(%00''.5')18*1$H*$'42'$%&/%B',.+,4,),*.''0',.')+%'('0%'*&''W7,*/%.)'4/*3'*.')+%'%6,-'0)$,18'*$'0155%.',$$,)',*.'*&')+%'0%.0*$2'.%$7%0'*&')+%'0)*8'(+''0',.'(*$$*0,7%6*,0*,.,-'.5'%7%.',.')+%',.-%0),*.'*&''/'$-%'5$'1-+)'*&'(*/5'3')%$'3+%.')+%'020)%8',0'*7%$;+%')%5

%')+'&,*8'0155%.'(%00)#),*.'*&')+%'+%')<0'(),*.',0'5%')+'&$*8' " '*8%.)'$2'(%00'),*.'*&')+%'+%')<0'(),*.',0')$'.0,%.)'02.(*6%'$&',.)',-'2%)')+%'(,$(1/'),*.'+$*1-+*1')+%'4*52'-%.%$'//2''.5'%06%(,'//2',.')+%'%B)$%8.),%0''.5'016%$&,(,'//2',0'6$'(;),('//2'" +%',.5,K7,51'/'8'2'+*3%7%$'$%)',.'+,0'(*.0(,*10.%00''.5')+10'+%'5,&&%$0'&$*8''6'),%.)',.''*0)')%'*&02.(*6%'1)'7%$2'&$%E1%.)/2',.'*'0%0'*&'4/*30'*.')+%'4;5*8%.')+%$%',0'.*)'8%$%/2'$%&/%B',*.'*&')+%'45*8,.'/'7%00%/0'41)'/0*'$%&/%B',.;+,4,),*.'&*$''),8%'')'/%'0)'*&')+%'+%'$)'0*')+')'3%'+'7%02.(*6%'.5'0+*(9'(*%B,0),.-'+%'02860)*80'*&02.(*6%'8'2'6'00'*&&'/%'7;,.-')+*0%'*&'0+*(9'0),//'$%8',...-'+*(9'/,9%'02.(*6%'8'2'4%'%),)+%$')$'.0,%.)'*$&')'/

A@R'B ' ' # ' " G' +,0'(*.0),)1)%0'5%')+'&$*8' # " ' +,0' ,0')+%'.')1$'/')%$8,..'),*.'*&'/,&%''.5',)',0'/0*')+%'8*5%'*&'5%')+'&)%$'3'0),.-''.5'%B+'10),.-'5,0%'0%0'(*/5'0)'$7'),*.' ^('+%'W7,)'/6*3%$0'&'5%'-$'51'//2'3+,/%'(*.;0(,*10.%00'8'2'4%'$%)',.%5'16')*')+%'/'0)'8*8%.)

' %')+'&$*8'&',/1$%'*&')+%' %06,$',*.G+%'.)$4'5"' '5!#!' !'-*#'$'$-')/)$'*'"'+'))4/7'7'!'/!$*' #$ 94 ' !)$'!.'+'7#)+7'47)'!'!7'$-(,)'$'5!#!')#')-)#'*"'+'*7

' %')+'&$*8'6'$'/20,0'*&')+%'W7,)'/.%$7%(.)$%0G*8'G0'/$%'52'$%8'$9%5'5%')+'4%-,..-')')+%'+%'5'%.50'42'6'$'/20,.-'$%06,$'),*.''.5'(,$(1/'),*.'+%'.%$7%(.)$%'0,)1')%5'*4*7%')+%'8%51//''.5'6*.0'$%'.*)'%00%.),'/)*'+&%'%B(%6)',.'0*'&'$'0'.,8'/'/,&%',0'(*.(%$.%5''.5')+%6*00,4,/,)2'*&'5'6')',.')*'01$$*1.5,..-0',0%'0%0'*&')+%'4$',.'+*3%7%$'$%/,'4/%')*'6$*7%&')'/42',.5,$%()''(),*.'*.')+%'8%51//''.5'6*.0')+$*1-+'6$%001$%'%B)%.0,*.'*&,.&/'88),*.''.5')+%'/,9%'%$)',.'6*,0*.0'/0*'3+%)+%$',.)$*51(%5'&$*8'W3,)+*1)G01(+'0'*6,18'.5'.'$(*),(0'-%.%$'//2G*$'$,0;,.-'3,)+,.'*3,.-')*')+%'.*.%/,')',*.'*&'3')%'6$*51()0''0',.'1$'%8,''''&&%()')+%'.%$7%'(%.)$%0'4*)+'(%$%4$'/'.5'06,.'/''.5'.*)*./2'6$*51(%'1.(*.0(,*10.%00''*$'(*8''41)'/0*'6$'/20%')+%'$%06,$')*$2'.5'('$5,'(%.)$%0

.'5%')+'$,0,.-',.')+,0'8'..%$')+%',.5,7,;51'/'+%0'1.(*.0(,*10'$%&/%B''(),*.'4%(*8%0'4*/,0+%5'.5')+%'4$%')+,.-'4%(*8%0'0)%$;)*$*10'.5'1/),8')%/2'(%'0%0'5%')+'*(((1$$,.-'E1,%)/2'*$',.'(*.K71/0,*.0'.5%')+'&$*8'(*8''.''55),*.')*')+%$%'',0''0''$1/%'8*$%'*$'/%00

' . ' &%%4/%R G * ' ' '
%%4/%.%00H %' 8%00H 0)+%.,'H $' . &'
H %$' @

- G +%'4*52'*$' .2'*&',)0'*$-' .0'
,0'0','5')*'4%',.' '' 0)')%'*&'5%4,/,)2'3+%.' ,)0'
7,)'/&1.(),*.0' '$%' 5,0(+'$-%5'3,)+'/%00')+'.'
)+% .*$8'/'7,-*1$' .'5' 3+%.')+%' '8*1.)'
*& '(),7,)2' 3+,(+' ,)' 5,06/'20' .'5' *&' 3*$9'
3+,(+',)' (' .' '((*86+0+',0'5,8,.,0+%5' +%'
)%$8'05%4,/,)2'<,0' /0*'%86/*2%5,.'''0*8%3+')'
5,&&%$%.)' 0%.0%',.')+%' ('0%' *&' (*.0),)1),*.'/
3%'9.%00' *&' .' *$-' .')*' (*.7%2')+%' .*),*.'
*&71/.%$'4 ,)2'*$' 6$%5,06*0,),*.')*' 5,0%'0%'
.')+,0'((%6)'),*.'061/8*.'$2'5%4,+)2<&*$
%B'86/%'0,-.,&,%0''6%(1+'$/2'5%/,(')%'0 41,/5'<
*&)+%'/1.-0'3+,(+'$%.5%$0')+%8'8*$%')+'.'
$5,.'$,/2'+'4/%')'01((184')*')+%'('10%0'*&
5,0%'0%

5,/ ,* 2G %4,/,)2',0'&$%E1%.)/2'(*.0),;
)1),*.'/'.5',.+%$,)%5H 41)',)',0'8*0')*(*8*$%'*&)%.'
5%7%/*6%5'&)%$'4,$)+')',0'8*0)'(*8*/.2'
51%)*',86',$%5'.1)$,),*.'3+%)+%$')+,0'4%'6$*;
/*.-%5'.5'8*5%$')%'.'0',.'5%&%(),7%'+2-.%.%'
$(+$.,(',//.%00'*$'*.')+%'*)+%$'+'.5'$'6,5'
'.5 %B)$%8%'0',.'(1)%'5,0%'0%' 1(+'
&',/1$%'*&'.1)$,),*.'3+%.'/*('/'8'2' 1(,0%'
+*$.')+%'4/**5'4%,..-'5%&,(,%.)',.'E1'/,)2'
$ E1'.),)2'$ 6*00,4/2'&$*8'0*8%',.)%$;
&%$%.(%3,)+')+%'.%$7*10'0166/2' .*)+%$
&$%E1%.)'('10%'*&'5%4,/,)2',0')+%'410%'*&')+%
'&&%()%5'*$-'.' 7%$10%'*&''6')$)/%'50')*'
&'),-1%''.5',&'&$%E1%.)/2'$%6%')%5')*'%B+'10;
),*.')+%'(+,%&'&%')1)%'*&'3+,(+',0'%B)$%8%'
5%4,/,)2''0',.'('0%0'*&'010)',.%5'.5'8%.)'/
%B%$),*.'*$'*&'$%6%')%5'0)$',.'*&')+%'+%')$'
.')+%'(*.)$'$2''.'*$-'.'8'2'4%(*8%'&%%4/%'
&$*8'3'.)'*&'%B%$(,0%' '$'/20%5'810(/%0'
&'8,0+')+%'4%0)'%B'86/%0'*&')+,0'(*.5,),*.'
41)')+%'0'8%'8'2'4%'0%%.',.''/'*$-'.0'&)%$
1..')1$'/' %0)', %4,/,)2',0'8*$%'/,'4/%')*'
*((1$''(%$)',.'-%0'01(+'0')+%'6%$,*50'
*&'(),7%'-$*3)+''.5'5%7%/*68%.)''.5',.'
(*..%B,*.'3,)+')+%'8%.*6'10%H''.5',)',0'
.%&')+%'8'.,&%0)'),*.0'*&'57'.(%5'/,&%

'#0 # G +%'.')8'/'4,+)2'&')+%'
$-'.0')*'6%$&$8')+%,$'&1.(),*.0'7'$,%0'%B;
)$%8%/2'3,)+'0%B''-%'6$%7,*10'%B%$(,0%''.5'
8'.2'*)+%$'(,$(180)'.(%0' %4,/,)2'*$')+%'
/*00'*&')+,0'&1.(),*.'/6*3%$',0')+%$%&*$%'&$%;
E1%.)/2',,//5%,.%5H'.5'3+%.'1.E1%0),*.'4/2'
6$%0%.)'8'2'7'$2'-$%')/2',.'5,&&%$%.)'*'0%0'
&$*8''(*.5,),*.',.'3+,(+'&'),-1%'(*8%0'*.'
*./2'0*8%3+')'%'$/,%$')+'.'101'/'0',.'
810(1/'$'5%4,/,)2')*''0)')%',.'3+,(+')+%'
0/,-+)%0)'%B%$),*.'8'2'%B+'10)')+%'3*+/%'*&'
)+%7,)'/'%.%$-2''.5')+%'&1.(),*./,&%'*&')+%'
6'$)'8'2'(%'0%G'0',0'0%%.',.')+%'('$5,''('
'0)+%.,''*&''(1)%'&%7%$0'.5'0('$(%/2'/%00'
8'$9%5/2',.'(%$)',.'(+$*.,(' 5,0%'0%0'01(+'
'0,5,*6')+,('.8 8,'''.5' 55,0*.<0'5,0%'0%
%4,/,)2'8'2'4%'0 " '&&%(),.-')+%'3+*/%'
4*52H *$' ',.5,7,51'/*$-'.0'*./2'4%,.-'
,.7*/7%5' 6%'9,..-'4$*'5/2')+%'02 8 6)*8 0'
&5%4,/,)2'&''.'*$-'.'8'2'4%'0',5')*'4%
(+,%&/2')3*' +%0%'$%'&,$0)',.($%'0%5',$$,;
)'4,/,)2'*$'.'1..')1$'/$%'5,.%00'*&')+%'6'$)

)*'$%06*.5')*'0),8 1/'),*.H'.5'0%(*.5/2''
)%.5%.(2')*' 1.),8%/2'%B+'10),*.' +%'
6+%.*8%.''*&',$$,)'4,/,)2'.5'%B+'10),*.'
.')1$'//2'7'$2'3,)+')+%'*$-'.',.7*/7%5' +%'
02 8 6)*8 0'*&'810(1/'$'0)+%.,''$%'&%3'.5'
0,8 6/%H)+*0%'*&'5,-%0),7%'&%%4/%.%00'$%'8*$%'
(*8 6/%BH'.5',.'5%4,/,)2'*&')+%'.%$7*10'020;
)%8')+%'3+*/%'*&')+%'8%.)'/6$*(%00%0''0'
3%''0')+%'&1.(),*.0'*&'*$-'.(' +&%'8'2'4%'
,.7*/7%5' *$'' 06%(,&,(''((*1.)'*&')+%'
6+%.*8%.''*&'%'(+'*&')+%0%'('0%0''.5'*&'
5%4,/,)2'*&')+%$'6'$)0')+%'$%'5%$',0'$%&%$%5'
)*')+%'$),(/%0'16*.'5,0%'0%0'*&')+%'0%7%$'/
*$-'.0

- G %4,/,)2'61$%'.5'0,86/%',0'
'0''$1/%'%'0,/2'5,0),..-1,0+%5'&$*8' '42'
)+%'40%.(%'*&''//'%7,5%.(%'*&'*$-'.(''/)%$';
),*.''.5'%06%(,''//2'*&'6+20,('/0,-.0'*&'.';
)*8,('/(+'.-%')',0'8*$%'5,&&,(1/'))*'0%6'$')%'
5%4,/,)2'&$*8' '*$ "0 " '41)'
('$%&1/'*40%$7'),*.'3,/'-%.%$'//2'5%)%$8,.%'
,.')+%'('0%'*&'61$%'5%4,/,)2')+')'+%&1.(),*.0'
'$%'.*$8'//2'5,0(+'$-%5''0'/*.-''0'+%'5%;
8'.50'8'5%'16*.')+%8''$%'.*)'%B(%00,7%
$ G %4,/,)2'51%')*'(1)%'5,0%'0%'
8'2',.')+%'40%.(%'*&'(*86+(''),*.0'4%
%B6%()%5')*'5,0'66%'$'51$,.-'(*.7'/%0(%.(%'
&')+%'('10%'+'7%'4%%.'8*$%'(+$*.,(''.5'4%'
/%00'%'0,/2'$%8*7%5'$%(*7%$2'3,/'(%$)',./2'
4%'8*$%'0/*3'.5'/%00'0'),0&'()*$2' +%'
6$*-.*0,0'*&',.+%$,)%5'(*.0),)1),*.'/5%4,/,)2'
'0'$%-'$50',)0'5,0'66%'$'.(%',0'.%'$/2''/3='20'
1.&'7*1$'4/%

G %4,/,)2'810)'4%')$%')%5''(;
(*$5,.-')*',)0'('10%' &'.1)$,),*.'+'7%'&',/%5'
,)'810)'4%'$%0)*$%5''0'&'$''0'6*00,4/%H'.5'
1.),/'),0'('.'4%'5*.%'0),81/'.)0''.5'01,)'4/%'
)*.,(0''$%',.5,(')%5G%06%(,''//2',.')+%'('0%'*&'
'(1)%'5,0%'0%' %0)',0'*&')+%'&,$0)',86*$)'.(%'
,.'8*0)',.0)'.(%0H''.5'&$%E1%.)/2',)',0''/*.%'
01&&,(,%.)')*'$%0)*$%')+%'7,)'/&*$(%' .''''&%3'
('0%0'+*3%7%$')+%'*66*0,)%/,.%'*&')$%')8%.)'
810)'4%'&*//*3%5''0',.'810(1/'$'5%4,/,)2'
&$*8'3'.)'*&'%B%$(,0%'*$',.'0*8%&*$80'*&'
6'$'/20,0'b +%$%')+%'7,)'/'(),7,)2',0'/*3'
&$*8'(*.0),)1),*.'/5%&%()'-%'*$'0%B')+%'
(*.5,),*.'8'2'.*)'4%'$%8%5,'4/%H'.5')+%'
)$%')8%.)'*&'01(+'('0%0',0'(+,%&/2'6$*6+2/'(),('
+%'6$,.(,6'/,.5,('),*.')+%.',0')*'0%(1$%'
)+%'014>%()'*&'5%4,+)2''-',.0)'%B6*01$%')*'
5'8'-,.-',.&/1%.(%0

+ 'A5%(=3,*''5%(/,.%R G '6*61;
/'$'.'8%'&*$'.2'3'0),.-'5,0%'0%H%06%(,'//2'
'00*(,')%5'3,)+'61/8*.'$2'(*.0186),*.' +%'
3*$5',0''/0*' '66 %5')*')+%'6%$,*5',.')+%'
(*1$0%'*&''5,0%'0%'3+%.')+%'0286)*80'$%'
'4'),.-H'.5'+9%3,0%')*')+%'),8%'*&/,&%'
3+%.')+%'6+20,('/'.5'8%.)'/6*3%$0'$%'
&',/,.-

', '5*3.H'.5' ' ' '
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’’$ (‘ U%&/%B‘ , . +,4,), *. ’ *&’)+%‘ 06+, . ()%$’ ’ . ,‘ 8 ’2‘ ’$,0%‘ &$*8‘ 01(+‘ (’10%0‘ ’0‘ 3*$80‘ &,001$%‘ *&’)+%‘ ’ . 10‘ *$‘ (’/(1/10‘ 7%0,(0%’)‘ ,0‘ E1,)%’)$1%’)+’)‘)+%‘ , 8 8%5, ’)%‘ $%01/)’ *&‘ ,$$,)’), . -’)+%‘ 06+, . ()%$’ ,0‘)*’ 5%)%$; 8 , . %’ , . ’ ‘’ $%&/%B‘ 8 ’. . %$’ ’ . ’, . ($%’0%‘ *&’,)0‘ (*.)$’(), *. ’ ’0‘ 8 ’2‘ 4%‘ %B6%$, %. (%5‘ , . ’, .)$*; 51(, . -’, . 0)$18%.)0‘ , .)*’)+%‘ $%)18’5 41)‘ ,)’ 3*1/5’ ’/0*‘ 0%% 8’)+’)‘)’ ’‘ (%$)’, . ’ 6*, .)‘)+%‘ ,$$,)’), *. ’ 8 ’2‘ /%’5’)*’ . ’ ’$$%0)‘ *&’)+%’)*. , (’ , . &/1%. (%’ ’. 5 0*’ //*3’)+%‘ 06+, . ()%$’)*’ 2,%/5’ ’. 5’)+,0‘ ,0‘ 6’$),(1/’$/2’)+%‘ (’0%‘ 3,)+’ ’&&%(), *. 0‘ *&’)+%‘ 4/’55%$

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2‘ . ‘ ‘ # ‘ " ‘ ‘ +%‘ $%/’B’), *. ’ *&’)+%‘ 06+, . ()%$’ 8 ’2‘ *&‘ (*1$0%‘ 4%‘ 6$*51(%5‘ 42‘ 5,0%’0%‘ *$‘ , . >1$2‘ *&’)+%‘ /184’$‘ %. /’$-%8%.)’ *&’)+%‘ 06, . ’/ (*$5’ . ’0 8 1(+‘ ’0‘ ,)‘ ,0‘ &$*8’)+%‘ (%//0‘ *&’)+,0‘ $%-, . *. ’)+’)‘)+%‘ . *$8’/)* . , (‘ , . &/1%. (%’, 0‘ 1. 5%$0)**5’)*‘ ,001%1’ 5%0)$1(), *. ’ *&’)+%‘ . %$7*10’), 001%0‘ (’. ’$%’5, /2‘ 4%‘ 1. 5%$0)**5’)*‘ 6$%7%.)’)+%‘ *$, -, . ’), *. ’ *&‘ 01(+‘ 0), 8 1/10‘)*‘ (*.)$’(), *. ’ %$)’, . ’ /%0, *. 0‘ ’/0*‘ ’4*7%‘)+%‘ /184’$‘ %. /’$-%8%.)’ 8 ’2‘ /%’5’)*‘ , . 7*/1.)’$2‘ 6’00, . -’ *&‘ &%(%0‘ 42‘ , .)0$&%$, . -’ 3,)+’)+%‘ (%$%4$’/‘ (*.)$*/‘ *&’)+%‘ 06+, . ()%$’)‘ ,0‘ . *), (%’4/%’)+’)‘ 5, &; &10%5‘ (+’ . -%0‘ , . ’)+%‘ 0140)’ . (%’*&’)+%‘ (*$5’ 01(+‘ ’0‘ ’(1)%’*$‘ (+$*. , (’ 82%/,), 01’, .)$‘ 06, . ’/ +’%8*$$+’-%’ ’ . 5’(*86$%00, *. ’ ’$%’&’$‘ 8 *$%‘ &$%E1%.)/2‘ ’((*86’ . , %5‘ 42‘ 6’$’/20,0‘ *&’)+%‘ 06+, . ()%)’)+’ . ’ ’$%’)+%‘ 0(/%$*0%0‘ *&‘ ’‘ 0020;)%8, (‘ ‘*$0(*/18 . ’$‘ (+’$’()%$G 0’ ’ .)%$, *$‘ 6*/, * 82%/,), 0’ /’)%$’/‘ 0(/%$*0, 0’ 6$*-$%00, 7%‘ 810(1/’$’)$*6+2’*$‘ , . &/’ 8 8 ’)*$2‘ &&%(), *. 0‘ *&’)+%‘ 06, . ’/ 8%. , . -%0

9‘ . ‘ ‘ " ‘ +%‘ (*.)$*/‘ *7%$‘)+%‘ 06+, . ()%$’ 8 ’2‘ 4%‘ /*0)‘ &$*8‘ , . >)$$2’)*‘)+%‘ 810(/%‘ ,)0%/&‘ +, 0‘ *((1$0‘ , . ’/’(%$’), *. ’ *&’)+%‘ 6%$, . &%181’, . 7*/7, . -’)+%‘ /*3%$‘ %. 5’*&’)+%‘ 4*3%/H 0*8%), 8%0‘ ,)‘ ,0‘)+%‘ $%01/)’ *&‘ 01$-, (’/‘ *6%$’), *. I’01(+’ 0‘ 5%%6‘ 5,7, 0, *. ’ *&’)+%‘ 06+, . (;)%$‘ , . ’ (*. . %B, *. ’ 3,)+’ &, 0)1/’

! " ; $’7) #’) * ‘ <-’ > #$ #’$-’- # ‘ ’$-’ . ‘ + "$7’) > *$. ‘5! ‘/$ + ‘$-’! ’# 4 ‘ +, 0‘ * "’ + ’7$ ‘5 !’ 4## ‘5! ‘ ! ’ . $4)"’ 7 #!)3 ’7 / 7’$ ‘ ! ’/) # ’$-’ $* ’ $# ‘)) ‘ 4#!’ ‘5$)* ’$)’- # ’ * / #> $ ‘ 0‘ ’7) 3’ $*/ # $ ’$-’#)> ’7 ’$-’! ’). #) ’5! #!’) ’ $$‘ -) 94 "’ #4) + ‘ ’) * ‘ $’+ ’ 7$ ’-$)’ ’+ "$ 7’ 7$/ 3’ 4#!’ * 4) ‘ ’5 ’/)* ’$-’! ’ # / ’$-’! ’7 #!)3 ’ 5 !’ .)"’) 3)7’ $’#

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& # ‘G’ +%‘ 3*$5‘ 05%-%. %$’), *. ‹ 8%’. , . -’%)28*/*-, (’//2‘ (+’. -%‘ *$‘ 5%)%$, *$’;), *. ’ *&’9, . 5’, 0‘ 10%5‘ , . ’6’)+*/*-2‘ &*$’. 2‘ 6$*; (%00‘ 42‘ 3+, (+‘ ’), 001%‘ *$‘ 0140)’ . (%‘ 4%(*8%0

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.*)+%$ʻ (+ʻ . -%ʻ 3+,(+ʻ *((1$0ʻ ,.ʻ &%4$,/% 5,0% ʻ0%0ʻ ,0ʻ) (ʻ *$ʻ) ʻ 5%-%.%$ʻ),*.ʻ *&)+%ʻ 7*/1.)ʻ $2ʻ 8 10(/%0ʻ +%2ʻ ʻ$%ʻ &*1.5ʻ ʻ&)%$ʻ 5%')+ʻ 3,)+ʻ /,))/%ʻ *$ʻ .*ʻ 0)$,ʻ),*.ʻ ʻ ʻ.5ʻ)+%ʻ 82*0,.ʻ ,$$%-1/ʻ $/2ʻ (*ʻ-1/ʻ)%5ʻ ,.ʻ /1860 ʻ+ʻ)ʻ)+,0ʻ ,0ʻ ʻʻ (+ʻ. -%ʻ *((1$,..-ʻ ʻ&)%$ʻ 5%')+ʻ)+%$%ʻ (ʻ.ʻ 4%ʻ .*ʻ 5*14)ℍ 3+,/%ʻ ,)ʻ ,0ʻ %E1ʻ //2ʻ (/%ʻ$)+ʻ)ʻ)+,0ʻ ʻ4.*$8ʻ/ʻ (*ʻ-1/ʻ),*.ʻ 0+*30ʻ 0*8%ʻ ʻ4.*$8ʻ/,)2ʻ *&ʻ (*86*0,),*.ʻ)*ʻ +ʻ7%ʻ %B,0)%5ʻ 51$, .-ʻ/,&%

"ʻ ʻ/(ʻ $%*10 G ʻ/(ʻ $%*10ʻ 5%-%.%$ʻ),*.ʻ (*.0,0)0ʻ ,.ʻ)+%ʻ 5%6*0,),*.ʻ *&ʻ (ʻ/(ʻ $%*10ʻ 6ʻ $;),(/%0ʻ ,.ʻ)+%ʻ %/%8%.)0ʻ ʻ&ʻ ʻʻ),001%ʻ *$ʻ ,.ʻ 0*8%ʻ ,.&/ʻ 8 8 ')*$2ʻ 6$*51()0ʻ 6$%7,*10/2ʻ &*$8%5ʻ)ʻ ,0ʻ 8*$%ʻ ʻ66$*6$,')%/2ʻ (ʻ//%5ʻ ʻ "ʻ ʻʻ*$ʻ ʻ +%.ʻ)+%ʻ .*$8ʻ/ʻ),001%0ʻ ʻ$%ʻ)+10ʻ ,.&,/)$ʻ)%5ʻ)+%$%ʻ ,0ʻ .*)ʻ *& .%(%00,)2ʻ ʻ.2ʻ *)+%$ʻ ʻ/)%$ʻ),*.ʻ ,.ʻ)+%ʻ),001%0ʻ)+%8 0%/7%0ʻ)+*1-+ʻ)+%ʻ 6$*(%00ʻ -%.%$ʻ ʻʻ//2ʻ ,.; 5,(ʻ)%0ʻ $%)ʻ $5ʻ),*.ʻ*&ʻ)+%ʻ (,$(1/ʻ),*.ʻ*$ʻ $$%0)ʻ *&ʻ),001% 8%)ʻ 8*$6+*0,0ʻ .ʻ)+%ʻ (ʻ0%ʻ*&ʻ,.; &/ʻ 8 8 ʻ)*$2ʻ6$*51()0ʻ.%3 -$*3)+0ʻ ʻ.5ʻ6ʻ$ʻ; 0,)%0ʻ ʻ0ʻ3%//ʻ 0ʻ,.ʻ*)+%$ʻ*ʻ0%0ʻ)+%$ʻ*ʻ0%0ʻ)+%ʻ/ʻ(ʻ$%*10ʻ 5%6*0,)ʻ &*//*30ʻ*.ʻ 6ʻ$),ʻ/ʻ .%($*0,0ʻ *$ʻ /*(ʻ/ʻ 5%ʻ)+ʻ)ʻ,0ʻ)+%$%&*$%ʻ,&ʻ.*)ʻ ʻʻ 5%-%.%$ʻ),*.ʻ)+%ʻ (*.0%E1%.(%ʻ *$ʻ ʻ((*86ʻ.,8%.)ʻ *&ʻ 5%; -%.%$ʻ),*.ʻ ʻ & (ʻ ,-8%.)ʻ$2 G= ,-8%.)ʻ$2ʻ 5%-%.%$ʻ;),*.ʻ,0ʻ ʻʻ.ʻ8%ʻ3+,(+ʻ+ʻ0ʻ 4%%.ʻ -,7%.ʻ)*ʻ)+%ʻ (+ʻ. -%0ʻ 6$*51(%5ʻ,.ʻ ʻʻ),001%ʻ *$ʻ *$-ʻ.ʻ42ʻ)+% 5%6*0,),*.ʻ *$ʻ &*$8ʻ),*.ʻ *&ʻ 6,-8%.)ʻ)ʻ,0ʻ 7%$2ʻ 5*14)&1/ 3+%)+%$ʻ)+,0ʻ 0+*1/5ʻ ʻ/3 ʻ20ʻ 4% 5%0($,4%5ʻ ʻ0ʻ ʻʻ5%-%.%$ʻ),*.ʻ0,.(%ʻ)+%ʻ(+ʻ. -% 5*%0ʻ .*)ʻ .%(%00ʻ$,/2ʻ 5,8,..0+ʻ)+%ʻ 7,)ʻ/ʻ ʻ(;),7,)2ʻ*&ʻ)+%ʻ6ʻ$)ʻ/*3%$ʻ,)0ʻ6+20,*/*-,(ʻ/ʻ$ʻ.9ʻ *$ʻ,.7*/7%ʻ ʻʻ0,86/%$ʻ (+%8,(ʻ/ʻ *$ʻ ʻ.ʻ)*8,(ʻ/ʻ (*86*0,),*.ʻ ,-8%.)%5ʻ)18*1$0ʻ 5*ʻ .*)ʻ 0+*3ʻ /%00ʻ 7,)ʻ/,)2ʻ)+ʻ.ʻ *)+%$0ʻ.*$ʻ,0ʻ %B(%0; 0,7%ʻ 6,-8%.)ʻ),*.ʻ*&ʻ)+%ʻ 09,.ʻ*$ʻ ʻ.2ʻ *$-ʻ.ʻ 3+%$%ʻ 6,-8%.)ʻ .*$8ʻ//2ʻ *((1$0ʻ.%(%00ʻ$,/2ʻ ʻ.ʻ ʻ((*86ʻ.,8%.)ʻ *&ʻ 5%-%.%$ʻ),*.ʻ +%ʻ (*/*1$,.-ʻ 8ʻ))%$ʻ,.ʻ)+,0ʻ (ʻ0%ʻ,0ʻ)+%ʻ .*$8ʻ/ 6,-8%.)ʻ (ʻ//%5ʻ 8%/ʻ .,.ʻ .ʻ%.),$%/2ʻ 5,&&%$; %.)ʻ 9,.5ʻ*&ʻ6,-8%.)ʻ$2ʻ (+ʻ.-%ʻ,0ʻ)+ʻ)ʻ 3+,(+ʻ 5%6%.50ʻ16*.ʻ)+%ʻ %B)$ʻ7ʻ0ʻ),*.ʻ ʻ.5ʻ4$%ʻ/5.-ʻ 16ʻ *&ʻ $%5ʻ 4/**5 5,0(0ʻ)+%ʻ +ʻ 8*-/*4,.ʻ *& 3+,(+ʻ4%(*8%0ʻ(* 7%$)%5ʻ,.)*ʻ ʻʻ0,86/%$ʻ&*$8ʻ *&ʻ6,-8%.)ʻ01(+ʻ ʻ0+0%8ʻ)*,5,.ʻ*$ʻ0*8%*)+%$ʻ +%ʻ6,-8%.)ʻ),*.ʻ*&ʻ)+%ʻ06/%%.ʻ ʻ.5ʻ/,7%$ʻ&$*8ʻ ,.)%$8,))%.)ʻ&%7%$ʻ ʻ.5ʻ)+ʻ)ʻ3+,(+ʻ,0ʻ)+%ʻ (*.; 0%E1%.(%ʻ *&ʻ(+$*.,(ʻ7%.*10ʻ(*.-%0),*.ʻ ʻ $%ʻ *&)+,0ʻ 9,.5ℍ ʻ.5ʻ $%ʻ *&)%.)ʻ)+%ʻ ʻ((*86ʻ.,8%.)ʻ *&ʻ &,4$*,5ʻ,.51$ʻ),*.ʻ)+10ʻ &*$8,.-ʻ6ʻ$)ʻ *&ʻ ʻʻ 5%-%.%$ʻ),7%ʻ 6$*(%00ʻ ,-8%.)ʻ),*.ʻ,.ʻ-%.%; $ʻ/ʻ8 10)ʻ.*)ʻ)+%$%&*$%ʻ4%ʻ,5%.),&,%5ʻ3,)+ʻ6,-; 8%.)ʻ$2ʻ5%-%.%$ʻ),*.

Fʻ ,4$*,5 G ,4$*,5ʻ 5%-%.%$ʻ),*.ʻ,0ʻ)+%ʻ .ʻ8%ʻ -,7%.ʻ)*ʻ ʻʻ 6$*(%00ʻ &,$%E1%.)/2ʻ 8%)ʻ 3,)+ʻ ,.ʻ 3+,(+ʻ)+%ʻ *$,-,.ʻ/ʻ),001%ʻ 4%(*8%0ʻ $%6/ʻ(%5ʻ42ʻ ʻʻ &*$8ʻ*&ʻ(*..%(),7%ʻ),001%ʻ)ʻ ,0ʻ/0*ʻ (ʻ//%5ʻ "ʻ*$ʻ 0 ʻ .ʻ)+%ʻ%ʻ$/2ʻ0)ʻ-%0ʻ*&ʻ)+,0ʻ 6$*(%00 3%ʻ&,.5ʻ)+%ʻ),001%0ʻ6%.%)$ʻ)%5ʻ3,)+ʻ.18%$*10ʻ (%//0ʻ*&ʻ)+%ʻ /2 8 6+*,5ʻ)26%ʻ 3+,(+ʻ 4%(*8%0/*3/2ʻ *$-ʻ.,0%5ʻ,.)*ʻ (*..%(),7%ʻ),001%G ')ʻ &,$0)ʻ*&ʻ)+%ʻ (2)*-%.*10ʻ&*$8ʻ ʻ.5ʻ$ʻ$%/2ʻ7%$2ʻ 7ʻ0(1/ʻ$ʻ +%ʻ,.&,/)$ʻ)%5ʻ/2 8 6+*,5ʻ (%//0ʻ$%ʻ 6$*4ʻ4/2ʻ (+,%&/2ʻ 5%$,7%5ʻ &,<ʻ 8ʻ)+%ʻ 4/**5; 7%00%/0ℍ 41)ʻ 0*8%ʻ 8 ʻ2ʻ4%ʻ ʻ0ʻ)+%*$2ʻ)%ʻ(+%0ʻ)+%ʻ 5%0(%.5ʻ.)0ʻ*&ʻ),001% (//0ʻ +%ʻ6$*(%00ʻ ,0ʻ ʻ.ʻ %00%.),ʻ//2ʻ (+$*.,(ʻ,.)%$0),)ʻ/ʻ,.&/ʻ 8; 8 '),*.ʻ, ʻ &A B B $4 ʻ ,.(%ʻ)+%ʻ&,.ʻ/ʻ $%01/ʻ *&ʻ)+%ʻ 6$*(%00ʻ,0ʻ)+ʻ)ʻ),001%ʻ *&ʻ /%00ʻ 6+20,*/*-,(ʻ/ʻ 7ʻ/1%ʻ,0ʻ 0140),)1)%5ʻ &*$ʻ)+%ʻ *$,-,..ʻ/ʻ)+%ʻ 6$*(%00ʻ 8ʻ2ʻ 4%ʻ 5%0($,4%5ʻ,.ʻ -%.%$ʻ/ʻ)%$8 0ʻ ʻ0ʻ ʻʻ5%-%.%$ʻ),*.ʻ)+*1-+ʻ,)ʻ ,0ʻ .*)ʻ .ʻ ʻ()1ʻ/ʻ 8%)ʻ 8*$6+*0,0ʻ *&ʻ),001%ʻ)ʻ &,.ʻ//2ʻ /%ʻ50ʻ)*ʻ ,.51$ʻ),*.ʻ(*.)$ʻ(),*.ʻ .5ʻ 6ʻ$),ʻ/ʻ)$*6+2ʻ ℵ =ʻ4ʻ 7

2 " 5 *ʻ ʻ Mʻ ʻ ʻ ,0)1$4ʻ.(%0ʻ *&ʻ 3ʻ//*3,.-ℍ $ʻ ʻ ʻ ʻ C 0 "ℍ %$ʻ "ʻ 0 "ʻ ʻ

-$) ʻ 7 #) + 3ʻ ! ʻ 7 $)7) ʻ $-ʻ 7 3 4> $ ʻ $)ʻ 5 $5 3ʻ ʻ ʻ #)"ʻ $ʻ ʻ +) - "ʻ ʻ5!ʻ ʻ ! ʻ/!" $ $3 # ʻ #ʻ#$ ʻ 7ʻ!$5ʻ ! ʻ/)$# ʻ ʻ/) -$)* 7 /0D $ $9Dʻ <Aʻ & %$% " +%ʻ'()ʻ *&ʻ 5%-/1),),*.ʻ,0ʻ (*88*./2ʻ 5,7,5%5ʻ,.)*ʻ)+$%% 0)'-%0ʻ +%ʻ &,$0)ʻ,0ʻ ʻʻ 7*/1.)ʻ$2ʻ %&&*$)ʻ ʻ(; (*86/,0+%5ʻ 42ʻ 8%'.0ʻ*&ʻ)+%ʻ)*.-1%ʻ.5ʻ)+% 8 10(/%0ʻ *&ʻ)+%ʻ (+%%90ʻ ʻ.5ʻ 8*1)+ʻ ʻ0ʻ &ʻ$ 4ʻ(9ʻ0ʻ)+%ʻ ʻ.)%$,*$ʻ $(+ʻ*&ʻ)+%ʻ&ʻ1(0%0ʻ +%ʻ 0%(*.5ʻ0)ʻ-%ʻ,0ʻ ʻ.ʻ,.7*/1.)ʻ$2ʻ ʻ()ʻ)+*1-+ʻ (%$)ʻ,.ʻ 7*/,8)ʻ$2ʻ 8 10(/%0ʻ '$%ʻ %.-ʻ-%5ʻ,.ʻ %&&%(),..-ʻ,)ʻ ,0ʻ ʻ***86+0+%5ʻ42ʻ)+%ʻ (),*.ʻ *&ʻ)+*0%ʻ 8 10(/%0ʻ)+%ʻ 51)2ʻ *&ʻ 3+,(+ʻ,0ʻ *ʻ $%)$ʻ()ʻ)+%ʻ)*.-1%ʻ)*ʻ $ʻ,0%ʻ)+%ʻ/ʻ$2.B ʻ.5ʻ (/*0%ʻ)+%ʻ-/*)),0ʻ)*ʻ/,&)ʻ)+%ʻ0*&)ʻ6ʻ/ʻ)%ʻ)*ʻ(*.;)$ʻ()ʻ)+%ʻ&ʻ1(0%ʻ ʻ.5ʻ4$,.-ʻ)+%ʻ)*.0,/0ʻ,.ʻ(*.;)ʻ()ʻ 3,)+ʻ)+%ʻ4*/10ʻ*&ʻ&**5ʻ)*ʻ(/*0%ʻ)+%ʻ 6*0;)%$,*$ʻ .ʻ$%0ʻ ʻ.5ʻ)*ʻ $ʻ,0%ʻ ʻ.5ʻ (*.)$ʻ()ʻ)+%ʻ 6+ʻ$2.B ʻ +%.ʻ)+%ʻ &**5ʻ 6ʻ00%0ʻ,.)*ʻ)+%ʻ *%0*6+ʻ-10ʻ *$ʻ -1//%)ʻ3+%.ʻ)+%ʻ)+,$5ʻ0)ʻ-%ʻ,0ʻ %.)%$%5ʻ16*.ʻ8ʻ.5ʻ0ʻ)+%ʻ 8*$0%/ʻ6ʻ00%0ʻ,.)*ʻ)+,0ʻ)14%ʻ ʻʻ 6$*-$%00,7%ʻ 1.51/')*$2ʻ*$ʻ 6%$,; 0)ʻ/),(ʻ 8*7%8%.)ʻ*&ʻ)+%ʻ-1//%)ʻ,0ʻ6$*51(%5ʻ42ʻ 3+,(+ʻ)+%ʻ4*/10ʻ,0ʻ6$*6%//%5ʻ,.)*ʻ)+%ʻ0)ʻ8 '(+ & # G .2ʻ(*.5,)*.ʻ3+,(+ʻ,.)%$; &%$%0ʻ3,)+ʻ)+%ʻ 6%$&%()ʻ,.)%-$,)2ʻ*&ʻ)+,0ʻ 6+2; 0,*/*-,(ʻ/ʻ 6$*(%00ʻ (*.0),)1)%0ʻ ʻʻ 5,0*$5%$ʻ *& 5%-/1),),*.ʻ +%ʻ -%.%$ʻ/ʻ)%$8ʻ 3+,(+ʻ,0ʻ '66/,%5ʻ)*ʻ)+,0ʻ (*.5,),*.ʻ,0ʻ 206+'-,ʻʻ *$ 0 ʻ ʻ'0ʻ,)ʻ,0ʻ 0*8%),8%0ʻ)%$8%5ʻ 1)ʻ,.ʻ'()1'/ʻ&'()ʻ01(+ʻ(*.5,),*.0ʻ 3,.ʻ4%ʻ&*1.5ʻ)*ʻ4%ʻ5%6%.5%.)ʻ&*$ʻ)+%ʻ 8*0)ʻ 6ʻ$)ʻ*.ʻ0*8%ʻ*)+%$ʻ8*$4,5ʻ0)ʻ)%ʻ*&ʻ)+%ʻ0)$1(;)1$%0ʻ,8 8%5,')%/2ʻ (*.(%$.%5ʻ,.ʻ)+%ʻ '()ʻ*&ʻ 03'//*3,.-ʻ*$ʻ*&ʻ)+*0%ʻ,.ʻ(/*0%ʻ6$*B,8,)2ʻ)*ʻ)+%8ʻ %)ʻ ʻ/)+*1-+ʻ 5206+'-,ʻʻ 8 10)ʻ'0ʻ ʻʻ $1/%ʻ 4%ʻ $%-ʻ$5%5ʻ 8%$%/2ʻ 0ʻ ʻʻ 0286)*8ʻ *& 0*8%ʻ 8*$%ʻ *$ʻ /%00ʻ0%$,*10ʻ 5,0*$5%$ʻ0),//,)ʻ 8ʻ2ʻ 4%ʻ (*.7%.,%.)ʻ .ʻ5ʻ10%&1/ʻ)*ʻ %Bʻ8,.%)+%ʻ 014>%()ʻ0*8%3+')ʻ 8*$%ʻ,.ʻ 5%)',/ʻ)+'.ʻ(ʻ.ʻ+%ʻ 5*.%ʻ,.')+%ʻ (*.0,5%$'),*.ʻ *&ʻ)+*0% '&&%(),*.0ʻ,.ʻ3+,(+ʻ,)ʻ &,$%E1%.)/2ʻ 6/ʻ20ʻ 0*ʻ 6$*8,.%.)ʻ ʻʻ6ʻ$)

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%.($10)%5‘*$&*.-‘),.-‘,.‘)+%‘‘57‘.(%5‘0)‘-%0H‘ 06$%‘5,.-‘ 42‘ 1/(%$‘),*.‘ *&‘ 09,.H‘ 0,.-/%‘ *$‘ 8 1/),6/%H‘.5‘ *&)%.‘*((162,.-‘%B)%.0,7%‘ 01$#&‘(%0‘*&‘)+%‘ %B6*0%5‘ 6‘$)0‘*&‘)+%‘ 4*52‘01(+‘ ‘0‘)+%‘ &((%‘.%49‘‘.5‘ %B)$%8,),%0‘)‘ ,0‘ (‘6‘4/%‘,&‘,.*(1/‘)%5‘ *&‘ $%6$*51(,.-‘)+%‘ 5,0%‘0%H‘‘.5‘,)‘‘/0*‘‘&&%()0‘5*-0‘‘.5‘+*$0%0

C ($‘& % ..... >‘5,0%‘0%‘ *((1$0‘,‘.5,‘‘%06%(,‘//2‘)+%‘ *$)+ 3%0)‘ $*; 7,.(%0‘ 1.>‘4‘ ‘41/‘.5‘ (,.5%‘ %$0,‘‘ $‘4,‘‘ $%)%‘)+%‘ ‘+‘$‘‘*&‘ &$,(‘‘6%$+‘60‘ +,.‘‘‘.5‘5*14)/%00‘3+%$%7%$‘ (%$)‘,.‘6%(1; /,‘$‘(*.5,),*.0‘*&‘0*,/‘.5‘+*)‘(/,8‘)%‘(*%B,0)H‘ &*$‘ %B‘86/%‘‘.‘%6,5%8,(‘/‘)%/2‘A ??P‘ 6$%; 7‘,/%5‘,.‘ $%%(%‘ +*1-+‘(‘//%5‘ %/+,‘4*,/‘ ,)‘,0‘.%,)+%$‘ ‘‘&*$1.*1/10‘.*$‘,0‘,)‘6%(1+‘$‘)*‘)+‘)‘(,)2‘ +%‘ (,.5%‘4*,/‘)+%‘0*$%0‘*& **$9,%‘ *1/).‘ ‘+*$%‘ %%$1)‘ ‘)+%$‘ ($*35%5‘.5,‘.‘(,),%0‘‘.5‘ 5%.‘‘$%‘ 6$*; 4‘4/2‘*./2‘7‘$,%),%0‘,&‘.*)‘,5%.),(‘/‘ +%

5,&&%$%.(%0‘8‘2‘%B,0)‘41)‘%00%.),‘//2‘)+%2‘‘$%‘)+%‘0‘8%‘5,0%‘0%‘ +%‘ %8‘.‘‘.5‘ *(+,.‘ +,.‘‘0*$%0‘‘$%‘ 6$*4‘4/2‘7‘$,%),%0‘‘0‘‘$%‘ *)+%$‘ ,.5*/%.)‘ ,.51$‘)%5‘‘.5‘ ,.)$‘()‘4/%‘ 0*$%0‘*((1$$,.-‘,.‘6%$0*.0‘*&‘,86‘,$%5‘+%‘/)+‘ $%0,5,.-‘,.‘+*)‘‘.5‘8‘/0$,*‘0‘(/,8‘)%0‘3+*‘ 10%‘(%$)‘,.‘3‘)%$0‘‘.5‘,.‘3+*8‘)+%$%‘,0‘ .%,)+%$‘026+,/,),(‘.*$‘0)$)‘.*10‘)‘,.)

= ,* Y‘ ‘ G= $0‘ /%8,.-‘ ‘.5‘ 8,)+‘ ‘ ‘$)%$‘‘.5‘ %3,0‘.5‘ ,8‘ .,.-+‘8‘-,7%‘)+%‘4%0)‘((*1.)‘*&‘)+%‘5,0%‘0%‘ +*1-+‘(‘//%5‘‘‘/*(‘/‘5,0%‘0%‘,)‘,0‘6$*4‘4/%‘)+‘)‘)+%‘0)‘)%‘*&‘)+%‘+%‘/)+‘+‘0‘81(+‘)*‘5*‘ 3,)+‘,)0‘6$*51(),*.‘(%$)‘,.‘(*.5,),*.0‘*& (/,8‘)%‘0*,/‘‘.5‘%06%(,‘//2‘*&‘5$,.9,.-3‘)%$‘ 4%,.-‘‘/0*‘(*.(%$.%5‘ 1$1.(1/,*&‘‘‘0%7%$%‘ ‘.5‘6‘,.&),/)+*1-+‘5,&&%$%.)‘(+‘$‘()%$‘‘$%‘6$%; 7‘/%.)‘,.‘+*)‘(/,8‘)%0‘)‘(%$)‘,.‘0%‘0*.0‘*&)+%‘ 2%‘$‘,.‘%.%$7‘),.-‘‘.5‘8‘/‘$,*10‘(/,8‘)%0‘ /,9%‘ .5,‘‘%06%(,‘//2‘&)%$‘)+%‘$‘,.0‘Q‘)*; 3‘$50‘)+%‘)%$8,.‘),*.‘*&‘)+%‘8*0)‘%B+‘10),.-‘ 0%‘0*.‘3+%.‘)+%‘7,)‘/‘6*3%$0‘+‘7%‘4%%.‘5%; 6$%00%5‘51$,.-‘)+%‘6$%(%5,.-‘8*.)+0‘‘.5‘)+%‘ &1.(),*.0‘*&‘)+%/,7%$‘‘.5‘06/%%.‘‘$%‘,86‘,$%5‘ +%‘4/**5‘,86%$&%()/2‘%/‘4*$‘)%5‘‘.5‘.*)‘ &$%%5‘&$*8‘%B($%8%.),),*10‘8‘))%$‘,0‘)+%.‘,.‘ ‘‘(*.5,),*.‘,.‘3+,(+‘,)‘.*)‘*./2‘8,.,0)%$0‘,8; 6%$&%()/2‘)*‘.1)$,),*.‘41)‘,0‘6$*.%‘)*‘&,4$,.*10‘ (*‘-1/‘),*.0‘3+,(+‘(‘10%‘(‘6,//‘$2‘%84*/,08‘ -,7,.-‘$,0%‘)*‘/*(‘/‘0)‘$7‘),*.‘.5‘5%‘)+‘*& 8,.1)%‘6*$),*.0‘*&‘‘$%*/‘$‘),001%‘,.‘*$‘1.5%$‘)+%‘,.)%-18%.)‘ +%0%‘$%01)‘,.‘01661$‘),*.‘ 3+,(+‘,0‘0%)‘16‘&*$‘)+%‘61$6*0%‘*&‘-%)),.-‘$,5‘ *&‘)+%‘5%‘5‘&$‘-8%.)‘*$‘(*$%‘ .‘‘/*-*10‘)+*1-+‘6%$+‘60‘.*)‘6$%(,0%/2‘0,8,/‘$‘6‘)+*; /*-,(‘/‘(*.5,),*.‘8‘2‘4%‘(*.(%$.%5‘,.‘)+%‘ (‘10‘),*.‘*&‘)+%‘ %/+,‘0*$%‘‘.5‘,0‘.*)‘,.(*8; 6‘),4/%‘3,)+‘‘.‘*)+%$3,0%‘&‘,$/2‘-**5‘(*.5,),*.‘ *&‘)+%‘-%.%$‘/‘+%‘/)+‘ ‘)%$‘0*,/‘&**5‘4,%0‘ *$0),.-0‘*&‘,.0%()0‘6‘$‘0),(‘8,($*‘%-‘.,080‘ ,.0‘.,)‘$2‘(*.5,),*.0‘01(+‘‘0‘%B,0)‘,.‘($*35%5‘ .‘),7%‘(,),%0‘+‘7%‘‘//‘4%%.‘(+‘$-%5‘3,)+‘(‘10; ,.-‘)+%‘5,0%‘0%‘ 86$*7%5‘+2-,%.%‘6/‘.),.-‘ *&‘)$%%0‘‘.5‘(+‘.-%*&‘3‘)%$‘&**5‘‘.5‘/*(‘/,)2

+‘7%‘‘//‘4%%.‘($%5,)%5‘3,)+‘4%.%&,)‘,.‘)+%)$%‘)8%.)‘*&‘,)‘ +%‘&%()0‘)+‘)‘)+,0‘6%(1/,‘$‘ &*$8‘*&‘0*$%‘8‘..&%0)0‘,)0%/&‘1.5%$‘0,8,/‘$‘ (/,8‘),(‘(*.5,),*.0‘,.*)+%$‘6‘$)0‘*&‘)+%‘3*$/5‘ +,(+‘,)‘,0‘)*‘4%‘.*)%5‘‘$%-%.%$‘//2‘)+*0%*&)+%‘8*$%‘‘$,5‘$%-,*.0‘‘.5‘)+‘)‘,)‘*((1$0‘8*0)‘ &$%E1%.)/2‘‘)‘)+%‘ 8*0)‘ %B+‘10),.-‘ 0%‘0*.‘ 0%%8‘)*‘6*,.)‘)+‘*‘‘(*.0),)1),*.‘/‘0)‘)%‘‘0‘‘‘ 6$%5,06*0,.-‘(‘10%

+%‘ 5,0%‘0%‘,0‘.*)‘(*.&,.%5‘)*‘+18‘.‘ 4%,.-0‘.‘ %/+,‘,)‘+‘0‘4%%.‘‘*40%$7%5‘)+‘)‘ 5*-0‘‘$%‘7%$2‘/,‘4/%‘)*‘4%‘‘&&%()%5‘%06%(,‘//2‘ ,.‘)+%‘.*0%‘‘+‘0‘4%%.‘‘551(%5‘‘0‘0)$*.-‘%7,5%.(% ,.‘&‘7*1$‘*&‘)+%‘)+%*$2‘)+‘)‘,)‘,0‘51%)*‘)+% 6$%0%.(%‘*&‘‘6‘$‘0),)(‘*$-‘.,08‘3+,(+‘&,.50‘ ,)0‘3‘2‘)+%$%‘&$58‘)+%‘3‘)%$‘ .‘0*8%‘5,0;)$,()0‘*)+%$‘‘.,8‘/0‘‘$%‘‘&&%()%5H‘‘.5‘,)‘ 0%%80‘6$*4‘4/%‘)+‘)‘)+%,.5*/%.)‘,.51$‘)%5‘ ‘.5‘,.)$‘()‘4/%‘0*$%‘)+‘)‘+*$0%0‘‘$%‘/,‘4/%‘)*‘ ,.‘.5,‘‘(‘//%5‘$ 3‘A ‘,.‘ *$%R‘,0‘)+%‘0‘8%‘(+‘$‘()%$‘ .$)+%$‘,.7%0),-‘),*.‘ ,.)*‘)+%‘(‘10‘),*.‘‘.5‘6‘)+*/*-2‘*& %/+, 4*,/‘,0‘.%%5%5‘%06%(,‘//2‘3,)+‘$%&%$%.(%‘)*‘)+%‘‘(),*.‘*&‘5$,.9,.-3‘)%$‘‘.5‘)+%‘.‘)1$%‘ *&‘)+%‘0)$1()1$%0‘)+‘)‘&*$8‘)+%‘%00%.),‘/‘(*.; 0),)1%.)0‘*&‘)+%‘5,0%‘0%

! ‘ $‘ ‘ " +%.‘)+%‘ %/+,‘ 0*$%‘,0‘(1)‘,.)*‘2%//*3,0+‘6*,.)0‘‘$%‘0%%.‘ (*.0,0),.-‘*&‘8,.1)%‘(%//1/‘$‘-$*3)+0‘3+,(+ +‘7%‘4%%.‘5%0($,4%5‘42‘ $‘ 8,)+‘‘0‘)+%‘*7‘ *&‘‘6‘$‘0,)%‘,C ‘‘.5‘42‘*)+%$0%‘*& 7%-%)‘4/%‘*$,-,.‘41)‘‘$%‘6$*4‘4/2‘)+%‘$%01/) *&‘(%// -$*3)+‘(*..%()%5‘3,)+‘)+%‘+‘,$‘‘.5‘ -/‘.5&* ,(/%0‘6%$+‘60‘.‘‘4.*$8‘/5%7%/*6; 8%.)‘*&‘(*..%(),7%),001%‘(*$610(/%0‘*$‘‘. ,86%$&%()‘&*$8‘*&‘-$‘.1/‘),*.‘ &)%$‘1/(%$‘;),*.‘+‘0‘5,0,.)%-$‘)%5‘)+%‘01$&‘(%‘82(%/,18‘ *$‘*)+%$‘/*3‘&*$8‘0‘*&‘*$-‘.,08‘8‘2‘4%‘6$%; 0%.)‘H 41)‘,)‘,0‘‘‘E1%0),*.‘,&‘)+%0%‘4%‘)+% %00%.),‘/‘(‘10%‘‘.5‘.*)‘$‘)+%$‘‘.‘‘((,5%.)‘*&)+%‘5,0%‘0%‘,.)$*51(%5‘&$*8‘3,)+*1)‘ $‘ ‘ ‘)%$‘$%&%$0‘ %/+,‘4*,/‘)*‘‘‘6‘$‘0),(‘*$-‘.; ,08‘(*.0,0),.-‘*&‘06+%$*,50‘‘.5‘82(%/,18‘ 3+,(+‘*((16,%0‘)+%‘5,0)%.5%5‘/2 8 6+‘),(‘7%0; 0%/0‘,.‘‘.5‘‘$*1.5‘)+%‘0*$%‘‘$$‘.-%5‘,.‘*6%.‘ ‘.5‘.-1/‘$‘8%0+%0‘)+%‘&$%%‘%.50‘-,7,.-‘*&‘ (*.,5,‘‘3+,(+‘81/),6/2‘‘.5‘$%6$*51(%‘ ‘/%‘ $*1.5‘*$‘0)%//‘)%‘-$‘.1/‘),*. (%//0‘‘$%‘&*1.5H‘ ‘.5‘.18%$*10‘4$,-+)‘*$‘.-%),.)%5‘6‘$),(/%0‘ ‘$$‘.-%5‘‘0‘06+%$,(‘/‘<)‘*7*,5‘-$*160‘5,00%8,; .‘)%5‘)+$*1-+*1)‘)+%‘),001%0‘ &‘)+%‘)18*1,< +%0%‘,)‘,0‘(*.0,5%$%5‘‘$%‘)+%‘&,8(),&,(‘),*. 0)‘-%‘*&‘)+%‘&1.-10‘ %3,0‘‘.5‘ 1.,,.-+‘8‘ 5%0($,4%5‘/2 8 6+*,5‘.1(/%‘)%5‘(%//0‘)+%‘6$*; 51()0‘*&‘‘(*.5,),*.‘3+,(+‘)+%2‘(*.0,5%$%5‘‘0‘ ,5%.),(‘/‘3,)+‘)‘*&‘/1610‘‘.5‘3+,(+‘)+‘)2‘ ‘0($,4%5‘)*‘)+%‘(),*.‘*&‘)+%‘(+%8,(‘/‘(*.; 0),)1%.)0‘*&‘(%$)‘,.‘+‘$5‘3‘)%$0H‘41)‘,.‘‘ 8*$%‘$%(%.)‘6‘6%$‘5‘)%5‘ ??F‘ $‘ 1.,.-; +‘8‘ *40%$7%5‘,.‘‘ 06%(,8%.‘*&‘ %/+, 4*,/‘3+,(+‘+‘5‘.*)‘2%)‘1/(%$‘)%5‘(%$)‘,.‘ 8,($*0(*6,(‘4*5,%0‘6$*4/4/2‘C**(20)0‘*$‘ 06*$*(20)0‘*&‘0*8%‘8*.*(+.,*‘ 0 "‘3+,(+ +%‘4%/,%7%0)*‘+‘7%‘4%%.‘(*..%()%5‘3,)+‘)+% (‘10‘),*.‘*‘*&‘)+%‘5,0%‘0%‘&*$‘8*$%)+‘.‘ !

0%(*.5' *$)%$8,. '/ $'0+' +,0' 5,&&%$0' ,.' (+'$'()%$' &$*8')+%' &,$0)' $%0%84/,. -' '' 84%' */*,5' *$ %7%. ' .'/1$),%'$,'/ %$16),*. ' *&)%. ' 0+*3,. -',)0%/&'&,$0)' *.')+%'6'/80'*&')+%'+' .50' '.5',.'0*8%'('0%0'$%01/),. -',.'6$*&10%'5%0E1'; 8'),*.' *&')+%' (1),(/%' 3+,(+' +*3%7%$' 8'20*8%),8%0'4%'0*'0/,-+)' 0')*'4%'4'$%/2'6%$(%6;),4/%' +%0%' 02 8 6)*80' -$'51'//2' 0140,5%'/%'7,. -')+%'6'),%.)'3%'9'%B+'10)%5'' .5'*&)%.'0),//')*$)1$%5' 42' 03% ,. -' .5' 6',.'*&')+%'>*,.)0'%06%(,'//2')+%'08'//%$'*.%0'3+,(+'8'2'(*.),.1%',.')+,0'0)')%'&*$'3%%90'8'9,. -'(*.;7'/%0(%.(%')%5,*10' .5' 6',.&,5' $)+%$%'8'2'4%' $%6%')%5' $%/'60%0'6$*/*.-,.-')+%'01&&%$,.-' .5'6$*)$'(),. -'$%(*7%$2

E G +%' 02 8 6)*80' 7'$2' ,.' 5,&;&%$%.)'('0%0'('0')*')+%' (+'$'()%$'*&')+%'$'0+'))+%')%86%$')1$%' .5')+%'810(1/'$'*$'*00%*10'6',.0

+%' #'.*)'*.'/2'7'$,%0'(*.0,5%$'4/2',.'(*/*1$'(+'$'()%$''.5'51$'),*.'41)',)',0'0*8%;),8%0' '/8*0)' '40%.)H ,.' *)+%$' %'0%0' ,)' ,0'))%.5%5'3,)+'0*'81(+'+26%$0%8,'' .5'(),*.'*&')+%'09,.')+')' %B(%00,7%' 5%0EB,'8'),*.'$%;01/)0' +,0'+26%$0%8,'' '/0*'0*8%),8%0'%B;6$%00%0',)0%/&'42'+0%8*$$+'-%&$*8')+%'8*1)+'.*0%'4*3%0'.5'1)%..,0

+%') ' ,0'0*8%),8%0' '((*86'.,%5'42'5%/,$,18' *$' ,.' (+,/5$%.'42'(*.71/0,*.0H ,.')+%'/')))%$',.5%%5')+%0%' *((' 0,*.'//2',.,),')%')+%'5,0%'0%

%.-1%'*((' 0,*.'//2'0018%0''' 30" '&*$8' 3+%$%')+%' '8*1.)'*&'6*,0*.'$%(%,7%5'+'0'4%%.'*7%$3+%/8,.-/2'/'$-%' $' +'$/%0'0'20' 0 $*30,.%00' 8'2' +'7%' 6'00%5',.)*'(*8'H)+%')%86%$')1$%' 7%$-%0'*.')+%' +26%$'62$%B,(H)+%' +%'$)' &'50' .5')+%'/,8-0'('$%*%5%8')*10H 3+,/%')+%'3+*/%'01$&'('0'+'7%' 4%%.'6*61/'$/2'(2'.*),(' +%04' ('0%0'+'7%' 4%%.'6*61/'$/2')%$8%5'L'4/'(9'&%7%$ j' .5''$%'>10)/2'81(+'5$%'5%5 ' '66,/2')+%2' '$%' $'$%' -',.')+%$%' '$%' 7%$2'8,/5'&*$80'*&')+%' 5,0%'0%',.'3+,(+')+%'6'),%.)0'$%0('$(%/2',//'' .5'3+%$%',)',0' .*)'%'02')*' 5%(,5%' '0')*')+%,$'%B'()'.')1$%H 0 ')$,&/,.-'0*$%)+$*')' .5'0/,-+)'8'/',0%'8'2'4%''//2*1'(' .'/E2'+*/5'*&'),/')+%')%$8,.'/'$'0+'66%'$0')*'0+*3'2*1'3+')'2*1'+'7%'+'5')*'5%'/'3,)+H '.5'%7%.')+,0'8'2'.*)'4%'0%%. <

%)'&%) ' !($' "'+%'6%$,*5'*&' " # "'*&'5%.-1%',0'6$*:4'4/2'&$*8'&,7%')*'0,B'5'20H ,)'8'2'4%''5'2'*$')3*'8*$%'*$'/%00',.'0*8%'('0%0

.' 0,86/%' '.5'1.(*86/,('0%5'('0%0')+%''7%$'-%'6%$,*5'&*$')+%' "'*&')+%'5,0%'0%'8'2'4%')'9%.'0'4*1)'%,-+)'5'20H 41)',)',0'&$%E1%.)/2'6$*/*.-%5'*7%$'3%%90''.5'$%(*7%$2',0'0/*3'.'.5'6',.&1/H)+%'(*.0,)1),*.'*&)%.'4%,.-'0*' 81(+'0+'))%$%5')+')'(*86/%)%'$%;0)*$'),*.')*'0)$%.-)+' .5'7,-*1$'5*%0'.*)*((1$'&$*8*.)+0')',0'$'$%/2'&')'/' $ '$%'+'4/%')*'4%'&$%E1%.)'.'.5')+%'6'),%.)'8'2'01&&%$'8*$%')+'.'%7%.'.'0%(*.5'*$'')+,$5'$%/'60%'4%&*$%'$%(*7%$2

8%'&')+%' T '/$%'52'8%.),*.%5'8'2'$%8','.')*')*$)1$%')+%'6'),%.)'.5'$%)'$5+,0'$%(*7%$2' /418%.',0'*(('0,*.''//2'6$%;0%.)',.')+%'1$,.%H41)',)',0'.*)''0'.'0('$;/'),.''%06%(,'//2'.')+%'*'0%0'*&'(+,/5$%.''&$%E1%.)'*$5'.-%$*10'$%01/)'*&')+%'5,0%'0%& G = +% 5,0),.%),*.'4%)3,B)'0('$;/'),.''.5'5%.-1%',0'3%//'8'$9%5H)+*1-+'51$,.-')+%'*1)0%)'+%$%',0'(*.0,5%$'4/%'$%;0%84/'.(%'4%)3%.')+%)3*'5,0%'0%0'+%$%',0''+,-+')%86%$')1$%'')'&,$0)',.'4*)+'41)',)',0'8*$%'E1,(9/2'))''.,%5''.5',0')$'.0,%.)',.'5%.-1%H ,.'0('$/'),.''),'%.51$%0'&*$'0%7%$'/5'20'3+,/0)',.'5%.-1%')+%'&*$'<-'5%(/,.%'%B)%.50'*7%$'0%7%$'/'5'20''.5',0'8'$9%5'42'0/,-+)'%B'(%$;4'),*.0',.')+%'%7%.,.-'.'5%.-1%',)'((16,%0''&%3'+*1$0''.5')+%')%86%$')1$%'8'2'%7%.'&''4%/*3')+%'.*$8'/' +%'0%7%$%'810(1/'$'.5''$)+$,),('6'.0'*$5%.-1%'5*'.*)*((1$,.'*'$/')+,'H '.5')+%'61/0%',.')+%'/')))%$',0'81(+'8*$%'$'6,5'51$,.-')+%'%'$/2'0)'-%0')+'.',.')+%'&*$8%$

0$0G .'))'(9'*&'5%.-1%'5*%0'.*)(*.&%$'40*/1)%'6$*)%(),*.'&$*8''' $%(1$%.(%'*&')+%'5,0%'0%')+*1-+',)'5*%0'0*')*''' -$%')'%B)%.)

! +,0',0'''06%(,&,('&%7%$''.5'+'0')*'$1.'''(%$))',.'(*1$0%' +%')$%')8%.)',0'0,86/%''.5',&'>15,(.*10/2'5,$%()%5'8,),.-')%0')+%'01&&%$,.-0''.5'8')%$,''//2',50'$%H'(*7%$2

%,)+%$'%8%),(0'.*$'(),7%'61$-'),7%0''$%'.%(%00'$2' +%2'5*'.*'-**5'41)',.($%'0%'I)+%'3%'9.%00''.5''--$*7')%')+%'01&&%$,.-'42')+%'810(1/'$8*7%8%.)0'.%(%00'$,/2',.51(%5'*5%$')%''(),*.'*&')+%'4*3%/0',0''57,0'4/%''3'$8'('$8,.'),7%''6%$,%.)''*$''.'((0,*.'/5*0%'*&'('/*8%/'$+14'$4'*$'(*/*(2.)+'4%,.-'58',.,0)%$%5'%06%(,''//2',&')+%'4*3%/0'$%8'.'(*.&,.%5')*'3+,(+')+%$%'5*%0'.*)'66%'$')*'4%''.2'6%(1/,'$')%.5%.(2')+*1-+')+%'%7'(1';),*.0'8'2'4%'5'$9''.5'*&)%.'0+8 2'.'5'(*.;&,.%5''')+%'*1)0%)' '/,.0*'01(+' '0')+%''(%)')%'L&'$.8*.,18'*$'(,$)')%'*&'6*)'00,18'3,)+'.,)$,(''%)+%$'(*84,.%5'3,)+'('(*.,)%'$%-**5'51$,.-')+%'62$%B,''.'('0%0'*&'7%$2'+,-+')%86%$')1$%'A !Fg'*' !MgR $'+'$/%0'01--%0)0'(*/5'06*.-,.-'0'4%.%&,(,'/H +%'$%(*88%.50',)'3+%.' !Fg',0'$%'(+%5' +%5'.-%$')*'/,&%'*&'01(+'''+,-+')%86%$')1$%'51$,.-')+%',.)%.0%'+%')'*&')+%'+*)'8*.)+0',.'.5,''',0'-$%')H '.5',)',0')+%.')+')' */506*.-;,.-'*$')+%'(*/5'4')+',0',.5,('))5'%//'5*..''0%%8 0'),*.0'.%'.')*&,&)%%.'5$*60'*&')+%'),.()1$%'8'2'4%'-,7%.H '.5')3*'*$')+$%%01(+'540%0'')',.)%$7'0'*&'.'+*1$'3&//0*8%),8%0'6$*51(%%B(%//%.)'%&&%()0''.5'&&*$5'81(+'$%/,%&' +%%B)$'()'8'2'4%'-,7%.',&'6$%&%$$%5',.'5*0%0'*&'*.%)+,$5'*&''-$*'.H *$')+%'>1,(%',.'0,8,/'$5*0%0')*')+*0%*&')+%),.()8%' *$')+%6',.0'.5'.*()1$.'/'$%0)/%00.%00'8*$6+,.%'*$' *7%$<0'6*35%$'8'2'4%-,7%.' ,.,8%.)0'(*.)',.,.-

6,1 ,ℍ 4%//'5. .'ˢ ' .5ˢ (+/*$*&*$8ˢ '$%ᵉ 0%$; 7,(%'4/%ᵉ '0ᶠ %B)%$. 'ˡ/ '66 *'),*.0ᶠ)*ˣ)+%ᵉ 06,. %ˢ 4'(9ˢ' .5ˢ>*,.)0

*.,(0ˢ' .5ˢ '' *'$%&. 2 $%-1/')%5ᶻ.1)$,),*10ᶠ 5,%)ˢ'$%ᵉ '/0*ˣ,.5,(')%5ˢ' .5ᶻ5%6/%),7%ᶻ8 %'01$%0ᶠ 8 10)ᶻ4%ᵉ '7*,5%5ᶻ +%ᵉ)* .,(0ᶠ0+*1/5ᶻ4%ᵉ *&ᵗ)+%ᵉ 4,))%$ᶻ 7%-%)'4/%ᵉ 9,.5ᶻ 01(+ᶻ '0ᶠ -%.),'.ˢ'.5ᶻ ('/184'ℍ 3,)+ᶻ)+%0%ᵉ 8 '2ᶻ 4%ᵉ (*84,.%5ᶻ '' 08'//ᶠ E1' .),)2ᶻ *&ᵗ E1,. ,.%ˢ 3,)+ᶻ '' 8,.%$'ˡ ' (,5ℍ *$',.'0*8%ᵉ%'0%0ᶠ)+%ᵉ 5,/1)%ᵉ6+*06+*$,(' '(,5ˢ (*84,.%5ᶻ 3,)+ᶻ .1B' 7*8,(''*$ 08'//ᶠ 5*0%0ᶠ*&ᵗ0)$2(+,.,%

X1,.,.%ᵉ,0ᶠ-,7%.ᶻ8*$%ᵉ&*$ᶻ,)0ᶠ)*.,(ˢ)+'.ᶻ&*$,)0ᶠ'.),6%$,*5,(ˢ %&&%()0ℍ)+*1-+ᶻ3+%$%ᵉ)+%$%ᵉ ,0ᶠ'')%.5%.(2ᶻ)*ˣ $%/'60%0ˢ)+%ᵉ>15,(,*10ᶠ'5; 8,.,0)$')ˢ,*.'*&ᵗ&,7%ˢ*$ %7%.ˢ)%. -$*,.ˢ5*0%0ᶠ 8'ℍ=ᶻ4%ᵉ4%.%&,(,'ˡ,.ˢ'$%0),.-ˢ)+%8ˢ'.5ᶻ$%; 51(,.-ˢ)%86%$ˢ)1$%ˢ $*8,5%ᵉ*&ᵗ6*)'00,18ˢ ,0ᶠ$%(*884.5%5ᶻ42ᶻ0*8%ᵉ '1)+*$,),%0ˢ'.5ᶻ %06%(,''//2ᶻ3+%.'(*.71/0,*.0ᶠ((1$ˢ,.'(+,/5$%.ˢ /9'/,0ˢ (*/(+,(18ˢ'.5ˢ *)+%$ᶻ $%85,%0ᶠ ,.ˢ 10%ᵉ,.ˢ$+%18'),08ˢ+'7%ᵉ4%%.ˢ&*1.5ˢ)*ˣ+'7%ᵉ /,))%a',&ˢ'.2ˢ%&&%()ˢ ,.ˢ$%/,%7,.-ˢ)+%ᵉ6',.0ᶠ*&ᵗ 5%.-1%

0ᶠ)*ˣ3,.%0ˢ(/'$%)ˢ,0ᶠ6$*4'4/2ᶻ)+%ᵉ4%0)'41)ˢ *)+%$0ᶠ8'2ᶻ4%ᵉ-,7%.

$ᶻ)+%ᵉ,$$,)')',.ˢ*&ᵗ)+%ᵉ 09,.ˢ3+,(+ᶻ,0ᶠ 0*8%),8%0ᶠ7%$2ᶻ)$*14/%0*8%ˢ)+%ᵉ'66/,(',*.ˢ *&ᵗ('86+*$')%5ˢ*,ˡ'.5ˢ)+%ᵉ10%*&ᵗ3'$8'4')+0ᶠ +'7%ᵉ4%%.ˢ01--%0)%5

0ᶠ,.ˢ0*ˣ8'.2ᶻ *)+%$ᶻ 5,0%'0%0ˢ %06%(,''//2ᶻ)+*0%ᵉ)+'ˡ*((1$ᶻ)*ˣ 1$*6%'.0ᶠ,.ˢ)$*6,(=ᶻ (/,8')%0ˢ (*86/%)%ᵉ $%0)*$')ˢ,*.ˢ)*ˣ+%*'/)+ˢ,0ᶠ /,9%/2ᶻ)*ˣ4%%B6%5,)%5ˢ'.5ᶻ6$*8*)%5ᶻ42ᶻ(+'.-% *&ᵗ',$ℍ '.5ˢ,&ˢ)+%ᵉ('(+%B,''4%ᵉ0%7%$%ᵉ '&)%$ᵉ '' f6$*/*.-%5ˢ'))'(9ᶠ*&ᵗ5%.-1%ˢ$%)1$.ˢ)*ˣ)+%ᵉ 6'),%.)<0ᶠ.',7%ᵉ (/,8')%ᵉ &*$ᶻ '' 0%'0*.ˢ,0ᶠ 5%0,$'4/%ˢ = (ˢ4

<ˢ ,0*$5%$0ᶠ*& G '/ %%)+,.-ℍ $ˢ ˢ ˢ 'C " "ℍ %$ˢ * #" 0

C $ˢ0 ! 5 G +%ᵉ6%$,*5ˢ*&ᵗ(1)),.-ˢ)+%ᵉ)%%)+ᶻ+'0ᶠ4%%.ˢ'/3'20ᶠ$%(*-..,0%5ˢ'0ᶠ'' ($,),('ˡ),8%'51$,.-ˢ3+,(+ᶻ)+%ᵉ+%'ˡ)+ᶻ*&ᵗ2*1.-ˢ (+,/5$%.ˢ,0ᶠ%06%(,''//2ᶻ/,'4/%ᵉ)*ˣ 4%(*8%ᵉ 5,0;)1$4%5ˢℍ '.5ˢ,)ᶻ+'0ᶠ4%%.ˢ''ˢ (*88*.ˢ6$'(),(%ᵉ '8*.-0)ᶻ8*)+%$0ᶠ)*ˣ '))$,41)%ᵉ %7%$2ᶻ,//.%00ᶠ *((1$$,.-ˢ,.ˢ%'$/2ᶻ/,&%ˢ&$*8ˢ)+%ᵉ,$$,)')',*.ˢ*&ᵗ 0('4,%0ᶠ)*ˣ)+%ᵉ 5,0)*$),*.0ᶠ*&ᵗ$,(9%)0ˢ)*ˣ)+%ᵉ 0'8%ᵉ 4'.%&1/ˡ,.&/1%.(%ˢ +%ᵉ %7*/1),*.ˢ*&ᵗ)+%ᵉ 8,/9)%%)+ᶻ,0ᶠ.*ˣ5*14)ᶻ '))%.5%5ᶻ 3,)+ᶻ 0*8%ᵉ,$$,)'),*.ˢ%06%(,''//2ᶻ'0ᶠ')+,0ᶠ6%$,*5ˢ)+%ᵉ &*//,(1/'$ˢ '66'$ˢ)10ᶠ*&ᵗ)+%ᵉ,.)%0),.%0ᶠ,0ᶠ 1.5%$-*ˣ,.-ˢ(*.0,5%$'4/%ᵉ5%7%/*68%.)ℍ'.5ˢ3% 9.*3ˢ)+')ˢ*.ˢ'((*1.)ˢ*&ᵗ)+%ᵉ,86$%00,4,/,)2ᶻ *&ᵗ)+%ᵉ.%$7*10ᶠ020)%8ˢ,.ˢ2*1.-ˢ(+,/5$%.ˢ'.2ᶻ ,$$,)'),*.ˢ,0ᶠ'6')ˢ*ˣ 4%$&*//*3%5ˢ42ᶻ-%.%$'ˡ 5,0)1$4'.(%ˢ)ˢ,0ᶠ.*ˣ5*14)ᶻ'/0*ˣ)+%ᵉ('0%ᵉ)+')ˢ/*('ˡ&1.(),*.'ˡ5%$'.-%8%.)0ᶠ'$%ᵉ&$%; E1%.)ˢ')ˢ)+,0ᶠ6%$,*5ˢ41)ᶻ,)ˢ,0ᶠ*&)%.ˢ1.&'.,$ˢ)*ˣ))$,41)%ᵉ)+%0%ᵉ / ˢ)*ˣ)+%ᵉ,$$,)')',*.ˢ*&ᵗ.ˢ '57'.(,.-ˢ)**)+ˢ .%ᵉ*&ᵗ)+%ᵉ8*0ᶠ(*88*.ˢ 5,$%()ˢ$%01/)0ᶠ*&ᵗ)%%)+,.-ˢ,0ᶠ62$%B,''ˢ 3+,(+ᶻ 8'2ᶻ4%ᵉ,.)%.0%ℍ '.5ˢ''&%7%$,0+ᶻ (+,/5ˢ,0ᶠ 6'$),(1/'$/2ᶻ010(%6),4/%ᵉ)*ˣ,86$%00,*.0ᶠ*&ᵗ(*/5 '.5ˢ)*ˣ)+%ᵉ,$$,)'),*.ˢ*&ᵗ 1.01,)'4/%ᵉ &**5ˢ ')'$$+'ˡ ')'(90ᶠ(*8,.-ˢ*.ˢ')ˢ)+,0ᶠ),8% .%%5ˢ.*)ˢ4%ᵉ)+%$%&%*$%ᵉ)+%ᵉ ,8 8%5,')%ᵉ $%01/)ˢ *&ᵗ)+%ᵉ(*.5,),*.ˢ*&ᵗ)+%ᵉ-18ˢ)ˢ,0ᶠ')ˢ/%'0)ˢ '58,00,4/%ᵉ)*ˣ'))$,41)%ᵉ)+%8ᵗ)*ˣ)+%ᵉ*$5,.'$2ᶻ ('10%0ᶠ*&ᵗ01(+ᶻ5%$'.-%8%.)0ˢ'(),.-ˢ16*.ˢ''4*52ᶻ $%.5%$%5ᶻ &*$ᶻ)+%ᵉ),8 6'$),(1/'$/2ᶻ 010(%6),4/%ᵉ)*ˣ,.>1$,*10ᶠ,.&/1%.(%0ˢ +,0ᶠ7,%3ˢ,0ᶠ0166*$)%5ᶻ42ᶻ)+%ᵉ&'(ᶠ)+')ˢ5,'$$+*%'ˢ3+,(+ᶻ ,0ᶠ''7%$2ᶻ(*88*.ˢ(*86/,(',*.ˢ*&ᵗ5%.),),*.ˢ ,0ᶠ %06%(,'//2ᶻ&$%E1%.)ˢ51$,.-ˢ)+%ᵉ 3'$8%$ᶻ 8*.)+0ᶠ3+%.ˢ')+%ᵉ)%86%$')1$%ᵉ,0ᶠ'6)ˢ)*ˣ 1.5%$-*ˣ$'6,5ᶻ7'$,'),*.0ᶠ3+,/%ᵉ)+%ᵉ 5$%00ᶠ*&ᵗ)+%ᵉ(+,/5ˢ$%8',.0ᶠ1.(+'.-%5ℍ '.5ˢ,0ᶠ&*$ᶻ/%00ᶠ (*88*.ˢ51$,.-ˢ)+%ᵉ 3,.)%$ˢ 3+%.ˢ)+%ᵉ)%8; 6%$ˢ)1$%ᵉ,0ᶠ8*$%ᵉ1.,&*$8ˢ''.5ˢ)+%ᵉ (+,/5ˢ,0ᶠ 8*$%ᵉ('$%&1//2ᶻ-1'$5%5ᶻ'-',.0ᶠ)+%ᵉ(*/5

0ᶠ''$'/%ˢ)+%ᵉ&,$0ᶠ 8,/9)*ˣ)+ˢ '66%'$0ᶠ,.ˢ)+%ᵉ0%7%.)+ˢ 8*.)+ˢ')&)%$ᶻ4,$)+ℍ 41)ᶻ5%.),),*.ˢ 8'2ᶻ4%-,.ˢ''ˢ'.ˢ%'$+%$ᶻ6%$,*5ˢ)ˢ,0ᶠ.*)ˢ $'$%ᵉ&*$ˢ'.ˢ,.&'.)ˢ)*ˣ(1)ˢ'')**)+ˢ')ˢ)+%ᵉ'-%ᵉ*& *1$ᶻ8*.)+0ℍ'.5ˢ*((0,*.''//2ᶻ')ˢ)+%ᵉ,8%ᵉ*& 4,$)+ˢ*.%)**)+ˢ,0ᶠ&*1.5ˢ)*ˣ4%ᵉ'/$%ᵉ'52ᶻ)+$*1-+ᶻ)+%ᵉ-18ˢ .ˢ('0%0ᶠ3+%$%ᵉ)+%ᵉ*$5,.'$2ᶻ),8% *&ᵗ)%%)+,.-ˢ,0ᶠ'.),(,6')%5ˢ''6'10%ᵉ-%.%$'//2ᶻ %.01%0ᶠ'&)%$ᶻ)+%ᵉ'66%'$ˢ.(%ᵉ*&ᵗ*.%ᵉ*$)3*ˣ)%%)+ˢ''.5ˢ&'$)+%$ᶻ5%.),)ˢ.*.ˢ,0ᶠ5%/'2%5ˢ1.),/)+%ᵉ 101'/ˢ-%ᵉ *.0),)1),*.'ˡ(*.5),*.0ᶠ ,.&/1%.(%ᵉ)+%ᵉ),8%ᵉ*&ᵗ)%%)+,.-ˢ +10ᶠ)14%$; (1/*10ᶠ'.5ˢ026+,/,),(ˢ(+,/5$%.ˢ(1)ˢ)+%,$ᶻ)%%)+ˢ %'$/2ˢ3+,/%ᵉ,.ˢ,(9%)2ᶻ(+,/5$%.ˢ)+%ᵉ)%%)+ˢ'$% 7%$2ᶻ0/*3')*ˣ'66%'$

.ˢ)+%ᵉ8'>*$,)2ᶻ*&ᵗ('0%0ᶠ)+%ᵉ)%%)+ˢ6,%$(%ᵉ)+%ᵉ-18ˢ ,.ˢ)+%ᵉ&*//*3,.-ˢ*$5%$ℍ/*3%$ᶻ (%.)$'ˡ,.(,0*$0ˢ166%$ᶻ(%.)$=',.(,0*$0ˢ166%$ᶻ /')%$'ˡ,.(,0*$0ˢ/*3%$ᶻ/')%$'ˡ,.(,0*$0ˢ&,$0)ᶻ 8*/'$0ˢ('...%0ˢ4'(9ᶠ8*/'$0ˢ (+,/5ˢ*&ᵗ)3%/7%ᵉ8*.)+0ᶠ*/5ˢ0+*1/5ˢ+'7%ᵉ%,-+ˢ)%%)+ˢ '.5ˢ4%(1)),.-ˢ+,0&,$0)ᶻ8*/'$0ℍ'.5ˢ)+%ᵉ3+*/%ᵉ .1844%$ᶻA)3%.)2ℝ0+*1/5ˢ4%ᵉ)+$*1-+ˢ)+%ᵉ-180ᶠ 0**.ˢ'&)%$ᶻ)+%ᵉ%.5ˢ*&ᵗ)+%ᵉ0%(*.5ᶻ2%'$ˢ +%ᵉ *$5%$ᶻ -,7%.ˢ'4*7%ᵉ,0ᶠ&$%E1%.)/2ᶻ5%6'$)%5ᶻ &$*8ˢ +%ᵉ,.(,0*$0ˢ,.ˢ6'$),(1/'$ˢ'$%ᵉ*&)%.ˢ (1)ˢ,$$%-1/'$/2ˢ'.5ˢ,)ˢ,0ᶠ.*)ˢ$'$%ᵉ&*$ˢ)+% 8*/'$0ᶠ/0*ˣ)*ˣ'66%'$ˢ*1)ˢ*&ᵗ)+%,$ᶻ6$*6%$ᶻ *5%$ˢ ˢ5*14/%ᵉ)**)+ˢ3,/ᶠ*&)%.ˢ4%ᵉ0%%.ˢ)*ˣ 6$%(%5%ᵉ)+%ᵉ/')%$'ˡ,.(,0*$0ˢ'.5ˢ8'2ˢ,.5%%5ᶻ ,.ˢ%B(%6),*.'ˡ('0%0ᶠ4%ᵉ)+%ᵉ&,$0)ᶻ)**)+ˢ)*ˣ '66%'$)+$*1-+ˢ)+%ᵉ-18ˢ +%ᵉ('.,.%0ᶠ0%/5*8ˢ *$ᶻ.%7%$ᶻ6$%(%5%ᵉ)+%ᵉ&,$0)ᶻ8*/'$0

8%ᵉ,.&'.)ᶻ01&&%$ᶻ8*$%ᵉ)+'.ᶻ)+%$0ᶠ&$*8ˢ)+%ᵉ(1)),.-ˢ*&ᵗ')**)+ˢ'.5ˢ,)ˢ,0ᶠ.*)ˢ'/3'20ᶠ ,.ˢ('0%0ᶠ3+%$%ᵉ)+%ᵉ%$16),*.ˢ*&ᵗ)+%ᵉ)%%)+ˢ+'0ᶠ 4%%.ˢ5%/'2%5ᶻ)+')ˢ5%.),)ˢ.*.ˢ3+%.ˢ,)ˢ*((1$0ᶠ ,0ᶠ'))%.5%5ᶻ3,)+ᶻ06%(,'ˡ,.(.*.7%.,%.(%ˢ .)+%ᵉ(*.)$'$2ᶻ,.ˢ0%7%$%ᵉ$,(9%)0ˢ3+%$%ᵉ)+%ᵉ 5%/'2ᶻ,0ᶠ-$%')ˢ)+%ᵉ)%%)+ˢ'$%ᵉ*&)%.ˢ*1)ˢ3,)+ˢ $%8'$9'4/%ᵉ%'0%

+%ᵉ0%(*.5ᶻ5%.),),*.ˢ4%-,.0ᶠ')ˢ'4*1)ˢ)+%ᵉ 0,B)+ˢ2%'$ˢ +%ᵉ6%$8'.%.)ˢ)%%)+ˢ'$%ᵉ(1)ˢ 3,)+ˢ8*$%ᵉ$%-1/'$,)2ᶻ)+'.ˢ,0ᶠ)+%ᵉ('0%ᵉ3,)+ˢ)+%ᵉ%'$+%$ᵉ($*6ˢ +%ᵉ&,$0)ᶻ)*ˣ4%ᵉ0%%.ˢ'$%ᵉ 101''//2ᶻ&*1$ᵗ8*/'$0ˢ3+,(+ᶻ'66%'$ˢ4%+,.ˢ')+%ᵉ /'0)ᶠ*&ᵗ)+%ᵉ)%86*$'$2ᶻ)%%)+ˢ +%ᵉB)ᶠ(*8%ᵉ)+%ᵉ (%.)$'ˡ,.(,0*$0ˢ')ˢ'4*1)ˢ)+%ᵉ%,-+)+ˢ2%'$ℍ)+%ᵉ/')%$'ˡ,.(,0*$0ˢ')ˢ'4*1)ˢ)+%ᵉ.,.)+ℍ)+%

$0)' '.5'0%(*.5'4,(106,50' , .')+%'6/'(%'*&')+%'
)%86*$',28*/'$0 ')')+%')%.)+' '.5'%/%7%.)+H
)+%' (' , ,.%0' 4%)3%%.')+%')3%/&)+' '.5')+,$;
)%%.)+'g' '.5')+%' 0%(*.5' 8*/'$0')' '4*1)')+%
),8%'*&'614%$)2' +%' /'0)' &*1$'6%$8'.%.)'
8*/'$0'$%'(1)'/')%$

!(! G +%'6+%.*8%.''3+,(+' 8'2'4%
/**9%5'16*.' '0' .')1$'/')*')+%' &,$0)'5%.),),*.'
'$%'0'/,7'),*.H 03%//,.-' *&')+%' -18' 3+,(+'
4%(*8%0' 8*$%' '.5' 8*$%')%.0%' +*)' '.5'
6',.&1/H 0/,-+)' -%.%$'/62$%B,'' 3,)+'&/10+,.-'
&'.%'*$'4*)+'(+%%90H ,$$,)'4,/,)2'*&')%86%$H
'.5'0*8%' 5%-$%%' *&' $%0)/%00.%00' ')' .,-+)'
+%0%' ' 0140,5%' 3+%.')+%' 6*,.)' &)+%'
)**)+' '66%'$0')+$*1-+')+%' -18' +%'(*8;
6/,(',*.0'.*)' .%(%00'$,/2' '))%.5'.)' 16*.')+%'
6$*(%00' '$%'+,-+' &%7%$H ,.&/'88'),*.'*&')+%'
8*1)+' '.5' '6+)+'%H 7*8,),.-' A-'0)$,(' (');
'$$+R H 5,'$$+(%'' A,.)%0),.'/' (')'$$+RH (*1-+'
A61/8*.'$2' (')'$$+RH *),),0' 3,)+' 61$1/%.)'
5,0(+'$-%&$*8')+%' '15,)*$2'8%')10H 7'$,*10'
%$16),*.0'*&')+%'09,.'3,)+''0*8%),8%0'03%' '
,.-' '.5' %7%.' 01661$'),*.' *&' /286+'),('
-/'.50H '.5'(%$)',.')$*14/%0'*&')+%'.%$7*10'
020)%8'01(+''0'(*.71/0,*.0'0E1,.),.-'^*

+%'6%(1/,'$,)2'*&')+%'62$%B,''*&'5%.),),*.'
,0',)0',$$%-1/'$'(+'$')()%$' ',0'*&)%.'+,-+%$'
,.')+%'8*$.,.-')+' .'')' .,-+)'' .5'7'$,%0',.'
,.)%.0,)2',.'' $%8'$9'4/%'8'$8%$'&$*8'5'2'
)*'5'2' ')%86%$')1$%'*&' ! g' ')'9' !'
,0'.*)''' 'B8(*88*.',.'')%%)+,.-',.&'.)H
,.5%%5'01(+'.'' 8*1.)'*&'&%7%$',.')+%'8*$.'
,.-'0+*1/5''/*.%/%'5'10')*',.06%()')+%'8*1)+'
'0'&%3'5,0%'0%0'$%'8'$9%5'42'0*' 81(+'
62$%B,'' ')')+')'+*1$'*&')+%'5'2' ')',0',86*$;
)'.)',.'6$'(),(%')*' 4%'$',.'8,.5')+,0'0,86/%
('10%'*&'%/%7'),*.'*&')%86%$')1$%'&*$'.2'
5,0%'0%',.''(+,/5',0'6')*' 4%'(*86/,(')%5'42'
)%%)+,.-'.5'81(+'.%%5/%00'.B,%)2'8'2'4%
((''0,.%5'42'*7%$/**9,.-')+%' (*.5,),*.'*&'
)+%'-18' %'810)' .*)' +*3%7%$',.'%7%$2'
%'0%'3+%$%')+%'-180'$%'03*%.'.5')%.'
$10+')*')+%'(*.(/10,*.')+')'+%2''$%')+%'0*/%'
('10%'*&')+%'0286)*80'&*$')+%'8*0)'0%$,*10'
%$%4$'/5,0%'0%'8'2'(*%B,0)'3,)+')+%'%$16;
),*.'*&''')**)+' +10')*')'9%''.'%B'86/%H
,&' %&,.5'(%$%4$'/0286)*80')*'016%$7%.%
,.')+%'(*1$0%'*&'5%.),),*.'3%'810)'8*0)'
.'$$*3/2'0($1),..0%')+%&$'(+'$')()%$'4%&*$%
6'00,.-')+%8'*7%$'0'8%$%/2'+'$8/%00',.5,(';
),*.0'*&')+%'-%.%$'/5,0)7.4'.(%' %'5'(+%'
5%/,$,18'7%$),-*'0)'$),.-0')3,)(+,.-0''.5'
(*.71/0,7%' ')'(90'8'2' 8%$%/2' ,.5,(')%'
&1.(),*.'/'5,0)1$4'.(%'*&')+%'4$',.'01(+''0',0'
(*88*.')*'8'.2'5,0*$5%$0'' .5')+%0%'6+%.*;
8%.'' '$%' .6)' .%(%00'$,/2'02886)*8',(' *&
(%$%4$'/' 5,0%'0%H 41)',&')+%'4*3%/0'4%(*8%
40),.')%/2'(.&,.%5')+%' 61/0%' 0/*3' '.5'
,$%-1/'$' '.5')+%' $%06,$'),*.'B8%E1'/' '.5'
0,-+,.-H '.5',&',.''55,),*.')+%$%' 4%' 6+*)*;
6+*4,'' 3,)+' 01 %..%00' '.5')%.5%.(2')*'
5$*30,.%00'3%'8'2'(*.(/15%')+')'0*8%)+,.-'
8*$%')+'.'8%$%'&1.(),*.'/'5%$'.-%8%.)',0'
6$%0%.)' '.5')+')')+%$%',0'%7%$2'$%'0*.')*'
0106%()')+%'%B,0)%.(%'*&')14%$(1/'$'8%.,.;
-,),0

.')+%' ('0%'*&')+%'0%(*.5'5%.),),*.')+%$%'
8'2''/0*'4%'5,-%0),7%'5%$'.-%8%.)' 1$,.-'
)+,0'6%$,*5')+%' (+,/5',0'014>%()')*' -'0)$*,.'
)%0),.'/'(')'$$+0'3+,(+'-,7%'$,0%')*'/**0%.%00'
*&')+%'4*3%/0' %',0'*&)%.'',$$,)'4/%'.')+%'
5'2'.5'$%0)/%00'')'.,-+)' ,-+)')%$$*$0''$%'
(*88*.''.5'+%'8'2'3'9%'16'&$*8'+,0'0/%%6'
0($%'8,.-'3,)+'&$,-+)')'0*8%'+*$$,4/%'5$%'8'
%0,5%0')+%'5,0(*8&*$)'51%)*'&%$8%.)'),*.'*&'
&**5' .5''(,5,)2'(*.0,5%$'4/%'/*00'*&'&/%0+'
8'2'4%')+%'(*.0%E1%.(%' &5,-%0),7%'5%$'.-%;
8%.)',&'/*.-' *.),.1%5

55 !)G +%')$%')8%.)'*&')+%' **$+'
6/,(',*.0'3+,(+'*((1$'51$,.-'5%.),),*.'810)'
4%' (*.51()%5' 16*.' *$5,.'$2' 6$,.(,6/%0'
6+)+'%'*&')+%'8*1)+' '$%'$%'5,/2'(1$%5'42'
)+%''58,.,0)$'),*.'*&'$+14'$4'.'5'0*5''.'5'
)+%'66+(',*.')*')+%'8*1)+'*&''0*/1),*.'*&

*1.(%',.'3')%$''.5'03%%)%.%5'3,)+'-/2(%$,.%'
%$&%()' (/%'./,.%00' ,0' .%(%00'$2'.'5')+%'
(+,/5<0'8*1)+'0+*1/5'4%3'0+%5'*1)%'(+',)8%'
&)%$')9,.-'&**5'3,)+''6,%(%'*&0*&)$'-'5,66%5'
,.'3'$8'3')%$

*8,),.-',0'4%0)'(+%(9%5'42'(/%'$,.-'*1)
)+%'0)*8'(+'3,)+''.'%8%),('*&',6%('(1'.+''
3,.%'-,7,.-''')%$,-+%'06**.&1/%7%2$)%.'8,.1)%0'
1.),/0,(9.%00',0'6$*51(%5' &)%$3'$50''&%3'
-$',.0'*&'4,('$4*.')%'*&'0*5,18'8'2'4%-,7%.'
3,)+'*.%'5$*6'*&'/,E1*$'$0%.,('/,0',.''')%';
06**.&1/'*&'3')%$')+$%%'),8%0''5'2' ,'$;
$+*%''0+*1/5'4%')$%')%5'*.')+%'0'8%'6$,.(,6/%'
&,$0)''5*0%'*&'('0)*$*,/')*'$%8*7%',$$,)'),.-'
6$*51()0'&$*8')+%'4*3%/0H)+%.'' 8,B)1$%'
(*.)',..-'(+'/9'.5'(')%(+1'*$*B,5%'*&'C,.('
A*.%'-$',.')*')+%' 5*0%R' ,&'&)%$3'$50')+%'
8*),*.0'(*.),.1%'/'$-%'6'0)2/**9,.-'.5'
*&&%.0,7%''.5''$%'6'00%5')*'*'&$%E1%.)/2',.')+%'
5'2'*.%'5$*6'*&'),.()1$%'*&'*6,B,8'8'2'4%'
'55%5')*')+%' 8,B)1$%''0')+%$%',0'101'//2',.'
01(+''0%0')*'*'$'6,5'6%$,0)'/),('(),*.'*&')+%'
,.)%0),.%0' .')+%'%'0%'*&'%,)+%$'*&')+0%%'
5%$'.-%8%.)0'A7*8,),.-'*$'5,'$$+*%'R',)',0'*&'
-$%')',86*$)'.(%')*'9%%6')+%'4*52'3'$8''.5'
)+,0',0'8*0)'%&&%()1'//2'5*.%'42'66/2,.-''
4$*''5'&/'.%/4'.5'-%)*')+%'*45*8%.'+%'
5,%)'/0*0+*1/5'4%')%86*$'$,/2'85,&,%5'
$%51(,.-')+%'E1'.),)2'*&'&%$,.''%*10'8'))%$'
)+')',0'4%,.-')'9%.''*.''((*1.)'*&')+%')%.;
5%.(2')*''(,5'&%$8%.)'),*.'*&'&**5'3+,(+',0'
0%)'16'42'01(+''(*.5),*.'*&')+%'/,8%.)'$2'
('./

**0%.%00'*&')+%'4*3%/0'58,.-'5%.),),*.'
+'0'4%%.'/**9%5'16*.'42'0*8%'3$,)%$0''0''
.')1$'/8%)+*5'*&'$%/,%&')*')+%'020)%8''.5'
&%'$0'+'7%'4%%.'%.)%$)',.%5'*&'-$'7%')$*14/%0'
3+,(+'8,-+)'%.01%&')+%'/**0%.%00'3%$%')*'
0155%./2''$%0)%5' 1(+'&%'$0''$%'+*3%7%$'
E1,)%'-$*$85/%00' ')')'$$+'/'(*.5),*.'*&'
)+%'4*3%/0'0+*1/5'4%'(1$%5''0'E1,(9/2''0'6*0;
0,4/%'%06%(,'//2'51$,.-'5%.),),*.'&*$'),0'
),8%')+%'010(%6),4,/,)2')*'(+,//0',0'+%,-+)%.%5'
.5')+%'5'.-%$'*&'0%7%$%'5,'$$+(%''4%,.-'0%)'
16'(*$%06*.5,.-/2'-$%')' .'0*8%'('0%0'*&'
)%%)+,.-'3+%$%')+%'/1.-0''0'3%'')'0')+%'
4*3%/0''$%')+%'0%')'*&'(')'$$+' -'%3!'$)

%&&%()' '/)+*1-+')+%,$' B851%' %8 6/*28%.)' 42' +,5,.-'$')+%$')+' .' $%8*7,..-' 3+')',0' *4>%(;),*.'4/%'8'2'4%',.>1$,*10')*'+%'/)+' ' .5' (' .;.*)' 4%$%(*88%.5%5' +%'6$%6'$'),*.'('//%5'0 '.,)'0'£,0'6$,.(,6'//2' '0*/1),*.' *£'6%$*B,5%'*£'+25$*-%.

G' *. 7*/')./%' %*5*$'.)0'G'* %2 ! G 8*.-')+,0' (/'00' *£' 5%*5*$'.)0''$% ,.(/15%5' +'$(*'/' '$)+' ,8%' B,5%*£' $*.' 1/6+')%' *£' $*.' +/*$,5% *£' V,.('),$')%' *£' %'5' '.5' %$8'.-'.')%' *£' *)'0;0,18

(($ ' 'G' /)+*1-+' 7%$2' %&&,(,%.)'3+%.' 4$*1-+)',.)*' (*.)'()'3,)+')+%' (/'00' *£' *5*$*10' 0140)'.(%0' $%&%$$%5')*' '0'.*B,*10'-'0%0')+%0%' 5%*5*$'.)0' '$%' /%00' -%.%$'//2'10%&1/)+'.')+%2'3*1/5')+%$3,0%' 4%' *.' '(;(*1.)'*£')+%,$'.*. 7*/'),/%' (+'$&,()%$' +';(*'/'*3%0' 81(+' *£',)0' %&&,('(2' '0' '5%*5*$'.)')*')+%' 01$&'(% '))$'(),*.' '.5' 6*3%$' *£' (*.'5%.0'),*.' 3+,(+',)' 6*00%00%0' 42' 7,$)1%' *£' 3+,(+',)'4$,.-0'.*B,*10'-'0%0'01(+'0'01/6+1;$%))%5'+25$*-%.',.)*' (*.)'()'3,)+'*B2-%.',.''' (*.5%.0%5' '.5' '(),7%' 0)'%' 0*')+')'+%2'$% 41$.)'16' '.5' $%0*/7%5',.)*' ,..*(1*10'(*86*1.50'*$'(*86*1.50'/%00'.*B,*10')+'.')+*0%£&$*8'3+,(+')+%2'$%'6$*51(%5' '$)+''.5' *B,5%' *£',$*.'3+,(+'/,9%' (+'$(*'/' '$%10%5',.')+%'0*' 5' '.5'5$2'*$'.%'$/2'5$2'0)'%''40*$4' '.5' (*84,.% 3,)+' *$' 6$*8*)%')+%'(*84,.'),*.'*&'.*B,*10'-'0%0'6$*51(,.-',.;.*(1*10'6$*51()0' ,8% 8'2'4%'10%5'%,)+%$'5$2'*$',.')+%' 0)'%' *£' 8,/9' *£' /,8%' +%'*)+%$'0140)'.(%0'.'8%5' '$%'10%5',.')+%'&*$8'*£'0*/1),*.',.')'3')%$' +%$%/'$-%'E1'.),),%0'*£'5%(*86*0,.-'.,8'/*$'7%-%)'4/%'8'))%$''$%' $%E1,$%5')*' 4%' 5%*5*$,0%5' 5$2'/,8%' *$0*/1),*.'*£'01/6+')%' *£',$*.'A-$%%.'7,)$,*/R'8'2'4%' %(*.*8,('//2' '.5' '57'.)'-%*10/2'10%5' '>@

U ' , 3 ' 3,)+*1)'+',$R " ' '6 O "9' $

& # G' %6,/')*$,%0' '$%' 8%'01$%0'10%5'£*$')+%' 5%0)$1(),*.'*£'016%$&/1*10'+',$0

26%$)$,(+*0,0 G +%'6'),%.)0'3+*' 6$%'0%.)')+%80%/7%0'£*$')$%')8%.)'42' 5%6,/'),*.''$%' *£' (*1$0%' '/8*0)' '/3'20' 3*8%.' .'')+%' ,88%.0%' 8'>*$,)2' £' ('0%0')+*' 5,0;&,-1$,.-'+',$0' '$%' *.')+%' 166%$' /,6' (+,.'.%(9' *$' ,.'&$*.)' *£')+%' %'$0')+%' '..*2;'.(%''.5'8%.)'/'5%6$%00,*.' ('10%5'42')+%8'4%,.-'*&)%.' 0*' %B)$%8%' '0')*' >10),&2'.'26$*(%51$%' /,9%/2')*' -,7%' 6%$8'.%.)' $%/.%&6$*7,5%5',)',0' $'),*.'//2'%86/*2%5''.5',)0'/,8,)'),*.0''$%'6$*6%$/2')85%$0)**5')'810)'4%' ('$%&1//2'4*$.%',.'8,.5'+*3%7%$')+')',.''' (%$)'.'.184%$'*£' ('0%0'+26%$)$,(+*0,0'£,0'*.'6$%-;.'.(2'*$'8%.0)$1'/'5,0*$5%$0'*$' '00*(,')%5'(*.5,;),*.0' 0'''$1/%')+%$' 5,0&,-1$%8%.)',0'&,$0)'.*),(%5')'('4*1)')+%' '-%*£'%,-+)%%.'.5',0 6$*-$%00,7%'),/'3%.)2&,7%'*$')+,$)2'' &)%$'3+,(+',)'$%8'.,.0'6%$8'.%.)',/'+%'8%.*;6'10%'3+%.',)'&$%E1%.)/2'4%(*8%0'--$';7')%5

* %!N ; " '$,*10'('10),(' '66/,(';),*.0'$%'*((')0,*.'//2'10%5'0'5%6,/')*$,%0',$' $'0810' ,/0*.'$%(*88%.5%5')+%'&*/;/*3,.-GX1,(9/,8%A)+$%%'6')$)0R'01/6+,5%'*£0*&&,18'*$'*£'4'$,18'A*.%'6')$R'5,/1)%5'3,)+'0)'$(+'A&*1$'6')$)0R' +%'6*35%$'8,B5'3,)+' ')%$')*')+%'(*.0,0)%.(%'*£''),+.'6')0)%',0'/',5'*.')+%' '&&%()%5'6')$)'42'8%'.0'*£' .',7*$2'6'6%$9.,&%''.5''//*3%5')*'$%8',.'&*$&$*8'&,7%')*' &,&)%%.'8,.1)%0')'810)'+%.'4%' ('$%&1//2'0($'6%5'*&&' 3+%.')+%' +',$'Q0+$,7%//%5' '.5'41$.)'(*8%0'3'2'3,)+',)' +%'09,.'810)')+%.'4%'3'0+%5'3,)+' 3')%$'5$,%5''.5''.*,.)%5'3,)+'(*/5($%'8' :/)+*1-+')+%' ,88%5,')%' $%01/)' *£' +,]'8%)+*5',0'0*8%),8%0'0'),0&'()*$2''')$*14%;0*8%'5%-$%%'*£'5%$8'),),0',0'-%.%$'//2'*((';0,*.%5'42',)' +%'+',$0')**'/3'20'$%)1$.')+%,$'$**)0'.*)' 4%,..-'5%0)$*2%5'41)'*./20),8 1/')%5'42')+%')$%')8%.)!*.5')+%'0140%;E1%.)'-$*3)+',0'.7'$,'4/2'0)$*.-%$'5'$9%$''.5'8*$%'5,0&,-1$,.-')+'.')+%'*$,-,.'/'3+,/%'(*.0,5%$'4/%'0('$$,.-')**'&$%E1%.)/2'$%01/)0

'.2'3*8%.'9%%6')+%'5,0&,-1$%8%.)'51%')*'+26%$)$,(+*0,0',.'4%2'.(%'42'+'4,)1'//2'%B)$'(),.-')+%'+',$0'3,)+'&*$(%60' +%$%'$%8'.2'*4K7,*10'*4>%(),*.0')*')+%' 6$*(%51$%'41)',.'0*8%'('0%0'3+%$%'.*')+%$')$%')8%.)',0'66/,('4/%',)'.03%$0'&',$/2'3%//H'0',)0'$%0,&/)'+*3%7%$')+%' -$*3)+'4%(*8%0'5'$9%$'0)$*.-%$'.5'8*$%'4$,0)/2'.'!'(%$)',.'.184%$'*£'('0%0'-**5'(*08%),('$%01/)0''$%'*4)',.%5'42'4/%'(+,.-')+%'+',$'3,)+'!'0')1'$')%5'0*/1),*.'*'*£'6%$*B,5%'*£'+25$*-%.

%6,/'),*.'42'/%()$*/20,0 G +%'*./2'%%&,('(,*10'.5'6%$8'.%.)'8%)+*5'*£'5%0)$*2;,.-'016%$&/1*10'+',$',0'42'%/%()$*/20,0' ,$0)'6$'(),0%5'42' ,(+%/'*£')' *1,0' ' ,.'?MP'0140%E1%.)/2'42' '$5'3'2' ' ' *B'.5'*)+%$' 8%$,(.'.5%$8')*/*-,0)0',)'+'0'*£'/')%'2%'$0'4%%.',.)$*51(%5')*')+%'(*.),.%.)'*£' 1$*6%'.5')*')+,0'(*1.)$2'3+%$%'+*3;%7%$'*3,..-')*' ,)0' ,.5,0($,8,.')%' %86/*2;8%.)')**' *&)%.'42'1.0(,%.),&,(' 6%$0*.0')+%'$%')8%.)' '66%'$0' +9%/2')*' &'//.,)*' 1.;8%$,)%5'5,0($%5,)

' 'G' %.%$'//2' 06%'9,.-')+%'('0%0',.'3+,(+'%/%()$*/20,0',0'8*0)' '66/,('4/%'$%')+*0%' 3+%$%GA8R')+%' -$*3)+',)',0'/,8,)%5',.'%B)%.)' '.5'0)',*.'$2'.*)' 6$*-$%00,7%HA@R')+%' +',$0''$%' 0)$*.-' '.5'5'$9H A"R')+%''8*,$.)' *£' 5*3.2'1.5%$-$*3)+',0'0/,-+)HA R')+%'6'),%.)'0)'.506',.'3%//',0'01&&,(,%.)/2',.)%//,-%.)')*'1.5%$0)'.5')+%' 4%'$,.-0'.5'$%0)$,(),*.0'*&')+%'6$*(%00''.5',0',.''6*0,),*.'))*'0148,)')*',)0' .%(%00'$,/2'6$*)$'(0%)5'51$';),*.' +%$%',0',))/%'5*14)')+')'5*3.2'+',$0',.')+%' $%-,*.0' *6%$')%5' 16*.'0*8%),8%0'4%(*8%'5'$9'.5'0)$*.-'3,)+'1.51%$'6,5,)2'0')+%' $%01/)' *£%/%()$*/20,0H 41)',)',0' '/0*8*$%')+'.'6$*4'4/%')+')',.5%6%.5%.)/2'*£',)'))+%0%'+',$0'3*1/5'1/),8')%/2''/)+*1-+'8*$%

0/*3/2' 4%(*8%' 0*1$(%0' *&' 5,0&,-1$%8%.)' +%'3$,)%$',0' *&'*6,.,*.')+')' ('0%0',.'3+,(+')+%'-$*3)+',0' 8*0)' '41.5'.)' 16*.' *$' (*.; &,.%5')*')+%' 166%$'/,6G'.5'1.&*$)1.')%/2')+%2'&*$8' '(*.0,5%$'4/%'6$*6*$),*.'*&')+*0%' 3+*' 6$%0%.)')+%80%/7%0' &*$')$%')8%.)G'$%' '0' '$1/%'1.0'),0&'()*$2' *3,.-')*')+%'/'$-%' .184%$' *&' +',$ &*//,(/%0')+%$%' 6$%0%.)')+%' %B)$%8%' 0%.0,),7%.%00' *&')+%'6')$')+%'08'//' .184%$' *&' +',$0' 3+,(+'('.' +%'*=)$')()%5')' ''0,)),.-'A0%/5*8'%B(%%5,.-')3%/7%')*'&,&)%%.R' '.5')+%'*&',.&/'88')*$2'(%5%8''0%)' 16',.')+%'/'B'),001%

((% G +%'.%(%00'$2''66'$')10'&*$ 5%6,/'),*.' 42' %/%()$*/20,0' (*86$,0%0G A8R' '' $%&,'4/%'(*.0)'.) (1$$%.)'4'))%$2'*&'&$*8')%.')*')3%.)2' (%//0')+%'.')1$%'*&')+%'%/%8%.)0' 4%,.-''8')%$'*&',.5,&&%$%.(%H A<R''.'' '40*; /1)%' 5%'5 4%')' -'/7'.*8%)%$'-$*51')%5',.' 8,//,'864$%0' '.5' 6$%&%$'4/2',.(*$6*$')%5' 3,)+')+%'4')))%$2H A"R/*.-'/,-+)'6/,'4/%$+%*' 6+*$%0H A R''01,)'4/%'.%%5/%*+)*')+%$'(*.; .%()%5'3,)+')+%'.%-'),7%'6*/%*&')+%'4'))%$2' 8'.2'&*$80'*&'3+,(+'$%'.*3'8'5%A)+*0%' 3+,(+'+'7%')+%'(1$$%.),.)%$$16),.-''66'; $')10',.')+%'+'.5/%'$%'(/1802''.5',.(*.; 7%.,%.)R'H AFR''&,.%'.%%5/%'8'5%*&')0)%%/'*$ 6/'),8+,.'*$*&'-*/5'*$'6/'),.18'),66%5'3,)+' ,$,5,18GA)+%'3$,)%$'&)%$'-,7,.-''//')+%0%''' &',$')$,'/'+'0'$%7%$)%5')*')+%'&,.%0)'0)%%/' 0%3,.-.%%5/%0G 4%/*$$'//<0' @<0')+%' *./2'5,0'57'.)'-%'*&'3+,(+',0')+%,$'4$,))/%; .%00R H ALR''('$4*.'*$'4$'00'(2/,.5%$'(*7%$%5' 3,)+'(+'8*,0/%')+%$'(*.0),)1),.-')+%'60*,;),7%%/%()$*5%''.5'(*..%()%5'3,)+')+%'6*0,),7%' 6*/%'*&')+%'4'))%$2' '0)%'52'+'.5''.5' -**5'7,0,*.'$%',.5,06%.0'4/%'*.')+%'6'$)' *&')+%'*6%$')*$''//'01--%0)%5''$$'.-%8%.)0' *&'8'-.,&2,.--/'00%0'4%,.-'1.0'),0&'()*$2' +%'4%0)'*&'01(+',0''3')(+8'9%$<0'-/'00' 8*1.)%5'*.''06%()'(/%&$'8%

B 0$ ' ; !'/ ' + 3'/ # 7' ' ' 3$$7' 3! ' 7')/)-)+"' ! ')#* + *0)1$%')+%'.%%5/%',0',.)$*51(%5',.)*')+%' ',$&*//,(/%&*$''5,0)'.(%'*&)*' *&''.' ,.(+'*$'8*$%')+%'&*//,(/%'4%,.-''0',)'3%$%' (')+%)%$,0%5' +%'B6%$,%.(%5')*1(+',0'%7%.' '4/%)*'5,0),.-1,0+'3+%.')+%'4*))*8'*&')+%' &*//,(/%',0'$%'(+%5'42''0/,-+)',.($%'0%'.')+%'$%0,0)'.(%'%.(*1.)%$%5' +%'(1$$%.)',0' (/*0%5'42')+%'6'),%.)'&,$8/2'-$'06,.-')+%' 6*0,),7%'%/%()$*5%'6$%7,*10/2'3%/'0*'9%5',.' 3'$8'3')%$'.'5''0+'$6'6',.',0'%B6%$,%.(%5' ')'+%'8*8%.)'*&'(/*01$%'3+,(+'6%$0,0)0' 41)',.''8*5,&,%5'&*$8')+$*1-+*1)'+%'5%; 0)$1(),*.'*&')+%'+',$' +%'+',$'8'2')+%.'4% 0%,C%5'3,)+'&*$(%60'+%/5',.')+%/%&)'+'.5H '.5'3+%.'5%0)$*2%5',)'(*8%0''3'2'3,)+*1)' '66$%(,'4/%')$'(),*.' +%'(1$$%.)',0')+%.' 4$*9%.'42')+%'6'),%.)'$%/'B,.-')+%'-$'06'*&')+%'6*0,),7%'%/%()$*5%''.5')+%.%%5/%',0' 3,)+5$'3.' +,/0)'+%'(1$$%.)'6'00%0''' /,))/%'&$*)+'%7,5%.(%'*&')+%'%/%()$*/2),(''(;),*.'3%//0'16'42')+%'0,5%'*&')+'',$''.5''.' 1$),('$,'/3+%'/'&*$80' +,0'0**.'0140,5%0' /%'7,.-''6,.9'+'$5,0+'6'61/%'3+,(+'/'0)0''

&%3'5'20H 3+,/0)'*(('0,*.'//2''8,.1)%'0('4' &*$80'3+,(+'8'2')'9%'4*1)''3%%9')*' 0%6'$')%' .%,)+%$'('0%''),.2'3+,)%'5%; 6$%00%5'0('$',0'/%&)'41)',)',0'101'//2'6$')(),; (''//2',86%$(%6),4/%''&)%$''0+*$)',8%' (; ('0,*.'//2'+*3%7%$G%06%(,'//2',.'6%$0*.''*& 5'$9'(*86%B,*.G)+%'0%'$0''$%'$')+%$'5%%6/2' 6,-8%.)%5''.5')+%'$%01/)8-'5,0&,-1$%8%.)' 5,0'66%'$0'41)'0/*3/2' '(1$$%.)'*&'&,7%' 8,///'86%$%0'%86/*2%5'&*$'+'/&''8,.1)%',0' 01&&,(,%.)')*'5%0)$*2')+%0)$*.-%0)'+',$0',&')+% &*//,(/%',0''((1$')%/2'0)$1(9H'.5'&$*8',B')*') %.'(%//0''$%'101'//2'01&&,(,%.)')*'-%.%$')%')+,0'(1$$%.)'0)$%.-)+' %'9%$'(1$$%.)0''$%% &&%()1'/,.'5%0)$*2,.-'&,.%$'+',$0'41)',)',0' 0)$*.-/2',.'57,0'4/%')*')%86)*'5%0)$*2' /'.1-*' +%'8*1.)*'*&'6',.'%B6%$,%.(%5' 7'$,%0'3,)+,.'7%$2'3,5%'/,8,)0H,)',0'0%/5*8' 0*',.)*/%$'4/%''0')*'(*.)$',.5,()%)+%'*6%$';),*.' .'0*8%'('0%0'*,.)8%.)0'(*.)',...-' 8H+<H'6%$'(%.)'*&'(*(',.%'$144%5',.'&*$)%.'8,.1)%0'4%&*$%+'.5'5,8,..0%.0,4/2' +%'.184%$'*&'+',$0'%B)$'()%5')'')0,)),.-' *1-+)'.%7%$')*'%B(%%5'&,&)2'.5'.',.)%$7'/ *&'0%7%$'/5'20'*1-+)'/3'20')*'4%*40%$7%5' 4%)3%%.')+%'5%0)$1(),*.'*&'+',$0'(/*0%)*; -%)+%$' '&%3'$%6%($1$%.(%0'(%H'.%0'%,/2')'9% 6/'(%')+%,$'.184%$'4%8-',.',.7%$0%'$'),*')*' %B6%$).%00'3,)+'3+,(+')+%'*6%$',*.'+'0' 4%.'6%$&*$8%5' +%2''$%'%'0,/2'$%(*-.,0; '4/%''.5''$%'-%.%$'//2'8*0)'41.5'.)' 4%.%')+')+%'(+,.-'5')+%'.%(9'3+%$%',)' ,0'5,&&,(1/)*'5%)%$8,.%')+%'6$%(,0%'5,$%(),*. *&')+%'+',$ &*//,(/%0

)',0',86*00,4/%'+%$%')*'53%/*16*.'//')+%' 5%)','0'*&')+%'6$*(%51$%')+%'01((%00'*&'3+,(+ 8',.2'5%6%.50'16*.'09,//'6'),%.(%''.5'%B; 6%$,%.(%' ' $

' , ' ' %86)2' *1)R' g' $'C "g'SJ& "' ') g' %$'I'3 "0 & # " 2')+%')%$8'05%6/%),*.'<',0' 1.5%$0)**5'A'R')+%'1./*'58-'*$'$%.5%$,.-' /%00'&1//'*&')+')'3+,(+',0'*7%$ 41$5%.%5'*$ *7%$&1//'&*$%B'86/%'6*$),*.0'*&')+%)1$-,5' 7'0(1/'$ 020)%8G'0')+%'6*$)'/'7%00%/0H'*$ ALR%B(%00,7%'%7'(1'),*.''('10,.-'%B+'10),*.' G'0',.'(+*/%$',('*$*)+%$'0%7%$%'5,'$$+*%' B G %6/%),*.''/*('/'*$'-%.%$'/''0'')+%$'6%1),('-%.)'8'2'4%'6$'(),0%5',.'' 7'$,%)2'*&'&&%(),*.0'01(+''0'(%$%4$'/(*.; -%),*.'7%.*10')1$-%0(%.(%'%.-*$-8%.)' *&')+%'6*$)'/020)%8'61/8*.'$2'(*.-%),*.' $%.'/,0(+,%8,''.%1$208'*$'-%.%$'/'6/%;)+*$'

G +%''-%.(,%0'3+%$%42'5%6/%;),*.'8'2'4%'6$*51(%5''$%'4/**5/%)),.-' -%.%$'/*$/*('/H61$-,.-H7*8,),.-H03%'); ,.-'H''.5'140),.%.(%'&$*8'&**5''.'5'5$,.9 '%.%$'/'/**5/%)),.-G+%$%',0'.*' 8*$%'6*3%&1/*$'6$*86)'5%6/%),.-'.'-%.)' +'.'-%.%$'/4/**5/%)),.-'42'7%.%0%(),*.'*$ '$)%$,*)*82' .5%%5')+%'(+,%&'85,(',*.0' &*$4/%%5,.-''$%')*'4%&*1.5'3+%$%',)'0%$7%0' ''5%6/%),.-'61$6*0%G 0'8'%.-*$-%8%.)'*&

)+%'$,-+)'+%'$)' . 5'7%. *10'020)%8 ' 0' '' $%01/)' *& 5,0%'0%' *&)+%' +%'B)' ,)0%/& ' *$ &$* 8'5,0%'0%' *&')+%' /1 .-0' *$' &$* 8' ,86',$%5' $%06,$')*$2' 8*7%8%.)H ' /0*' ,.' 7,0(%$'/' (*. -%0),*.' ' . 5' '$)%$,'/')1$-%0(%.(%' ,D ' 0$ ' 40)$')(),*.' H=')' ,0' 0%/5*8 ' +*3%7%$')+')' '40)$')(),*.' *&4/**5' .%%50')*' 4%' ('$$,%5')*'01(+' ' .'%B)%.)' '0')*' %B%$)' '' 8 '$9%5'5%6/%),. -'%&&%()' *.')+%' 3+*/%0200)%8H ,)' ,0' $%E1,$%5'$')+%$' &*$)+%' $%/,%&' *&'/,8 ,)%5'7'0'* 8*)*$'5,0)1$4' . (%0 <' *(' /' /%%5,. - G /%%5,. -'42' 8%' . 0' *&'+25$' '-*-1%' (')+'$),(0',0' '' 8*0)' %&&,(' (,*10' '-%.)' +%.' ,)' ,0' $%E1,$%5')*' -,7%' $%/,%&')*')1$-,5' 7%00%/0' 3,)+*1)' !40)$'(),. -'4/* 5',.' (%$%4$'/' ('$5,'(' '.5' +%6'),(' (*. -%0),*.0' .*)+,. -' 5%6/%)%0' 0*' $%'5,/2'%&&,(,%.)/2' ' .5' 0'&%/2' '0' 3')%$2' 6B1-%0' +%' 4%0)' 61$-'),7%0' '$%%/')%$,. '>'/'6'0%. . ' '0(' 8 8*. 2'01/6+')%*&' 8 '-. %0,18$' *$ 0*5,18')'$)'$) %5' 0*5' ' '(,5')'$)$')%' *&' 6*)'00,18$' ($*)*.' *,/' ' .5' -' 8 ; 4*-%'H)*' 3+,(+' /,0)' 8 '2' 4%' '55%5' 8%$(1$2' ' .),8*.2' ' .5' $%0,.' *&' 6*5*6+2 ,.' +%' -$%')'57' .)'-%'*&'+25$' -*-1%'61$-%0',0')+')')+%2' 5%6/%)%' 42' $%8*7,.-' 0%$18' &$*8')+%' 4/**5 7%00%/0' 3,)+*1)')+%' /*00' *&' $%5' (*$; 610(/%0' %6/%),*.'42' 8%' . 0' *&'01(+' 61$-%0' ,0' *&' ('$5,. '/ 0%$7,(%',.' (%$%4$'/' (*. -%0),*.' .' (*. -%0),*.' *&')+%' ,.)%0),. '/)$')' '$,0,. -' &$*8' +%6'),(' ('$5,'(' *$' 61/8*. '$2'5,0%'0%' '' 8 %$(1$,'/ &*//*3%5' ,.' '' &%3' +*1$0' 42' '' 0'/,.%' 61$-%' ,0' *&' -$%')' 0%$7,(%' .),8*.2' +'0' 4%%.' 8%.),*.%5',.')+%' '4*7%' /,0)' 4%; ('10%*&',)0' 10%&1/.%00',.' (*,.4,.'),*.' 3,)+' 01/6+')%' *&' 8 '-.%0,18$' '.5' *)+%$' 0'/,.%' 61$-%0' 0',)' '/0*' '()0' 0' ''6*3%$&1/(,$(1; /')*$2'5%6$%00'.)' % +*1/5'$%8%84%$')+')' ,)' (.'.4%' *./2'%86/*2%5'3+%.'01(+''(),*.',0' 6%$8,00,4/% ' *8,),. -G .),8*.2'3+%.'10%5' '0' '.' %8%),(' +'0' '' 6*3%$&1//2' 5%6$%00'.)' '0' 3%/' '0' %7'(1'.)*$5%6/%)*$2'%&&%()H 41)'5%; 6$%00,*.' .'.5'5%6/%),*.' '$%' .*)' 02.*.28*10' +%'/*3%$,. -'%&&%()0'*&'&$%%' 61$-,. -'' $%'6$*; .*1.(%5''.5'*$5,.'$,/2'01&&,(,%.)' 8%),(0' 8'2' '()' '0' 5%6/%)'.)0' 42' %7'(1'),. -') +%' (*.)%.)0'*&' *$' 6$*51(,. -'' &/1B' &$*8')+%' 0)*8'(+' .5',.)%0),.%H41)' 3+%.'10%5' 3,)+')+,0'*4>%()'+%,$' 5%6$%00'.)' ()',*.',0' '/3'20')*'4%'4*$.%',.'8,.5 F' 3%'),. -G 3%'),.-',0''/%00'%&&%()1'/' 8%)+*5' *&' 5%6/%),*.' 41)',&' &$%%/2',.51(%5' 8'2' '0',.' ('0%0' *&' $%.' /' 5,0%'0%' 0%$7%' '' -**5' 61$6*0%',.' /*3%$,. -' '$)%$,'/')%.0,*.' '.5' '00,0),. -') +%' %/,8,.'),*.' *&' $%)',.%5' 8')%$,'/0' +%' 101'/'8*5%0' *&' %B(,),. -'5,'; 6+*$%0,0' '$%' ('(),7%' %B%$(,0%')+%' +*)' ',$' A*$ 1$9,0+H4')+')+%'7'6*1$'4')+' 3%)'6'(9,. -' .,)$')%' *&'6,/*>'4*5'.5,R'' .),8*.2' *7%$<0'6*35%$' '.5'06,$,)10'0%)+%$,0' .,)$*0, *$' '>15,(,*10'(*84,. '),*.'*&')+%0%' 8%'01$%0' *6,*10'5$'1-+)0'*&'+*)'/,E1,50'*&)%.' ',5&)+%' '(),*.'*&'5,'6+*$%),('$%8%5,%0' +%'%7'(1'.)' '(),*.' *&'03%'),. -' .5'61$-,. -'8 '2'4%' '5; 7'.)'-%*10/2'(*84,.%5'3+%.'06%%52'5%6/%;),*.',0'5%0,$%5' +%'(*84,.')*.',0'7'/1'4/%' '(%$)',.'5$*6 8%0' '& (L' 40),.%.(%G %.%$'/'5%6/%),*.' .H,'2' 4%' 6$*51(%5' 42' '40),.%.(%' &$*8' &**5' '.5' 5$,.9' '.5')+,0'8%)+*5',0'0*8%),8%0' %8; 6/*2%5',.')+%')$%')8%.)*&' '.%1$208 $# ' 1 $ ' = ' $ ' G +%')%$8'0%6*0,)'+'5')' *.%),8%''81(+'3,5%$'%B)%.0,*.',.'6')+*/*-2')+'.',)' +'0' .*3' .' '((*$5'.(%' 3,)+')+%' 5*()$,.%' &' 8*$4,5' ' *$ ' ,)' 3'0'(10)*8'$2')*'$%-'$5'(.(%$0'.5''/' .%3' -$*3)+0')+%' 6$*51()0' *&')14%$(1/'$' .5' 0($*&1/*10'5,0%'0%0' '0' 3%/' (0')+*0%' *&')+%' 06%(,&,(,&%7%$0' .5' *5,.'$2',.&/'8 %'.G' ,.'&'()' '/8*0)'%7%$2'9,.5''&' 8*$4,5'6$*51()' ,.')+%' 4*52G'0'05%6*0,)%5'<&$*8')+%' 4/**5' ,.' (*.0%E1%.(%' &' 0*8%' /)%$'),*.',.' ,.' ,)0' (*86*0,),*.' ' 0$: 3' .' 8*.2' *&')+%0%' (' 0%0')+%')%$8' ,0' 0),/f *&)%.' 10%5'%7%.')+*1-+' '.'%.),$%/2'5,&&%$%.)' 7,%3' 8'2' 4%')'9%.' *&')+%' 6$*(%00%0f/%'5,.-')*')+%0%' 8*$4,5' (+'.-%0' +%' .'8%' $%8',.0')+*1-+')+%,5%''+'0'5%6'$)%5h' .5')+,0',0''/0*')$1%*&'*')+%$'8*$4,5'6$*51()0'('//%5'05%6*0,)0 +%')%$8' " ' 3'0'&*$8%$/2' 10%5'&*$3+')'$%'.*3'('//%5'62=8,*'*$'0%(*.; 5'$2'40(%00%0'&$*8' ''4%/,%&')+')'610'3'0'$%; 8*7%5'&$*8')+%'*$,-.'/'0%')'*&'5,0%'0%'.5' 5%6*0,)%5',.'5,0)'.)'6')$)0' +%')%$8' # 7 ' ,0' 51%)*' */5)'.092'3+*' 5%0($,4%5')+,0'(+'.-%'0'5 %)*')+%'5%6*0,),*.' 16*.')+%''$)%$,'/ '//*&'8')%$,'/'6$%(,6,)')%5' &$*8')+%'4/**5'.'4*)+)+%0%'('0%0')+%')%$8' 0%%8 0'.*3'8,0/%'5,. -' -',.'0%7%$'/'6$*; (%00%0'3+,(+'3%'.*3'('//'5%-%.%$'),*.0'*$,.&,/)$')*.0'3%$%'&*$8%$/2'06*9%.'*&' 0'5%; 6*0,)0H &*$' %B'86/%'/'$5'(%*10'&'))2'.5' 6,-8%.)'$2'5%6*0,)0H .5' /)+*1-+')+%0%' 6$*(%00%0'8'2'.*3'4%'4%))%$' 5%0($,4%5'42' '.*)+%$'.'8%',)' ('..*)'4%'5*14)%5')+')' ,.' 0*8%'&*')+%8'' .' %B)$'.%*10'0140)'.(%',0' '()1'//2'5%6*0,)%5',.')+%),001%0' +%')%$8' " ' 3'0' /0*' 10%5'&*$')+%' 8'00%0'.*3'9.*3.'0',.&'$(),*.0'*$' 4/*(90' A'0'&*$' %B'86/%',.')+%' 06/%%.' *$' 9,5.%20R' 3+%$%')+%' '66%'$'.(%*&'' 8'00'*&%B)$'.%; *10'8')%$,'/',0'6$*51(%5'42')+%'5%-%.%$'),*.' '0'' 8'00'*&'),001%'8,B%5'3,)+'6$*51()0'*&' +'%8*$$+'-%',.&/'88),*.'.'.5'%B15),*.' .'E1,)%'.*)+%$'0%.0%')+%'7'$,*10'0140)'.(%'0 6$%(,6,)')%5'&$*8'71,*%'$%'06*9%.'*&''0' 2 " / '3,)+'3+,(+'3%'$%'.*)'+%$%' (*.(%$.%5 +%.')+%0%'%B(%6),*.0'*$' 8'5%')+%' 6$%0%.)'10%'*&')+%'3*$5' ,0''' /,8,)%5' *.%'41)',0''66$*6$,')%',.')+*0%'('0%0'3+%$%' 0*8%)+,.-'5,&&%$%.)'&$*8')+%'%/%8%.)0'*&')+%'),001%''.5'%06%(,''//2',&',)'4%''.',.*$-'.,(' 8')%$,'/',0'&*1.5',.')+%,$'0140)'.(%''.5 ! ' '@

3+%.'‚)' 8 '2'$%'0*. '4/2'4%'0166*0%5')+ ')')+‚0'
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+%')%$8' ‚0' (/%'$/2',.'66$*6$,')%' 3+%.')+%'
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/,.%' %' 0+'//' 06%',' ,' .')+%' 0%.0%' >10)' 5%;
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' '/(' $%*10' %6*0,)0 G= ' ('/(,&,(';
),*.' *&')+%'),001%0' *&')+%' 4*52' 3+%)+%$' .*$;
8 '/*$5%-%.%$')%5''*&,.&/' 8 8')*$2'6$*51()0'
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51()0' '66%'$0')*' 5%6%.5'16*.')+%' 5%6*0,),*.'
&/,8%0'/)0' ,.')+%' &$8' *&' -$' .1/%0')+,0'
5%6*0,),*.')'9,.-'6/'(%',)+%$'3,)+,.')+%'014;
0)'.(%'*&')+%'%/%8%.)0'*$'8*$%'$'$%/2',.')+%'
,.)%$(%//1/'$'0140)'.(%'*$' 6*00,4/2' 0*8%;
),8%0',.')+%' ,.)%$0),(%0'*&')+%'),001%' '/;
('$%*10'5%6*0,)')'9%0'6/'(%')*3'$50')+%'(/*0%'
*& &%',.'0%7%$%'/'6'$)0'+%'4*52''0',.')+%'
3'//0'*&''$)%$,%0',.'('$),/'-%0'.5'),.5*.0'
,.')+%'7'/7%0'*&')+%'+%'$)'.5')+%'($20)'//,..%'
/%.0'*&')+%'%2%H')+*1-+',.'8*0)'*&')+%0%'
('0%0',&'.*)',.'//'0*8%'*)+%$'6')+*/*-,('/
(+'.-%'6$%(%5%0')+%'5%6*0,),*.'*&/,8%' &//
8*$%&$%E1%.)/2')+,0'(+'.-%'((1$0',.'8'00%0'
&'5%'5'$'5%-%.%$')%5'8')%$,'/0''0'&*$
,.0)'.(%',.'*$-'.0'3+,(+'+'7%'6'$),'//2'*$
3+*//2'/*0)'+%,$'7,)'/,)2',.'.%3-$*3)+0'
3+,(+'+'7%'$%'(+%5')+%'0)'-%*&$%)$*-$%00,7%
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42-*.%' ,.&/'8 8'),*.' ' 3'0)%5' %2%4'//
'/3'20'4%(*8%0'6')$)/2'('/(,&,%5'A0*8%),8%0'
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&,4$*8'' '$%'06%(,'//2'014>%()')*' ('/(,&,(';
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)1$4%5' '0',.')+%' 5%%6' 7%,.0'*&')+%' 6%/7,0'
1.5%$-*')+%'0'8%'(+'.-%''.5'4%(*8%'6+/%'
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.5'/286+'0%%8')*' 4%(*8%'.%(%00'$,/2'('/;
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'//2')+%'6$*51()0'*&'(+$*.,(' 5%-%.%$'),7%',.;
&/'88'),*.0'3+,(+'+'7%'4%(*8%'.%($*),(''0'
0%%.',.'0($*&1/*10'/286+'),(-/'.50''.5',.'
)14%$(1/'$'8'00%0',.')+%'/1.-0' '0,8,/'$'
%B6/'.'),*.'''66/,%0')*' ('/('$%*10'5%6*0,)',.'
)+%'3'//0'*&''$)%$,%0'3+%$%')+%'/,8%',0'
-%.%$'//2'5%6*0,)%5',.'.%3'6$*51()0'3+,(+'
$%01/'&$*8'(+$*.,(''$)%$,),0'*$')+%')+%$*;
8 ')*10'6$*(%00')+*1-+'/,8%'8'2'/0*4%5%;
6*0,)%5',.')+%'810(1/'$'3'//0',.5%6%.5%./2'
&'')+%$*8''%($),('8'00%0'$%01/),.-'&$*8'
%84*/,('.&'$(),*.''$%'&$%E1%.)/2'('/(,&,%5'
'$')0,)%0'*&''/'9,.50'*((1$$,.-',.'0*/,5'
$-'.0'$%'/,'4/%')'4%(*8%'01$$*1.5%5'42'
'*('/(,&,%5'3'//H''(+'.-%'&$%E1%.)/2'0%%.',.'
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810)'4%''))$,41)%5')*'0*8%'(+%8,('/'$%'(),*.'
4%)3%%.')+%'),001%0'+10'/)%$%5''.5')+%'/,8%

0'/)0',.')+%'4/**5H''.5',)',0'6*00,4/%')+')')+%
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,.')+%'4/**5'0*8%),8%0'&'7*1$0')+%'(+'.-%'
0,.(%'5%6*0,),*.'*&/,8%',.'*.%'6')$)'0*8%),8%0'
(*,.(,5%0'3,)+'$%8*7'/*&',)'&$*8''.*)+%$
6')$)' .'0%.,/%'5%('2')+%'3'0),..-'*&'4*.%0'
-*%0'*.'0,81/)'.%*10/2'3,)+')+%'('/(,&2,.-'
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('0%0'$'6,5'40*$6),*.'*&'4*.%'&$*8'06%(,'/
5,0%'0%'+'0''66%'$%5')*'4%')+%'5%)%$8,.,.-'
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@'%)'//,('%6*0,)0 G)+%$'8,.%$'/0'
4%0,5%0'/,8%0'/)0''$%'$'$%/2'&*1.5'5%6*0,)%5'
,.')+%',001%0''/)+*1-+',.'('0%0'*&'(+$*.,('
8%)'//,('6*,0*.,.-'(*86*1.50'*&'/%'5'0,/7%$'
'.5'(*66%$'8'2'4%'&*1.5')+10'5%6*0,)%5'
V,.('.5'8%$(1$2'$%'/%00'(/%'$/2')$'(%5'41)'
6$*4'4/2'&*//*3')+%'0'8%/'3' +%'0)')%'*',
(+%8,(='(*84,.'),*.' .' 3+,(+')+%' 8%)'/0'
((1$',0'.)'6*0,),7%/2'9.*3.'41)'66%'$0')*'
4%'0*8%(*84,.'),*.'3,)+'/4188%.
"' ,-8%.)'$2' %6*0,)0 G ,-8%.)';
),*.''0'' 6$*(%00',0'5,0(100%5',.')+%'$),(/%
&)'.5'+'0'4%%.'0+*3.')*'5%;
6%.5'7%$2'&$%E1%.)/2'16*.')+%'*((1$$%.(%')
+0%8*$$+'-%'.5')$'.0&*$8'),*.'*&')+%'%B'
)$'7'0')%5'4/**5' 1)'6+20,*/*-,('/6,-8%.)'
*$'8%/'..,.'0'5%6*0,)%5',.'8''.2'6')$0'*&
)+%'4*52'4*)+'.*$8''//2''.5'6')+*/*-,('//2'
E1,)%,.5%6%.5%.)/2'*&'+&,%8*,$+'-%' *$;
8''//2')+,0',0'0%%.',.')+%'09,.')+%'(+*$*,5'
(*')'*&')+%'%2%'^*'6')+*/*-,('//2',.')+%
0'8%'0,)1'),*.0'41)',.'%B(%00,7%'E1'.),)2H'
'.5''/0*',.''4.*$8'/'0,)1'),*.0''0'*.')+%'
81(*10'8%84$'.%'*&')+%'8*1)+' +%'$;
$'.-%8%.)'*&')+%'6,-8%.)',0',.'%7%$2'('0%')+%'
0'8%'&*$8,.-'8,.1)%4/'(9'-$'.1/%0',.')+%'
6$*)*6/'08'*&')+%'(//0''$*1.5')+%'.1(/%10'
)0'5%6*0,),*.''.5'$%8*7'/'$%'$%-1/')%5'42'
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'$%'6$*4'4/2'8'0*8%'3'2'5%6%.5%.)'16*.'
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5'(%*10'8')%$,'/'(*,5'^('.0'.*)''0,86/%
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8%)'8*$6+*0,0'*&')+%(%''*$'.'-%.%$'/
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,86*$)'.)')+%*$,%0' '.5'*40%$7'),*.0' *.')+%'
014>%()')+%' $%'5%$' ,0' $%&%$$%5')*')+%' '$),(/%'
*.' $# ! ' +(+' '$$%0)0' 8'2')'9%'
6/'(%' ')' .2'0)'-%',.')+%'5%7%/*68%.)' *&')+%'
%84$2*' '.5'*&',)0' *$-'.0Ĥ 41)' *./2')+%' 8*0)'
,86*$)'.)' *&')+%8' '.5')+%' 8*5%',.'3+,(+'
0*8%')26,('/ %B'86/%0' '$%' 4$*1-+)' '4*1)'
3,//4%'8%.),*.%5'+%$%')
E G +*0%'3+,(+'*((1$'7%$2'%'$/2'
,.'&(%)'/ /,&%' '$%' (*86/%B' '.5'&*$')+%' 8*0)'
6'$)' ,.(*86')4/%' 3,)+' 7,'+,/,)2Ĥ 3+,/0)'
)+*0%'3+,(+'*((1$'/')%$' *&)%.' '&&%()'*./2'*.%'
$-'.'*$' '' 0%)'&' *$-'.0'.'.5',.'0*8%' ('0%0'
&*$8'.*' 4'$$,%$' *' ' 6$*/*.-%5' %B,0)%.(%'
*)' *./2'810')+%' &*%)10'4%' (*.0,5%$%5'41)'
'/0*')+%' 6/'(%.)'' '.5'8%84$'.%0' ,.'3+,(+'
,)',0'%.(/*0%5' Ĥ &*$'5,0%'0%0'*&')+%0%'
/%'5')*' 8'.2'&*$80'*&'8*.0)$*0,)2'%,)+%$'42'
,.)%$&%$%.(%'3,)+')+%' .1)$,),*.'.'.5'$%06,$';
),*.'*&')+%' %84$2*' '0',.')+%' ('0%' *&'8'.2'
0*('//%5' 0)$1%' 8*/%0<Ĥ *$')+%' .*$8'/
(+'.-%0' 8'2'4%' (+%(9%5' 42' '5+%0,*.0'
4%)3%%.')+%8' '.5')+%' &*%)10' %$0,0)%.(%'
*&')+%' 184,/,(/ 7%0,(/%' ,0' %B(%00,7%/2'$'%'
41)' ''6')%.)'7,)%//,.%'51()',0'.*)'1.(*88*.'
'.5'%B6/',.0'8'.2'*&')+%'5,7%$),(1/'',.'(*.;
.%B,*.'3,)+')+%' 08'/' ,.)%0),.%0' ' 3'6)'
*&'(/*01$%' *&')+%' 7,0(%$'/ /'8,.0%' ,0')+%'
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)*' '' (*86/%)%' .)%$,*$'(/%&)'3,)+')+%')+*$'(,('
'.5'45*8,.'/ 7,0(%$''/2,..-'4'$%' *1)'*&')+%'
4*52('7,)2' .*)+%$' (0%0')+%' 09,.'.5'
810(/%0'*./2'8'2'(*7%$')+%'7,0(%$')+%'
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,0'(/*0%5'4%&*$%')+%'45*8%.'0*)+')'%()*6,''
*&')+%' 45*8,.'/ ,0'8*$%(*88*.')+'.'*&'
)+%')+*$'(,(' 7,0(%$' +%' 45*8%.'+*3;
%7%$',0'0*8%),8%0'(/*0%5',.'3+,/0)'+%'
)+*$'B'$%8',.0'*6%.'.5'7'$2,.-'5%-$%%0'
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(*86/%)%' 6,06'5,'0' '.5'+26*06'5,'0')*'
7'$2,.-'%B)%.)0' '$%'&1$)+%$'%B'86/%0'*&',8;
6%$&%()'&10,*.'*&')+%'7%.)$'/'8,.[' +%0%'
8'2'*$'8'2'.*)'4%' '))%.5%5'3,)+'5,06/'(%;
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*$-'.0' ,8,/'$/2'&,*8'.',.(*86/%)%'&10,*.'
*&')+%'7%$)%4$'/'/'8,.[')+%'7'$,*10'&*$80'*&
06,.''4,&,5''*((1$Ĥ''.5')+%0%''$%'-%.%$'//2'
'((*86'.,%5'3,)+'.'%B(%00'*&'&/1,5',.')+%
06,.'/'('.'/'*$+25$*$'(+,0
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(%$%4$*06,.'/'(%.)$%0'.5'*&')+%'*$-'.0'*&'
06%(,'/'0%.0%''$%'7%$2'.18%$*10' +%'3+*/%'
4$',.'8'2'4%'3'.),.-'*$')+%'8%51//''*4;
/*.-')''8'2'4%'5%7%/*6%5''.5')+%'$%8',.;
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8'2'4%''40%.)'*$E1,)%$15,8%.)'$2' $*8

0%% . ’ ’ . 5’ , . ’ ’ //f +,0f *)+%$’ (’0%0f)+%f 6’ . ($% ’0f + ’ 0f 4%%)R’ ’4 . *$8 ’/’ 101’ //2’ (* .)$’()%5’ +%$%f ’ . 5’)+%$%’ + ’ $5’ ’ . 5’ 9 . *))2 ’ . ’ * . %’ (’0%’ +*3%7%$’)+%’ *$- ’ . ’ 3 ’ 0’ % . /’ $- %5’ ’ . 5’ 8 *$% 01((1/% .)’)+’ . ’ 101’ /’ 6$*4 ’ 4/2’)+%’ &,$0)’ 0)’ - %’ *&’)+%’ 8 ,0(+,%&’ +%’ *((1$$% . (% ’ *&’ 0*’ , 8 ; 6*$)’ .)’ 6’ . ($% ’),(’ (+’ . -%0f , . ’ ’ 4*1)’ * . % + ’ /&’)+%’ % ’ 0%0f *&’ 5, ’ 4%)%0f 3 ’ 1/5’ 0%% 8 ’)*’ , . 5,(’)% 8 ’ *$% ’)+’ . ’ ’ (’01 ’ /’ (* . . %B,* . ’ 3 ,)+’)+%’ 5,0; % ’ 0% ’ + ’)’)+,0f (* . . %B,* . ’ $% ’ //2’ ,0f $% 8 ’ , . 0f 1 . ’ 0(%$)’ , . %5 ’ /%40f + ’ 0f ’ 00*(, ’)%5’)+% (+’ . -%0f 3 ,)+’ 5,0% ’ 0%’ *&’)+%’ (*0 ’ (’ 6/%B10 ’ . %’ $%01/)’ &,H*8’)+%’ 6’ . ($% ’),(’ 8 ,0(+,%&’ ,0f , ’ 4,/,)2’)*’ 5,-%0)’ &’)’ +,0f 3 ’ 0f 0%% . ’ , . ’ * . %’ *&’)+%’ (’0%0f $%&%$%5’)*’ ’ 4*7% ’ ’ : # ’ ,0% ’ 0%0f *& +%’ - ” ’ *9,)’ . 092’ &*1 . 5’ 5,0% ’ 0%5’ , . ’ <H’ , . 0)’ . (%0 ’ 41)’)+%’ (+’ . -%0f 3%$%’ . *)’ 1 . ,; &*$8 ’ 01 ’ //2’)+%2’ 6$%0% .)%5’)+%’ *$5, . ’ $2’ , . 5,(’),*. 0f *&’ +26%$ ’ %8,’ ’ 4%, . -’ %./’ $-%5 ’ 5 ’ $9’ $%5 ’ ’ . 5’ &1//’ *&’ 4/**5’ ((’0,* . ,=2’)+%$%’ 3%$%’ 0, - . 0f *&’ 8 *$%’ %B)% . 0,7%’ 8 ,0(+,%& ’)+%’ 0140)’ . (%’ *&’)+%’ 9,5 . %2’ ’0f 3%//’ ’0f ,)0f 7%00%/0f ’ . 5’ %6,)+%/,1 8’ 4%, . -’ , . 7*/7%5’ ’ . 5’)+%’ *$- ’ ,’ +’ $5%$’)+’ . ’ . ’)1$’/’ &)%. ’ &’))2’ (+’ . -%0f *((1$’ . ’ * . %’ (’0%’ *&’)+%’ 3$,)%$<0f ’ 8 2/*,5’ (+’ . -%0f +’ 5’ 4%-1 . ’ , . ’)+%’ ’ /6,-+,’ . ’ 4*5,%0 +%’ # 0 ’ ’ $%&,$%E1%.)/2’ 5,0% ’ 0%5’ , . ’ * . /2’ M’ *&’ +,0f (’0%0f 5,5’ *9,)’ . 092’ &, . 5’)+%8’ . *$; 8 ’ /H $’ ,(9, . 0*. ’ * . /2’)3,(%’ *1)’ *&’ @M’ , . ; 0)’ . (%0’ +%’ (+’ . -%0f , . (/15%5’ ’ ’ 0)’ - %0’ &$*8’ ’ (1)%’ *$’ (+$*. ,(’ 6 . %18 *. , ’ ’)*’)+%’ &*$; 8 ’),*. ’ *&’ . 18%$*10’ (’7,),%0’ *$’ %7%. ’)*’ - ’ . ; -$%. %’ . ’ * . %’ *&’)+%’ 3$,)%$<0f (’0%0f)+%’ 3+*/%’ *&’)+%’ 166%$’ /*4%’ *&’ * . %’ /1 . -’ 3 ’ 0f (* . 7%$)%5’ , .)*’ ’ +1-%’ (’7,)2’ &,//%5’ 3,)+’ 0*/,5’ ’ . 5’ 0% 8 ,; &/1,5’ 5%)$,)10’ + ’ 7, . -’ . *’ - ’ . -$%. *10’ *5*1$’ +%$%’ +’ 5’ 4%%. ’ . *’ %B6%()*$’),* . ’ ’ . 5’ . *’ +’ %8*$$+’ -%’)+*1-+’ 7%00%/0f 3%$%’ %B6*0%5 +%’ #’ . 5’ ” ’ ” ’ 6$%0% .)’ /,))/%’ 4%2*. 5’)+%’ *$5, . ’ $2’ 0, - . 0f *&’ $%(1$$% .)’ *$’ (+$*. ,(’ (’)’ $$+G)+,(9%. , . - ’ 8 ’ 8 8 ,//’ ’),*. ’ ’ . 5’ 0/’)2’ 6, - 8%.)’),*. H’ %$*0,*. 0f ’ . 5’ 1/(%$’),*. 0f 8 ’ 2 ’ +*3%7%$’ *((1$ 6 7 G +%’ &*//*3, . -’ 09%)(+’ (*86$%; +%. 50f)+%’ 8*$%’ (+’ $’ ()%$,0),(’ (/, . ,(’ /’ &%’)1$%0f *&’ 5, ’ 4%)%0H’ 41)’)+%$%’ ’ $%’ *&)%. ’ ,86*$)’ .)’ 7’ $,’),*. 0f , . ’ , . 5,7,51’ /’ *’ 0%0f)+*1-+’ ’ (%$;)’ , . ’ . 184%$’ *&’ &%’)1$%0f ’ $%’ (*88*. ’)*’ ’ ’ +%’ 6’),%.)’ 8*0)’ /,9%/2’ ’ ” 8 ’ /%’ 4%)3%%. ’)3%.)2’ ’ . 5’ &*$)2 &,7%’ 3+%. ’ +%’ (*8%0f 4%&*$%’)+%’ 6+20,(. ’ . ’ +’ 0f ,. ’ ’ //’ 6$*4 ’ ,/,)2’ 4%. ’ 01&&%$, . -’ &$*8’)+%’ 5,0% ’ 0%’ &*$’ 0*8%’),8%H’ &*$’ ,)’ 101’ //2’ (*8%0f *. ’ , . 0,5,*10/2’ %’ 8 ’ 2’ 0’ 2’)+’)’ +%’ +’ 0f 4%%. ’ , . ’ &’ ,/, . -’ +%’ /)+’ &*$’ ’ ” 7’ $2, . -’ 6%$,*5H)+’)’ +%’ +’ 0f 4%%. ’ 7%$2’)+,$0)2’ . 5’ +’ 0f 6’ 00%5’ 8 1(+’ 3 ’)%$’ +’ 7, . -’)*’ -%)’ 16’ $%6%’)%5/2’ &*$’)+,0f 61$6*0%’ 51$, . -’)+%’ . , -+)’ ,0f ’ 66%),)%’ +’ 0f 4%%. ’ 8*$%’)+’ . ’ +%’ $)2H 41)’ +,0f &*”5’ 0%% 8 0f)*’ 5*’ +,8’ . ’ -**5’ &*$’ +%’ +’ 0f 4%%. ’ (*. 0)’ .)/2’ -$*3, . -’)+, . . %$’ ’ . 5’ +%’ &%%/0f 3%’ 9f ’ . 5’ , ’ . ’ (/*0%$’ %B’ 8 , . ’),*. ’ ,)’ ,0f &*1 . 5’)+’)’ +%’ ,0f 5’ ,/2’ 6’ 00, . -’ ’0f 81(+’ 6%$; +’ 60f ’0f %,-+)’)%. ’ *$’ 8*$%’ 6, .)0f *&’ 1$, . %’ /, -+)’ ,. ’ (*/*1$’ ’ . 5’ *&’ ” 6%(1/,’ $’ 03%%),0+ *5*1$’ *&’ ” +,-+’ 06%(,&,(’ -$’ 7,)2’ 6%$+’ 60f ! !g’ ’ . 5’ (*.)’ , . , . -’ ’ . ’ ’ 41 . 5’ . (% ’ *&’ 01-’ $’ +%’ 09, . ’ ,0f 5$2’ ’ . 5’ + ’ $0+H)+%’)*. -1%’ $%5 ’ . 5’ -/’ C%5’ *$0/,-+)/2’ &1$$%5H)+%’ 8*1)+’ 5$2’ ’ . 5’ (/’ 8 8 2H)+%’ /,60’)%%)+’ ’ . 5’ -1 8 0f ’ $% (*7%$%5’ 3,)+’ 0(’ .)2’ 0),(92’ 8 1(10H)+%’ 4$%’)+’ ,0f *&)%. ’ 03%%),0+’ *$’ ,)’ 8 ’ 2’ 4% 1 . 6/%’ 0’ . ’ $ &$*8’)+%’ 0)’)%’ *&’)+%’ 8*1)+H)+%’ 4*3%/0f ’ $% (*. &, . %5H ’ . 5’)+%’ (*1 .)%. ’ . (% 3%’ $0f ’ . ’ %B; 6$%00, *. ’ .’ *&’ 3%’ $, . %00f ’ . 5’ &’), -1% $*8’)+, 0f 6*, .)’)+%’ 8 ’ /’ 52’ 8 ’ 2’ 6$*-$%00f , . ’ *. %’ *$’ *)+%$’ *&’)3*’ 5, $%(), *. 0’ . 5%$’ >15, (, *10’ 8 ’ . ’ -%8%.)’)+%’ 02 8 6)*8 0f 8 ’ 2’ ’ 8%/, *$’)%’ &)%. ’)+%’ &, $0)’ , . 5, (’), *. ’ *&’ , 8 ; 6$*7%8%.)’ ,0f ’ ” (*6, *10’ 6%$06, $’), *. H’)+%’)+, $0)’ 5, 8 , . , 0+%0H /%00f 1$, . %’ , 0f 6’ 00%5H)+%’ ’ 66%),)%’ ,0f . *)’ 0*’ $’ 7%. *10’ H)+%’ 01-’ $’ 5%; ($%’ 0%0f , . ’ E1’ .),)2H ’ . 5’ 3,)+’ ,)’)+%’ 06%(, &, (’ -$’ 7,)2’ ,0f /%00%. %5’ 8 ’ (, ’), *. ’ (%’ 0%0’ ’ . 5’)+%’ 6’), %.)’ 4%-, . 0f)*’ $%-’ , . ’ 3%, -+)’ +,0f ’ 106, (, *10’ (*8$. %. (%8%.)’ 8 ’ 2’ 3,)+’), 8%’ . 5’ ($%’ %. 5’ , . ’ ” 8*$%’ *$’ /%00f (*86/%)%’ $%)1$. ’)*’ +%’ /)+’ . &*$)1. ’)%/2’)+%$%’ ,0f ’ . *)+%$’ 0,5%)*’)+%’ 6, (0)1$%’ &*$’ . *)3,)+; 0)’ . 5, . -’ ’ //*1$’ %&&*$)0’)+%’ 6’), %.)’ *&)%. ’ -*%0f &$*8’ 4 = ’)*’ 3*$0%’ %’ &’ , f ’)*’ $%51(%’)+%’ E1’ .),)2’ *&’ 01-’ $’ 4%2*. 5’ ” (%$)’ , . ’ 6*, .)’ +%’ 66%),)%’ -%)0’ 8*$%’ . 5’ 8*$%’ 7*$’ (, *10’ %06%(, ’ //2’ &*$’ 0)’ $(+2’ ’ $), (/%0f *&’ &**5’)*’ *4)’ . ’ 3+, (+’)+%’ 6’), %.)’ 3, /f 0*8%), 8%0f /, %’ *$’ 0)%’ /’ ’ . 5’ 2%)’)+%$%’ ,0f *&)%. ’ . *’ &%%/, . -’ *&’ 0’), %)2’ ” 8%), 8%0f)+%’ 66%),)%’ &’ , /0’ ’ . 5’)+%. ’ %8’ (, ’), *. ’ -*%0f *. ’ 0), /f 8*$%’ $’ 6, 5/2’ /f 0%B1’ /’ 6*3%$’ ’ . 5’ &%%/, . -’ +’ 7%’ /*. -’ ’ -*’ 4%%. ’ 50)’)+%’)%0)%0f 0*8%), 8%0f 1. 5%$-*, . -’ ’ /8*0)’ (*86/%)%’ ’)$*6+2’ +%’ +’ $0+’ 5$2’ ’ . 5’),)(+2’ 09, . ’ 4%(*8%0f)+%’ 0%’)’ *&’ 4*50’ *$%7%. ’ *&’ ($41. (/%0’ &)%. ’)+%’ 0, -+)’ ,0f , . >1$%5’ 42’ (/*15, . %0f *&’)+%’ $%&$’ (), 7%’ 8%5, ’ ’ %0; 6%(, ’ //2’ *&’)+%’ /%. 0’ *$42’ $%), . ,), 0f ’ . 5’ *)+%$’ 8*$4, 5’ (+’ . -%0’ /f)+, 0f), 8%’)+%’)%8; 6%$’)1$%’ ,0f /*3’ 6%$+’ 60f 014 . *$8’ /H 41)’)*3’ $50f)+%’ /’)%$’ 0)’ -%0f *&’)+%’ 8’ /’ 52’ ,)’ *&)%. ’ $, 0%0’ 1(+’ ” $, 0%’ , . 5, (’)%0f)+%’ ’ (; (%00, *. ’ *&’ ” &*$8, 5’ 4/%’ (*86/, (’), *. ’ 3+, (+’ 8, -+)’ ’ /8*0)’ 4%’ 0’ , 5’)*’ 4%’)+%’ . ’)1$’ /’)%$; 8, . ’), *. ’ *&’ 5, ’ 4%)%0’ +, 0f 016%$’ 55%5’ 8, 0; (+, %&’ , 0f ’ ” 6%(1/, ’ $’ , . 0, 5, *10’ 9%, 5’ *&’ 6. %1; 8*. , ’ ’ $%0%8 4/, . -’ ’ (1)%’ 6. %18*. , (’ 6+)+, 0, 0’ ’ . 5’ -, 7, . -’ $, 0%)*’ /*(’ /’ 0, - . 0f $%0%8 4/, . -’)+*0%’ (+’ $’ ()%$, 0), (’ *&’)+’)’ 8 ’ /’ 52’ +%’ 6$*-$%00f *&’)+, 0f /1 . - 8, 0(+, %&’ , 0f $’ 6, 5H)+%’ &%7%$’ , . ($%’ 0%0H ’ . 5’ *&)%. ’)+%$%’ , 0f , $$%6$%00, 4/%’ 5, ’ $$+*%’ ’ 0*8%), 8%0f *&’ &’))2 /**9, . -’ 8 ’))%$’ 0f)+%’ %. 5’ ’ 66$*’ (+%0’)+%’ 01-’ $’ 101’ //2’ 5, 0’ 66%’ $0’ &$*8’)+%’ 1$, . %’ 3+, (+’ 8 ’ 2’ 4%(*8%’ /418, . *10f ’ . 5’ 0(’ .)2’ +%$%’ 8 ’ 2’ %7%. ’ 4%0*8%’ *%5%8 ’ ’ *&’)+%’ B)$%8,), %0’ +%’ %. 5’ *&)%. ’ *8%0f 03, &)/2’ ’ . ’ 5’ 3,)+*1)’ 3’ $. , . -’ 42’ ’ (1)%’ 6. %18*. , ’ ’ *$’ 42’ 3+’)’ &*$’ 3’ .)’ *&’ ” 4%))%$’ . ’ 8%’ 3%’ (’ //’ 5, ’ 4%), (’ (*8’ ’ *$ 8*$%’ 0/*3/2’ 42’ -$’ 51’ /’ %B+’ 10), *. ’ &)%$’)+%’ *. 0%)’ *&’ 61/8*. ’ $2’ 02 8 6)*8 0f ,)’ ,0f . %7%$’ 7%$2’ /*. -’ 5%/’ 2%5’ 1(+’ 8 ’ 2’ 4% 0’ , 5’)*’ 4%)+%’ *$5, . ’ $2’ (*1$0%’ *&’ ” 3%// 8’ $9%5’ (’0%’ *&’ 5, ’ 4%)%0’ +%$%’ $%%’ 0%0’ 0/, -+)%$’ 3+%$%’)+%

+,0)*$2',0'5,&&%$%.)H 41)',.'4*)+'0%)0'*&'*'0%0'
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'.5'=-+)%0)'&*$80'*&'5,'4%)%0'08'//'E1'.;
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&,&)%%.'6,.)0'5',/2H'.5'%7%.')+%'+,-+%0)'*&'
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G*&'1$%'H'.5',&')+%'E1'.),)2'*&'1$,.%'6'00%5'
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)',.%5'4*1)')+%')%%)+''.5')+%$%61)$%&2'
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/'(),(',(,5' +%')*.-1%',0'$'$%/2'6%$&%()/2'
.')1$'/' %%-%.'5%0($,4%0',)'0'101'//2'
)+,(9%.%5''.5',.($%'0%5',.'7*/18%'3,)+'
&,001$%0''.5'-/'C%5'4/**5$%5',0'.50'*.',)0'
01$&'(%'3+,(+'+*3%7%$'8'2'6$%0%.)''
-%.%$'/(*'),.-' +%')%%)+')*'&)%.'&'//*1)'
3,)+*1)'6',.'&$*8')+%$%)$'(),*.'*&')+%'-180'
'.5'$%'0,.-1/'$/2'/,'4/%')*'('$,%0' ,-%0),*.'
,0'101'//2'-**5'%B(%6)'51$,.-'(')'$+'&')+%0'
)*8'(+'3+,(+',0''$')+%$'&$%E1%.)'(*.5,),*.'
.0),6'),.',0')+%'$1/%',.'5,'4%)%0'*&)%.')*'
''))$*14/%0*8%'%B)%.)' +,0''$,0%0'6')$)/2'
&$*8')+%'5%&,(,%.(2'*&'3')%$',.')+%'4*3%/H
6')$)/2'/0*'&$*8')+%'08'//E1'.),)2'*&'&0%('/
$%0,51%'&$*8''.'%B(/10,7%/2'8%')$'5,%)'
,'$$+*%''*.')+%')+%$'+'.5',0'.*)'1.(*8;
8*.''.5'$'6,5/2'5,8,.,0+%0')+%'6'),%.)<0'
0)$%.-)+
B " '' 'G' 8'(,'),*.',0''.'
%'$/2''.5'8'$9%5'02 8 6)*8''*&'5,'4%)%0'41)'
.*)',.7'$,'4/2'0*'&*$'5,'4%)%0'*&)%.''*((1$0'.5'
6%$0,0)0',.'0)*1)'6%$0*.0'3,)+*1)'$%8*7,.-'
)+%'*4%0,)2' +%0%'$%'('0%0'*&')+%'8*$%
)$'()'4/%'9,.5')+%'6'),%.)0'4%,.-'101'//2'
0*8%3+')'57'.(%5',./,&%' +%4'(*86/%)%(
(1$%,0'0%/5*8'%&&%()%5'41)')+%2'5*'.*)'0%%8'
)*'01&&%$-$%')/2'&$*8')+%'8'/'52' +*1-+'
)+%'%8'(,'),*.',0,.-$%')'6'$)'51%)*')+%'$%;
8*7'/'*&'&')'.5',.'6'$)')*')+%'40)$'(),*.'*&'
3')%$'&$*8')+%'),001%0')+%$%0%%8 0')*'4%'/0*'
.'')1'/'3'0)%'*&'8 10(1/'$'0140)'.(%'%06%;
(,'//2',.')+%'57'.(%5'0)'-%0'*&')+%'5,0%'0%'
,)')+,0'%8'(,'),*.'$%'(/%0'*&')%5'3%'9;
.%00'3%'$,.%00''.5'5,0,.(/,.'),*.')*'%B%$),*.'
+%0%'$%'&)%.''8*.-')+%%'$/,%0)'0J1.6)*8 0'
*&')+%'5,0%'0%'.5'8'2''((1$'/*.-'4%&*$%
3'0),.-',0'.*),(%5'41)',.($%'0%'8'$9%5/2'
)*3'$50')+%'(/%0'*&')+%'8'/'52' $*8'
7'$,*10'(10%0'A*.%'4%,.-'5*14)/%00'3%'9%.;
,.-'*&')+%+%')$)R'*%5%8''*&')+%/*3%$%B)$%8,;
),%0'8'2''((1$'3,)+'*$'3,)+*1)'/418,.1$,''
'.-$%.%'*&')+%'%B)$%8,),%0''*&')+%'0%./%
9,.5'+'0'4%%.'*40%$7%5
\ '& / G ,)+'$%-'$5')*'
)+%'$%06,$')*2'*$-'.0''' 6%(1/,'$'66/%''*$
+'2/,9%'*5*1$'*&')+%'4$%')+',0'0*8%),8%0'*4;
0%$7%5'6$*4'4/2''$,0,.-'&$*8')+%'6$*51(),*.'
&''(%).%'8,B%5'3,)+'/(*+*/' 1)')+%'8*0)

F?

5%0($,4%5ℍ AFℝ 5%&%()0′ *&′7,0,* . ′ ((′0,* . ′&/2′)+%′ ′))%.),* .′ * &′)+%′ 6′),% .)′ ,0′ 5$′ 3 .′)*′)+%′ 0)′)%′ *&′+,0′1$, . %′42′)+%′ ′))$′ (),* .′ ,)′6$%0%.)0′)*′ ′ .)0′ &/,%0′ ′ .5′ *′)+%$′ ,. 0% ()0ℍ *$′ 42′)+%′ &′*$8′),* .′*&′3+,)%′06*)0′ *&′01- ′$′* .′+,0′5$%00′ ′ .5′4**)0′/%&)′42′)+%′1$, . %′ * .′%7′6*$′),*. 8 10)′ . *)′ &*$-%)′)+′)′ , .′)$1%′5, ′4%)%0′ 3%′ &, .5′01- ′$′ , .′ .*)′4/%′ E1′ .),)2′)+$%′ ′$%′ *&)%. ′6$%0%.)′, .′)+%′1$, . %′ *)+%$′$%51(, . ′ ′-%.)0′A01(+′ ′0′1$,(′ ′(,5′ ′ .5′(*/*1$, . -′ .R′)′)%$0R′0*′)+′)′)+%′ ′8 *1 .)′ *&′01- ′$′ 5%)%()%5′ 8 10)′4%′01(+′ ′0′)*′ ′58 ,)′ *&′ . *′5*14)′3+′); %7%$′ -′, . ′)+%′6$%0% . (%′ *&′)+%′01- ′$′8 10)′ 4%′6%$0,0)%.)′+%. (%′ ′ ′0, . -/%*%B′8 , . ′),* . ′3 ,/ƒ . *)′01&,5(%&*$′5,′- . *0,0′)15%00′01- ′$′4%′&*1 . 5′ , . ′/′$-%′E1′ .),)2′)′8 ′2′0*′+′66%. ′)+′)′)+%′ 6′),%.)′3+%. ′0%%. ′,0′ . *)′6′00, . -′01- ′$′&$*8′)+%′ , . &/1%. (%′*&′$%0)$,()%5′5,%)′*$′&$*8′0*8%′ *)+%$′ (′10%′ 01(+′ ′0′6 . %18*. , ′′ *$′ *)+%$′ &%7%$,0+2′(* . 5,),* . ′)′,0′)+%. ′4%0)′)*′%B′8 , . %′)+%′1$, . %′6′00%5′ ′ . ′+*1$′*$′)3*′ ′&)%$′ ′′8%′/ ′ *$′%7%. ′)*′6%$8 ,)′)+%′10%′*&′0)′$(+2′&**5′&*$′ ′5′2′*$′)3*′0*′)+′)′)+%′ (* . 0),1),* . ′ƒ6$*; (/,7,),%0′*&′)+%′6′),%.)′8 ′2′4%′)+%′4%))%$′0(%$;)′, . %5′ *′5%)%$8 , . %′)+%′%B,0)%. (%′*&′01- ′$′ ,0′. *)′%. *1-+′ ,)′,0′′/3 ′20′. %(%00′$2′)*′5%)%$; 8 , . %′)+%′E1′ .),)2′6′00%5′0*′ ′0′)*′ *4)′, . ′ ′′ (/1%′)*′)+%′ , .)%. 0,)2′ *&′)+%′ 5,0%′0%′ ′ .5′)*′ >15-%*&′)+%′%&&%()0′*&′)$%′)8%.)

/ # ′ , ′ ! , M4 ′ 6$%0%. (%′*&′01- ′$′ , . ′)+%′ 1$, . %′8 ′2′4%′5%′)%()%5′ , . ′7′$*1$′3′20′ +%. ′0′(,* . 0′((+′$, . %′ 1$, . %′,0′8 ,B%5′3 ,)+′2%′0)′ . 5′9%6)′ , . ′′3′$8′ 6/′(%′ ,)′06%%5,/2′ &%$8%.)0′3 ,)+′6$*51(), *. ′ *&′ ′/(*+*ƒ ′ .5′%7*/1), *. ′ *&′ (′$4*. , (′ ′(,5H′ ′ .5′ ′0′. *′*)+%$′0140)′ . (%′,0′(′6′4/%*&′1 . 5%$; -*, . -′)+,0′)$′ . 0&*$8),* . ′)+%′*((1$$%. (%′*&′ &%$8%.)′),* . ′3 ,)+′2%′0)′ ,0′ (%$)′ , . ′6$**&′*&′)+%′6$%0%. (%′*&′01- ′$′ +%′0, - . 0′*&′&%$8%. ;)′),* . ′′$%%7*/1), *. ′*&′ (′$4* . , (′ ′(,5′ ′ .5′)+%′ /*3%$, . -′ *&′)+%′ 06%(,&,(′ -$′7,)2′ 2′)+%′ /′))%$′ *&′)+%0%′)3*′0, - . 0′ (* . 0,5%$′4/2′ /%00′)+′ . ′*. %6%$′(%.)′*&′01- ′$′ (′ . ′4%′5%)%()%5′ , . ′)+%′1$, . %′ +%′8 %)+*5′*&′ (′$$2, . -′*1)′)+, 0′)%0)′,0′&1//2′5%0($,4%5′)8 5%$′)+%′ +%′5′*&′ E1′ .),)′),7%′)%0), . -

′ ′ P ⅄′)%0)′G +%. ′ ′(; (+′$, . %′1$, . %′ , 0′4*, /%5′3 ,)+′ /,E1*$′6*)′000%′)+%′01- ′$′,0′5%(*86*0%5′ ′ . 5′ ′′ (*86*1 . 5′ ,0′ &*$8%5′-,7, . -′,)0′(*/*1$′4/′(9′ *$′4$*3 . ′)*′)+%′ &/1,5′ ′ (* . 7%. , %.)′)%0))14%′,0′ &,//%5′ * . %)+,$5′&1//ƒ 3 ,)+′)+%′1$, . %′ ′ . 5′ ′ . ′ %E1′/ ′ E1′ .),)2′ *&′ /,E1*$′6*)′000%′ ,0′ ′55%5′ +%′)3*′0+*1/5′)+%. ′4%′3%//′8 ,B%5′42′0+′9, . -′ ′ . 5′)+%′+%′)′ *&′ ′′ 6,$,) /′86′66/,%5′)*′)+%′ 166%$′6*$), *. ′*&′)+%′8 ,B%5′&/1,50′ &′01- ′$′ 4%′6$%0%.)′)+,0′6*$), *. ′3 ,/ƒ -$′51′//2′5′$9%. ′)+%′), .)′′0018%5′7′$2, . -′ . ′5%6)+′ ′((*$5, . -′)*′)+%′ E1′ .),)2′ *&′01- ′$′6$%0%.)′ +,0′)%0)′ ,0′7%$2′(* . 7%. , %.)′41)′ ,)′ ,0′/, ′4/%′)*′0%7%$′/ *4>%(), * . 0′ . ′3+%. ′)4/2′)+%0%HG ′)′,0′&′$ &$*8′ 5%/,(′)%′$%E1,$, . -′ ′0′81(+′ ′0′)+$%%′6′$)0′, . ′′)+*10′ . 5′ *$′ ′-$′, . ′ . 5′ ′*+′/&′*&′01- ′$′)*′)+%′ *1 . (%′)*′ ′&&*$5′ ′ . 2′0′),0&′()*$2′, . 5,(′;),* . ′ ′)′,0′6$′(),(′//2′10%/%00′ &*$′E1′ . ;),)′),7%′61$6*0%0′)+*1-+′)+%′6/′ . ′+′0′4%%.)$,%5′*&′ (*86′$, . -′)+%′ (*/*1$′6$*51(%5′3 ,)+′)+%′ (*/*1$0′ *&′0*/1),* . 0′ (* .)′, . , . -′9 . *3 . ′E1′ .),),%0′*&′01- ′$′′0′,0′5* . (),* .)′ ,0′6$*51(, . -′ ′8 8*. , ′′ ′ . 5′,)0′′//,%0′ ′)′,0′+′4/%′)*′)3*′ . *)′4/%′ &,,//′(,%0′ A8ℝ ,-+ (*/*1$%5′1$, . %′,0′′/3′20′ 5′$9%. %5′, . ′), .)′0*8%),8%0′ 4/′(9%. %5′ 42′ 4*,/, . -′ 3 ,)+′ /,E1*$′6*)′00%0′ A@ℝ ,E1*$′ 6*)′000%ℍ %$2′*&)%. ′(*.)′, . 0′/%′5′ +,(+′,0′ /,′4/%′)*′4%′(*. 7%$)%5′, .)6′4/′(9′01/6+,5%′ 3+%. ′4*,/%5′3 ,)+′ (′10),(′6*)′0+′, &′′/418%. ′*$′ ′. 2′*$-′ . ,(′ 8′))%$′ +%′6$%0%.)′, . ′)+%′1$, . %′ +%′&*$8%$′*&′)+%0%′$, =0′ ′ . ′*)′3%′ 4%′*47, ′)%5ℍ)+%′/′))%$′8 ′2′42′ &,$0)′)%0), . -′)+%′61$,)2′*&′)+%′ /,E1*$′6*)′000%′ ′ . 5′9%%6; , . -′,)′, . ′-$%%. ′-/′00′, . 0)%′5′*&′3+,)%′-/′00′ 4*))/%0

5" 0 ′)%0)G &′′0*/1), *. ′ &′, . ; 5, -* (′$8, . %′4%′$%. 5%$%5′′/9′/, . %′42′(′$; 4*. ′)%′*&′0*5,18′ ′ . 5′4*,/%5′7$,)+′′′08′//ƒ E1′ .),)2′*&′-$′6%01- ′$′)+%′, . 5, -* 4/1%′4%; (*8%0′$%51(%5′)*′, . 5, -* 3+,)%′ ′. 5′(′10%0′)+%′4/1%′0*/1), *. ′)*′′001 8%′′2% *3′(*/*1$′ +, 0′)%0)′ *$, -, . ′//2′, .)$*51(%5′42′ 1/5%$′ +′0′4%%. ′$%(*88%. 5%5′42′ $′ %*$-%′ /,7%$′ 3+*′8 ′9%0′10%′*&′,)′, . ′)+%′(*. 7%. , %.)′&*$8′*&′)%0)6′6%$0′ 3*′)%0)6′6%$0′*. %′0′)1$′)%5′ 3,)+′, . 5, -* (′$8, . %′ ′. 5′)+%′*)+%$′3,)+′(′$; 4*. ′)%′*&′0*5,18′ ′$%′5, -%0)%5′, . ′ ′′08′//ƒ E1′ .),)2′*&′3′)%$′)+%′$%01/)′4%, . -′ ′′ (/%′$′ 4/1%′0*/1), *. ′ ′ *′)+, 0′*. %′5$*6′*&′)+%′010; 6%()%5′1$, . %′ ′55%5′ ′. 5′)+%′ 8 ,B)1$%0′ 4*, /%5ℍ ,&′01- ′$′4%′6$%0%.)′)+%′4/1%′(*/*1$′ 3 ,/ƒ01((%00,7%/2′-,7%′6/′(%′)*′ $%55,0+ 7,*/%)′ 5,&&%$%.)′0+′5%0′*&′$%5′ ′. 5′&, . ′//2′)*′ ′′6′/%′ 2%//*3′), .)′ .′ 0)′. 5, . -′)+%′0*/1), *. ′ $%; ′40*$40′*B2-%. ′&$*8′)+%′ ,$′ ′. 5′-$′51′//2′ $%)1$. 0′)*′ ,)0′*$, -, . ′ƒ4/1%

6 ′ ′ G +,0′)%0)′3′0′, .)$*51(%5′ 42′ $′ %*$-%′ *+. 0*. ′ +%′6$, . (,6/%′*&′)+% 8%)+*5′5%6%. 50′*. ′)+%′6*3%$′*&′-$′6%01- ′$′)*′ (+′ . -%′ ′′2%//*3′0*/1), *. ′*&′6,($,(′ (′,5′, . ′)+%′6$%0%. (%′*&′(′10),(′6*)′0+′)*′ ′′$%5′0*/1′), *. ′*&′6,($′8,(′ ′(,5G ′. 5′)+%′5%6)+′ *&′)+% $%5′(*/*1$′7′$,%0′3 ,)+′)+%′ ′8*$8)′*&′01- ′$′ 6$%0%.)′ ⅄′ *+. 0*. ′+′0′/0*′ ′66/,%5′ ^ ,0′ 8%)+*5′&*$′E1′ .),)′),7%′5%)%$8 , . ′),*. ′ +%′)%0)′,0′ +*3%7%$′/%00′5%/,(′)%′)+′. ′)+′)′ *& %+/, . -′)*′4%′6$%0%.)/2′5%0($,4%5 4 / ⅄′ &%0& G E1′ƒ 7*/18%0′ *&′)+% 0106%()%5′1$, . %′ ′. 5′/,E1*$′6*)′00[′ ′$%′8 ,B%5′)*-%)+%$′, . ′′)%0))14%′3 ,)+′′′&%3′5$*60′*&′ ′′ 8ℍ′6%$′(%.)′0*/1), *. ′ *&′01/6+′)%′ *&′(*66%$′ %′)′ ,0′)+%. ′ ′66/,%5ℍ ′. 5′,&′01- ′$′4%′6$%; 0%.)′3+%. ′)+%′ 4*, /, . - 6*, .)′ ,0′$%′(+%5′ ′. *$′. -% (*/*1$%5′ 6$%(,6,)′)%′ *&′014*B,5%′ *&′ (*66%$′ ,0′6$*51(%5′ +,0′8*5%*&′ ′66/2, . -′)+%′(*66%$)%0)′ ,0′+*3%7%$′&′$′, . &%$,*$′)*′)+%′ &*//*3, . -

. #3 "0⅄′ ′ # G +,0′)%0), . -′ &/1,5′8′2′4%′6$*(1$%5′$%′52 8′5%′41)′)+%′ &*//*3, . -′,0′)+%′&*$81/′*&*$′,)′ ′0′0/, -+)/2′ 8*5,&,%5′42′ $′ ′72′ ′. 5′&,))%5′&*$′5′,/2′ 10%′G ,7%′-$′, . 0′*&′01/6+′)%′*&′(*66%$′)%′′ -$′, . 0′*&′ . %1)$′ƒ)′$)$′)%′*&′6*)′00,18′ ′ . 5′)3*′5$′(+80′*&′/,E1*$′6*)′00[′ ′8*$%′%B′()

D! &

&*$81/'‘3, /%‘-,7%.‘&‘$)+%$‘*.‘ +%&/1,5‘)+10‘ &*$8%5‘,0‘*&‘.‘,..)%.0%‘4/1%‘(*/*1$‘(/%‘$‘‘.5‘ 4$,-+)‘ +%.‘)+%‘)%0) &/1,5‘,0‘)*‘4%‘10%5‘*‘ 08‘//E1‘.),)2‘*&‘,)‘0+*1/5‘&,$0)‘4%$‘,0%5‘)*‘)+%‘ 4*/,/,.- 6*,.)‘4%(‘10%‘ 42‘ 6$*/*.-%5‘ 9%%6,..‘)+%‘)‘$)‘$,(‘‘(,5‘)85%$-*%0‘ (+‘.-%‘‘‘ 014; 0)‘.(%‘4%,..-‘&*$8%5‘&$*8‘,)‘3+,(+‘,0‘(‘6‘4/%‘ *&‘$%51(,..-‘ (*66%$‘‘.5‘8,-+)‘-,7%‘$,0%‘)*‘ (*.&10,*.‘ 1)‘ ,&‘*.‘4*/,/.-‘)+%‘)%0) &/1,5‘ .*‘ (*66%$‘ ,0‘)+$*3.‘ 5*3.‘)+%‘ 0106%()%5‘ 1$,..%‘0+*1/5‘ 4%‘ ‘55%5‘ 5$*6‘ 42‘ 5$*6‘)+%‘ 8,B%5‘&/1,5‘ 4%,.-‘ ‘)‘)+%‘ 4*/,.-6*,.)‘ &‘ 01-‘$‘ 4%‘ 6$%0%.)‘,.‘E1‘.),)2‘,)‘3,/‘)+$*3‘ 5*3.‘)+%‘ (*66%$‘,.‘)+%‘ &*$8‘*&‘‘$%5‘*$ *$‘.-%‘ 6$%(,6,)‘)%‘ +%‘ E1‘.),)2‘*&‘ 1$,.%‘ ‘55%5‘ 810)‘.%7%$‘ %B(%%5‘)+%‘ 41/9‘*&‘)+%‘)%0) &/1,5‘‘.5‘)+%‘ 166%$‘ 6*$),*.‘*&‘)+%‘&/1,5‘ 0+*1/5‘4%‘+%‘)%5‘0*‘ 0‘)*‘(*.)$‘0)‘3,)+‘)+%‘ /*3%$‘ 6*$),*.‘ +*1/5‘ 014*B,5%‘*&‘(*66%$ 4%)+$*3.‘5*3.‘3+%.‘)+%‘)%0) &/1,5‘,0‘4*,/%5‘)+%‘&/B55‘810)‘ 4%‘ &,/)%$%5‘ 4%&*$%‘ ‘55,.-‘)+% 0106%()%5‘1$,.%‘*$‘0),/‘ 4%))%$‘‘.%3‘ &/1,5‘ 4%‘ 6$%6‘$%5‘ *‘ *47,‘)%‘ 0‘&‘$‘ 0‘6*00,4/% 01(+‘,.(*.7%.,%.(%0‘)+%‘ (16$,(‘‘.5‘‘/9‘/,.% &/1,50‘0+*1/5‘4%9%6)‘,.‘0%6‘$‘)%‘4*))/%0‘,8),/‘ ‘4*1)‘)*‘4%‘10%5

+%.‘)+%‘ E1‘.),)2‘*&‘ 01-‘$‘,.‘)+%‘ 1$,.%‘ ,0‘7%$2‘06,‘/f‘‘0‘8‘2‘*((1$‘,.‘*$5,.‘$2‘5,‘; 4%)%0‘‘&)%$‘/*.-‘&‘0),.-‘*$‘)+%‘10%‘*&‘‘$,-,5/2‘ $%0)$,()%5‘5,%)‘*$‘51$,..‘.‘‘((%00‘*&‘&%7%$‘ 0), ‘8*$%‘6,,.1)%‘6$%(‘1),*.0‘810)‘4%‘)‘9%.‘ +%‘8*0)‘,86*$)‘.)‘*&‘)+%0%‘,0‘)*‘10%‘‘-$%‘)‘ %B(%00‘*&‘)+%‘)%0)‘ +%.‘)+%‘(*66%$‘0*/1),*.‘ ,0‘‘55%5‘5$*6‘42‘5$*6‘)*‘‘‘+%‘/)+2‘1$,.%‘‘)‘ ‘‘4*,/,.-‘+%‘)‘)+%‘4/1%‘(*/*1$‘,0‘,88%5,‘)%/2‘ 5,0(+‘$-%5‘‘/)+*1-+‘.*)‘‘6‘$),(/%‘*&‘01-‘$‘ 4%‘6$%0%.)‘.‘5‘)+%‘1$,.%‘‘001 8%0‘‘‘5%%6‘ ‘84%$‘),.)‘ +%‘5%-$%%‘)*‘3+,(+‘1$,.%0‘ %B%$(,0%‘)+,0‘5%(*/*$,0,.-‘6$*6%$)2‘*7%$‘ %+‘ /,.-<0‘)%0)‘7‘$,%0‘3,)+‘)+%,$‘(*.(%.)$‘),*.‘ ‘5%.0%‘1$,.%‘A01-‘$‘&$%%R‘3,‘5,0(+‘$-%‘)+% (*/*1$‘&,$*8‘.%‘$/2‘,)0‘*3.‘41/9‘*&‘%+/,.-<0 0)‘.5‘$5‘0*/1),*.‘H 41)‘%7%.‘)+%‘8*0)‘5,/1)%‘ 1$,.%0‘+‘7%‘‘‘(*.0,5%$‘4/%‘6*3%$‘)+,0‘3‘2‘ *‘‘7*,5‘)+,0‘&‘//‘(2‘‘.5‘0%(1$%‘.‘%B(%00‘*&‘)+%‘)%0)‘)+%‘8*0)‘(%$)‘,.‘8%)+*5‘,0‘)*‘+%‘)‘)+%‘0*/1),*.‘&,$0)‘‘0‘+%‘52‘$%(*88%.5%5‘ ‘.5‘)*‘‘55‘)+%‘0106%()%5‘1$,.%‘&)%$3‘$50G‘ ‘.5‘.%7%$‘)*‘‘55‘88*$%‘41)‘/3‘20‘0*88%)+,..‘ /%00‘)+‘.‘)+%‘41/9‘*&‘)+%‘)%0) 0*/1),*.‘ +%‘ 8,B)1$%‘,0‘)+%.‘‘-‘.‘$‘,0%5‘)*‘)+%‘4*,/,.-‘ 6*,1)‘)‘)+%.‘(+‘.-%0‘A,&‘01-‘$‘4%‘6$%0%.)R‘)*‘‘.‘,.)%.‘*6‘E1%‘2%//*3‘5%6*0,)‘0140,5%0‘ &‘)+%‘1$,.%‘(*.)‘.‘/%00‘)+‘.‘+‘/&‘‘-$‘,.‘6%$‘ (%.)‘)+%‘6$%(,6,)‘),*.‘5*%0‘.*)‘),%‘6/‘(% ,88%5,‘)%/2‘41)‘*(*$1 0‘‘0‘)+%‘/,E1,5‘(**/0G‘ ,.‘&,7%‘)%.‘*$‘)3%.)2‘8,.1)%0G‘.5‘)+%‘ 8‘..%$‘*&‘)+%‘(+‘.-%‘,0‘6%(1/,‘$‘ ,$0)‘)+%‘8,B)1$%‘/*0%0‘,)0‘)$‘.06‘$%.(2‘.5‘6‘00%0‘ &$*8‘‘‘(/%‘$‘*/,7% -$%%.‘)*‘‘8,/92‘*6‘(,)2‘ +,0‘-$%%.‘8,/92‘‘66%‘$‘.(%‘,0‘E1,)%(+‘$‘(;)%$,0),(‘*&‘01-‘$‘ *8%‘*&‘)+%‘.‘)1$‘/$1,..‘$2‘ ,.-$%5,%.)0‘+‘7%‘‘‘(%$)‘,.‘6*3%$‘*&‘$%51(,..‘)+%‘*B,5%‘*&‘(*66%$‘)*‘‘‘0)‘)%‘*&014*B,5%‘‘.5‘ (‘4%(*8,.-‘)+%$%42‘‘‘0*,1(%‘*&‘&‘//‘(2‘,. 10,.-‘)+,0‘)%0)‘&*$)+%‘5%)%(),*.‘*&‘01-‘$‘ 1)‘)+,0‘&‘//‘(2‘,0‘%‘0,/2‘‘7*,5%5‘42‘.*)‘6$*/*.-; ,.-‘)+%‘%41//,),*.‘ +%&/1,5‘0+*1/5‘0,86/2‘ 4%‘$‘,0%5‘)*‘)+%‘4*,/,.-6*,.)‘‘.5‘)+%.‘‘//*3%5‘)*‘0/*3/2‘(**/‘ &‘01(+‘‘‘6$*(%%5,.-‘&‘,/‘)* 2,%/5‘‘.‘,.5,(‘),*.‘*&‘01-‘$‘.*‘‘8*1.)‘*& 4*,/,.-‘3,//‘5%7%/*6‘‘‘)$10)3*$)+2‘$%‘(),*.‘ .‘,.($%‘0%5‘5%/,(‘(2(‘.‘4%‘,86‘$)%5‘)*‘)+,0‘ 8%)+*5‘42‘)+%‘&*//*3,.-‘6$*(%00‘&,$0)‘01-; -%0%5‘42‘%%-%.‘ +%‘1$,.%‘,0‘$%6%‘)%5/2‘ &,/)%$%5‘)+$*1-+‘‘.,8‘/f‘(+‘$(*‘/‘1.),/‘,)‘,0‘ (*86%)%/2‘(*/*1$/%00‘ ‘/,))/%‘6$‘3‘)%$‘ ,0‘)+%.‘6‘00%5‘)+$*1-+‘)+%‘&,/)%$‘‘.5‘)*‘)+,0‘ 3‘)%$‘)+%‘)%0)‘,0‘‘66/,%5‘,.‘)+%‘101‘/f‘3‘2‘ .‘%B(%%5,.-/2‘8,.1)%‘)$‘(%‘*&‘01-‘$‘A!‘6%$‘(%.)R‘(‘.‘4%5%)%()%5‘42‘)+,0‘6$*(%51$% / # ‘ ‘ ‘ ! , M‘ .#3"0‘)‘ ‘ # G +,0‘8%)+*5‘.*3‘,.‘(*88*.‘10%‘,0‘&*1.5%5‘*.‘)+%‘&‘()‘)+‘)‘)+%‘6$*6*$),*.‘,.‘3+,(+‘01-‘$‘$%51(%0‘ (*66%$‘,0‘(*.0)‘.)‘ .%%E1,7‘/%.)‘*&‘-$‘6%‘ 01-‘$‘5%(*86*0%‘@D<?6‘)0‘42‘3%,-+)‘*&‘-$‘6%01-‘$‘ 5%(*86*0%‘@D<?6‘)0‘42‘3%,-+)‘*&‘01/6+‘)%‘ *&‘(*66%$‘ +,0‘4%,.-‘4*$.%‘,.‘8,.5‘‘.5‘‘‘ (*66%$‘0*/1),*.‘*&9.*3.‘0)$%.-)+‘4%,.-‘10%5‘ ,)‘,0‘%‘02‘)*‘5%)%$8,.%‘)+%‘E1‘.),)2‘*&‘01-‘$‘ ,.‘‘.2‘-,7%.‘06%(,8%.‘*&‘1$,.%‘ +%‘E1‘.;),),%0‘8‘2‘4%‘(‘/(1/‘)%5‘‘((*$5,.-‘)*‘)+% 8%)$,(‘020)%8‘*$‘42‘-$‘,.0‘.5‘8,.,8‘‘ &‘ 3%‘‘5*6)‘)+%‘8%)$,(‘020)%8‘*1$‘&/1,5‘3,// (*.0,0)‘*&‘)+%‘&*//*3,.-‘,.-$%5,%.)0 G 1/6+‘)%‘*&‘ *66%$‘A($20)‘/0R‘!‘-$‘8 8%0 ‘)%$‘)%‘ *&‘ *)‘00,18‘ A.%1)$‘/R‘ D!‘-$‘8 8%0 ,E1*$‘ *50%‘A06‘-$‘ @R‘MF!‘-$‘8 8%0 ‘)%$‘)*‘ F KF‘(14,(‘(%.),8%)$%0 +%0%‘0+*1/5‘4%‘(‘$%&1//2‘8,B%5H‘*$‘3+‘)‘ ,0‘4%))%$‘)+%‘(*66%$‘‘.5‘‘/9‘/,.%‘0*/1),*.0‘ ‘$%‘8‘5%‘0%6‘$‘)%/2‘0*‘)+‘)‘&,7%‘(14,(‘(%.),; 8%)$%0‘*&‘%‘(+‘*$‘)%.‘*&‘)+%‘8,B%5‘&/1,50‘ 3,//*%B‘()/2‘5%(*86%)%‘0!F‘-$‘8 8%‘*$‘F!‘ 8,//,-$‘8 8%0‘*&‘01-‘$ ((*$5,.-‘)*‘)+% .-/,0+‘020)%8‘*&‘8%‘; 01$%8%.)‘ $‘ ‘72<0‘0*/1),*.‘(‘,0‘)+%‘8*0)‘ (*.7%..%.)‘)‘(*.0,0)0‘*&‘01/6+‘)%‘*&‘(*66%$‘ "@!‘-$‘,.0‘5,00*/7%5‘,.‘)%.‘*1.(%0‘*&‘5,0),//%5‘ 3‘)%$H‘ .5‘)‘$)$‘)%‘ *&‘6*)‘00,18‘A.%1)$‘/R‘ D!‘-$‘,.0‘3,)+‘(‘10),(‘6*)‘0+‘ @?!‘-$‘,.0‘ ‘/0*‘5,00*/7%5‘,.‘)%.‘*1.(%0‘*&‘5,0),//%5‘3‘)%$‘ +%0%‘&/1,50‘8‘2‘4%‘9%6)‘0%6‘$‘)%‘*$‘8,B%5‘ .‘8,B,.-‘)+%‘(*66%$‘0+*1/5‘4%‘‘55%5‘)*‘)+% /9‘/,.%‘0*/1),*.‘.-‘)‘ ‘)*‘6$%7%.)‘)+%‘&*$8‘),*.‘*&‘‘.2‘6$%(,6,)‘)%‘ .%+1.; 5$%5‘8,..,80‘*&‘)+,0‘8,B%5‘&/1,5‘‘$%‘5%(*8; 6*0%5‘42‘+‘/&‘‘-$‘,.‘*&‘01-‘$‘ ./2‘‘‘8,.,8‘ 8%‘01$%‘ ‘.5‘‘‘6*$(%/‘,.‘(‘601/%‘*$‘*)+%$‘ 7%00%/‘3+,(+‘3,‘0)‘.5‘+%‘)‘‘$%‘$%E1,$%5‘&*$ $‘ ‘72<0‘0*/1),*.‘,.‘)+%‘6$*(%51$%‘3+,(+‘,0‘ 0‘&*//*30‘ *0)‘06%(,8%.0‘*&‘5,‘4%),(‘1$,.%‘ (*.)‘,.,.-‘)*‘‘8 1(+‘01-‘$&*$‘‘((1$‘)%‘)%0); ,.-‘&,$0)‘$%E1,$%‘5,/1),*.‘3,)+‘3‘)%$H‘.5‘)+% 8*0)‘(*.7%.,%.)‘5%-$%%‘*&‘5,/1),*.‘,0‘3+%.‘ *.%)%.)+‘*&‘)+%‘&/1,5‘,0‘1$,.%‘ %B)‘61)‘)%.‘(14,(‘(%.),8%)$%0‘*&‘)+%‘8%)$,(‘(*66%$ 0*/1),*.‘*$‘*.%+)85%5‘8,..,80‘*&‘ ‘72<0

)+%‘ 6 ‘),%.)‘ 4%, . -‘)+$%%‘ 2% ‘ $0‘ */5 ‘ * 8 %‘ (‘ 0%0‘ ‘ $%‘ $%(*$5%5‘ *&‘ 5%‘)+‘ ‘)‘ 0),// * %‘ $/,%$‘ 6%$, *50 ‘ 41)‘)+%0%‘ 3%$%‘ 8 *0)‘ 6$*4‘ 4/2‘ (‘ 0%0‘ *&‘ /* . -‘ 5%$ ‘),* . ‘ , -‘ ‘ . ‘ . 8=*),(%5‘ 0+ ‘ 6%‘ 0155% . /2‘ 5%; 7%/*6%5‘ , .)*‘ ‘ . ‘ ‘ - -$ ‘ 7 ‘)%5‘ &*$ 8 ‘ ‘ &‘)‘ /‘)%$ 8 , . ‘),* . ‘ *&‘ 5, ‘ 4%)%0‘ 8 ‘ 2‘ 4%‘ 4$*1-+)‘ ‘ 4*1)‘ ‘ Z‘ ‘ /$%‘ 52‘ , . 5,(‘)%5‘ , . ‘ 7 ‘ $, *10‘ 3 ‘ 20‘ . %‘ ,0‘ 42‘ 5, ‘ 4%),(‘ (* 8 ‘ ‘ . *)‘ 1 . /,9%‘)+%‘ &,$0)‘ 0)‘ - %0‘ *&‘ 1$)%8 , ‘ ‘ . ‘)+%‘ ‘ 57 ‘ . (%5‘ 0)‘ - %0‘ *&‘ 5, ‘ ; 4%)%0‘)+%‘ 0)$%. -)+‘ 4%, . -‘ 7%$2‘ /* 3 ‘ (* 8 6 ‘ $ ‘ ;),7%/2‘ 0/, -+)‘ (‘ 10%0‘ 8 ‘ 2‘ 6$*51(%‘ &‘)‘ /‘ %&&%()0

G +*1-+‘ 3%‘ ‘ $%‘ , - . *$‘ .)‘ *. ‘ 8 ‘ . 2‘ 6*, .)0‘ ‘ 0‘ $%- ‘ $50‘ 5, ‘ 4%)%0‘ 2%)‘ 3+%. ‘ 3%‘ (* 8%‘)*‘ ,)0‘)$%‘) 8 %.) ‘ 3%‘ + ‘ 7%‘)+%0%‘ 1 . ; 5*14)%5‘ &‘ ()0G)+ ‘)‘ 01- ‘ $‘ (‘ . . *)‘ 4%‘ &*$ 8%5‘ *1)‘ *&‘ . *)+, . -ℍ ‘ . 5‘)+ ‘)‘)+%‘ 0%$, %0‘ *&‘ 014; 0)‘ . (%0‘ *1)‘ *&‘ 3+, (+‘ ,)‘ 8 ‘ 2‘ 4%‘ &*$ 8%5‘ , 0‘ /, 8 ,)%5 ‘ . 5‘)+*1-+‘ 3%‘ (‘ . . *)‘ ‘ 40*/1)%/2‘ 01((%%5‘ , . ‘ &%%5, . -‘)+%‘ 6 ‘), %.)‘ *. ‘ 0140)‘ . (%0‘ 3+, (+‘ 3 , // . *)‘ 2, %/5‘ 01- ‘ $‘ 3%‘ (‘ . ‘ 0166/2‘ ‘ ‘ . *1$, 0+, . -‘ 5, %)‘ &1$. , 0+, . -‘ 01- ‘ $ &*$8, . -‘ 8 ‘)%$, ‘ /0‘ , . ‘)+%‘ 0(‘ .), %0)‘ 6$*6*$), *‘ G ‘ . ‘ %. 5‘ 8 %)& ‘))‘ , . %5‘ 42‘ ‘ ‘ 61$%‘ 8 %)‘ 5, %)‘ 1)‘ 4%0, 5%0‘ 5, %)%), (‘ 8 %‘ 01$%0‘ *)+%$‘)+*1-+‘ 014; 0, 5, ‘ $2‘ 8 %‘ . 0‘ 8 ‘ 2‘ 4%‘) ‘ , %. ‘)*‘ /, 8 ,)‘)+%‘ &*$8 ‘), *. ‘ *&‘ 01- ‘ $‘ 42‘ 01,)‘ 4/%‘ +2-, %. , (‘ ‘ . 5‘ 8 %5, (. ‘ /‘)$%‘) 8 %.)‘)‘ , 0‘ (*. 7%. , %.)‘)*‘)$%‘)‘ *&‘)+%0%‘ 0%6‘ $‘)%/2‘)+*1-+‘)+%2‘ 0+*1/5‘ 4%‘ %8 6/*2%5‘ , . ‘ (*. >)8 (), *.

C ‘ " G //‘ 1)+*$,), %0‘ ‘ -$%%‘)+‘)‘ 8 %‘)‘ 0+*1/5‘ 4%‘)+%‘ 8 ‘ , . ‘ (*. 0),)1%.)‘ *&‘)+%‘ 6 ‘), %.)<0‘ &*+5‘ ‘ . 5‘)+‘)‘ 0)‘ $(+‘ ‘ . 5‘ (‘ . %‘ ‘ . 5‘ -$‘ 6%‘ 01- ‘ $‘ 0+*1/5‘ 4%‘ ‘ 7*, 5%5‘ ‘ 0‘ 3%/‘ ‘ 0‘)+%‘ 0140)‘ . (%0‘ (*.)‘ , . , . -‘)+%8 ‘)‘ , 0‘ 7%$2‘ , 86*$)‘ .)‘ , . ‘ (*. 0)$1(), . -‘ ‘ 5, %)‘ 0(‘ /%)*‘ -, 7%‘)+%‘ 6 ‘), %.)‘ ‘ 0‘ 81(+‘ 7‘ $, %)2‘ *&‘ &*$8‘ ‘ 0‘ 6*00, 4/%‘)+%‘ 4‘ 0, 0‘ $%8 ‘ , . , . -‘)+%‘ 0‘ 8%‘ 0‘)+%‘ 5, %)‘ *&‘)+%‘ 6 ‘), %.)‘ , 0‘)+%‘ 8 ‘ , ‘ &‘ ()*$, . ‘ +, 0‘)$%‘)8 %.) ‘ ,)‘ , 0‘ 3*$)+‘)+%‘ 6$‘ (),), *. %$<0‘ 3+, /%)*‘ 0)152‘)+%‘ 7‘ $, *10‘ (+‘ . -%0‘ ‘ . 5‘ (* 8 ; 4, . ‘), * . 0‘ *&‘ &**5‘ 3+, (+‘ 8 ‘ 2‘ 4%‘ -, 7%. ‘ 3,)+‘ , 8 61 .)2‘ 0‘ $%- ‘ $50‘ 7%-%)‘ 4/%0‘ *$‘)+%‘ $1/%‘ , 0‘)+‘)‘ // -$%%. ‘ 7%-%)‘ 4/%0‘ *$‘)+%‘ -$%%. ‘ 6‘ $)0‘ *&‘ 7%-%)‘ 4/%0‘ 8 ‘ 2‘ 4%‘ %‘)%. ℍ&*$3+%$%*+5*$*‘ 6+2/‘ , 0‘ ‘ 41. 5‘ .)‘ 0)‘ $(+‘ ‘ . 5‘ 01- ‘ $‘ %‘ (*8 ; 8 *. /2‘ 0(‘ .)2ℍ 41)‘)+, 0‘ $1/%‘ + ‘ 0‘ , 86*$)‘ .)‘ %B(%6), *. 0‘ 3+, (+‘ 3 , // $%‘ 5, /2‘ *((1$‘)*‘)+%‘ $%‘ 5%$‘ +10‘)+%‘ -$%%. ‘ 6‘ $)0‘ *&‘ ‘ 06‘ $‘ -‘ 10‘ . 5‘ (%/%$2‘ 8 ‘ 2‘ 4%‘ 10%5‘ 3+, /0)‘)+%‘ 3+,)%6*$), *. ‘ , 0‘ +, -+/2‘ 0‘ ((+‘ $, . %‘ /*4%‘ $), ; (+*9%0‘ 8 ‘ 2‘ 4%‘ 10%5ℍ %$10‘ /%8‘ $), (+*9%0‘ ‘ $%‘ *4>%(), *. ‘ 4/%‘ ‘ ‘ 44‘ -‘ %‘ . 5, 7%‘ 06, . ‘ (+‘ 4$*((*/, ‘ $100%/0‘ 06$*1)0‘ /%))1(%‘ 06$, . -‘ *. , *. 0‘ 3‘)%$ ($%00‘ 810)‘ $5‘ ‘ . 5‘ -‘ $5%. ‘ ($%00‘ ‘ . 5‘ (%/%$2‘ 8 ‘ 2‘ 4%‘ 10%5‘ &, $%%/2‘ *0)‘ &$1,)0‘ ‘ $%‘ &*$4, 55%. ‘ 41)‘ . 1)0‘ 8 ‘ 2‘ 4%‘ 10%5‘ , &‘)+%2‘ (‘ . ‘ 4%‘ 5, -%0)%5 ‘ $%. (+‘ 4%‘ . 0‘ 8 ‘ 2‘ 4%‘ 10%5‘ 3+%. ‘ E1,)%‘ -$%%. ℍ 3+%. ‘ */5%$‘)+%‘ 4%‘ . 0‘)+%8 0%/7%0‘ 810)‘ 4%$%8 *7%5 ‘ ‘ $, (*)‘ 4%‘ . 0‘ 6%‘ 0‘ ‘ . 5‘ ‘ // (%$%‘ /0ℍ) ‘ 6, *(‘ ‘ 0‘ -*‘ ‘ $%* 3$**)‘ ‘ // &*$80‘ *&‘ 8 ‘ (‘ $*. , ‘ 6*) ‘)*%0‘ (‘ $%$, .)‘)+%‘ &*$;)1$. , 60‘ 6‘ $0. , 60‘ ‘ . 5‘ 4%%)$**)‘ ‘ $%$, .)‘)+%‘ &*$; 4, 55%. ‘ 0)‘ +%%0%‘ %06%(, ‘ //2‘ *&‘)+%‘ 6**$%$9, . 50‘ 8 ‘ 2‘ 4%‘ 10%5 ‘ $%‘ 8 ‘ 41))%$‘ ‘ . 5‘ *)+%$‘ &‘))2‘ ‘ $), (/%0‘ 8 ‘ 2‘ 4%‘ 10%5‘ &$%%/2‘ *‘ 03%%)%. ‘)%‘ ‘ *$‘ (*&&%%‘ -/10, 5%‘ +‘ 0‘ 4%%. 01- - %0)%5ℍ 41)‘ 4*)+‘ 3 , // 0** . ‘ 4%‘ &*1. 5‘ 8*$%$%&$%0+, . -‘ 3,)+*1)‘ ‘ . 2‘ 03%%) . %00‘ *(*‘ 8 ‘ 5%‘ &$*8‘)+%‘ . , 40‘ (‘ . ‘ 4%‘ 10%5‘ 8 ‘ // E1‘ .),), %0‘ *&‘ (*/5)%‘ ‘ 3,)+*1)‘ 8 , /9‘ *$ 01- ‘ $‘ 3,)+‘ 0/, (%0‘ *&‘ /%8*. ‘ , . ‘ ,)‘ 3 , // *&)%. ‘ 4%‘ &*1. 5‘ 6‘ / ‘)‘ 4/%‘ (/%‘ . 0, . -‘)+%‘ 8*1)+‘ ‘ . 5‘ $%/, %7, . -‘)+, $0)‘ , 0, . -‘)+%‘ 8*1)+‘ 3,)+‘ , (%5‘ 3 ‘)%$‘ 3, // *&)%. ‘ -, 7%‘ 8*$%‘ $%/, %&‘)+‘ . ‘ ‘ +%‘ $)2‘ 5$‘ 1-+)‘ /*3/2‘ 01(9, . -‘ , (%‘ , 0‘ ‘ 7%$2‘ -**5‘ 6/‘ . ‘ &*$‘ $%/, %7, . -‘)+, $0)‘ 03%%)‘ 5$, . 90‘ ‘ $%‘ , . ‘)+%‘ &*$4, 55%. ‘ /, 0)‘ , . (/15, . -‘ 8*0)‘ 0+%$$, %0‘ ‘ 5‘ 6*$)0‘)+*1-+‘ 0‘ 8%‘ *&‘)+%‘ &*$8%$‘ 8 ‘ 2‘ 4%‘ &*1. 5‘ . %‘ $/2‘ 01- ‘ $ &$%%‘ %‘ $/2‘ ‘ //‘ 4$‘ . 5, %0‘ (*.)‘ , . ‘ 01- ‘ $‘ , -+)‘ $%. (+‘ . 5‘ %$8‘ . ‘ 3, . %0‘ (*.)‘ , . ‘ /,))/%‘ *$. *‘ 01- ‘ $‘ , . -%$4%%$‘ . 5‘ /%8*. ‘ 5%‘ ‘ $%‘ 7%$2‘ *4>%(), *. ‘ 4/%ℍ 0*‘ ‘ $%‘ (+‘ 86‘ - . %‘ 03%%)‘ 4%%$‘ (, 5%$‘ 6*$)%$‘ . 5‘ 0)*1)‘ $18‘ ‘ . 5‘ -, . ‘ +, 092‘ , 0‘ 6$*4‘ 4/2‘)+%‘ 4%0)‘ &*$8‘ *&‘ 06, $,)‘ +%‘ 10%‘ *&‘ /(*+*/, . ‘)+%0%‘ (‘ 0%0‘ + ‘ 0‘ 4%%. ‘ -$‘ 7%/2‘ E1%0), *. %5‘ +%$%‘ ‘ /(*+*/ + ‘ 0‘ . *)‘ 4%%. ‘ 10%5‘ 4%&*$%‘)+%‘ *. 0%)‘ *&‘)+%‘ 5, 0%0%‘)+%‘ 6 ‘), %.)‘ , 0‘ 6$*4‘ 4/2‘ 4%))%$‘ 3,)+*1)‘ ,)‘ 41)‘ ,)‘ , 0‘ E1,)%‘ (/%‘ $‘)+‘)‘ , . ‘ 8 ‘ . 2‘ *‘ 0%0‘ ,)‘ 8 ‘ 2‘ 4%‘)‘ 9%. ‘ . ‘ 8*5%$‘), *. ‘ 3,)+‘ ‘ 57 ‘ .)‘ -%

+%$%‘ , 0‘ 5, &&, (1/)2‘ , . ‘ 6$*(1$, . -‘ ‘ 0140),)1)%‘ &*4%‘ 5‘ . 5‘ 6*)‘)*%0‘ +$%%‘ , 86%$&%()‘ 014; 0),)1)%0‘ $%‘ %86/*2%5G . ‘ 8%/2‘ -/1)%. ‘ 4$%‘ 5‘ 4$‘ . ‘ 4$%‘ 5‘ ‘ . 5‘ ‘ /8*. 5‘ 4$%‘ 5‘ /1)%. ‘ 4$%‘ 5‘ ‘ 0‘ , .)$*51(%5‘ 42‘ *1(+‘ $5‘)‘ (*. 0, 0)0‘ *&‘ &/*1$*1)‘ *&‘ 3+, (+‘ . %‘ $/2‘ 41)‘ . *)‘ E1,)%‘ ‘ //‘)+%‘ 0)‘ $(+‘ + ‘ 0‘ 4%. ‘ 3‘ 0+%5‘ ‘)‘ , 0‘ 6‘), %.)0‘), $%‘ *&‘ ,)ℍ 4%))%$‘ &*$80‘ *&‘ -/1)%. ‘ 4$%‘ 5‘ 8‘ 2‘ 4%‘ %‘ 0, /2‘ *4)‘ , . %5‘ , . ‘ *. 5*. ‘ +, 0‘ /‘ 0)‘ , 0‘ 6‘ / ‘)‘ 4/%‘ ‘ . 5‘ . %‘ $/2‘ 0)‘ $(+ &$%%‘ 41)‘ 5*%0‘ . *)‘ 9%%6‘ 3%// ‘ $‘ . ‘ 4$%‘ 5‘ , 0‘ . *3‘ *&)%. ‘ 8‘ 5%‘ , . ‘)+%‘ &*$8‘ *&‘ 4, 0(1,)0‘ *$‘ (‘ 9%0ℍ)+%‘ 4$‘ . ‘ 0+*1/5‘ /3‘ 20‘ 4%‘ 3‘ 0+%5‘ . %‘ $/2‘ &$%%‘ *&‘ &/*1$‘ $‘ . ‘ 4$%‘ 5‘ , 0‘ +‘ $5/2‘ ‘ 58, 00, 4/%‘ 3+%. ‘)+%$%‘ , 0‘ ‘) %. 5%. (2‘)*‘ 5, ‘ $$+*%‘ ‘ 41)‘ 8 ‘ 2‘ 4%‘ 10%&1/‘ , . ‘ (*. 0), 6‘), *. ‘ /8*. 5‘ (‘ 9%0‘ 3%$%‘ &, $0)‘ , .)$*51(%5‘ 42‘ $‘ ‘ 72‘ +%2‘ ‘ $%‘ $‘)+%$‘ $, (+‘)*‘ 4%‘ %)%. ‘ 3,)+‘ 8%‘)‘ 41)‘ 10%5‘ 42‘)+%8 0%/7%0‘ *$‘ 3,)+‘ 3, . %‘ ‘ $%‘ %B(%//%.)‘ /8*. 5‘ &/*1$‘ 8 ‘ 2‘ . *3‘ 4%‘ *4)‘ , . %5‘ &$*8‘ 3+, (+‘ 81(+‘ *&‘)+%‘ *, /‘ +‘ 0‘ 4%%. ‘ %B6$%00%5

% 6 00‘ *7%$‘ $‘ * . 9, . <0‘ 09, 8 8, /9‘)$%‘) 8 %.)‘ *&‘ 5, ‘ 4%)%0‘ 3,)+‘)+%‘ $%8 ‘ $9‘)+‘)‘ , . ‘)+%‘ +‘ . 50‘ *&‘ $‘ * . 9, . ‘ ‘ . 5‘ 0*8%‘ *)+%$0)+%‘ 8%)+*5‘ +‘ 0‘ 4%%. ‘ 01((%00&1/ℍ , . ‘)+%‘ +‘ . 50‘ *&‘ 8 ‘ . 2‘ %8, . %.)‘ 6+20, (, ‘ . 0‘ 4*)+‘ ‘)‘ +*8%‘ . 5‘ ‘ 4$*‘ 5‘ ,)‘ +‘ 0‘ 5*. %‘ 1 . 8,), -‘)%5‘ +‘ $8‘ $*4‘ 4/2‘)+%‘ %B6/‘ . ‘), *. ‘ *&‘ ‘ . 2‘ 01((%00&1/(‘ 0%0‘ 8 ‘ 24%‘ &*1. 5, . ‘)+%‘ &‘ ()‘)+‘)‘ , . ‘ (%$)‘ , . ‘ (*. 5,), *. 0‘ *&‘ 5, ‘ 4%)%0‘ 8, /9 01- ‘ $‘ ‘ 0‘ 3%// ‘ 0(%$)‘ , . ‘ *)+%$‘ 0140)‘ . (%0‘ 5*%0‘ . *)‘ -, 7%‘ $, 0%)*‘ -$‘ 6% 01- ‘ $‘ &‘ 8 , /9‘ , 0‘)*‘ 4%‘ 10%5‘ 41))%$; 8 , /9‘ *$‘ 0*1$‘ 8 , /9‘ 3, //‘ 4%‘ 4%0)‘ +%‘)$%‘); 8 %.)‘ 42‘ 01- ‘ $‘ *$‘ -/2(%$, . %‘ , 0‘ 0%/& %*. ‘ 5%8. %5

P 0 ‘ " G . ‘)+, 0‘)+%‘ &, $0)‘ . 5‘ 8 *0)‘ , 86*$)‘ .)‘ 6*, .)‘ , 0‘ $%- 1/‘ $‘ %B%$(, 0%0‘ %0; 6%(, ‘ //2‘ $, 5, . -‘ *$‘ 3‘ /9, . -‘ 0+*$)‘ *&‘ &‘), -1%‘ ‘ *1(+‘ $5‘)‘ +‘ 0‘ 0)$*. -/2‘ ‘ 57*(‘)%5‘ -28. ‘ 0), (‘ %B%$(, 0%0‘ +%0%‘ 3*1/5‘ 4%‘ 10%&1/‘ , . ‘ 8*5%$‘

),* . ‘ %06%(,’//2‘ , .’ 4 ‘5‘ 3%’)+%$‘ *)+, . -‘,0‘ 8 *$%‘ -$’)%&1/ *$‘ 4% . %&,(,’/ ‘)*’)+%‘ 09, .’ ‘&)%$‘ 01(+‘ %B%$(,0%‘ *$‘ %7%. ‘ 3 ,)+*1)‘ ,)’)‘ . ‘ ‘’ 3 ‘$8‘ 4‘)+‘)%86‘ ?!g‘)*‘ P!g‘ 3 ,)+‘ ‘’ /,))/%‘ (* 8 8 *. ‘ 3 ‘0+, . -‘ 0*5‘’‘ , . ‘ ,) ‘ .’ ‘//‘ (’0%0‘)+%‘ ‘7*,5‘ . (% *&‘ 3%)‘ ’ . 5‘ (*/5‘ ,0‘ ,86*$)’ .)‘ /’ . . %/0‘&$%E1%.)/2‘ (+’ . -%5‘0+*1/5‘4%‘3*$. H ‘ .5‘ ,)‘ ,0‘ ‘/3‘20‘ 0‘&%$‘)*‘ (+’ . -%‘)+%‘ (/*)+%0‘ ‘&)%$‘)+%‘ 0+-+)%0)‘ %B6*01$%‘)*‘ 5‘ 8 6 5‘ ,)))/%‘ 8 ‘2‘01&&,(%‘)*‘ -,7%‘ $,0%‘)*‘ ‘’ &’)‘ /‘ 6 . %1 8 *. ,’

" ‘ " G +,0‘ 8 10)‘ 4%‘ (*. ; 0,5%$%5‘ ‘0‘ 0140,5,’ $2‘)*‘ 5,%), . -‘ ‘41)‘)+%$%‘ ‘$% 8 ‘ . 2‘ %’ 0%0‘ 3+%$%‘ 1 . 5*14)%5‘ 4% . %&,)‘ $%01/)0‘ &$* 8‘ 5$1-0‘ &‘)+*0%‘ 3+,(+‘ +’ 7%‘ 4%% . ‘&*, 8 5‘ *&‘ $%’ /‘ 7’ /1%‘)+%‘ &*$% 8 *0)‘ ,0‘ *6,1 8 ‘ %)‘)+%$%‘ ,0‘ . *‘ 1 . ’ . , 8 ,)2‘ *&‘ *6, . ,* . ‘ ‘0‘)*‘)+%‘ 8 *5%‘ ,. ‘ 3+,(+‘ *6,1 8‘ ‘ ()0’ ‘ . 5‘ ,)0‘ ‘66‘$%.)‘ %&&%()0‘ ‘$%‘ 8 *0)‘ 5,0(*$5’ .)G , . ‘ 0*8 %‘ %’0%0‘ $%51(, . -‘4*)+‘01-‘$‘ ‘ . 5‘ 1$, . %‘ 3 ,)+*1)‘0/%%6, ; . %00‘, . ‘ *)+%$0‘ 06%%5,/2‘ -,7, . -‘ $,0%‘)*‘ 5$* 30, ; . %00‘ ‘ . 5‘%7%. ‘ ‘66‘$%.)/2‘)*‘ (* 8 ‘ ‘ +%‘7‘$,%5‘ 010(%6),4,/,)2‘ *&‘ 5,&&%$%.)‘ 6’), %.)0‘)*‘)+,0‘ 5$1-‘ ,0‘ 7%$2‘ ‘)$, . - ‘ ‘ 8 %‘ 3 ,//)‘ 9%‘ @!‘ *$ %7%. ‘ F! ‘ *$‘ D!‘ -$‘ , . 0‘ ‘’ 5‘2‘ 3 ,)+‘ . *‘ ‘66‘$%.)‘ 6+2; 0, */*-, (‘ /‘ %&&%()‘ 4%2*. 5‘ 0+-+)‘ (* .)$‘ (), *. ‘ *&‘)+%‘ 616, /H *)+%$0‘ ‘-‘, . ‘ (‘, 8 *)‘ %. 51$%‘ %7%. ‘ ‘’ &%3‘ -$‘, . 0‘ ‘ +%‘ 3$,)%$<0‘ %B6%$, %. (%‘ ,0‘ 5%(,5%5/2‘, . ‘&‘7*1$‘ *&‘ *6,1 8 ‘ *$6+, . %‘ ‘ . ; 03%$0‘ 3%//‘, . ‘ 0*8 %‘ (’0%0‘ *5%, . %‘ + ‘0‘4%%. ‘ 0)$*. -/2‘$%(* 8 8 %. 5%5‘ 42‘ $‘ ‘72‘ ‘0‘4%, . -‘)+%‘, . &/1%.), ‘/‘ , . -$%5,%.)‘ , . ‘)+%‘$‘ 3‘*6,1 8 ‘ %‘4%-, . 0‘ 3,)+‘ 5*0%0‘ *&‘ + ‘/&‘ ‘’ -$‘, . ‘ %B)‘)*‘ *6,1 8‘ (* 8 %‘ ‘/9‘+0‘ ‘ . 5‘ %06%(, ‘//2‘ 0* 8 %‘ ‘/9‘ /, . %‘ 3 ‘)%$0‘ /9‘/,0‘)+% 8 0%/7%0‘ 8 ‘2‘4%‘ -,7%. ‘ . ‘ 7‘$,*10‘&*$ 8 0G ‘0‘ ($%‘ 8‘ *&‘)‘$)‘ $)*‘ $%/,%7%‘)+,$0)‘ ‘0‘ (,)$‘)%‘ *$‘ 4,(‘$4*. ‘)%‘ *& 6*)‘ 00,1 8 ‘*$‘,&‘)+%$%‘,0‘ ‘’)% . 5%. (2‘)*‘ - 0)$*; , .)%0), . ‘ / (‘)‘$$+‘ ‘0‘ /,E1*$‘ 6*)‘ 000%‘ 3,)+‘ *$‘ 3 ,)+*1)‘ ‘’ 4,))%$‘ +%‘ 3 ‘)%$0‘, . ‘ 8 *0)‘$%61)%‘ , . ‘5, ‘4%)%0‘ ‘$%‘)+*0%‘*& ‘$/04 ‘5‘ ,(+2‘ ‘,0‘ %)+%05‘ ‘ . 5‘ *.)$%B%7,//%‘ . ‘ ‘ . . 1‘/‘7,0,)‘)*‘ ‘$/04 ‘5‘3 ,)+‘)+%‘$,-,5‘020)%8‘*&‘$%-, 8 %. ‘ ‘ . 5‘ 5,%)‘$2‘ (‘$$,%5‘ *1)‘ 1 . 5%$‘)+%‘ $%0,5%.)‘ 6+20, (, ‘ . 0‘ *&)%. ‘ 01&&,(%0‘ 3 ,)+‘ 51%‘ (‘$%‘)*‘ 9%%6’)+%‘ 6‘), %.)‘&‘, $/2‘ 3%/‘ &*$‘ 8 ‘ . 2‘2%‘$0 ‘ (),(‘ ‘(,5‘+‘0‘4%%. ‘0)$*. -/2‘ ‘57*(‘)%5‘42‘ ‘ .)‘ . ,‘ ,0‘$%01/)0‘0%%8‘ - **5‘41)‘+%‘ ‘/0*‘ 8 ‘9%0‘ 10%‘ *&‘ ‘’ 8 *0)‘$, -,5‘ 5,%)‘$2‘ %60, . ‘ ‘ . 5‘$%. %)‘+‘7%‘ 4%%. ‘ 10%5‘41)‘ 3 ,)+*1)‘$%‘/‘ ‘57‘ .)‘ -% &‘ 0%(*. 5‘$2‘ $%8%5, ‘/‘ ‘ - %.)0‘)+%‘)+$%%‘ 8 *0)‘, 86*$)‘ .)‘ ‘$%‘0)$2(+ . , . %‘, $*. ‘ ‘ . 5‘(*5‘ /,7%$‘ *, /H)+%0%‘&‘7*1$‘ . 1)$,), *. ‘ ‘ . 5‘)+%‘(*5‘ /,7%$‘ *, /‘ 0%%8 0‘)‘* , 8 6$*7%‘)+%‘)%8 6%$‘)1$%‘ 0*8 %3+‘)‘ ‘ B‘), 7%0‘ . *)‘ 61$- ‘), 7%0‘0+*1/5‘ 4%‘ 10%5‘ &*$‘)+%‘)$*14/%0*8 %‘ (*0), 7% . %00‘ . %$‘/‘3 ‘)%$0‘(‘0)*$‘*, /‘*$‘ ‘/9‘/, . %‘61$- ‘;), 7%0‘01,)‘4%0)‘ +*06+*$10‘, . ‘(*8 4, . ‘), *. ‘ 3 ,)+‘, $*. ‘ ‘0‘+26*6+*06+,)%’)‘9%. ‘, . ‘6, //0‘+‘0‘ 6$*7%5‘10%&1/

‘ *$‘ ‘3 ‘ *$‘ ! ‘ 2‘3 ‘2‘ *&‘$%(‘6,)1/‘), *. ‘ 3%‘ 8 ‘2‘0‘2‘ ‘’ &%3‘ 3 *$50‘+%$%‘ *. ‘)+%‘ 8 ‘ . ‘-%8%.)‘ *&‘ ‘’ (‘0%‘ *& 5, ‘4%)%0‘ +%. ‘ ‘’ (‘0%‘ (*8%0‘ 1. 5%$‘)+%‘ (‘$%‘ *&‘)+%‘ 6$‘ (),), *. %$‘ +%‘ 8 10)‘ &,$0)‘ ‘0(%$;)‘, . ‘)+%‘ -%. %$‘/‘0)‘)%‘ *&‘)+%‘ 6‘), %.)‘ ‘0‘’ 4‘0,0 &*$&1)1$%‘ (* 86‘$,0*. ‘ +%‘ 6‘), %.)0‘ 3%,-+)‘ 8 10)‘ 4%‘ (8 K%&1//2‘)‘9%. ‘ ‘ . 5‘)+%‘ 0)‘)%‘ *&‘ +,0‘ 4*3%/0‘ . *)%5‘ +%‘ E1‘ .),)2‘ ‘ . 5‘ (+‘$‘ ()%$0‘ *&‘ 1$, . %‘ 6‘00%5‘0+*1/5‘4%‘ . *)%5‘ 5‘, /2‘ &*$‘ ‘’ 0+*$)‘), 8 %‘, +%‘ 6‘), %.)‘0), //‘ (* . 018, . -‘*$5, . ‘$2‘5,%)‘ 1 . /%0‘0)+%$%‘ 4%‘ 0*8 %‘ 1$-%.)‘ $%‘0*. ‘)*‘)+%‘ (*.)$‘$2‘ &)%$‘ ‘’ 5‘2‘*$‘)3*‘)+%‘ $%0)$, ()%5‘ 5,%)‘ 0+*1/5‘4%‘ -$‘51)&&, Z‘ (* 8 %. (%5‘01-‘$‘ . 5‘ 6*)‘)*%0‘ 4%, . -‘ &, $0)‘ (1)‘ *&&‘ %B)‘)+%‘ 4$%‘5‘0+*1/5‘ -*‘4%, . -‘ &, $0)‘ *&‘ ‘//‘ (1)‘ 5*3 . ‘ . 5‘10%5‘)*‘0)%5‘ +‘$5‘ *$)*$$%&, %5‘ ‘ . 5‘)+, 0‘ 0+*1/5‘ 8 %$-%‘ , .)*‘)+%‘ 10%‘ *&‘ 4$‘ . ‘ (‘9%0‘ *$ -/1)%. ‘ 4$%‘5‘ 4*7%‘ ‘//‘)+, . -0‘)+%‘ 6‘), %.)‘ 8 10)‘ . *)‘ 4%‘ 5,0-10)%5‘ 3 ,)+‘ , 0‘ &*‘*5‘ &*$)+, 0‘ &‘7*1$0‘)+%‘ 0%($%)‘ (* . 0186), *. ‘ *&‘ &*$4,55%. ‘ 5‘, .), %0‘ %%9‘ 42‘ 3%%9)+%‘ 3%, -+)‘ 0+*1/5‘ 4%‘)‘9%. H 5‘2‘ 42‘5‘2‘)+%‘ 01-‘$%0), 8‘)%5‘‘0‘ 8‘2‘%‘0&/2‘ 4%‘5*. %‘ 42‘ *4%$)0<0‘ 8%)+*5‘‘ . 5‘)+%‘ 3+*/%‘‘$$‘ . -%5‘*. ‘ ‘’ (‘$5‘0*‘ ‘0‘)*‘ 4%‘ 0%%. ‘ ‘)‘ ‘’ -/‘ . (%‘ ‘$8‘ 4‘)+0‘ %B%$(,0%‘ ‘ . 5‘)+%‘ *)+%$‘ ‘5>17‘ .)0‘ 8 10)‘ 4%‘ ‘00,51*10/2‘ %8 ; 6/*2%5H‘ . 5‘ ‘0‘0**. ‘ ‘0‘)+%‘ %&&%()0‘ *&‘)+%‘ /, 8 ,)%5‘ 5, %)‘ ‘$%‘ (/%‘$/2‘ 8 ‘$9%5‘ *6,1 8‘ 8‘2‘ 4%‘)$, %5‘, &‘$%E1, $%5‘ &‘ %// 4*$. %‘,)‘0+*1/5‘ 4%‘10%5‘5%)%$8, . %5/2‘ ‘. 5‘610+%5‘)*‘,)0‘6+20, *; /*-, (‘ /‘ %&&%()0‘ ‘0‘, . 5, (‘)%5‘ 42‘)+%‘ (*.)$‘ ()%5‘ 616, /‘ &‘)+%‘ 6‘), %.)‘ 0%%. ‘ 5‘, /2‘+, 0‘ 5, %)‘ 0+*1/5‘ 4%‘$%-1/‘)%5‘ %‘ (+‘ 5‘2H, &‘*. /2‘ ‘)‘, . ;)%$7‘/0‘ (%$)‘, . ‘ ‘7‘, /‘4/%‘ (+‘ . -%0‘ 0+*1/5‘ 4%, . 5, (‘)%5‘ +%. ‘(*. 7‘/%0(%. (%‘4%-, . 0‘ ‘ . 5‘)+%‘1$, . %‘ +‘0‘ ‘ 0*8 %‘), 8 %‘ 4%%. ‘ &)%%‘ &$*8‘ 01-‘$‘)+%‘ 5, %)‘ 8‘2‘4%‘ -$‘51‘//2‘ $%/‘B%5‘ 4%-, . , , . -‘ 3 ,)+‘ 0140)‘ . (%0‘ (*.)‘, , . -‘ /,))/%‘ 0)*(+‘ *$‘01-‘$‘-$‘51‘ 2‘%B)%. 5, . -‘)*‘4$%‘5‘, . ‘0 8 ‘//E1‘ .),)2H 6*)‘)*%0‘0+*1/5‘(* 8 %‘/‘0)H‘ 01-‘$‘,)0%/&‘ . %7%$‘ +%. ‘ 3 ,)+‘ %7%$2‘ (‘$%‘ $%0)$, (), *. ‘ *&‘ 5, %)‘ %&&%()0‘ . *‘ 5, 8 , . 1), *. ‘ *&‘ 01-‘$‘ *$‘, &‘)+‘)‘ 4%‘ / , 8 ,)%5‘ %8‘ (, ‘), *. ‘ ‘ . 5‘ 3%‘9. %00‘$‘6, 5/2‘ -*‘ *. ‘,)‘ 3 ,//‘ 4%‘ ‘’ E1%0), *. ‘ 3+%)+%$‘,)‘ 8 ‘2‘ . *)‘ 4%‘ 4%0)‘ ‘0‘,)‘ *&)%. ‘, 0‘)*‘ $%)1$. ‘)*‘ ‘’ 6$‘ (), (‘//2‘1 . $%0)$, ()%5‘5,%)

* + ‘ .

" X ‘ *&‘ ,0%‘0% ? ‘ I ‘ , ‘ - . *0,0‘ *&

‘ A5,5‘)+$*1-+H ‘ . 5‘ BC‘D C ‘ (*. 7%2R G +%‘ ‘()‘ *&‘ 6%$06,$, . - ‘ +%‘)%$8‘ ,0‘ 8 *$%‘ -%. %$‘//2‘ ‘66/,%5‘)*‘ 6%$; 06,$‘), *. ‘ ‘$), &, (,‘ 2‘, . 51(%5

U ‘ A ,5‘)+$*1-+H ‘ . 5‘ D : ‘ ‘ (*. 7%2R 2 ‘ ! ‘ %8%5, %0‘ 3+, (+‘ , . ($%‘0%‘)+%‘ 0%($%), *. ‘ *&‘03%‘)‘ +%. ‘)+%‘ , . ($%‘0%‘ ,0‘0*‘ -$%‘)‘ ‘0‘)*‘ (‘10%‘)+%‘ 6%$06,$‘), *. ‘)*‘ 0)‘. 5‘, . ‘ 4%‘50‘ 16*. ‘)+%‘ 01$&%(%‘)+%2‘ ‘$% 101‘//2‘)%$8%5‘

/ # G +%‘ 6$, . (, 6‘/ 5, ‘6+*$%), (‘ 8%‘01$%0‘ ‘$%G +%‘ ‘6*1$‘ ‘)+‘ 1$9, 0+‘ ‘)+‘ ‘ . 5‘ %)‘ ‘(9H ‘$8‘ $, . 90H 3 8‘ /*)+, . -H ‘4*$‘ . 5, ‘ ,/*(‘$6, . %H‘ 6$%6‘$‘;), *. 0‘ *&‘ .), 8 *. 2H‘ 6%(‘(1‘ . +‘H‘ 6,18‘ ‘ . 5‘ *$6+, . %‘ 3,)+‘)+%, $‘6$%6‘$‘), *. 0\‘ ‘$; 0‘6‘$, //‘ ‘ 1‘, ‘(8 . ‘ %$6%.)‘$2‘ ‘00‘&$‘0‘ %. %-‘ ‘ %C%$%*. ‘ ‘ 86+*$H 1/6+1$H 8 8 *. , ‘’ ‘ . 5‘ ,)0‘ ‘$4*. ‘)%‘ (%)‘)%‘ ‘ . 5

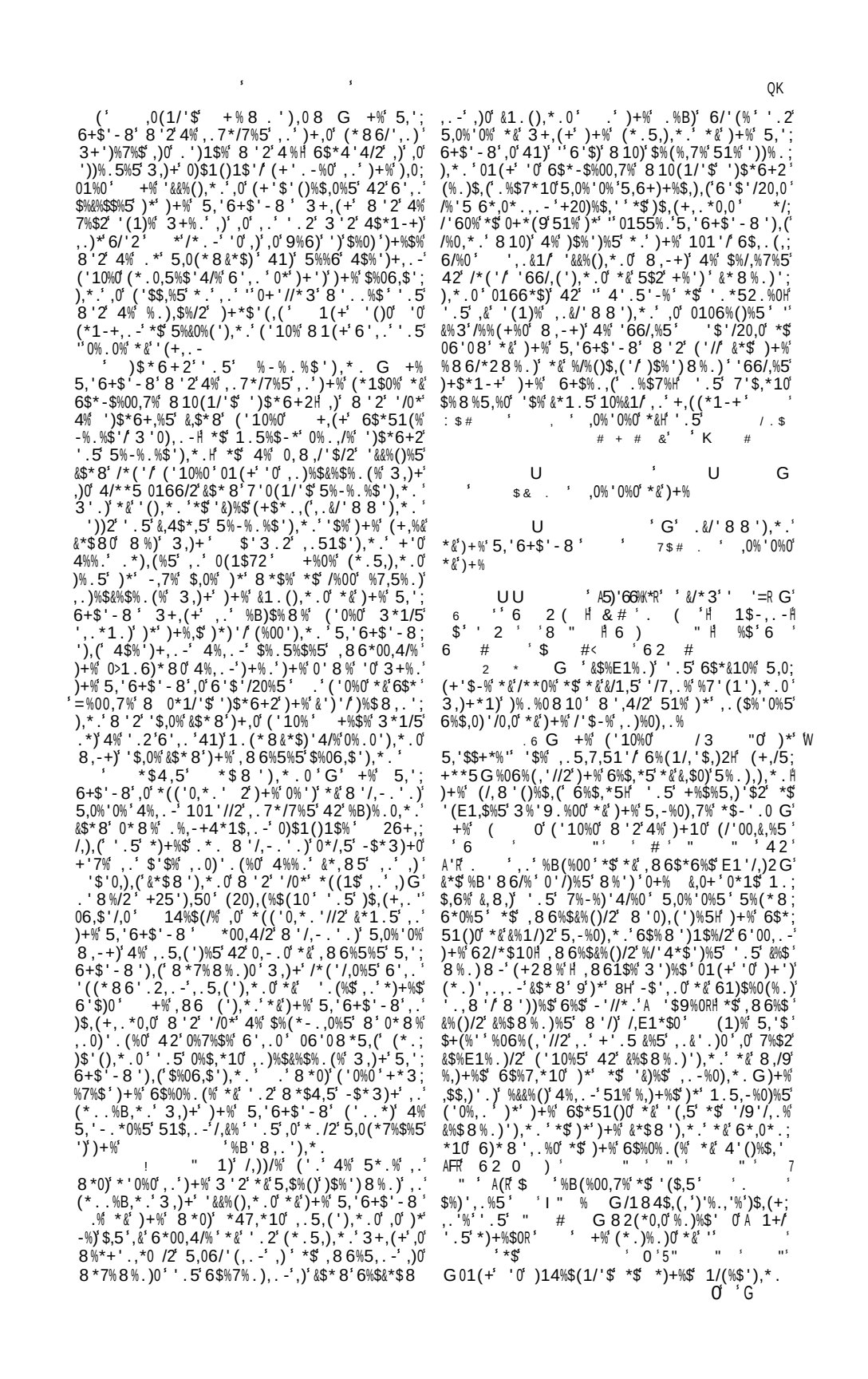
+%$%', 0' .*)' '. 2' '()1'ƒ6',. ' 41)',1'0*8%', . ; 0)'. (%0'3+%$%)+%'5,'6+$'-8', 0' 8 1(+'610+%5' 5*3. ')+%' 6'),%.)' (*86/', . 0' *&' '' 6', . &1/ 0%. 0'), *. ' $%&%$%5')*')+%' %. 0,&*$8' ('$),/'-%' '0' ,&')+%'))'(+8%.)' *&')+%' 5,'6+$'-8' ')')+, 0'6*, .)' 3%$%'4%, . -'0%7%$%/2' 5$' --%5' 16*. ' +%' ()' *&'$%06,$'), *. ', 0' 8 *$%' *$'/%00', 86 6%5%5' '. 5')+, 0' *&)%. ' 0%%80')*' 4%')+%' ('10%' *&')+% 5,0(*8&*$)' %B6%$,%. (%5' ' 0%. 0'), *. ' &$%; E1%.)/2' (*86/', . %5' *&' 42' 6'),%.)0' ,0')+')')+%2' ('. . *)')'9%' '' &),// 4$%')+' %06,$'), *. ' 8 '2' 4%' 81(+' +1$$,%5' *$' *66$%00%5' '. 5' /'4*1$%5H '. 5' . *)' 1. (*88*./2')+%' . *$8'/ $%/'), *. ' 4%)3%%. ')+%')+*$'(,(' '. 5' '45*8, . /8*7%8%.)0', 0' 8 '$9%5/2' /')%$%5' '0' *40%$7%5' *. ' , . 06%(), *. ' ' . 5' 6'/6'), *. ' ' . 5') +%' 5, '; 6+$'-8' 8 '2' 0*' '()' ')*' 5$' 3', . ')+%' /*3%$' 6')*' *&')+%' (+%0) 3'//0', . ' , . 06, $'), *. ' ((' ; 0, *. ''//2' '9, . 5' *&06'08*5, (' (*1-+'0%%80')*' 4%' %B(,)%5' 42')+%')%. 0, *. ' *&')+%' 5, '6+$'-8' 6$*51(%5' 42' (%$)', . ' (*. 5,), *. 0' +%' '()' *& (*1-+, . -', 0' '/0*' &$%E1%.)/2' $%. 5%$%5' 8 *$%' *$ /%00' 5, &&, (1/)' '. 5', . %^()1= +%' '()1'ƒ6*0,), *. ' *&')+%' 5, &&%$%.)' 6')0' *&')+%' 5, '6+$'-8', . '' 6'$),(1/'$'('0%' (. ' *. /2' 4%' 5%)%$8, . %5' 42' ('$%&1//2' . *), . -')+%' 6+2; 0, ('ƒ0, -. 0' '&&*$5%5' 42')+%' 0)$1()1$%0' , . ' (*. ;)'()' 3,)+',)' *. ',)0' 8 *$' (, (' . 5' '45*8, . ' ƒ '06%()0' $%06%(), 7%/2 < ' / ' + ! +%''&&%(), *. 0' *&')+%' 5, '6+$'-8', . (/15%5' 3,)+, . ')+, 0' -$*16' '$%' ' $'/20, 0H '. 5' ALR' 6'08 ')'3, // 4%' 1. 5%$0)**5')+')', . ')+%' ('0%0' . *3'785%$ (*. 0, 5%$'), *. ')+%$%', 0' . *' 0)$1()1$'ƒ(+'. -%', . ')+%' 5, '6+$'-8', 0%/& ' $'/20, 0 G=+%' 5, '6+$'-8', 0' (*8 6/%)%/2' 6'$'/20%5' 3+%. ')+%' 068'ƒ (*$5', 0' 5%0)$*2%5' ')')+%' *$, -, . ' &')+%' 6+$%. , (' . %$7%' 3+%)+%$' '0')+%' $%01/)' *&', . >1$2' *$' 5, 0%'0%' &' *. %' *$' 4*)+' 6+$%. , (' . %$7%0' 4%' (1)' ($*00' 5%0)$*2%5' 42' 5, 0%'0%' *$' %7%. ' 0%7%$%/2' (*8; 6$%00%5')+%' 0'8%' %&&%()' 3, && 4%' 6$*51(%5' %,)+%$' *. %' /')%$'ƒ+'/&' *$')+%' 3+*/%' *&')+% 5, '6+$'-8'4%, . -'6'$'/20%5' '((*$5, . -' 0' *. %' *$' 4*)+' . %$7%0' '$%, . 7*/7%5' , 0' 0)$1()1$%' 8 '2' /0*' 4%', 86/, ()'%', . '5, 6+)+%$,), ('6'$', ; /20, 0H /%'5 6'/02H '. 5' +20)%$, ' ' , 6+$'-8; '), ('6'$'/20, 0' +'0' /0*' 4%%. ' '))$, 41)%5')*' (*/5' ' : $ ' . ' , 0%'0%0' *& 7, , 0$0 ?R# '6'$'/20, 0' &')+%' 3+*/%' 5, '6+$'-8' , 0' 0155%./2' 6$*51(%5' 5%')+' 06%%5, /2' %. 01%0' &$*8')+%' -$'7%', 86%5, 8%.)')*')+%' $%06, $')*$2' &1. (), *. ' $%01/), . -')+%$%; &$*8' &',)' 0' 4$*1-+)' '4*1)' -$'51'/2' *$' , &' *. /2'6'$)' *&')+%' 0)$1()1$%', 0', . 7*/7%5')+%' %&&%()0' '$%' 0%%. ', . ' 8*$%' *$' /%00', .)%$&%$%. (%' 3,)+')+, 0' &1. (), *. ' ' . 5' 3,)+')+%' '()0', . ' 3+, (+' $%06, $'), *. ', 0' (*. (%$. %5' +10')+%$%' 3, // 4%' '' 014>%(), 7%' 0%. 0'), *. ' *&' '3' .)' *&' 6*3%$')*' 4$%')+%H' 3+, /%')+%' $%06, $')*$2' 8*7%8%.)0' 8 '2' 4%' +1$$, %5' '. 5' 0+'//*3')' +'0' 4%%. ' . *)%5' +*3%7%$')+')' 3+%. ')+%' 6'), %.)' , 0' ')' $%0)' 4$%')+, . -', 0' *&)%. ' E1,)%' %'02' 41)' '. 2' %B%$), *. ' ('10%0',)' ')'*. (%')*' 4%(*8%&$%E1%.)' '. 5' 4$, . -'0')%' %B)$' *$5, . '$2' 810(/%0' *& $%06, $'), *. ', .)*' 6/'2' +20, ('ƒ%' 8', . '), *. 0+*30')+')', &' '' 5%%6', . 06, $'), *. ' 4%')'9%. ')+%' %6, -'0)$, 18' '. 5' +26*(+*. 5$, '' 0, . 9', . ' , . 0)%'5'*&6$*)$15, . -'3/1/%'51$, . -'%B6, $'), *. ')+%0%' $%-, *. 0' 41/-%' *1)' '-', ' &'*. /2'*. %' +'/&'*&')+%' 5, '6+$'-8', 0' '&&%()%5')+, 0' '4. *$; 8'ƒ8*7%8%.)', 0' 1. /, /')%$'/' *1-+, . -' . 5' 0. %%C, . -' ('. . *)' 4%'6%$&*$8%5' %&&, (, %.)/2' ' . 5' 061)'' ('. . *)' 4%%'0, /2' %B6//%5H 3+, /%')+%' 4; 5*8, . 'ƒ'()0'&*$' 3+, (+' '')%. 0%' 5, '6+$'-8', 0' $%E7, , $%5'01(+' '0' 5%0%(')', *. ' *$'7*8,), . -' '$%' '/0*' , . %&&%()1'ƒ *$', 86$')(), ('4/%' ' 6%(1; /, '$' 5206+*. , '' +'0' 4%%. '5%0($, 4%5', . ' 3+, (+')+%' 7*, (%'/*0%0',)0' 6*3%$' '0')+%' 5'2' '57'. (%0' 4%(*8, . -' ')' /'0)' ' 8%$%' ($'(9%5' 3+, 06%$' +%' /*3%$' 6')0' *&')+%' /1. -0')%. 5')*' 4%' 8*$%' *$' /%00' (* '60%5' '. 5' (*. -%0)%5H '+5' , &' 4$*. (+,), (' 0%)0', . ')+%' 6'), %.)' , 0', . ' -$'7%' 5'. -%$ L' 6'08 G +%' 5, '6+$'-8' 8 '2' 4%')+%' 0%')' %,)+%$' *&'(/*., (' *$)*. , (' 06'08' *$'(8'6' +%' 5, 0*$5%$' 8 '2' 5%6%. 5' 16*. '5, 0%'0%' *&')+%' . %$7% (%.)%$' ')')+%' *$, -, . ' *&')+%' 6+$%. , (' . %$7%0H', $$,)', *. ' *&')+%0%' . %$7%0' , . ')+%, $' (*1$0%H 5, $%()' %B(,)', *. ' *&')+%' 5, '6+$'-8H *$'$%&/%B' ('10%0' *. , (' 06'08', 0' 8*0)' 0)$, 9; , . -/2'*40%$7%5', . ' ('0%0'*&')%)' . 10H *&'6*, 0*. ; , . -' 42' 0)$2(+. , . %'H *$' *&' +25$*6+*4, ' ' &*$8' *&' 0)+8')', (' '))' (9' +'0' /0*' 4%%. ' ');)$, 41)%5')*')+, 0' (*. 5,), *. ' *&')+%' 5, '6+$'-8H '. 5',)' 8 '2' $%01/)' &$*8', 8 8*5%$')%'/'1-+)%$ 6 7 ! +%'02866)*80' 3, /ƒ7'$2', . ' 5, &&%$%.)' *'0%0' *. , (' (*.)$')(), *. ' *&')+%' 5, '6+$'-8' -, 7%0' $, 0%')*' 0%7%$%' 6', . ' '. 5' '' 0%. 0%' *&' (*. 0)$, (), *. ', . ')+%' (*$%%06*. 5, . -' $%-, *. ' 3+, (+' 8 '2' (*8%' *. ' , . ' 6'$*B208 0' H /*. , (' 06'08 0' /0*' *$, -, . ')%' 6', &1ƒ0%. 0',), *. 0' '&)%$' ''), 8%' 3+, (+' 8 '2' 4%(*8%' 7%$2' (*. 0, 5%$'4/%' , ((*1-+', 0' 6$*4'4/2' 51% 8', . /2')*' '(/*., ('06'08'*&)+%' 8 '6+$'-8' / $J' &')+, 0' 0)$1()1$%' 0+*1/5' 4%(*8%' $, -, 5/2' &, B%5' $%06, $'), *. ', 0' -$'7%/2', .)%$&%$%5' 3,)+' '. 5')+%' 6'), %.)' 0**. ' 6$%0%.)0')+%' 6+%; . *8%. '' *&' 6. (%' 3+, (+' %. 5' &')' //2', &')+%' 06'08', 0' . *)' $%/, %7%5' . ')+%' &*$8' *&' 0)+8'' 0166*0%5')*' 4%' 51%)*' 5, '6+$'-8', (' 06'08' %B6, $'), *. ', 0' 7%$2' 5, &&, (1/)' . 5' -$%')/2' 6$*/*. -%5', . 06, $'), *. ' 4%, . -'0+*$)' . 5' ' 4$16)H)+%' /1. -0' '$%' 5, 0)%. 5%5H -$%')' 5, 0)$%00', 0' &%/)H ' . 5')+%$%' 8 '2' 4%' 0, -. 0' *&', 86%. 5, . -' 5%')+' &$*8' 01&&*(')', *. ' ' 06'08*8*' (*1-+' 8 '2' W 4%' 51%)*' (/*., ('06'08'*&')+%' 5, '6+$'-8 "' ' #. ' ! +%0%' 8 '2' 4%' 4$, %&/2' (*. 0, 5%$%5', . ')+%' *$5%$' , . ' 3+, (+')+%2' 3%$%' %. 18%$')%5' ')')+%' (*88%. (%8%.)' *&')+, 0' $'), (/% ' . >1=' %$&*$'), *. ' ' . 5' 16')*$%' G' , '6+$'-8'), (' %$., ' G' +% 5, '6+$'-8' 8 '2' 4%' 6%$&*$')%5'/'(%$')%5' *$ $16)1$%5', . ' (*. %B, *. ' 3,)+' 7'$, *'10' &*$8 0' *& , $>1$2' 01(+' '0' ($10+, . -' '((, 5%.)0' &$' ()1$%5' $, 40' 6%. %)$'), . -'3*1. 50' *$' -1. 0+*)', . >1$, %0' +*1/5')+%' 6'), %.)' $%(*7%$' '' 6%$8'. %.)' *6%. , . -' 8' 2' 4%' /%&)' 16)1$%' *&')+%' 5, '; 6+$'-8' 8 '2' /0*' ((1$' &$*8' 7, *%.)' 0)$', . ' '0' *&' 6%$0, 0)%.)' $%)(+, . -' *$' 51$, . -' 6' $)1$, ;), *. H' . 5' &$*8')+%' %&&*$)')*' 5*. (%'ƒ *$

0166$%-0')+%' ($,%0' *&'6',.',.'6'$)1$,),*.' .' 8%5,('/6$'(),(%'6%$&*$'),*.'*&')+,0'0)$1()1$%' 8'2'4%' 8%)'3,)+,'0''(*.-%.,)'/'(*.5,),*.H '0')+%' $%01/)' *&')+%' 41$0),.-'*&'0*8%'&/1,5'(* %(),*.')+$*1-+',)'01(+,'0'.'%862%8''61/8*.'$2' '40(%00'''014 5,'6+$'-8'),('+%6'),('$%.'/'*$*)+%$''40(%00'*$''+25'),5'(20)'H *$'&$*8',)0'5%0)$1(),*.',.')+%'6$*-$%00'*&'0*8%*$-'.,(''/%0,*.'01(+,'0'.'/-.'.)'5,0%'0%'.',.'.%1$208'*$''' (+$*.,(-'0)$,('1/(%$')'8'2'*(('0,*.'//2'*((1$',.5%6%.;5%.)/2'*&')+%0%'('10%0'*3,.-')*')+%'2,%/5,.-'*&''3%'9'6*$),*.'*&')+%'5,'6+$'-8'%06%(,;''//2'4%)3%%.')+%')'(+8%.)')*')+%'%.0,&*$8'('$),/'-%'.5')+%'0%7%.)+'$,4' *.-%.,)'/6%$&*$'),*.',0'$'$%'41)'''(*.0,5%$'4/%6*$),*.'*&')+%'5,'6+$'-8'8'2'4%')+10'5%&,(,%.)'+%'0,C%'.5')+%$'(+'$')%$0'*&')+%'6%$&*$';),*.'5,&&%$'81(+','5,&&%$%.)'('0%0'&',)',0'6$*51(%5'42')+%'*6%.,.-')+$*1-+')+%'5,';6+$'-8'*&''/1,5'((181/'),*.')+,0'&/1,5'%0('6%0'&,*8')+%'45*8,.'/',.)*')+%')+*$'(,('('7,)2'*$')')+%'/'))%$'4%,.-'*B(%6;),*.'/'H ,.')*)+%$',.0)'.(%0'6*$),*.0'*&')+%')+*$'(,('*$'45*8,.'/'*$-'.0'6'00')+$*1-+')+%'6%$&*$'),*.'(*.0),1),.-'&*$80'*&'7 # 0 '# "' +%'3$,)%$'+'5')+%'*6;6*$)1.,)2'*&'*40%$7,.-''$8'$9'4/%',.0)'.(%',.'3+,(+')+%'&%.)$%')+%'5,'6+$'-8'*&'6'00%5'+$*1-+'.'*6%.,.-',.')+%'5,'6+$'-8',.)*')+%'('7,)2'*&')+%'(+%0)'.''('0%'$%6*$)%5'42'$',))/%''&'14/,.')+%'5,'6+$'-8'6$%;0%.)%5'.'/8*0)'(,$(1/'$*6%.,.-'3%//'5%&,.%5'0+'$6'3,)+'0*8%3+')',(9'%5-%0''.5')+$*1-+')+,0'*6%.,.-'6'00%5''+%$.,''(*.0,0),..'*&'6%$,)*.%18'(*.)',.,.-'0*8%'*8%.)18''.5'*4*1)'&,&)%%.',.(+%0'*&')+%'$'.07%$0%'.5'5%0(%.5,.-'(*/*.'8*0)'&$%E1%.)/2'6'00')+$*1-+')+%'5,'6+$'-8' .'$'$%',.0)'.(%0')+%'08'//',.)%0),.%0'06/%%.''*$*)+%$'0)$1(;)1$%'&*$8'6'$)'*&')+%'+%$.,'

6 7 G=*$%(*-.,0%(/,.('//2''6%$;&*$'),*.'*$'$16)1$%'*&')+%'5,'6+$'-8',0'-%.%$'//2'.*%'02'8'))%$' .'('0%0'*&'0155%.''.5'%B)%.0,7%'$16)1$%')+%$%'3,//6$*4'4/2'4%'-$'7%'(*//'60%''.5'06%%52'5%')+''.5')+%'6'),%.)'8'2'6$%0%.)'8'$9%5'$,010'0'$5*.,*10'&)%.')+%$%'$%'.*'0286)*80'$%&%$'4/%)*')+%'5,'6+$'-8')+*1-+')+%$%'8'2'4%0,-.0',.5,;(''),.-')+')',)0'&1.(),*.0'*$%8*$%'*$/%00',8;6%5%5'+%'*((1$$%.(%'*&'0155%.'6%$&*$'),*.'8'2'4%'9.*3.'&$*8')+%'6$%7,*10'%B,0)%.(%'*&'0*8%'(*.5,),*./,9%/2')*'(10%')+,0'%7%.)'01(+'0'%862%8''*$'.'45*8,.'/'40(%00H)+%'016%$7%.),*.'*&'(1)%'6',.''((*86'.,%5'3,)+',.5,(',*.0'*&'0+*(9'*$'(*//'60%''.5')+%'5,0'66%'$'.(%'*$*85,&,(',*.'*&')+%'0,-.0'*&')+%'*$,-,.'/'8*$4,5'(*.5,),*.H &*//*3%5'42')+%'5%7%/*688%.)'*&'6+%.*8%.''$%7%'/,.-')+')'&/1,5'+'0'6'00%5')+$*1-+')+%'5,'6+$'-8''.5''((181/')%5',.')+%')+*$'(,('*$'45*8,.'/'(',7,)2''0')+%'('0%'8'2'4%'*$')+')'0*8%0%(*.5'$2''&&%(),*.'+'0'4%%.'0%)'16'0')+%'$%01/)'*&')+%'6%$&*$'),*.'01(+'0'6%$,)*.,),0'*$6/%1$,02''&/1,5'(*//%(),*.'8'2'+*3%7%$6%.%)$')%')+%'5,'6+$'-8'3,)+*1)'-,7,.-'$,0%)*''.2'7%$2'%7,5%.)'5,0)1$4'.(%'+%.''.'*$-'.'6'00%0')+$*1-+')+%02286)*80'6$%0%.),&''.2''$%'8*$%'/,9%/2')*4%''00*(,')%5'3,)+',)+,0'*$-'.')+'.'3,)+')+%5,'6+$'-8''.5'6+20,('/'%B'8,.'),*.'8'2'6*00,4/2'5%)%()')+%'5,06/'(%8%.)'.')+%('0%'*&'+%$..,''*&')+%'0)*8'(+''/$%'52'$%;&%$$%5'0)*')+%'(+,%&'0286)*8'3'0'1$-%.)'7*8,),..-'3+,(+'*((1$$%5',8 8%5,')%/2''&)%$')'9,.-''.2'&**5'*$'5$,.9

.&/'88'),*.G ,'6+$'-8,),0 G'+%'0%$*10'(*7%$,.-'*&')+%'5,'6+$'-8'%,)+%$*.',)0')+*$'(,('*$'45*8,.'/'06%()',0'.*)1.(*88*./2',.7*/7%5',.'('0%0'*&'(1)%6/%1$,02'*$'6%$,)*.,),0'$%06%(),7%/2'.5')+%,.&/'88')*$2'6$*(%00'8'2'6%.%)$')%',)0'0)$1()1$%'')'8'2'/0*'4%',.7*/7%5'42'%B)%.;0,*.'&$*8'6%$,('$5),0'.&/'88'),*.'*&')+%0140)'.(%'*&')+%'5,'6+$'-8'8'2'&1$)+%$'1,0%&$*8',.>1$2'5,$%()',$$,)'),*.'62'%8,''*$3,)+*1)'.2'%7,5%.)'('10%'+%'.')*8,('/(*.5,),*.0'*40%$7%5''$%,.($%'0%5'7(0(1/'$,)2''.5'0*8%),8%0'%((+28*0,0H)+%'&*$8'),*.'*&'/286+'16*.',)0'01$&'(%0'*$%B15'),*.',.)*',)0'0140)'.(%H 0*&)%..,.-''.5'5%-%.%$'),*.'*&',)0'810(1/'$'),001%'*$'(%.)$'/)%.5*.H *$',.'$'$%',.0)'.(%0'01661$'),*.''.''40(%00'&*$8;,.-',.')+%'0140)'.(%'*&')+%'5,'6+$'-8'*$'61(*//%(),.-'1.5%$'*.%'*$')+%$'*&',)0'0%$*10'(*7%$,.-0'/(%$'),*.''.5'-'.-$%.%'+'7%4%%.'.*),(%5',.'%B(%6),*.'/',.0)'.(%0'+$*.,(',.&/'88')*.'*&')+%'5,'6+$'-8'8'2'*((1$'/%'5,.-')*''$'&,4$*,5'(+'.-%',.')0'810(1/'$'6*$),*.0'%,)+%$'42'%B)%.0,*.'&,*8'.%,-+4*1$,.-'0)$1()1$%0'*$''0')+%'$%01/)'*&'(+$*.,('/*('/',$$,)'),*.

6 7 G+%'0286)*80'*&'(1)%',.;&/'88'),*.'*&')+%'5,'6+$'-8'$%'-%.%$'//2'7%$2'*40(1$%''.5',// 5%&,.%5'+%'(*.5,),*.'8'2'4%',.5,(')%5'42'0%7%$%'6',.',.')+%'$%-,*.'*&'),0'0)$1()1$%''*&'41$.,.-''.5'(*.0)$,(),7%(+'$'()%$'*47,*10/2',.($%'0%5'42'4$%')+,.-'0*')+')')+%'$%06$,%'),*.'4%(*8%0',.0),.(),7%/2')+*$'(,('0'3% ''0'+1$$,%5''.5'0+'//*3H'.5'/0*'81(+'--$'7')%5'42'(*1-+,.-'5%&%;('),*.''*$''.2'*)+%$''()'3+,(+'5,0)1$40')+%5,'6+$'-8''0'3% ''0'42'8*7%8%.)0'*&')+%)$1.9''.5'6$%001$%'*7%$')+%'%,-'0)$,18',.-+,.-'+,((*1-+'6',.&1'5206+'-,''$,010'0'$5*.,(10''.5'7,*/%.)'5%/,$,18'$%')+%$02286)*80'5%0($,4%5'+%'8*7%8%.)0'*&'$%;06,$'),*.'3,'.5,(',)%'8*$%'*$'/%00'(*86/%)%6'$'/20,0'*&')+%'5,'6+$'-8'+%'6'),%.)3,.'6$*4'4/2'4%'81(+'5,0)$%00%5'*$%'*$/%00'62$%B,''3,'4%'*40%$7%5'&''.'40(%00+*1/5'&*$8')+,0'.,,-+)'41$0)'%,)+%$',.)*')+%(+%0)'*$'45*8%.''.5')+10'/%'5')*'0%(*.;5'$2'6/%1$,02'*$'6%$,)*.,),0'+%',./'88';),*.'8,-+)'/0*'06$%'5')*')+%'6%$,('$5,18'+$*.,(',/'88'),*.''.5',)0'(*.0%E1%.(%0'8'2'6*00,4/2'4%'0106%()%5'&$*8''3'.)*&&$%%'8*7%8%.)',.')+%'5,'6+$'-8'*00*(,')%5'W3,)+(*.5,),*.0'/,9%/2')*'*$,-,.')%')+,0'(+'.-%H 41)',)'(*1/5'0('$(%/2'4%'$%(*-.,0%5'3,)+'.2'(%$)',.)2



’ %$7*10’ ,’$$/,(%’ G +%’6%$,0)’/),(’ 8*7%8%.)0’ ’.5’)+%’ ’(),7,)2’*&’)+%’-/’.50’*&)+%’ ’/,8%.)[=’(’.’/’ ’$%’ *&)%.’,.($%’0%5’42’ (’10%0’*6%$’),..’)+$*1-+’)+%’.%$7*10’020)%8’ ,’$$+*%’’ &$*8’ 8%.)’/’ ’.5’ %06%(,’//2’%,.*’),*.’/’ 6%$)1$4’),*.’ ,0’)+%’ 8*0)’ (*88*.’ %B’86/%’ 7%.’’ (+$*.,(’/**0%.%00’8’2’4%’ 8’,.)’,.%5’42’5%4,/,)2’*&’)+%’.%$7*10’020)%8’ ,.51(%5’42’3*$$2’’.5’’.B,%)2’ B’/)%5’,.; .%$7’),*.’*&’)+%’4*3%/0’8’2’4%’.’)1$’/’’’ 6$*.%.%00’)*’5,’$$+*%’’ &$*8’0+-+)’%B(,),.-’ (’10%0’+’7,.-’’/3’20’%B,0)%5H’*$’’(E1,$%5’ 3+%.’&*$’,.0)’.(%’’’&/1B’*.(%’%0)’4/,0+%5’,0’ ’6)’)*’4%’8’,.)’,.%5’ +%’1.0)’4/%’.%$7*10’ 020)%8’*&’)+%’6%$,*50’*&’$’6,5’5%7%/*68%.)’ ’.5’*&’)+%’(/,.,’()%$,(’(+’.-%’6$%5,06*0%0’)*’ ,)’)’,0’*&)%.’’.’,86*$)’.)’&’()*$’,.’(+$*.,(’ 5,’$$+*%’’ +%’,.)%0),.’/’.%$7% (%.)$%0’b8’2’ 4%(*8%’0*’0%.0,),7%’A’0’,.’5%/,(’)%’ (+,/5$%.R’)+’)’%7%$2’8%’/’+*3%7%$’08’//’8’2’,.51(%’ ’.’,88%5,’)%’(’//’)*’0)**/’)+%’8*),*.0’4%,.-’ +E.,5’*$’61/)’(%*10’’.5’6’/%’41)’*)+%$3,0%’ +%’/)+2’ +%’6%$,0)’/),(’8*7%8%.)0’8’2’ 4%’%7%.’0*’,.($%’0%5’’0’)*’+1$$2’)+%’&**5’)+$*1-+’)+%’0)*8’(+’’.5’4*3%/0’0*’)+’)’,)’ ’66%’$0’1.(+’.-%5’,.’)+%’0)**/0’,8%’,0’ .*)’’//*3%5’&*$5,-%0),*.’*$’40*$6),*.’)*’4% %7%.’4%-1.’ +,0’&*$8’+’0’4%%.’)%$8%5’ C 2 # ’ ’’ ’.5’,0’8*0)’&$%E1%.)’ ,.’(+,/5$%.’4%&*$%’)+%’6%$,*5’*&’)+%’0%(*.5’ 5%.),),*.’ +%’,.($%’0%5’)*.,(,)2’*&’)+% 810(1’$’&,4$%0’*&’)+%’/,8%.)’$2’)$’(’)’8’2’ +’7%’$%01/)%5’&$*8’6$%7,*10’,.&/’88’),*.’*&’)+%’81(*10’01$&’(%’*$’,0’)+%’6$*6’-’),*.’ 163’$50’*&’0*8%’,$$,)’),*.’A1/(%$’,.&/’88’;),*.’^(R’*&’)+%’81(*10’8%84$’.%’*&’)+% $%()18H’*$’,)’’$,0%0’&$*8’)+%’6$*51()0’*& ,86%$&%()’6$,8’$2’5,-%0),*.’=)%$,.-’)+% 51*5%.18’ .5,-%0),*.’,0’)+%’101’/’(’10% ,.’51/)0’ +%’66%),)%’,0’’0’’$1/%’7*$’; (,*10H’.5’5%4&/,)2’8’2’4%(*8%B)$%8%’ .’6’,.&1/’*$’5,&&,(1/)’5%.),),*.’5,’$$+*%’’ ’$,0%0’&$*8’,$$,)’),*.’*&’)+%’.%$7%0’*&’)+% 0)*8’(+’.5’4*3%/0H’5,-%0),*.’,0’’$%%0)%5H’ .5’)+%’(*.)%.)0’,’)+%’/,8%.)’$2’(’./4%; (*8%’(,(5’&$*8’&%$8%.)’),*.’’.5’’$%’%>%()%5’ 42’7*8,),..-’.’561$-,.- F’,*’$,*,0’,’$$+*%’G 84’$$’00; 8%.)’*$’0166$%00,*.’*&’)+%’&1.(),*.0’*&’)+% 09,’9,5.%20’’*$’/1.-0’8’2’/%’5’)*’)+% 4*3%/0’6%$&*8$,.-’’55,),*.’/%B($%)*$2’3*$9’ +%’&/1B’)+10’0%)’16’,0’0’/1)’$2’4%(’10%’ (*86%.0’)*$2’,’$$+*%’’&$*8’(+,//0’A016; 6$%00%5’6%$06,$’),*.R’,0’’’(*88*.’..0)’.(%’ 3+,/%’)+’)’&$*8’$%.’/’.5’61/8*.’$2’(’10%0’ ,0’/%00’&$%E1%.)/2’*40%$7%5’’.5’8’2’4%’8,0; (*.0)$1%5’42’)+%’6$’(),),*.%$’.’0 81(+’’0’ 5,’$$+*%’’101’//2’5,8,..,0+%0’)+%’E1’.),)2’*& 8,.%’%7%.’0*8%),8%0’)*’)+%’7%$-%’*&’016; 6$%00,*.’)+%’$%7%$0%’*&’)+,0’%+.,(’/&’(’)’8’2’ 4%’%’0,/2’*7%/**9%5’*$’8,0,.)%$6$%)%5’ 7%.’ 3+%.’&*$%3’$.%5’)+%’*40%$7%$’8’2’’)’),8%0’ G%06%(,’//2’3+%.’)+%’1$,.%’,0’&$%%’&$*8’ ’/418%.’G’&,.5’,)’5,&&,(1/)’)*’5%)%$8,.%’ 3+%)+%$’)+%’5,’$$+*%’’,0’’’(’10%’*$’.’%&&%()’ *&’,86%$&%()’$%.’/’%/,8,..’),*.’’’5,0),.(),*. +’7,.-’’// ,86*$)’.)’4%’$,.-0’*.’)+%’)$%’); 8%.)’+%’1$0%8,(’.5’%/,8,.’)*$2’(+’; $’()%$’*&’,)’8’2’4%’%’0,/2’5%(,5%5’3+%.’)+% 9,5.%20’’$%’9.*3.’)*’4%’5,0%’0%5H’.*)’0*’ +*3%7%$’3+%.’)+%’*./2’)+,.-’’0(%$)’,.’4/%’ ,0’0(’.)2G8’2’4%’’/418,.*10G=1$,.%’*$’)*)’/’0166$%00,*.’*.’*&’1$,.%’,.’’.’%/5%$/2’ 6’),%.)’.’01(+’’’(’0%’)+%$%’8’2’*$’8’2’ .*)’4%’*$-’.,(’5,0%’0%’*&’)+%’9,5.%20’’.5’ 0),//)+%’5,’$$+*%’’8’2’4%’1$0%8,(’,.’08 1(+’’0’,)’8’2’5%6%.5’*.’0$%./’,.’5%E1’(2< ,’$$+8’$&*8’61/8*.’$2’%84’$$’008%.)’ -%.%$’//2’’&&*$50’$%+%&’)*’4$%’)+,.-’.5’ (*1-+’+%’(+$*.,(’/**0%.%00’*&0*8%-*1)2’ 6’),%.)0’,0’’/0*’%/,8,.’)*$2’3+%.’,)’,0’ (+%(9%5’-*1)’,0’’6)’)*’’57’.(%’’.5’)+% +%’/)+’)*’01&&%$ L’,’B$+*%’’&$*8’%(+’.,(’/’*.; -%0),*.’G’$’,..-’*&’0%$18’,.)*’)+% 4*3%/0’,0’’’(*88*.’$%01/)’*&’W*7%$/*’5,.-’ *&’)+%’6*$)’/’7%,.’&$*8’’.’,86%5,8%.)’)*’)+%’&/*3’*&’4/**5’%,)+%$’,.’)+%’7%,.’,)0%/&’)+%’7%.’’(’7’’*$’$,-+)’0,5%’*&’)+% +%’$) M’+$*.,(’,’$$+*%’’G’’’’; (+%(),(’5,’$$+*%’’G+$*.,(’5,’$$+*%’’,0’&$%; E1%.)/2’,&’.*)’-%.%$’//2’,8(*..%()%5’3,)+’ ,.)%0),.=’/%0,*.0’)’8’2’4%’8’,.)’,.%5’42’ (+$*.,(’(’)’$$+’*&’)+%’,.)%0),.%0’*$’ ’.’ %B+’10)%5’’.5’,86*7%$,0+%5’0)’)%’*&I)+% 020)%8’’0’,.’,’.),*.’%,)+%$’&$*8’,.%’ (,%.(2’*&’&**5’*$’&$*8’%.&%%4/%5’5,-%0),*.’ ,.’(+$*.,(’3’0),.-’5,0%’0%’01(+’’0’026+’ 8’/’$,’’*$’0(1$72’ +%’&/1B’,.($%’0,.- ’ 5%4,/,)2’*.’3+,(+’,)’5%6%.50’)+%$%42’6%$; 6%)1’)%0’,)0%/&’’.5’)+,0’7,(,*10’(,$(/%’)%.50’ 8*$%’.5’8*%’)*’5%0)$*2’&%’42’.’%8,’’ ’.5’%B+’10),*.’’.5’%7%.’’&)%$’’66’$%.)’ $%(*7%$2’)+%’5,’$$+*%’’+’0’’)0)$*.-’5,06*0,;),*.’)*’$%/’60%’ +%0%’(/,.,(’/&%’)1$%0’*&’ (+$*.,(’5,’$$+*%’’’$%’3%/’,//10)$’)%5’42’)+’’ 8’/’52’3+,(+’&$*8’)+%’6/%.%00’*&’)+% 0)**/0’,0’(*88*./2’9.*3.’,.’.5,’’’0’ WK +,)%’/1B<G’’$%01/)’*&’5%)%$,*$’),*.’*&’ +%’/)+’42’(/,8)%’’.5’8’/’$,’’,’0/.*0,0R’ K +%.’’((*86’.,%5’42’&%7%$’.5’.,-+)03%’)0’ (+$*.,(’5,’$$+*%’’,0’.%’$/2’/3’20’51%’)*’)14%$(1/,0’),*. ! +%’5,&&%$%.)’&*$80’*&’5,’$; $+*%’’8’2’4%’$%’5,/2’5,0),.-1,0+%5’&$*8’%’(+’ *)+%$’42’’’(’$%&1/’(’0.5%$),*.’*’*&’)+%’(’10%0’ .5’0286)*80’’+%’5,0%’0%0’8*0)’’6)’)*’4% 8,0)’9%.’&*$’5,’$$+*%’’’$%’%6,5%8,(’(+*/%$’’ 520%.)%$2’’.5’81(*10’,$$,)’),*.’*&’)+%’4*3%/0’ &$*8’$%)%.),*.’*&’&%(%0 $%0%84/%’4,/,*10’5,’$$+*%’’.5’(+*/%$’,(’5,’$; $+*%’’ +%’6$*4’4,/,)2’,.’&’7*1$’*&’,)’8’2’ 4%’5%)%$8,.%5’42’)+%’40%.(%’*&’*$5,.’$2’ (’10%0’*&’5,’$$+*%’’)+%’6’/%.%00’.5’3’)%$2’ (+$’()%$’*&’)+*’0)*6/0’)*$8,.’’4%,.-’0/.-+)’ *$’40%.)’)+%’0166$%00,*.’*&’1$,.%’.5’)+% %’$/2’%B+’10),*.’+%’6$%0%.(%’*&’4,/%,.’)+% 0)**/0’,0’’/3’20’,.’&’7*1$’*&’5,’$$+*%’’K K*8,)’ ,.-’,0’8*$%’&$%E1%.)’,.’(+*/%$’H’3+%.’,)’*(; (1$0’,.’5,’$$+*%’’)+%’7(’.,)%5’8’))%$’101’//2

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3',0) 4%)0'0+*1/5 4% 3*$.' +$*.,(5,'$;
$+*%''A+%.)%$,(''.5(+$*.,(')$*6,('/5,'$$+*%'R
+'0'/0*'4%%.'01((%00&1//2')$%')%5 42''0)$,()'
8,/9 5,%)' .5 $%0)H '.5 42 $%0)' /*.-'3,)+
8'00'-% =
ALR " ' " G +% 9,.5''.5
5%-$%% *& ,.)%$&%$%.(% $%E1,$%5'0+*1/5 &,$0)'
4% 5%(,5%5',.'%'(+'('0%*&5,'$$+*%''' '$*1;
),.%'6$%0($,6),*.'*&'0)$,.-%.)0',0 81(+')*4%
5%6$%(')%5' +%.')+% &/1B',0 8*5%$')%'.K5
0'/1)'$2G&*$ %B'86/%'$%8*7,.-'1.5,-%0)%5
$',.5,-%0),4/% 8')%$,'/0'$,$$,)'),.-'0%($%;
),*.0'$%+%7,.-'' .'%.-*$-%5'6*$)'/ 7%,.'*$
0166/%8%.),.-'' 0166$%00%5' 0%($%),*.G,)'
8'2 4% /%&)' 1.(*.)$*//%5' 42 8%5,(.,%'*$
8'2 4% %.(*1$'-%5' 42'/'B'),7%0'01(+' '0'
('0)*$ '$+14'$4' *$ '' 0'/,.%' '6%$,%.)'
f **/%0'6 " ' '89:H ' '.'89:8

%*1,4,'%5' 3,)+' '' 8 ,/5' 0%5 '),7% ' 01(+' '0' +% . ; 4' .% *$* *6,. 8 ' 0' ''$1/% ')+%')$%') 8 % .)' *& 5,'$$+*%'' 0+*1/5' 4%-. .' 42' $% 8 *7,. -' .$$,) '),. -' 0140)' . (%0'&$* 8')+%' '/, 8 % .) ' $2' (' . '/ 42' /' B ' ;),7%0' -1' $5%5' 42' 0 8 ' //' 5*0%0' *&' *6,1 8 H ' . 5' '0)$, . -%.)0' 01(+' '0' (+' /9 8 ,B)1$%' 3 ,)+' 9, . * ' (')%(+1' +0% 8 ')*B2/ 8 . ' ' . 5' *6,1 8 ' 0+*1/5' 4% +%/5' , . '$%0%$7%' +%' /' B '),7%' 8 ' 2' ,. ($%' 0%)+% &/1B' 3+,(+' +*3%7%$' 0**. ' 0140,5%0' $* 00%'1' '57*(')%5')+%' 10%' *&' 0' /, . %0 G' 0*5,,' 0BX6+'0' 0*5'')')$)'$'))' ' 8 ' - . %0,,' 01/; 6+'0 G, . '6$*-$%00,7%/2' 5%($%' 0, . -' 5*0%0' 5,0; 0*/7%5' , . ' ''0 8 ' //' 41/9' *&' 3')%$', . -')+%' 8 *$. ; , . -' &'0), . -' 3+,/%' *)+%$0' 6$%&%$' ('0)*$' *,/' *$ $+14'$4' '0)*$' *,/' ,0' 42' &'$')+%' 8 *0)' 10%&1/' $%8%52' &*$' (+,/5$%,/' '0' 6 ' '0' &*$' '51/)0' *$')+%' &*$8%$',)'0+*1/5' 4% % 8 1/0,; &,%5', . '-18' . '.5' 02$16' &*$)+%' /'))%$', . '2*/9' *&%-. H ' . 5' '0' *(('0,*. '$%E1,$%0' ,)' 8 '2' 4% (*84,. %5' 3,)+' '' 0 8 '//' *6,')%' &*$' %B' 86% ' (*86*1. 5'), . ()1$%' *&' (' 86+*$' *$')+%' 3, . %' *$), . ()1$%' *&' *6,1 8 ', . ' 6$*6%$' 5*0%0 ' # ' *$ / # ')+%' 4%0)' $%01/)0' '$%' *4)', . %5' &$* 8' ('0)*$' *,/ -1' $5%5' 42' '' 0 8 '// 5*0%' *&' /' 15' . 1 8 ' ')')+% (* 8 8 %. (% 8 %.)' ' . 5' $%6%')%5' ,&')+%' 5,0%' 0%' ,0' 0%7%$%H 3+,/%' '0)$, . -%.)0' ' . 5'*6,')%0' '/*. %' '$%' 3,)++%/5' 1 .),/')+%' 4*3%/0' '$%' $%/,%7%5' *& *&%. 0,7%' 8 ')%$,'/0' '0', . ')+%' /')%$' 0)'-%0')+% 0)**/0' 4%, . -' (*6,*10' ' . 5' 3 ')%$2' -$,6, . -' . 5' 5,0)%. 0,*. ' *&')+%' *45*8%. ' '40%.)' ' . 5')+%)*. -$1%(/%' . ' *8,), . -'0+*1/5'4%%. (*1$' -%5' 42' (*6,*10' 5$'1-+)0' *&' 3'$8' 3')%$' ' . 5', &' . %%5'4%'42'%8%),(0' *&'8 10)'$5'*$,6%('(1' . +' ' . '(+,/5$%. ' 3+%. ')+%' 8 *),*. 0' '$%' (*/*1$/%00' 6$*&10%' ' . 5', . (%00' .)',)', 0' 4%0)')*' -,7%' +2' 5$'$-2 . 1. '(18'($%)&)', . '0 8 '/'5*0%0'%7%$2'+*1/ *$)3*' ' . 5' '' 7%$2' 0 8 '//' %. % 8 '' *&' 0)'$(+' (*.)', . , . -' 6/1 8 4,' '(%)'0' *$' *16$,'01/6+'0' 3,)+' /'15' . 1 8 ' 3+,(+' 8 '2' 4%' $%6%')%5', &' . %(%00'$2' %8%5,%0' 3+,(+' '$%'4%/,%7%5')*' '$$%0)' '4 . *$8 'f, .)%0), . 'f&%$8%.)')', *. '$01(+' '0' . '6+)+'/, . %' (''/*8%f, . ' 0 8 '//' $%6%')%5' 5*0%0'6%$%+/*$,5%' *&' 8 %$(1$2'6*)'00,* 8 %$' (. $,(' . *5,5%' ('$4*/,(' ',(,5' $%0*$(, . ' 0'/*/' 0'/,(2/')%' *&' 0*5,1 8 R' +'7%' /')%/2' 4%%. ' %8; 6/*2%5' 3,)+' 01((%00', . ', . &' .),/%' ' . 5'01 8 8 %$' 5,'$$+*%'' R$' 1&&'+'0' *4)', . %5')+%' 8 *0)' -$'),&2, . -' $%01/)0' &$*8' 6*)'00,*' '8%$(1$,(' ,*5,5%' 6$%&%$$, . -')+%' &*//*3, . -' &*$ 8 1/' ' ,E1*$,0' +2^'$-2$,' 6%$(+/*$,5,' . ,B, > H' 6*)'00,' . *5,5,' -$' H' (+/*$'f +25$')0' -$'>' 'E1'%' '5' F> H)*'4%' -,7%. '%7%$2'&*1$'+*1$0')*' , . &' .)0' 16')*'0,B' 8 *.)+0' ' . 5')+%' 5*0%')*' 4% 5*14/%5' &*$' (+,/5$%. '*&' 8 *$%')+' . ' *. %' 2%'$ */5 < . ')+%' (*/5'0)'-%')+%$%' +'7%' 4%%. ' $%; (*8 8 %. 5%5' 810)'$5' 4')+0' A&*$')3%/7%' $ &,&)%%. ' 8, . 1)%0'0%7%$'f'), 8 %0' '5' 2RH %8%), (0' A,6%('(1' . +'' @')*' ?' -$', . 0')3, (%' *$')+$%%'), 8 %0', . ')3%.)2 &*1$'+*1$0RH 5,&&10,4/%' 0), 8 1; /' .)0' A%)+%$', . K02$16'%7%$2'+*1$' *$'+'/& +*1$R' . ')+%' 0)'-%' *&' $%')(),*. ' 0'/, . %' '6%$,%.)0' *$' ('/*8%f, . ' 0 8 '//' 5*0%0' 8 '2' 4%' -,7%. H' 3+,)%' *&' %-.-', . ' ')%$' '0' '' 5$, . 9')+$*1-+*1)H ' . 5' 7*8,), . -' +'7, . -' (%'0%5' ' . 5' 5,'$$+*%'' S ' %*'@! ?P!

4%, . -' %0)'4/,0+%5' 4,0 8 1)+' (+'/9' *$ /, 8 % ' 3')%$

. '") ' / O ')+%'&,$0)', . 5,(', *. ', 0')*' ''//'2' $%&/%B' %B(,)'4,/,)2' 42')+%' 4$*8,5%0H *$')+%0%'&', /, . -' 42' *6,1 8 ' +%. ' 5,'$$+*%'' ,0' %B(,)%5' 42' &**5')+%' 5*0%' 0+*1/5' 4%' -,7%. ' 0+*$)/2' 4%&*$%' 8 %' /0' ' . ' 3 " ' / # ' '$0%. ,(',0' ,. 7'/1'4/%' / 5,-%0),*. ' 0+*1/5' 4%' , . %)' 42' +25$*(+/*$,(' (,5' 4,0 8 1)+' 3,)+' /9'/,0' *$ *)+%$' '66$*6$,')%' $%8%5,%0' '(; (*$5, . -')*')+%', . 5,(',),*. 0' ((' 0,*. 'f 5*0%0' *&' ('0)*$ *,/' G' '/*. %' *$ 3,)+' 4,0 8 1)+' *$ 0 8 '//' 5*0%0' *&' 66,B1. ' *$ +%. 4' . %G '$%' 10%&1/' , . ' (/%'$, . -' '3'2' &%$8%.)%0(,4/%' 8 '))%$0' 3+,(+' '$%' 6)')*' 8 ', .)', . ' . ',$$,)'4/%' 0)')%' *&')+%' 4*3%/0' 0)$, . -%.)0' 0+*1/5' *. /2' 4% 6$%0($,4%5' '&)%$')+%' &', /1$%' *&')+%0%' *$ 0, 8 ,/' $ 8 %' 01$%0 . ') 2 3 ' / # ')+%' 9, . ' 0+*1/5' 4% 8 '5%')*' '()' &$%%/2' 42' 3'$8' 4')+0' *$' +*)' ,$' *$' 7'6*1$' 4')+0' . ' $%. '/' , . '5%E1'(2' (*1.)%$, $$,)', . *. ' '($*00')+%' /*, . 0' 5, -,)'/,0' ' . 5' . ,)$')%' *&'6*)'00,1 8 ' 8 '2' 4%/,9%3,0%', . 5,; (')%5' +%' 5,'$$+8'' 0+*1/5' . *)' 4%' $$%0)%5' *$ %7%. ' (+%(9%5' 1 . /%00' ,)' 4%' 6$*&10%' ' . 5' %B; +'10), . -' %06%(,'//2' '&)%$' $%0)*$, . -' *$' '1-; 8 %.), . -')+%' '(),*. ' *&')+%' 09, . ' ' . 5')+%' 9,5; . %20' H ,)', 0' 0*8%), 8 %0' '57,0'4/%')*' . 1$0%' ' . 5' %. (*1$' -%',) C / # ' ') ' "0 "' *&')+% 6*$)'f 7%, . ', 0')*' 4%' 8 %)' 42')$%'), . -')+%' ('10%' &*$' %B' 8 6/%'5,0%' 0%' *&')+%'+%' $)' 42' 5, -,)'/,0' ,$*. ' ' . 5' *)+%$' $%8%5,%0 +%' &/1B' *&' # '' & # ' A/,%.)%$,(' . 5')+%' (+$*. ,(')$*6,('/' 5,'$$+*%'' 9. *3. '0' 06$1%' *$' 60,/*0,0R' (' . . *)' '0' '' $1/%' 4% 0)*66%5' '/)*-%)+%$' J' '0)$, . -%.)0' *. /2K G)+% %7'(1'),*. 0' 3+,/%')+10' $%)', . %5' 8 '2' 5%(*8; 6*0%' ' . 5', . 51(%&/')1/%. (%' . 5' (*/,('*$ &%7%$' +%' -%. %$'f +%'f)+' 0+*1/5' 4% $%0)*$%5' ' . 5' ' . 00 8 ,'' $% 8 *7%5H)+%' 0%($%),*. 0' 3,/f)+%. ' -%. %$'f 2', 86$*7%' . 5')+%' 5,'$$+*%'' 0140,5%' *. ,(0 G K,&*. ' '$0%. ,(' E1, . . %' 0)$2(+. , . % 8 '2' 4%' ,5%5' 42' '0)$, . -%.)0' G 8 , . %$'f' (,50' *6,1 8 ' 4,0 8 1)+' (+'/9' *$ +0%8')*B2/1 8 ' +%' 4%0)' 6$%6'$'), *. 0' *&', $*. ' '$%', $*. ' '/1 8 ' G'')*' F' -$', . 0' ' . 5'f, E1*$' &%$$,' 6%8,)$')', 0 G' !')*' !' 8, . , 8 0' 6%(' (1' . +'' ' . 5')'$'B'; (1 8 ' '$%' 10%&1/' 3+%. ')+%' 09, . ' ' . 5' /, 7%$' '$%, . '(), 7%' &$* 8' ')*'' -$', . 0' *&' 6*35%$%5', 6%; ('(1' . +'' 8 '2' 4%' -, 7%. ' . , -+)' ' . 5' 8 *$. , . - *5*6+2 1 8 G@' *$' 7' 8, . , 8 0' *&' '0*/1), *. '*&' ' -$', . ' , . ' 5$'(+8' *&' $%(), &, %5' 06, $,)'+$%%' *$' &*1$'), 8 %0' '5' 2G=0, . 5, ('%5' 3+%.)+%' 8 *), *. 0' '$%' 3')%$2'6'/%' *$'+, -+ (*/*1$%5' ' . 5' 6' 00%5' 3,)+' 0%7%$%' (1)), . -' 6', . 0' '/, . % 61$-'), 7%0' , . ')+%' %'$/2' 8 *$. , . -' +'7%' 4%%. ' $%(*8 8 %. 5%5G@' 5$'(+8 0' *&' 01/6+')%' *& 0*5,1 8 ' 01/6+')%' *&' 8 '-. %0,1 8 ' *$' 0*5'')'$;)'$')''*. ')+%'&,$0)'5' 2H)+%. ' '5$'(+8'&*$&*1$;)%%. ' 5' 20' 5,00*/7%5', . ' '' 0 8 ''//41/9' *&' 3')%$' 3,)+' '7*,5', . (%' *&/1,50' &)%$')+%'5*0%' ')%/2' $' %-.-' +'0' $%6*$)%5' 01((%00&1/' $%01/)0', . ')+%')$%')8%.)' *&'(+$*. ,(')$*6,('/' 5,'$$+*%'' 42' 0' .)*. , . '4)+%2%//*3'($20)'/0R'-$'7'3%//8, B%5' , . ''')%'06**. &1/'*&'*/,7%*. /'-,7%. ', . ')+%'%'$/2

'S ' %*'@! ?P!

8 *$. , . -' *$' ')' 4%5), 8 %' &*$' 0,B' 5' 20 ‹' +%' 6$*&10%' 03%'), . -' ' . 5' (*//,E1'), 7%' 5, '$$+*%'' *&' +%(), (' ,0' 4%0)' 8 %)' 42' +0% 8 ')*B2/1 8 ' ' . 5' 5,/1)%5' 01/6+1$,(' ' (,5 ' *$' *6,1 8 ' 3 ,)+' ' 0)$, . ; -%.)' 8, . %$' /' 0 ' /)0 G=. ,)$')% *&' 0,/7%$ ' 01/6+ ')%' *&' (*66%$' *$' ' (%)')%' *&' /% ' 5 G -, 7%. ' 42')+%' 8 *1)+' *$ $%()1 8

▮ $%00%5' 0%($%), * . 0 ' 6 ' $), (1/' $' (' (+%B, 0%' "5, . . %$7'), *. ' (* . -%0), *. ' *&')+%' 6*$;)%5' 7%, . ' ' . 5' *$-' . , (', 0% ' 0%0' *&')+%' , .)%0), . %0 ' &*$ 8' 06%(, ' /, . 5, ('), *. 0' &*$')$%')8%.)' 3+%. ' 5, '$$+*%'', 0' 6$%0%.)

‼ 2 ' ' &

' < ' ' 5,06*0% ? &' ' 8 *$4,5' (*. 0),)1), *. ' 6$%5,06*0, . -')*')+%' 5%; 7%/*6 8%.)' *&' '' 6 ' $), (1/' $' 5,0% ' 0%' ' % 7 ' 3,)+' 3+, (+' , . ' '' 0* 8%3+')' 8 *$%' /, 8 ,)%5' 0%. 0%')+, 0')%$ 8 ', 0' 02. *. 2 8 *10

' G *. 0), ')1), *. ' /' 5, 0% ' 0%0' ' % ' - 7

', ' 5*14/%H ' . 5' F ' '' 0)$*9%R', 0' '')%$ 8' ' 66/, %5')*')+%' 0%(*. 5' -$%')' 3 ' 7%' *&')+%' 61/0%' +, 0' 5, ($*), (' 3 ' 7%' *$' 5, *$*), 0 8 ', 0' 51%')*' '' 0%(*. 5' %B6 ' . 0, *. ' *&')+%' '$)%$2' 3+, (+' *((1$0' 51$, . -')+%' 5, ' 0)*/%' *&')+%' 7%.) (/%' +%' ' ' " ' *&' */5' ' 1)+*$0' 3 ' 0' '' 61/0%', . ' 3+, (+' '' 0%(*. 5' 4%')' 4%(' 8 %' 6%$(%6), 4/%')*')+%' &, . -%$H ' . ' *((1$ b' $%. (%' *40%$7%5' *(' (' 0, *. ' //2' ' 0' ' . ' ' .)%(%5%.)' *&' +' %8 *$$+' -%' ' . 5' '/0*' , . ')+%' (*1$0%' *&' &%7%$0' +%' 0%(*. 5' 4%')' 6%$(%, 7%5' 42')+%' &, . -%$' , 0' . *)' '/3 ' 20')+%')$1%' 5, ($*), (' 3 ' 7%' 41)' 8 ' 2' , 1' 0* 8%' (' 0%0' 4%' . ' ' %B' - -%$')%5'), 5' /3 ' 7%' +, 0' , 0')+%' 3 ' 7%' 6%$(%, 7%5', . ')+%' +, -+' '$)%$, '/')%. 0, *. ' 0* 8%), 8 %0' ' .)%(%5%.)')*' +' %8 *$$+' -%' , *$*), 0 8 ', 0' &' 7*1$%5' 42' '' /*3' 0)')%' *&' '$)%$, '/')%. 0, *. ' 42' %/' 0), (,)2' *&')+%' '$)%$, '/' (*')0 ' ' . 5' 42' E1, (9' ' . 5' 0)$*. -' 7%.)$, (1/' $' (*.)$' (), *. 0')', 0' (%.)$' /' . ' ,)0' *$, -, . ' ' . 5', 0' '' 0%(*. 5' $2' 3 ' 7%' *&' 6$%001$%' 6$*51(%5', . ')+%' 4/**5 (*/1 8 . ' 42')+%' %/' 0), (' $%(*, /' *&')+%' '*$)'' '&)%$',)0' 5,0)%. 0, *. ' 42')+%' 4/**5' , . >%()%5' ')' %' (+' 7%.)$, (1/' $' 020)*/%' +%' $%(*, /' *&')+%' '*$)'' (' 10%0')+%' 3 ' 7%')*' 06$, . -')*3 ' $5 0')+%' 6%$, 6+%$2' &$*8')+%' (/*0%5' '*$), (' 7 ' /7%0' ' 0' 4 " '] 2 ' ' $ ' '

G - . G +%')%$8' 05, %)' ‹' 0' +%$%' %8 6/*2%5' 8 ' 2' 4%' 1 . 5%$0)**5')*' %B6$%00')+%' $%-1/'), *. ' *&' &**5')*')+%' $%E1, $%8%.)0' *&' +%' /)+' ' . 5')+%')$%')8%.)' *&' 5,0%' 0%

1 ' $ o G . ' *$5%$')*' 010)', . ' /, &%' ' 5,%)' 8 10)' (*. 0,0)' *&' ' 6$*6%$' '66*$;), *. 8%.)' *&')+%' &*//*3, . -' ' /, 8%.)' $2' 6$, . (,;, 6/%0' G

' ,)$*-%. *10' 6$, . (,6/%0

@' *. . ,)$*-%. *10' 6$, . (,6/%0' A&')0' ('$4*; +25$')%0' ^(R

" ' . *$-' . , (' 8 ')%$, '/0' A0'/, . %' 8 '))%$0' ' . 5' 3 ')%$R

+, /0)')+%0%' 6$, . (,6/%0' +*/5', &&%$%.)' $%/'), 7% 6*0,), *. 0' *&' 7 ' /1%')+%' '40%. (%' *$' 5%&, (,%. (2' ,' 2 ' : ' 21 2

*&' %,)+%$' -$*16' 3, //' $%. 5%$' '' 5,%)' 1 . &,)' &*$')+% 0166*$)' *&' /,&%' ,/9')+%' 6$*51()' 6$*7,5%5 42' ')1$%' 0')+%' 0*/%' $),(/%' *&' 010)%. ' . (% 51$, . -')+%' %' $/2' 6%$, *5' *&')+%' /, &%' *&' 8 ' 8 8 ' /0' 8 ' 2' 4%' $%-' $5%5' 0' &' 8, 0+, . -' 10' 3,)+' '')26, (' /' 5,%)%), (' $%6$%0%.)'), 7%' *&' '//')+%0% 6$, . (,6/%0' +%' %-.-' '/0*' +*/50' '' /, 9%' 6*0, ', *. ' ' . 5' '0' '//')+%' 6' $)0' *&')+%' 2*1. -' ' '$%' %7*/7%5' &$*8',)' 8 10)' . %%50' (*86$, 0%' '//)+%' 8 ')%$, '/0' &*$')+%' 5%7%/*68%.)' . 5' -$*3)+' *&')+%' 4*52

+%' $%E1, $%5' 6$, . (,6/%0' '$%' (*.)', . %5', . ' &**5' 5%$, 7%5' &$*8' 4*)+')+%' ', 8 ' /' . 5' 7%-%)' 4/%' 9, . -5*80' ' . 5')+%' 5,%)' 8 ' 2' 4% 5$' 3 . ' &, $*8' %,)+%$H' 41)' /**9, . -')*' 8 ' . 0' -%. %$' /', . (/, . '), *. ' ' . 5')+%' (*. &*$8 '), *. ' *&' +, 0' 5, -%0), 7%' '66' $')10',)' 8 ' 2' 4%' '0018%5')+')' '' 8, B%5' 5, %)', 0')+')' 3+, (+', 0' 5%0, -. %5', . ')+%' 6/' . ' *&' ')1$%' &*$' +, 0' 0140, 0)%. (%' ' . 5',)' , 0')+')' 16*. ' 3+, (+' +%' '))', . 0')+%' +, -+%0)' 0)')%' *&' 6+20, (' /5%7%/*68%.)' ' . 5', .)%//%()1' /' 7, -*1$

. , 8 ' /&**5' 4%, . -', 5%.), (' /, . ' (*86*0,), *. ' 3,)+')+%' 4*52')*' 4%' . *1$, 0+%5' 42',)' , 0', . ' '' 0)')%')*' 4%' 8 *$%' %' 0, /2' '66$*6$, ')%5')+' . ' 7%-%)' 4/%' &**5')' '/0*' '66%' 0%0' +1. -%$ 8 4$%')+*$*1-+/2' . 5' 0'), 0&, %0' /*. -%$H, . '*)+%$ 3*$50',)' -, 7%0' '0' -%. %$' /' %B6%$, %. (%' 3, // (*. &, $8' '' &%%/, . -' *&' -$%')%$' 0)' 2')*')+%' 0)*8' (+' . , 8 ' /' &**5' 6*00%00%0' 0), 81/' .) 6$*6%$), %0' 3+, (+' +' 7%' 0, (%5', . ' (%$)' , . ', . ; 0)' . (%0' '0' '&)%$' 0)' $7'), *. ' ' . 5' , . ')+*0%' ' ((10)*8%5')*' ' 7%-%)' 4/%' 5, %)')*' 6$*51(%' '' 0%')%' /+%5')*' , .)*B, ('), *. ' +, 0' 0), 8 1/'), . -' %&&%()', 0' &1$)+%$', //10$')%5' 42' /**9, . -')')+%' $%/'), 7%' (+' $' ()%$' *&' ', 8 ' /' . 5' 7%-%)' 4/%' &%%5%$0' ,%4, -' 0' 20')+')' ,)' ,0' %00%.), '//2')+%, $' &**5' 3+, (+' 8 ' 9%0' ('$. , 7*$*10' ', 8 ' /0' , . ' -%. %$' /' 4*/5%$' . 5' 8 *$%' (*84')7%')+' . ')+%' +%$4, 7*$*' 3+, (+' $%')+%, $' 6$%2' %')+%. ' $%/')%0')+')' '' 4%' $ 9%6)' ')')+%' . ')*8, (' / 10%18' *&' , %00%. ' 0+*3%5' '' E1, %)' -%.)/%' . ')1$%' 0' /*. -' ' 0',)' 3 ' 0' &%5' 16*. ' 4$%' 5' 41)' '' &%3' 5' 20‹ &%%5, . -' *. ' 8%')' 8 ' 5%',)' 7, (, *10' . ' 5' 5' . -%$*10

+%' 0)' . 5' $5' 5, %)' &$' 8 %5' 42' */%0*+*))' +' 0' 4%%. ' ' ((%6)%5' '0' &' 8, 0+, . -' ' ' 8 *5%/' *&' 3+')' 8 ' 24%' (*. 0, 5%$%5')+%' $%E1, 0,)%' 6$*6*$;), *. ' *&' '/, 8%.)' $2' 6$, . (, 6/%0' &*$' 8', .)', . , -' +%' /)+', . ' '' 6%$0*. ' *&' '7%$' -%' 0)')1$%' 1. 5%$ %B6*01$%')*' '')%8 6%$')%' (/, 8 ')%' ' . 5')+%' 6%$; &*$8' . (%' *&' ' 8 *5%$')%' ' 8 *1.)' *&' 810(1/' $ 3*$9')' $1. 0' '0' &*//*3 0 G

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+, 0',)' 3, // 4%' 0%%. ' &' 8, 0+%0' '' 0166/2' *&' '4*1)' @?' *1. (%0' *&' 5$2' 0*/, 5' 8 ')))%$' *&' 3+, (+

.%&/&)+',0.,)$*-%.*10 &'3%$%(9.')+')*$5,.'$2&**5'(*.)'.0*4*1)'F!'6%$'(%.)'*&3')%$')+%.'@"'*1.(%0 3,/(*$$%06*.5')*' D*1.(%0'*&0*/,5&**5',.')+%'(*.5,),*.',.'3+,(+',)',0'(*.018%5' *'(*86/%)%')+%$'/,8%.)'$2',.-%0)''''&'$)+%$'E1'.),)2'*&'&$*8'D!'*1.(%0')*'?!'*1.(%0'*&'3')%$'8'2'4%'001&%5')*'4%$%E1,$%5')*'+%')'9%.'5',/2'1.5%$'0*8%'&*8'*$*)+%$

*$''/,&%'*&',.'(),7,)2',)'810)'4%'0)')%5')+')''81(+'08'//%$''8*1.)'*&&**5'3,/01&&,(%'+%5,%)'&*$',.0)'.(%'3+,(+',0'*$5,.'$,/2'0166/,%5')*')+%'6'),%.)0'*&'12<0*06,)'/''.5'3+,(+'01&&,(%0')*'0'),0&2'.'.5'6$*6%$/2'010)',.')+%8'*.*./2'(*.)',.0'4*1)''l'*1.(%0'*&'0*+5'&**5'%E1,7'/%.)')*'4*1)M'*1.(%0'*&'3')%$&$%%'8')%$,'/

)'+'0'4%%.'8%.),*.%5')+')')+%$%''$%$%'0*.0'&*$'$%-'$5,..-''8,B%5'5,%)'*&'.,8'/'.5'7%-%)'4/%'&**5'0'4%0)'5'6)%5')*'*1$.')1$%''.5',)'8'2'6$*4'4/2'4%'(*.0,5%$%5')+')'+%'8*0)'01,)'4/%'5,.,B)1$%'(*.),'.0'4*1)'*.%&*1$)+'*$'$')+%$'8*$%'*&'.,8'/&**5

9%5''')'&$*8')+%'&*//*3,..-'6*,.)'*&7,%3',)'3,//'4%'0%%.')+')'.'5'8,B)1$%'*&'.,8'/'.5'7%-%)'4/%'&**5'8*$%'%(*.*8,('//2'016;6/,%0'3+')',0'3'.)%5')+'.'%,)+%$'9,.5')'9%.''/*.%'1./%00')+%''5>10)8%.)'0+*1/5'4%'8'5%'3,)+')+%'6$*6%$'66*$),*.8%.)'*&'&')''0''$%6$%0%.)'),7%'*&''.*..,)$*-%.*60'$),(%')',0'%0),8')%5')+')'&*$''8'.'*&'8%5,18$0)')1$%''.5'6%$&*$8,.-''8*5%$')%''8*1.)'*&'3*$9''4*1)'?!!'-$',.0'*&'.,)$*-%.'.5';*:HH'-$',.0'*&('$4*.''$%'$%E1,$%5')*'4%',.;)$*51(%5'5',/2',.)*')+%'020)%8'3,)+')+%'&5')*'(*86%.0')%'&*$)+%'*1)-*,.-'*&')+%0%'%/%;8%.)0')+')'*((1$0'*3')+,0',0'2,%/5%5''0'.%'$/2''0'6*00,4/%'.')+%''('0%'*&'4*)+'%/%;8%.)0'42'@/40''*&4$%'5''.5':'/4''*&'8%')G')+')',0'')*1.(%0'*&'0*5'&**5'*&'3+,(+'*4*1)'*.%&*1$)+'(*.0,0)0'*&''.,8'/'8'))%$'&')+%'/%''.'*&'8%')'*./2'3%$%'(*.018%5'$')+%$'*7%$'D'/40'3*1/5'4%'.%%5%5')*'&1$.,0+')+%'$%E1,0,)%''8*1.)'*&('$4*.''.5')+%$%'3*1/5'4%''7%$2'/'$-%'01$6/10'*&1.),/,0'4/%'.,)$*-%.H3+,/0)'&'4$%'5''.*./2'3%$%')'9%.')+%'8*,8)'.%;(%00'$2')*'0166/2')+%'$%E1,0,)%'E1'.),)2'*&'.,)$*-%.'3*1/5'4%'$')+%$'8*$%')+'.''/40''.5'),0'(*.)'.0'.%'$/2'5*14/%')+%'8*1.)'*&('$4*.'3'.)%5

.'*$5%$')*'6$%0%$7%'+%'/)+',)',0'.%(%00'$2')+')''6*$),*.'*&')+%&**5'(*.018%5'0+*1/5'4%',.')+%'&$%0+'0)')%''.5')+,0'66/,%0')*'4*)+'.,8'/'.5'7%-%)'4/%'&**5'+%$%'8'2'4%'.*'/'(9'*&'E1'.),)2''.5'2%)'5,0%'0%''.5'5%')+'8'2'4%',.51(%5'42',.'))%.),*.')*')+,0'&'()&&%(),*.0'*&')+%'0(*$41),('(/'00''$%6$*51(%5'3+,(+'('.'*./2'4%'(+%(9%5'.5'$%8*7%5'42')+%'0166/2'*&'&$%0+'&**5'*$')+%'>1,(%'*&'0*8%9,.5'*&'01((1/%.)'7%-%)'4/%'*$'&$1,)'+%%&&,('(2'*&'%8*.''.5'/,8%'>1,(%'&*$',.0)'.(%',0'3%/'9.*3.',.')+%'6$%7%.),*.''.5'(1$%'*&'0(1$72

/,8')%',.&/1%.(%0')+%'5%8'.5&*$'&**5''.5',.0),.()'/%'50')*')+%''5'6)'),*.'*&'5,%)')*')+%$%E1,$%8%.)0')+')'%B,0)'*)'*./2',0')+%$%''(*$$%06*.5%.(%'4%)3%%.')+%''8*1.)'*&'**5'$%E1,$%5''.5')+%',.(/,.'),*.'&*$')'9,.-',)'41)')+%'.')1$%'*&')+%'&**5'0%/%()%5',.'5,&&%$%.)'(*1.)$,%0'7'$,%0''.5'0).50',.'+'$8*.2'3,)+')'3+,(+',0'8*0)',.'(*.&*$8,2'3,)+'3+')',0'.%%5%'+%'53%//%$0',.')+%''$(),(''$%;-,*.0'4%0,5%0'(*.018,.-''/''$-%'E1'.),)2'*&'&**5'6'$)'9%'*&')+')'9,.5'3+,(+''4*1.50',.')+%'8*0)'%%&,(,%.)'&*$8'*&'+%')-%.%$')',.-8')%$,'/G.'8%/2'*/%'-,.*10'8*))%$'.')+%')$*6,(0'*.')+%'+%)+%$'+.5',)',0'16*.'7%-%)'4/%'6$*51(0)0'/'$-%/2'(+'$-%5'3,)+'6$,.(,6/%0'4%/*.-,.-')*')+%'('$4*+25$')%-$*16')+')')+%'.'),7%',.+'4,)'.)0'8',./2'0140,0)

'4*1$'.%(%00,)')%0''0166/2'*&'&**5',.'6$*6*$),*.')*')+%''8*1.)'*&'3*$9'5*.%'+%%86/*2%$'&,.50')+')')+%''66%),)%'*&''3*$9;8'.'8'2'4%'9%.''0''8%'01$%'*&'(6',)2'&*$'3*$9G,.*)+%$'3*$50')+')''&'//,.-'*&&*&*)+%''66%),)%'8%'.0''5,8,.,0+%5'(6',)2'&*$)+%'6%$&*$8'.(%*&/'4*1$.),/'$%(%.)/2',)'3'0'(*.0,5%$%5',.'((*$5;'.(%3,)+')+%')%'(+,.-'*&'%4,-')+')'810')(5'$'.5'.%$7*10'(),*.'$%01/)%5'&$*8'.'*B,5'),*.'*&'810(1/'$'.5'.%$7*10',001%''.5')+')''((*$5,.-')*')+%$'8*1.)'*&''(),*.'*((1$$,.-'0*'3'0')+%$%'($%')%5''5%8'.5'&*$+%'0166/2'*&'.,)$*-%.*10'/,8%.)'$2'6$,.;(,6/%0')*'$%6/'(%')+%'*B,5,0%$'8')%$,'/'')',0'.*3'+%/5'+*3%7%$')+')+%'.*.,)$*-%.*10'%/%8%.)0'*&'&**5'(*.)$,41)%''0'3%//'0')+%'.,)$*-%.*10')*')+%'6$*51(),*.'*&'810(1/'$'.5'.%$7*10'&*$(%'(,9''.5'K,0+%%.10'1.5%$)**9''9.*3.''8*1.)'*&'3*$9'16*.''.*.,)$*-%.*10'5,%)''.5'6$*7%5')+')+%*B,;5'),*.'*&')+%,$'810(1/'$'),001%''0'8%'01$%5'42')+%'8*1.)'*&'.,)$*-%.'7*,5%5'3,)+')+%'1$,.%'01&&,(%5'*./2'&*$')+%'6$*51(),*.'*&''08'/'6$*6*$),*.'*&')+%'&*$(%%B6%.5%5',.')+%''((*86/,5..%)'*&')+%'3*$9'6%$&*$8%5'+%'810(/%0''.'$%'/,)2''66%'$')*'0)'.5',.)+%'6*0,),*.'*&',.0)$18%.)0'&*$'%&&%(),.-')+%'(*.7%$0,*+'*&')+%'(+%8,('/%.%$-2'%7*/7%5'42')+='*B,5'),*.'*&'(*8410),4/%8'))%$'&,.)*3*$98-'6*3%$'0)0'.5'('$4*+25$')%0'('.'&1$.,0+')+%'(*8410),4/%8'))%$'$%E1,$%5''.5'$85%$'*$5,.'$2'(,$(180)'.(%0'6$*;4'4/2'5*'/'$-%/2',&'.*)'(+,%&/2'0166/2',)',)$*-%.*10'8'))%$'4'.'5*'<,/9%3,0%'41)',)'+'0')*'1.5%$-*''6$%6$*)'*$2'8%)'8*$6+*;0,0'&*$'%&&%(),.-')+%'0%6'$'),*.''*&'.,)$*-%.',.,'''01,)'4/%'&*$8'&*&'%/,8,.'),*.''')'810)'4%'0',5''+*3%7%$')+')'%B6%$,%.(%'0+*30')+')+'$5'*$9',0'4%0)'6%$&*$8%5'1.5%$''/,4%$'/0166/2'*&'.,)$*-%.(*.)',...-'&***5'+%'%B;6/'.'),*.''*&'),.0'6$*4/2',0')+')',)'/%'50')*''4%))%$.*1$,0+%5'(*.5,),*.''*&')+%'810(/%0''.5'*&')+%'4*52'-%.%$'//2'.5%$')+%'10%'&*$,.0)'.(%''*&'.,8'/&**5'3+,(+',0'(+'$'(;)%$,0%5'42',)0'$,(+.%00',.'..)$*-%.(*.)',...-'&***5'*10'8'))%$')+%'810(/%0''$%'*40%$7%5')*'4%'&,$8%$''.5$,(+%$',.'0*/,5'(*.0),)1%.)0')+'.'1.5%$'014;0,0)%.(%'16*.'7%-%)'4/%'&**5

%$0*.0'3+*'/%'5''''0%5%.)'$2''.5',.5**$

;G;

/,&%' . ')1$' //2' $%E1,$%' /%0 0' &**5')+' .')+*0%' % . ; - ' -%5', .' '(),7%' 3*$9 ' ' . 5' /%00 0+*1/5' 4%' (* . ; 01 8 %5' 42')+% 8 ')*' 6$%7% .)')+%' 020)% 8 ' 4 %; (* 8 , . -' (/*--%5' 3 ,)+' %&&%)%' 6$*51()0 ' 3 +,(+' '()' 6%$. ,(,*10/2' , . ' 7 ' $,*10' 3 ' 20' 16* . ')+%' 4*52' +% &**5' 0+*1/5' '/0*' 4%' /' $ - %/2' (* . ; 0),)1)%5'*&' . * . .,)$*-%. *10' 6$, . (,6/%0 ' ' 0')+%0%')' B')+%' %B($%)*$2' *$ - ' . 0' /%00')+' . ')+%' . ,)$*; -%. *10

+%' 5,%)' *&' " ' ,0' '' 4$' . (+' *&' 5,%)%),(0')+%' ,8 6*$')' . (%' *&' 3 +,(+' (' . '0('$(%/2'4%'*7%$; $')%5' +%' 6$*6%$' &**5' 51$,. -')+%' &,$0)' 6%$,*5' *&' , . &' . (2' ,0')+')' 3 +,(+' +' 0' 4%%. ' 6$*; 7,5%5' 42' ')1$%' &*$')+%' 2*1 . -' *&' 8 ' 8 8 '/0 G' . ' 8 %/2 ' 8 9' 6')*' '4*1)')+%' %, -+)+' 8 * .)+')+%' , 8 6*$)' . (%' *&' 3 +, (+' (' . '0(' $(%/2'4%'*7%$; $')%5' +%' 6$*6%$' &**5' 51$,. -')+%' &,$0)' 6%$,*5' *&' , . &' . (2' ,0')+')' 3 +,(+' +' 0' 4%%. ' 6$*; 7,5%5' 42' ')1$%' &*$')+%' 2*1 . -' *&' 8 ' 8 8 '/0 G' . ' 8 %/2 ' 8 9' 6')*' '4*1)')+%' %, -+)+' 8 * .)+')+%' , . &' .)', 0' 5%0, - . %5')*' 4%' 010)', . %5' 0*/%/2' 42' ,)0' 6 '$%.)<0' 8 ,/9 ' +%')%%)+' 3 +,(+' *$5,; . '$,/2' 4 % = ')*' 0+*3')+% 8 0%/7%0' '4*1)')+,0'), 8 % ', . 5,(')%')+')' 0* 8 %' 0*/,5' 8 '))%$' 0+*1/5' . *3' 4%' (* . 01 8 %5' ' . 5' * . %' *&')+%' &' $, . '(%*10' 6$*51()0' 3 ,/' 4%')+%' 8 *0)' 01,)' 4/%' 3 ,)+' 3 +,(+')*' (* 8 8 %. (%' $%' 5' 4' 9%5' &/*1$' 6/ ' , . ' 4,0; (1,)' *$' * . %' *&')+%' . 1 8 %$*10' 9, ' 50' *&' . 1$0%$2' 4,0(1,)0')+')' '$%' 8 ' 5%' 8 ' 2' 4%' %8 6/*2%5' &*$' ''), 8 %' '0' '' 0166/% 8 %.)')*')+%' &*$ 8 %$' &**5')' ,'4*1)')+%')% .)+')*' 8 *.)+')+%' 8*)+%$' 3+*' *1-+)' 6$%7,*10/2')*' +' 7%' (* 8 8 %. (%5' /%00% . ; , . -' +%$' *3 . ' 0166/2 ' 0+*1/5' . *3' (% ' 0%' ,)' '/)*; -%)+%$' 0')+%' (+,/5' '57' . (%0')+$*1-+' ,)0' 0%(* . 5' 2% ' $' ' . 5')+%')%%)+' 4%(* 8 %' 8 *$%' 5%; 7%/*6%5' 8 %')' 6$%(%5%5' &*$' 3 +,/%' 42' -$' 72' 8 ' 2' 4%' -,7%. ' &')+%' 8 *)+%$' (' . . *)' 01(9/%' +%$' (+,/5' ' . 5' ,&' '' 3 %)' . 1$0%' 3 +*0%' 0166/2' 0)' . 50' . %B)' 4%0)')*')+')' *&')+%' 8 *)+%$' (' . ; . *)' 4%' 6$*7,5%5')+%' 8 ,/9' *&' * . %' *&')+%' /*3%$' ' . , 8 '/0' 0+*1/5' 4%' *4)' , . %5' ' . 5')+')' *&')+%' (*3' -,7%0')+%' . %' $%0)' '66$*' (+')*' 3 +')' ,0' 3' .)%5' *3<0' 8 ,/9' +*3%7%$' ,0' $,(+%$' , . ' '/' ,)0' 0*/,5' (* . 0),)1%.)' 6$, . (,6/%0')+' . ' 3*8 ' . <0' ' . 5')+%' '55,),*. ' *&' '' 0*/1),*. ' *&' 01-'$' *$G 3+')',0' 8 *$%' , . '(* . &*$8 ,)2'3 ,)+')+%' . ')1$' /0166/2 G01-'$' *&' 8 ,/9' A/' ()*0%R ' , . ')+% 6$*6*$),*. ' *&' ' . ' *1 . (%')*')+$%% E1'$)%$0' *&' '' 6, .)' *&' 3 ')%$', 0' . %%5%5')*' 4$, . -')+%')3 *' , .)*' (/*0%$' '66$*B, 8 '), *. ' +%' 8 ,/9' *&')+%' -*')' ,0' %7%. ' $, (+%$' , . '0*/,5' (* . 0),)1%.)0')+' . ')+')' *&')+%' (*3' ' . 5')+%$%&*$%' 0)' . 50' 0* 8 %3+')' &')+%$' $% 8 *7%5' &$* 8')+')' *&')+%'+1 8 ' . '014; >%()' &' +*3%7%$' ,)' ,0' . *)' '5'6)%5' &*$' , . ; &' .)0' ,)' ,0' +,-+/2' 10%&1/' &*$' ,8 6$*7, . -')+%' (* . 5,), *. ' *&' 4'5/2' . *1$,0+%5' (+,/5$%. ' ' . 5' ,0' 0* 8 %), 8 %0' % 8 6/*2%5' &*$')+,0' 61$6*0%

0 ') oo G +%' '6; 6/,('),*. ' *&')+%' 6$, . (,6/%0' *&' 5,%)%),(0' 8 '2' 4%' 01%(%0%&,,//2' 4$*1-+)' , .)*' 10%' , . ')+%')$%'); 8 %.)' *&' (*$61/%. (2' ' . 5')+, . . %00' ' 5,%)' $,(+' , . ' .)$*-%. *10' 8 '))%$' (*. >*, . %5' 3,)+' %B%$(,0%' 6$* 8 *)%0')+%' -$*3)+' *&' 8 10(/%' 41)')+%' &')' 1 . 5%$-*%0' . *' , . (%' 0%' +%' (* . 5, ;),*. 0' 8 *0)' (*. 51(,7%')*' ' . ' , . (%' 0%5' '((1; 8 1/')*. ' *&')' %' ''5,%)' $,(+' , . '%,)+%$' &')' *$ ('$4*+25$')%0'A6$*7,5%5')+%' $%E1,0,)%' ' 8 *1 .)' *&' . ,)$*-%. *10' 8 '))%$' 4%' 6$%0%.)' &*$' '&,4$5' , . -' 3+')' ,0' 3' .)%5' &*$')+%' . 1)$,),7%' *6%$' ;),*. 0' *&'/,&%R' %B6*01$%')*' '' 3 '$8' ')8 *06+%$%' ' . 5' , . '(),7%' +'4,)0' ' 0166/2' *&' &')' , . ' ' 5,$%()' 8 ' . .%$' /%' 50')*' ' . ' , . ($%' 0%5' 5%6*; 0,), *. ' *&' &')' , . ')+%' 020)% 8 ' 41)')+%' ('$4*; +25$')%0'$%E1,$%' , . ')+%' &,$0)' 6/' (%')*' 1.5%$-*' '00,8 ,/'),7%' (+' . -%' 4%&*$%')+%2' (' . ' 4%' '6; 6/,%5', . ')+%' 0' 8 %' 5,$%(),*.

+%' 5%)' ,/0' *&')+%' 5,%)' $2')*' 4%' 6$%0($,4%5' 3+%$%')+%' , 8', 0')*' 6$*51(%, . (%' 0%5' 0)*1); . %00' ' . 5' ' . ', 8 6$*7%5' (*. 5,), *. ' *&')+%' 4*52' 0+*1/5' (*86$,0%' 01(+' $),(/%0' '0' &')' 8 %')0' 41))%$' (%' 8 ' 8 ,/9' (*(*' ' (+*(*/')%' 4$%' 5' 6*)')*%0' &' $, . '(%*10' ' . 5' &/*1$' 6155, . -0' *')8 %'/ 6*$5,5-%' 01-'$' ' . 5' 03%%)0' 03%%)' 3 , . %0' 6*$)%$' 0)*1)' ' . 5' '/%0

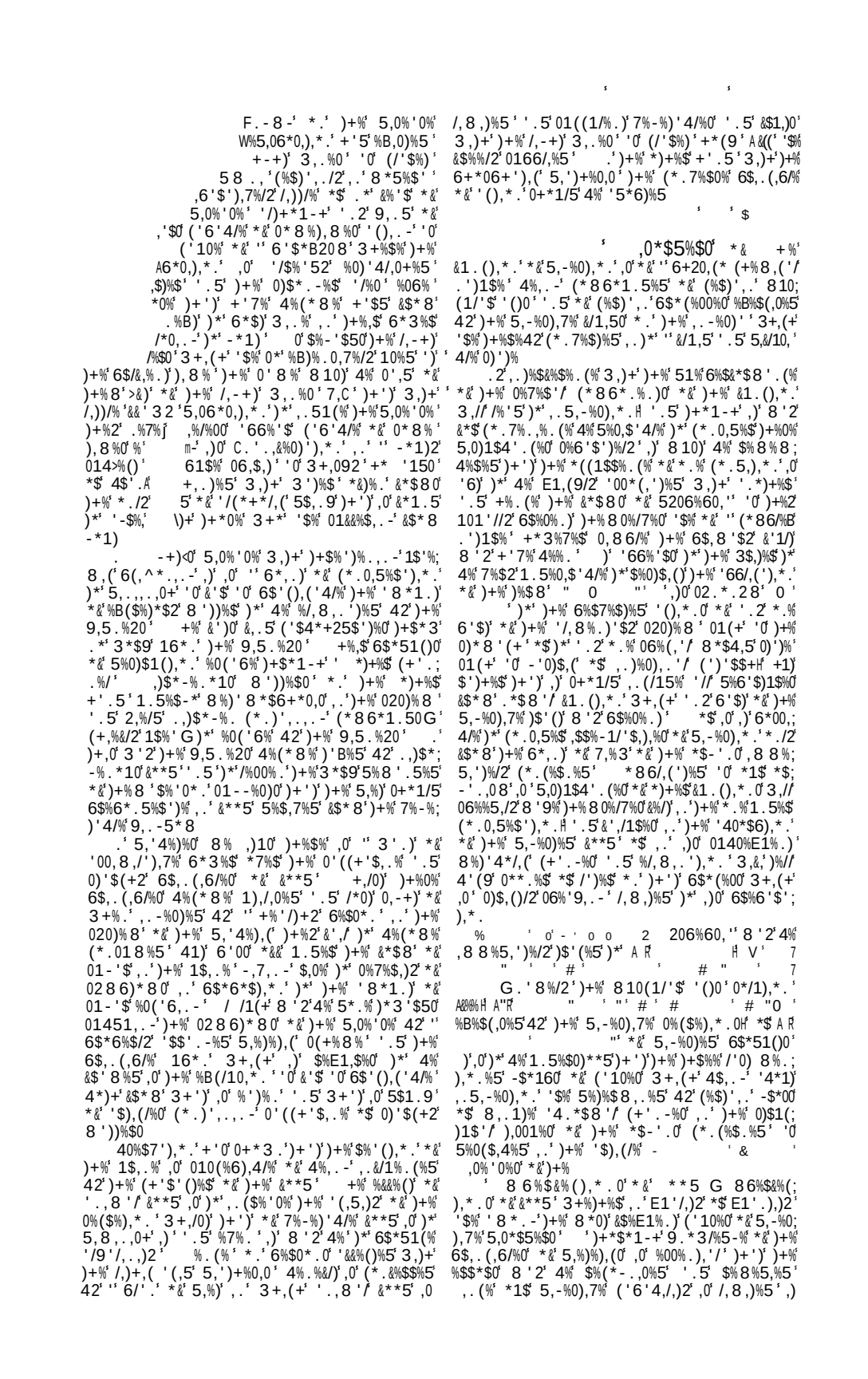
+%' (*. 7%$0%' 8 *5%' *&' 5,%), . -', 0' . %(%00' $2' &*$' $%51(, . ' 0)*1). %00' $' ' .), . -' 42' + , ' . *)%5' 020)% 8 ' *&' 5,%), . -' $%51(%5' +, 0' 3%, -+)' &$*8' ' 0)' D' /40')*' ' 0)' @' /40', . ' '4*1)' '' 2%' $' %0,5%0' '/)%$, . -' +*3%7%$')+%' (+' $'(;)%$' *&' +, 0' &**5' +%' /, 8 ,)%5')+%' E1' .),)2', . ' '' 8 ' . . %$')+')' 8 10)' +'7%' (*.)$,41)%5' ' . ', 8 ; 6*$)' .)' 0+' $%')*3' $50' 6$*51(, . ')+%' %&&%()' *40%$7%5' G' . *)' 8 *$%')+' . ')3%.)2)3*')*')3%.)2 0, B' *1. (%0' *&0*/,5' &**5' A($%$%06*. 5, . -' 3 ,)+' %/%7%. ')*')+, $)%%. ' *1. (%0' *&' 3 ')%$ &$%%8 ')%$, '/R' 4%, . -' (*. 018 %5' ' ((*$5, . -')*' +, 0' 0)')% 8 %.)' , . ')+%')3%.)2 &*1$' +*1$0

0' '' -1,5%)*')+%' (*$61/%.)' ,)' 8 '2' 4%' 0', 5')+')')+%' &')' *&' 8 %')' 41))%$' ($%' 8 ' 01-'$' ' . 5' 03%%)0' 6' 0)$2' 6155, . -0' &' $, . ' (%*10' $), (/%0 G' 0' $, (%' 0'-*') ' 6, *(' ' ^(' 6*)')*%0' ('$$*)0' 6' $0. ,60' 4%%)$**)' 03%%)' /%0' 6*$)%$' 0)*1)' 6*$)' 3, . %' ' . 5' '// 03%%)' 3, . %0' 0+*1/5' 4%' '7*,5%5' *$' *. /2' 7%$2' 06' $, . -/2' (*. 018 %5' +%')%. ' 4$%' 5' 0+*1/5' *. /2' 4%' 6' $)' 9%. ' *&' 8 *5%$')%/2' ' . 5' 4$*3. ' ,0')*' 0*8%' %B;)%.)' 4%))%$')+' . ' 3+,)%' +%' -/1)%. ' 4,0(1,)0' 3+, (+' $%' 6$%6' $%5' &*$')+%' 5, '4%), (' 8 '2' *. ' '((*1.)' *&')+%, $' (*86$')', 7%' &$%%5*8' &$*8' 0)' $(+' 4%' '57' .)' -%*10/2' 10%5' '0' '' 0140),)1)%' &*$' 4$%' 5' , . ')+%')$%')8 %.)' *&' *4%0,)2' +%' $), (/%0')+')' 8 '2' 4%')' 9%. ')*')+%' %B)%.)' *&' 0', 0&2, . -' '' . ')1$'/' 66%),)%' '$%' /%' . ' 8 %')' 6*1/)$2' -' 8 %' %--0' -$%%. '7%-%)' 4/%0' 01((1; /%.)' &, $1,)0'+-+)' 3, . %0' 5$2' 0+%. =' ' . 5' 06, $,)0' ,/9' 0+*1/5' *. /2' 4%')' 9%. ' 06' $, . -/2

*/5, . -')+%' 6*0,)*. ')+')' &**5' 5*%0' , . '$%/';), *. ')*')+%' *6%$'), *. 0' *&'/, &%')+%' '$)' *&' 5, %), (0' . *)' *. /2' 4%' $0' *. =)+%$ 8 ' , .)%. ' . (%' *&' +%' /)+' 41)' , 0' ('6' 4/%' *&' 4%, . -')1$. %5')*' '57' .)' -%*10' '((*1.)' '0' '')+%$' 6%1), (' '-%. (2H ' . 5' ,)' , 0' . *)')**' 8 1(+')*' 0' 2')+')' 01((%00', . ')+%)$%'); 8 %.)' *&' 5, 0%' 0%' , 0' *&)%.), 8 %0' 5%6%. 5%.)' 16*.' '' 5, 06/' 2' *&' >15, (, *10' 8 ' . '-%8 %.)', . ' $%-' $5)*' &**5

. ')+%')+%$' 6%1), (' 66/, ('), *. ' *&' 5, %), (0')+%' 8 'B, 8' 0+*1/5' 4%' +%/5', . '7, %' 3')+')' 3+, /0)')+%' 6' $), (1/' $%E1, $%8 %.)0' '$%' 0%(1$%5')+%$%0+*1/5' *)+%$3, 0%' 4%' . *'-$%')%$' 5%7, '), *. ' &$*8' 3+')', 0' . ')1$' /)+' . ')+%' 06%(, '/(, $(180)' . (%0' *&')+%' ('0%' 5%8 ' . 5

+%' E1' .),)2' *&' &**5' (*. 018 %5' 8 '2' $%; E1, $%)*' 4%' $%-1/')%5' '0' 3%/' '0',)0' . ')1$%' +%' E1' .),)2' '58, . ,0)0$%5' ')' '), 8 %' 0+*1/50)' . 5', . '$%/'), *. ')*')+%' 6*3%$' *&5, -%0), . -',)H' . 5')*' 6$*6%$/2' (*86%. 0')%' &*$' '' 5, 8, . ,0+%5' ('6' (,)2' &*$')' 9, . -' E1' .),)2')+%$%' 0+*1/5' 4%



,0' *47,*10')+')' 3+%.')+*0%' /,8,)0' '$%' *7%$; 0)%66%5')+%' 5*8',.' *&' 5,0%'0%' ,0' %.)%$%5' 16*.H' 1.5' '/)+*1-+' .*' 7%$2' '40*/1)%' /,.%0' 8'2'4%'/',5' 5*3.'&*$' 1.,7%$0'/' '66/,(',*.')+%'-%.%$'/'$1/%0' &*$' E1'.),)2' ' 5'9,.5' '$% ('6'4/%'*&4%,.-')'0)')%5' '

A'R C " ' ' G $H(%6)' 1.5%$' $'$%' (*.5,),*.0' 01(+' '0' &'8,.%H^(')+,0')*' (*88*.' ('10%' *&' 5,0%'0%' &')+%$ 0,-.0' '.5'0286)*80' *&'0)'$7'),*.',)' ,0' .*)' .%%5%5' +%$%')*')$%')' 1)')+%$%' '$%' &$%; E1%.)' *(('0,*.0'3+%.'3,)+' .*' 5%&,(,%.(2',.')+%')*)'/' 41/9' *&'&**5')'9%.')+%$%' ,0' 2%)' '' 0%$,*10' 3'.)' ,.' *.%' *$' 6%$+'60' 8*$%' *&)+%' .%%5&1/' /,8%.)'$2' 6$,.(,6/%0' '.5')+,0' ,0' %06%(,'//2' /,'4/%')*' *((1$',.')+%' &%%5,.' *&' (+,/5$%.' %)),.-' '0,5%')+*0%' -$*00' ('0%0' & ($1%/)2'3+%.',.&'.)0' '.5')+%' 2*1.-%0)' (+,/5$%.' '$%' &%5' '/8*0)' &$*8')+%,$' 4,$)+' 3,)+' 4$%''5' 4$*)+' *$' %7%.' 8%')')+%$%' '$%0)8')*' *&)%.')*' 4%' 8%)' 3,)+' (+,/5$%.' 3+*0%' 5,%)0('/%',0' '/8*0)' %.),$(2'3'.),.-' ,.' .,)$*-%.*10' 8'))%$' %5' (+,%&/2' 16*.' ,.&'.)0< &**50')+%'/')))%$' (*.0,0),..-' *&'+))/%' 8*$%')+'.'0)'$(+2'8')%$,'/')+%,$' ^01%0' '$%,// &*$8%5' &*$')+%' 3'.)' &*6$*)%,50' 3+,(+' 58/.-')+%'6%$,*5' *&'-$*3)+' '$%'$%E1,$%5',.-' ''/'$-%$'$%/'),7%'6$*6*$),*.' +%'$%/'),*.0+,6' *&' $,(9%)0')*' 6$*/*..-%5' 01(9/,.-' 3,)+')+%' '((*86'.2,..-' 5%&,(,%.(2',.' .%(%00'$2'&**5; 0)1&&0',0'.*3'-%.%$'//2'$%(*-.,0%$ +%'%&&%()' *&'' 5%&,(,%.(2'*&'&**5',0' '5'-%.%; $'/0)')%'*&' 8'/.1)$,),*.' 8'3+,(+' .2'+%$%; 5,)'$2')%.5%.(,%0')*' 5,0%'0%')+')' 8'2'%B,0)' +'7%' ' 8*$%^7*1$'4/%&,%/5'&*$5%7%/*68%.)' +%$%',0' '-$'51'/' 5,8,.1),*.',.')+%' 3%,-+)' *&')+%'4*52'.5''.',86%$&%()'6%$&*$8'.(%*& ,)0'&1.(),*.0''0',.5,(')%5'42'810(1/'$'3%'9; .%00'8%.)'/'/'00,)15%'4

+%'06%(,'//2'5206%),('02 8 6)*80'$%&%$'4/%')*' '3'.)'*&'&**5''$%'8',./2'6%$7%$0,*.0'*&' 0%.0'),*.'01(+''0''&%%/,.-'*&'0,.98-'%86;),.%00'*$'%7%.'6',.''')+%'%6,-'0)$,18'*$ -%.%$'//2',.')+%'45*8%.' *.0),6'),*.',0' &$%E1%.)'&$*8'/'(9'*&'0),81/10')*'.*$8'/ 6%$,0'/0,0''.5',)',0'6$*4'4/%')+')+%'5,-%0;),7%'0%($%),*.0'$%'5%&%(),7%',.'E1'/,)2'.5' E1'.),)2')+%$%42'('10,.-',86%&%()'5,-%0),*.' *&')+%'&**5')+')',0')'9%.' '3%'9'5,-%0),*.' ,0'.*)'0%/5*8'51%')*'3'.)'*&')+%'.%%5&1/ 0),81/'),*.'*&'01&&,(,%.)'&**5

+%'5%&,(,%.(2',.'&**5')'9%.'8'2'$%01/)' .*)'0*'81(+'&$*8''5,0,.(/,.'),*.')*'%')''(*8; 8*.'02 8 6)*8'*&'8'.2'5,0%'0%0'%06%(,'//2' &%4$,/%'0)')%0H0%/&,86*0%5'&'0),.-)**'&$%; E1%.)'*$'6$*/*.-%5H)+%'.*$%B,''*&')+%' +20)%$,('/')%86%$'8%.)H*$&$*8'*40)$1(),*.')*')+%'%.)$'.(%'*&'&**5',.)*')+%'0)*8'(+' &$*80)$,(/1)$%'&'))+%'(%0*6+'-10'$')+%'66%;),)%'8'2'4%',86',$%5'42'*7%$,.51/-%.(%',.' '/(/*+*/'*$')*4'((*' ') oo

A"R I(' '. G= +%$% ,0' 7%$2'/,))/%' 5*14)'41)')+')'8*$%'&**5',0'5',/2',.')+%'+'4,)' *&'4%,.-')'9%.')+'.',0''()1'//2'$%E1,$%5')*' $%0)*$%')+%',001% 3'0)%'8*0)''(),7%'/,7%0 4%,.-'/%5'*.''.''8*1.)'&'$'4%/*3'3+')',0' *$5,.'$,/2'$%-'$5%5''0'4%,.-'.%(%00'$2H''.5')+%$%',0'%E1' 2',))/%'5*14)')+')'81(+'*& 3+')',0')'9%.',0'.*)',.')+%'8*0)'5,-%0),4/% &*$8')',0'*6%.')*'E1%0),*.'3+%)+%$')+% '66%),)%'3*1/5'4%'0'),0&,%5'42')+%',.-%0),*.' *&'8%$%/2'01&&,_,%.)')*'4'/'.(%')+%'3'0)%' 6'$),(1/'$/2',&')+%'-$*00'41/9'*&')+%'&**5')'9%.'3%$%'5,8,.,0+%5'42')+%'$%8*7'/''0' &'$''0'6*00,4/%'*&'//',.5,-%0),4/%'8'))%$0' /%'7,.-'/,))/%'8*$%')+'.')+%'.%%5&1/'/,8%.;)'$2'6$,.(,6/%0')+%'0'8%'),8%',)'810)' .*)'4%'&*$-*))%.')+')'+%'66%),)%',0'7%$2' '%'0,/2'(*.)$*//%5'42'(10)*8'.'5'5%)%$8,.';),*.'('.',.'),8%'*7%$(*8%''7,%,*10'+'4,) .'+'4,)1'/'%B(%00'*&'&**5')'/%'0)',.')+,0' (*,8)$2'101'//2'%$$0',.')+%'5,06$*6*$),*.')% '8*1.)'*&'.,)$*-%.*10'8'))%$',)'(*.)',.0' U%8%84%,8-')+%$%/'),7%/2'08'//'E1'.),)2' *&')+,0'6$,.(,6/%')+')',0'%00%.),'/'.5',.' 3+')''.184%$'*&')+%'*$5,.'$2')$),(/%0'*& 5,%)',)''((1$0')+,0'0)'%8%.)'3,/'4%')+% 8*$%'$%'5,/2''((%6)%5'',.(%'/')+%'6$*)%,5' 6$,.(,6/%0'$%E1,$%')*'&,)')+%8'&*$'40*$6),*.' ,.)*')+%'4/**5''(*.0,5%$'4/%'8*1.)'*& (+%8,('/'/)%$'),*.''.5'6+20,*/*-,('//2' 06%'9,.-')+%$%',0'-**5'$%'0*.')*'4%,7%')+')'0140%E1%.)'8%)'4*/,(+'.-%0'*&)+%0%'8'))%$0'3+%.''40*$4%5''$%'8*$% (*86/%B')+'.')+*0%'1.5%$-*.%'42'&')0'.5' '82/*,50',)'3*1/5'&*//*3')+')+%'*$-'.0' (*.(%$.%5',.'%&&%(),.-')+%0%'(+'.-%0'')% 7%$2'6$*.%')*'01&&%$'&$*8'*7%$3*$9'.5',)0' 0%E1%/0%'/0*'8'.2'*&')+%'0140)'.(%0'$%01/); ,.-'&$*8')+%'8%)'4*/,08'*&'.,)$*-%.*10' 8'))%$'$%/,'4/%')*'4%(*8%'6*0,),7%'6*,0*.0' ,.')+%'%(*.*82'.5')+%'6$*6%$'%/,8,.'),*.' *&'01(+'8')%$,'/0',0'06%(,'//2'6$*7,5%5'&*$ 42'01(+'*$-'.0''0')+%'9,5.%20'.5'09,.' +%' &$%E1%.(2'3,)+'3+,(+')+%0%'*$-'.0'4%(*8%)+%'0%')*'&'5,0%'0%'8'2')'/%'0)',.5,(')%')+% 6$*4'4,/,)2'*&'%$$*$0'*&'5,%)'4%,.-'.',86*$;)'.)'&'()*$',.'5%)%$8,.,.-')+%'8*$4,5'(+'.-%0' %06%(,'//2'0'(*.0,5%$'4/%'$%/,%&',0'*&)%.')+% $%01/)'*&''$%0)$,(),*.'*&'.,)$*-%.*10'&**5' +%$%'(.'4%/,))/%'5*14)'41)')+')'+%/'$-%' -$*16'*&'5,0%'0%0''00*(,')%5'3,)+'&',/1$%',. %/,8,.'),*.'*&'.,)$*-%.*10'3'0)%'+'0'&*$'' 6$*8,.%.)'('10%''.'+'4,)1'/'%B(%00'*&'.,)$*; -%.*10'&**5

+%'$%01/)0'*&'.'%B(%00,7%',.-%0),*.'*& &**5'$%''0'.18%$*10''0')+%2''$%'5,7%$0%' .'8'.2'('0%0')+%$%'5*%0'.*)'0%%8')*'4% %,)+%$',86',$8%.)'*&'+%'/)+'*$0+*$)%.,.-'*& /,&%'.'0*8%'*4%0,)2'.5',.')+)+%0'/%'.01%0' .'2'*&'.5,7,51'/0'3+*0%&**5',0'81(+',.'%B(%00'*&')+%,$'3'.)06'$),(1/'$/2',&')+%'%B%$(,0%')'9%.'4%41)'/,))/%')+%$%'$%'7'$,'4/%02 8 6)*80'*&',.5,-%0),*.' 01(+''0''-%.%$'/&%%/,.-'*&'/00,)15%''.5 3'.)'*&'%.%$-2'4*)+'810(1/'$'.5'8%.)'/' ''/,'4,+)2')*'+%'5'(+%0'(+,%&/2'&$*.)'/'(*.; 0),6'),*.'*'$'8*%$'$'%/2'5,'$$+*%''+,-+' (*/*1$%5'1$,.%'5%6*0,),.-'41.5'.(%'*& 1$')%0''-%.%$'/5,06*0,),*.')*'0/%%6'7'$,; *10'09,.%$16),*.0'6')$),(1/'$/2'(.%''.5'.*)

0)'/),(' 8*7%'/%,,)0' +'7% 4%%.' $%-'$5%5' '0' 8*')' /,9%/2')*' 4$,. -' '4*1)')+,0' (*.5,),*.H 41)' 0),81/'),*.'*&')+%' 06/'. (+.,(' .%$7%0'42' 3+,(+',.+,4,)*$2',861/0%0'$%' (+')+%' 0)*8'(+' '.5' 4* %/0' 3,//' 6$*51(%')+%' 0'8%' $%01/)' +%' .%$7*10' %B+'10),*.' ,.51(%5' 42' /*.-' &'0),.-'(*.),.1%5'7*8,),.-'6$%7,*10'7,*/%.)' 6%$,0)'/0,0'&$*8'61$-'),7%0'+20)%$,''' .5'01(+' 5,0%'0%0'0'(+$*.,(''.0%8,''))26+10''.5'61%$; 6%$'/ &%7%$H '/0*' *7%$ 4$',.3*$9' 3,)+')+%' '))%.5'.)' '/)%$%5'(*.5,),*.0'*&'(%$%4$'/ 7'0; (1/'$,)2''.5' %B)$%8%0'*&'4/**5')%86%$')1$%',.' 62$%B,''*$'-$%')'(*/5'+'7%'4%%.'&*1.5')*' 4%' ((*86'.,%5' 3,)+'02 86)*80'.5,(','.-' /*00' *&' 6*3%$' *&')+%' 810(1/'$' (*')' *&')+%' 4*3%/' *00,4/2',.')+%0%' %'0%0')+%' $%01/)',0' 51%')*''$$%0)'*&')+%'7'-10',.&/1%.(% '$'/20,0'*&')+%'0)*8'(+'.5',.)%0),.%0',0' '*&$%E1%.)'$%01/)'*&''&&%(),*.'*&')+%0%'*$-'.0')+%80%/7%0' .&/'88'),*.'*'&')+%'6%$,)*.%'/ *$'81(*10'(*')0'3,)+')+%'0140%E1%.)',.&,/)$';),*.'*&')+%'810(1/'$'(*')'3,)+')+%',.&/'88';)*$2' 6$*51(0' 8')%$,''//2' 5,8.,0+%0')*6*3%$' *&')+%' (*.)$'(),/%$),001%' %-%.%$';),*.'*&')+%'*$-'.0'6'$),(1/'$/2')+%'/'$5'(%*10' 7'$,%)2'3+,(+'(*88%.(,.-',.')+%' 81(*10' 0140%E1%.)/2',.7'5%0')+%' 810(1/'$'(*')'*4; 7,*10/2',.)%&$%0'3,)+')+%'8*7%8%.)0' 7%$; 5,0)%.0,*.'&$*8'3+')%7%$'(' 10%'3,//' '/0*' %.; &%%4/%')+%'(*.)$')(),/%'6*3%$'*&')+%'810(1/',' &,4$%0' *&')+%' 0)*8'(+' *$',.)%0),.%'3+,/0)' 8*5%$')% 5,0)%.0,6.',0')+%' .*$8'/0),81/10')*')+%,$' '0),0' 0166*0%5')+%' %.%$-%),(' (*.)$')(),*.0'*&')+%'62/*$,(' 6'$)' *&')+%'0)*8'(+'3+%$%42')+%'(+28%',0'6$*6% %5' ,.)*')+%' 51=%.18'4%'.*$8''//2' %B(,)%5'42')+%' '(,5),)2'*&')+%'-'0)$,(' >1,(%',)' 8'2'4% %B6%()%5')+')' .2'5,8,.1),*.'*&')+,0'(,5,)2' 3,/'/%'5')*'5%&,(,%.)'6$*61/0,*.'*&')+%'(*.;)%.)0' '.5')+%,$' 1.51%' $%)%.),*.' ,.')+%' 0)*8'(+' +%'8*7%8%.)0'*&')+%''/,8%.)'$2' (''/8'2'4%'(*.0,5%$'4/2'/%00%.%5'42')+%' '58,..,0)$'),*.' *&' (%$)',.' 5$1-0' 01(+' '0' *6,18'3+,(+'5,8,..0+')+%'%B(,)'4,/,)2'*&')+% '1-8%.)*$'(%.)$%0''*$0),81/')%')+%',.+,4,)*$2' (*.)$*/ +%'$%01/)0'*&')+%0%'7'$,*10'6'$'/2),(''&&%(;),*.0''$%',.'8*0)'('0%0'01&&,(,%.)/2''66'$%.)' +%'6'/0,%5'/,60''.5'(+%%90'.5')*.-1%')%//)+%,$'*3.')'/%'42')+%'+'/&*6%.%5'8*1)+')+%' 5$,44/,.-'0'/,7''.5')+%'(+%%90'5,0)%.5%5' 3,)+'&**5'3+,(+'(''.*)'4%'9%6)'4%)3%.')%')%%)+' +%.')+%'&'1(%0'.5'6+'$2.B''$%' '&&%()%5')+%'6',.&1/'%&&*$)0''))'03'//*3,.-')+%'$%>%(),*.'*&'&**5')+$*1-+')+%'.*0%''.5')+%'6'00'-%'*&'&**5',.)*')+%'/'$2.B''$%0,-.0' .*)')*'4%'8,0)'9%.' '$'/20,0'*&')+%'0)*8'(+' '.5',.)%0),.%0',0'8',./2'$%(*-.,0%5'42')+%' (*.0),6'),*.'&$*8',.'4,/,)2'*&')+%'('.'/')*' 6$*6%/',0'(*.)%.)0'.5'42'0286)*80'*& 5206%60,''01(+'0'&/')1/%.(%'51%')*'5%&,(,%.)' -'0)$,(' 0%($%),*.'&$*8'3'.)'*&')+%'$%E1,0,)%0),81/'),*.'&&*$5%5'42')+%'(+1$.,.-'*&')+%')*8'(+(*.)%.)0'.5')*'(*.0%E1%.)'5%/'2%5'5=%0),*.'/%'5,.-')*'4.*8'/ &%$8%.)'),7%' 6'$'/2),(' (*.5,),*.' *&')+% 06+,.()%$'.,'3,//' 4%',.5,('%)5'42'.'.',..; '4,/,)2')*'$%)',.')+%'&'%(%0')'0+*1/5'.*)'4%' &*$-*))%.')+')'.*$8'//2')+%'-'0)$,(' 8*7%; 8%.)0'(%'0%'51$,.-'0/%%6 A@R I( ) G B(%00,7%''(),7,)2' *&')+%'810(1/'$'0)$1()1$%0'*&')+%''/,8%.)'$2' (''/3,//'4%'8'.,&%0)%5'42''.',.($%'0%5'6%$,; 0)'/0,0'&')+%'0)*8'(+''.5',.)%0),.%'*$'42')*.,(' 06'080'*&/,8,)%5'$%-,*.0' +%'&*$8%$' (*.5,),*.'42'+1$$2,.-''/*.-')+%'(*.)%.)0')')+%'%B6%.0%'*&')+%,$'6$*6%$'5,-%0),*.''.5' '40*$6),*.',0''.'%&&%(),7%'('10%'*&'5,'$$+*%'' +%'/'))%$'3+,(+',0'/)*-%)+%$'4.*$8'/'.5' .*)''8%$%'%B'--%$'),*.'*&''+%'/)+2''(),*.' 3,//',.'6$*6*$),*.')*',)0'0%7%$,)2''.5'%B)%.)' 5%)%$8,.%'*40)$1(),*.')*')+%'6'00'-%'*&')+% &**5' +%'06'08*5,('&&%(),*.0'$%' /8*0)' '/3'20' '00*(,')%5'3,)+'6',.'G',.)%0),./ ($'86'(*/,(')*$8,.'' ^%H '.5'7'$2,.-'5%; -$%%0'*&'5,0(*8&*$)'101''//2'((*86'.2'%B'/)%5' 6%$,0)'/0,0 +%'(' 10%0'/%'5,..-')*')+%0%'0)')%0'8'2'' 0',.'6'$'/20,0'4%'$%&%%$5%5' ')*')+%'(%$%4$*; 06,.'/(%.)$%0'*$'ADR')*')+%'/*('/.%1$* 810' %1/'$'0)$1()1$%0' B(/15,.-'06'080'*&')+% 810(/%0'*&'8'0),(''),*.'5%-/1),),*.'' .5'5%' &,%(''),*.'3+,(+''$%%/0%3+%$%')$%')%5'*&',.; ($%'0%5'-'0)$*.,)%0),.'/8*7%8%.)0'$%'2 &*//*3'*.' A,R %8*),*.'/0)')%0H A,,R 0*8% 0)$1()1$'/%0,*.0'*&4$','.'.5'06,.'/(*$5' 01(+''0'4'0,/'$'8%.,.-,),0''.5'/*(*8*)*$' ')'B2H A,,,R)+%'8($%'0%5'%B(,)'4,/,)2'*&')+% .%,1*810*1/'$'66'$')10'('10%5'42'5$1-0G' '0')$2(+.,.%'.5'0%6),(*6,0*.0H A,7R (1)'.%; *10',$$,)'),*.''0'&$*8'(/*5'$%&,%B/2'0),81/'); ,.-')+%'((%/%$')*$'.%$7%0H '&&%(),*.0'*&'*)+%$ 7,0(%$''%06%(,'//2'1)%$,.%''.'*7'$,.'8'2' '()',.''0,8,/'$'8'..%$' +,/0)')+%&,$0)' .5'/'0)8%.),*.%5'('10%0')%.5')*' ('10%',.H ($%'0%5'6%$,0)'/0,0'*&')+%' (''./')+%' *)+%$ ('10%0'8%.),*.%5'$')+%$/%'5')*'),*.,('06'08' ADR'10%0'3+,(+'8'2'4%$%-'$5%5''0'%B(,); ,.-'-'0)$*,.)%0),.'/8*7%8%.)0'42')+%,$ /*('/%&&%()'8'2'4%-$*16%5')+10'H A R ,$$,)';),*.'51%')*')+%'(+'$')0)$'*&')+%'(*.)%.)0' 01(+''0',)0',.5,-%0),4/%'.')1$%''(,5),2'%B;)$%8%'(*/5.%0'*$%7%.'%B(%00,7%'41/9'&*$%,=' 4*5,%0',.')+%'&**5''0'=,.0'41))*.0'^(',$$,;)'.)'5$1-0'*$'3*$80H A,,R 5$1-0'3+,(+'6; 6%'$')*''()'5,$%()/2'*.')+%'-'0)$*,.)%0),.'/ 6/%B10%0'.5'810(/%&,4$%0''0'/%'5'.,(*),.%' ^%H A,,,R ,.($%'0%5',$$,)'4,/,)2'*&')+%'81(*10' 01$&'(%''0'&$*8',.&/'88'),*.'*$'1/(%$'),*.')+%$%42'&/'7*1$,.-')+%''(),*.''*&')+%'*$5,.'$2' 0),81/'.)0')*' (*.)$'(),*.' %$)','4/**5' 0)')%0'01(+''0')+')'*((1$$,.-',.')+%'1$,(' '(,5'5,')+%0,0''.[8,.''*$'.2'*)+%$'(*.5),*.' ,.'3+,(+')+%$%',0''' 5%&,(,%.(2'*&'(,$(1/'),.-' *B2-%.'.5'*7%$(+'$-%*&'('$4*.,('(,5''$% +'4/%')*'%B(,)%'06'08'*$,.($%'0%5'6%$,0)'/0,0' 6$*4'4/2''(),.-'*.')+%' .%$7% (%.)$%0'(*.; (%$.%5''0'3% '0'5,$%()/2'*.')+%',001%0' *&')+%'('./,)0%/&' 6'08'*&')+%'62/*$10' 5%0($,4%5''0'*&'*((0,*.'/*((1$$%.(%',0'*&')+%*$%),('$')+%$,)+'.'6$'(),(''/,.)%$%0)H ''6'$'/2),('0')%'*&')+,0'06+,.()%$'.,'3,//' 4%',.5,('%)5'42'.'.',..; '4,/,)2')*'$%)',.')+%'&'%(%0')'0+*1/5'.*)'4%' &*$-*))%.')+')'.*$8'//2')+%'-'0)$,(' 8*7%; 8%.)0'(%'0%'51$,.-'0/%%6 A@R I( ) G B(%00,7%''(),7,)2' *&')+%'810(1/'$'0)$1()1$%0'*&')+%''/,8%.)'$2' (''/3,//'4%'8'.,&%0)%5'42''.',.($%'0%5'6%$,; 0)'/0,0'&')+%'0)*8'(+''.5',.)%0),.%'*$'42')*.,(' 06'080'*&/,8,)%5'$%-,*.0' +%'&*$8%$' (*.5,),*.'42'+1$$2,.-''/*.-')+%'(*.)%.)0')')+%'%B6%.0%'*&')+%,$'6$*6%$'5,-%0),*.''.5' '40*$6),*.',0''.'%&&%(),7%'('10%'*&'5,'$$+*%'' +%'/'))%$'3+,(+',0'/)*-%)+%$'4.*$8'/'.5' .*)''8%$%'%B'--%$'),*.'*&''+%'/)+2''(),*.' 3,//',.'6$*6*$),*.')*',)0'0%7%$,)2''.5'%B)%.)' 5%)%$8,.%'*40)$1(),*.')*')+%'6'00'-%'*&')+% &**5' +%'06'08*5,('&&%(),*.0'$%' /8*0)' '/3'20' '00*(,')%5'3,)+'6',.'G',.)%0),./ ($'86'(*/,(')*$8,.'' ^%H '.5'7'$2,.-'5%; -$%%0'*&'5,0(*8&*$)'101''//2'((*86'.2'%B'/)%5' 6%$,0)'/0,0 +%'(' 10%0'/%'5,..-')*')+%0%'0)')%0'8'2'' 0',.'6'$'/20,0'4%'$%&%%$5%5' ')*')+%'(%$%4$*; 06,.'/(%.)$%0'*$'ADR')*')+%'/*('/.%1$* 810' %1/'$'0)$1()1$%0' B(/15,.-'06'080'*&')+% 810(/%0'*&'8'0),(''),*.'5%-/1),),*.''.5'5%' &,%(''),*.'3+,(+''$%%/0%3+%$%')$%')%5'*&',.; ($%'0%5'-'0)$*.,)%0),.'/8*7%8%.)0'$%'2 &*//*3'*.' A,,R %8*),*.'/0)')%0H A,,R 0*8% 0)$1()1$'/%0,*.0'*&'4$','.'.5'06,.'/(*$5' 01(+''0'4'0,/'$'8%.,.-,),0''.5'/*(*8*)*$' ')'B2H A,,,R)+%'8($%'0%5'%B(,)'4,/,)2'*&')+% .%,1*810*1/'$'66'$')10'('10%5'42'5$1-0G' '0')$2(+.,.%'.5'0%6),(*6,0*.0H A,7R (1)'.%; *10',$$,)'),*.''0'&$*8'(/*5'$%&,%B/2'0),81/'); ,.-')+%''((%/%$')*$'.%$7%0H '&&%(),*.0'*&'*)+%$ 7,0(%$''%06%(,'//2'1)%$,.%''.'*7'$,.'8'2' '()',.''0,8,/'$'8'..%$' +,/0)')+%&,$0)' .5'/'0)8%.),*.%5'('10%0')%.5')*' ('10%',.H ($%'0%5'6%$,0)'/0,0'*&')+%' (''./')+%' *)+%$ ('10%0'8%.),*.%5'$')+%$/%'5')*'),*.,('06'08' ADR'10%0'3+,(+'8'2'4%$%-'$5%5''0'%B(,); ,.-'-'0)$*,.)%0),.'/8*7%8%.)0'42')+%,$ /*('/%&&%()'8'2'4%-$*16%5')+10'H A R ,$$,)';),*.'51%')*')+%'(+'$')0)$'*&')+%'(*.)%.)0' 01(+''0',)0',.5,-%0),4/%'.')1$%''(,5),2'%B;)$%8%'(*/5.%0'*$%7%.'%B(%00,7%'41/9'&*$%,=' 4*5,%0',.')+%'&**5''0'=,.0'41))*.0'^(',$$,;)'.)'5$1-0'*$'3*$80H A,,R 5$1-0'3+,(+'6; 6%'$')*''()'5,$%()/2'*.')+%'-'0)$*,.)%0),.'/ 6/%B10%0'.5'810(/%&,4$%0''0'/%'5'.,(*),.%' ^%H A,,,R ,.($%'0%5',$$,)'4,/,)2'*&')+%'81(*10' 01$&'(%''0'&$*8',.&/'88'),*.'*$'1/(%$'),*.')+%$%42'&/'7*1$,.-')+%''(),*.''*&')+%'*$5,.'$2' 0),81/'.)0')*' (*.)$'(),*.' %$)','4/**5' 0)')%0'01(+''0')+')'*((1$$%.(%',0'*&')+%*$%),('$')+%$,)+'.'6$'(),(''/,.)%$%0)H ''6'$'/2),('0')%'*&')+,0'06+,.()%$'.,'3,//' 4%',.5,('%)5'42'.'.',..; '4,/,)2')*'$%)',.')+%'&'%(%0')'0+*1/5'.*)'4%' &*$-*))%.')+')'.*$8'//2')+%'-'0)$,(' 8*7%; 8%.)0'(%'0%'51$,.-'0/%%6

8*$%' (*88*.' +%' .*$8'/)*.,(,)2' *&')+%'
06+,.()%$' .,' 8'2' -,7%' 6/'(%')*' 6',.&1/'
06'08' '' (*.5,),*.' 3+,(+' ,0' 7%$2' '6)')*'
(*86/,(')%'&,001$%' .5'1/(%$'*&')+%' .10
A?R' # " ' G +%'51%'6%$;
&*$8'.(%'*&')+%'8%(+'.,08'*&'5,-%0),*.'8'2'
4%',.)%$&%$%5'3,)+'42'/)%$'),*.0',.')+%'(*.5,;
),*.'*&')+%'!/,8%.)'$2'(.'/('10%5'42'7'$,*10'
9,.50'*&'*40)$1(),*.'*$'5,/')'),*.' +10'5%;
-/1),),*.' 8'2'4%'$%.5%$%5'5,&&,(1/)'*$'%7%.'
,86*00,4/%'42'' 03*//%.')*.-1%' *$')*.0,/0'
6*0)6+'$2..-%'/'40(%00')18*1$0'*&')+%'*%0*;
6+'-10'*$/'$2.B'*$'.%3 -$*3)+0'0,1')$'5')'
)+%' ($5,'(' '6%$)1$%'*&')+%' 0)*8'(+' +%'
7'$,*10'*40)$1(),7%' 5,0%'0%0' *&')+%' 62/*$10'
'.5',.)%0),.%0'3,/'*47,*10/2',.)%$&%$%' 3,)+'
)+%'6$*6%$'6'00'-%*&')+%'(*.)%.)0''.5',.'
)+*0%'5,/')',*.0'*&')+%'(' .'/'3+,(+''$%'/,'4/%'
)*'5%7%/*6''4*7%''0)$,(1$%')+%&**5''((181;
/')%0'.5',0'5%/'2%5',.',)0'6'00'-%'+%'
'5+%0,*.'*&**0'*&')+%'4*3%/0')*'%'(+'*)+%$'
$')'5>'(%.)'0)$1()1$%0',0''&1$)+%$'0*1$(%'
*&',86%$&%()'8*7%8%.)
A R' C ' '#' # G '0)/2')+%'014;
5,7,0,*.'*&')+%'0*/,5'&**5'0*' .%(%00'$2'&*$
)+%' %&&%(),7%''(),*.'*&')+%'5,-%0),7%'>1,(%0'
,0'*./2',86%$%()/2'6%$&*$8%5'3+%.')+%')%%)+'
'$%'5%&,(,%.)',.'.184%$'*$'$%'('$,*10''.5'
)*')+,0'('10%''')'$-%'6$*6*$),*.'*&'('0%0'*&'
5206%60,''8'2'4%'&',$/2'00,-.%5
'8'$9%5''6%$7%$0,.'*&')+%'8%(+'.,08'
&'5,-%0),.'.-',0'7*8,),..-',0'8*$%'&,)/2'5%;
0($,4%5'42',)0%/&')+*1-+',)',0''7%$2'&$%E1%.)'
0286)*8'.*&',.&&,-%0),*.
"'8 6%$&%(),*.0',.')+%' +%8,('
+'.-%0 G 1$'9.*3/%5-%'*&')+%'.*$8'/
(+%8,0)$2'*&'5,-%0),*.'81(+'('.*)'+'0'5;
7'.(%5'*&/')%',0'0),//7%$2'&'$&,$*8'(*86/%)%H
'.5',.'&'(%'*&'*1$',-.*$'.(%'41)'/,))/%'('.'
4%'0',5'*&')+%'(*.5,),*.0'%B,0),.-',.'5,0%'0%'
%)')+%$%'$%'(%$)',./2'.*'5%6'$)1$%0'&,*8')+%
+%'/)+2'3*$9,.-'*&')+%'4*52'0*'(*88*.''0'$%
)+*0%''00*(,')%5'3,)+')+%'5,-%0),*.'*&')+%&**5
+%'7'$,*10'0%($%),*.0'3+*0%'*&&,(%',)',0')*'
(*.7%$)',.)*''&/1,5''.5'5,&&10,4/%'&*$8')+*0%'
'/,8%.)'$2'6$,.(,6/%0'3+,(+'('.*)'4%'4;
0*$4%5'3,)+*1)'01(+'6$%6'$'),*.''$%'&*$8%5'
&,*8')+%'4/**5'42')+%'0'+7'$2'-'0)$,('6'.;
($%'),('+%6'),('.'.5',.)%0),.'/-/'.50')',0'
(/%'$')+')'&*$')+%0%'>1,(%0')*'4%'0%($%)%5',.'
6$*6%$'E1'.),)2'*$*&'6$*6%$'(*86*0,),*.')+%'
4/**5'.*'/%00')+'.')+%'0%($%),.-'(%//0'810)'
4%',.''*+%'/)+2'(*.5,),*.''.5')+%')$*6+,(',.;
&/1%.(%'*&')+%'.%$7*10'(%.)$%0'16*.')+%'/')%$'
810)'4%'1.,86',$%5'&')+%'(,$(1/'),.-'&/1,5'
4%'/'5%.'3,)+',86%$&%()/2'0%($%)%5'6$*51()0'
&',001%(+'.-%'$',&',)'4%'(+'$-%5'3,)+'
6*,0*.''*&'3+')%7%$'*$,-.','),0'.*)')*'4%
%B6%()%5')+')''.*$8'/0%($%),*.',0')*'4%
4)',.%5'&,$*8',)H 3+,/0)'*.')+%')+%$+'.5'
''5%-%.%$')%5'0%($%),.-'%6,)+%/,18',0'1.'4/%'
)*'6%$&*$8''&1.(),*.',.),8')%/2'5%6%.5%.)'
.')+%',.)%-$,)2'*&',)0'6$)*6/'08'&'.%(%0;
0,)2')+%0%''3*'&'()*$0G=4/**5'.5'(%//0G'
$%'()'*.'*.%'.*)+%$H'.2'&/'3',.')+%'*.%',0'
$%(,6$*('))%5'42')+%')+%$''.5')+10'4%(*8%0
,.)%.0,&,%5'42'81)1'/,.)%$5%6%.5%.(%' B;
6%$,8%.)'/%'50'10')*'0($,4%'=+%'%&&,('(2'*&'
)+%0%'>1,(%0',.')+%'(+'.-%0')+%2'%&&%()')+%'
%B,0)%.(%',.')+%8'*&'(%$)',.'0*('//%5'&%$;
8%.)0'3+,/0)')+%'$%01/)')+%2'4$,.-'4*1)',0'
8',./2'*.%'*&'+25$'),*.' *3'&'$')+%'7'$,*10'
8,.%$'/'(*.0),)1%.)0'*&')+%'0%($%),*.0''.5',.'
)+%'6$*(%00',0'1.(%$)'.'41)'/%'0)+%,$'
6$%0%.(%'('.*)'4%'5,06%.0%5'3,)+' .')+,0'
3'2')+%',.0*/14/%'0)'$(+%0'*&'*1$&**5''$%'
(*.7%$)%5'42')+%'0'/,7')+%'6'.($%'),('.5'
6*00,4/2')+%)%0),.'/'>1,(%0'../*/14/%'
'.5'5,&&10,4/%'01-'$0H')+%'7'$,*10'6$*)%,50'
'$%'$%.5%$%5'('6'4/%'*&''40*$6),*.'8)*')+%'
4/**5'42')+%'-'0)$,('.5'6'.($%'),('>1,(%0'
'.5'6%$+'60'/0*')+%01((10'%.)%$,(10'4%,.-'
(+'.-%5',.)*'4*5,%0'9.*3.'0'6%6)*.%0' +%'
&')0''$%'6$%6'$%5'&*$'40*$6),*.'42')+%'4,/%'
.5'6'.($%'),('>1,(%'42'4%,..-',.'6'$&,'$%51(%5'
)*''01&&,(,%.)/2'8,.1)%'0)')%'*&'0145,7,0,*.'
A%81/0,*.R')*'6%$8,)'*&')+%,$'6'00'-%')+$*1-+'
)+%'),001%,.)%$0),(%0''.5'6')$)/2'42'4%,.-'
(+%8,('//2' /)%$%5'.,.)*' 0*'60' *3%7%$'
(/*0%/2'3%'8'2',8,)')%')+%'0%6'$')%' (),*.0'
*&')+%0%'&/1,50',.'*1$%0)14%0''.5'/'4*$';
)*$,%0')+%'(*.5,),*'3''$%'1.5*14)%5/2'81(+'
8*$%'(*86/,('%5',.')+%'/,8%.)'$2'(.'/'
3+%$%'0*'8'.2'(+'.-%0''$%'0,81/)'.%*10/2'
-*,.-'*.''.5'0*'8'.2'0%)0''*&'6$*51()0''$%
&*$8%5
+%'7 ,*10'0%($%),*.0'8'2'4%'8*$4,5/2'
'&&%()%5',.'$%06%()')*')+%,$'E1'.),)2'*$'(*8;
6*0,),*.H '/)%$'),*.0'3+,(+'8 10)'*&'.%(%0;
0,)2'6$*&*$85/2'8*5,&2')+%'5,-%0),7%'6$*(%00'
/)+*1-+'3,)+'*1$'6$%0%,,)',86%$&%()'9.*3/%5-%'
3%'8'2'.*)'4%'4/%')*'$%&%$'3,)+'((1$'(2'
'.2'6'$),(1/'$'02886)*80'*&'85,-%0),*.')*'
''06%(,'/'(+'.-%'8'%,)+%$'*&')+%'0%($%),*.0
+%' 8'2'4%,.($%'0%5',.' '8*1.)'
A0%%*' /')+%'&/1,5'4%8-'6**$',.'0*/,50'
'.5'&%$8%.)')'8'2'4%'5,&&,(1/)')*')$'(%'.2'
5%&,.,)%'5,-%0),7%')$*14/%0')*')+,0'(*.5),*.'
08%%')+%$%',0'.*'%7,5%.(%')+')+%'('$4*;
+25$')%0''$%',.01&&,(,%.)/2'(*.7%$)%5H 41)',)'
,0'6$*4'4/%')+')')+%'E1'.),)2'*&'0/,-+)/2''/9'
8%'&/1,5'03''//*3%5'8'2',.)%$&%$%'3,)+')+%'
(+'.-%0',.')+%0)*8'(+' +%'-%.%$'/'3'0),.-'
3+,(+'&$%E1%.)/2'&*//*30'*.')+,0'0)')%'8'2'4%
,.'6')$)'))$,41)'4/%')*')+%'.*$%B,''3+,(+',0'
0*'(*88*./2''00*(,')%5'3,)+',)' *$'(.''
5,8,.1),*.'8')+%'0'/,7'*01(+''0'*((1$0',.'
&%7%$'4% +%/5'$%06*.0,4/%'&*$'.2'06%(,'/'
5206%6),(02886)*8' +*1/5')+%'&/1,50'*&')+%
8*1)+'4%(*8%'(,5''0'&,*8'/'(),(''$*)+%$
&%$8%.)',),*.''*&'&**5')+%$%,.''0)*8'),),0'*&
7'$2,.-'0%7%$,)2'8'2'4%',.51(%5'0*'(*8;
8*./2'0%%.'8',.&'.)0
b ,)+8')+%'6'0)'&%3'2%'$0'(*.0,5%$'4/%'
'))%.),*.'+'0'4%%.'6',5')*')+%'4%+'7,*1$'*&
)+%'0 '< '8'5,0%'0%''.5'81(+'7'/1;
'4/%',.&*$8'),*.'+'0'4%%.'*4)',.%5'8',./2'
8'$%&%$%.(%')*')+%'(,5'(*.0),)1%.)0' +%'
3',)'*&''$%/,'4/%')%0)'&*$')+%'(,50'+'0'4%%.'
&%/)'41)'&*$'',/*$5,.'$2'6$'(),(''/61$6*0%0'
0*'&'$'0'6$%0%.)'87%0),-'),*1'+'0'-*.%'
1.C41$-<0'$%'-%.)'3*1/5'0%%8')*'4%'01&&,

)*‘ -$% ’)‘ 7 ’$,’),* .‘ , .‘ . . 8 4%$‘ ’ .5‘)*‘ 0* 8 %‘ %B)% .)‘ , .‘ 9, .5‘ 3,)+’)+%‘ &**5‘)’9% .‘ +%0%‘ 8 ,($*4%0‘ 3 *1/5‘ 0%% 8‘ &*$‘)+%‘ 8 *0)‘ 6’$)‘)*‘ 6/’2‘ ’‘ 8 , .*$‘ 6’$)‘ , .‘ *$5, .’$2‘ 5,-%0),* .H‘ ’/)+*1-+‘)+%/’ (),(’(,5‘&%$8% .)’),*.’*&‘($4*:+25$’)%0‘ , .‘)+%‘0)* 8 ’(+’ ’ .5‘ (%$)’ , .‘ (+’ . -%0‘ , .‘)+%‘ 6$*)%,50‘ , .‘)+%‘ 51*5% .1 8 ’$%01/), . -‘ , .‘)+%‘ &*$8 ’),*.’*&‘01(+‘4*5,%0‘ 0‘ , .5*/’ ’$%‘)*‘ 4%‘ ’0($,4%5’)*‘)+%,$‘ ’-%. (2’ *3’&’$’+*3 ; %7%$’ 01(+‘ (+’ . -%0‘ ’$%‘ .*$8 ’/‘ ’ .5‘ %00% .),’/‘ ,0‘ ,8 (%$)’ , .H 41)‘)+%$%‘ ,0‘ .*‘ 5*14)‘)+%2‘ 8 ’2‘ 4%‘ 7%$2‘ $%’5,/2‘ , .51(%5‘ ’ .5‘ 7%$2‘ (*.0,5%$; ’4/2‘ %B)% .5%5G 01(+‘ ’0‘)+%‘ 41)2$,(’ ’ .5‘ ’(%),(’(,5‘ &%$8% .)’),*.0’ .’)+,0‘ 3 ’2‘ 8 ’2‘ 4%‘ &*$8%5‘ *)+%$‘ 6$*51()0‘ *&‘ 61)$%&’(),7%‘ 5%; (*86*0,),*. G6)* 8 ’, .%0‘ ’ .5‘)*B ’/418%.0G’ *&)%.’ *&’ ’‘ 6*,0*.*10‘ (+’$’()%$’ ’ .5‘ 8 ’8/2‘ $%06*.0,4/%‘ &*$‘ 8 ’ .2‘ $%8*)%‘ 5206%6),(’02 8 6;)* 8 0‘H ’0‘ 3 %/‘ ’0‘ ’((181/’),*.0‘ *&‘ 01(+‘ -’0%0‘ ’0‘(’$4*.,(’(,5’+25$*-%.’01/6+1$%))%5‘ +25$*-%.’ ’ .5‘ 8 ’$0+ -’0’ 6$*51(),7%‘ *&’ ’/‘ 5%-$%%0‘ *&‘ &/’)1/%.(%’ +%‘ %B’()‘ (*.5),*.‘ 0 3+,(+‘ 6%$ 8 ,)‘)+%0%‘ ’4.*$8 ’/‘ &%$8% .)’),*.0‘ ’$%‘ .*)‘ 9.*3.’3,)+’(%$)’,.)2‘ %/’2‘ ,.‘)+%‘ 6$*61/0,*.‘ *&‘)+%‘ -’0)$*,.)%0),. ’/‘ (*.)%.)0‘ ,0‘ 6$*4’4/2‘ ’.‘ ,8 6*$)‘ .)‘ &’()*$H‘ ’.5‘ 0),// 8*$%‘ 0*‘ ,0‘)+%‘ 6$*6%$‘ (*86*0,),*.‘ ’.5‘ E1’.),)2‘*&‘)+%‘5,&&%$%.)‘5,-%0),7%‘0%($%),*.0’ 42‘ 3+,(+‘)+%‘ ’(),7,)2‘*&‘ 8 ’.2‘)*B,(’ *$-’.; ,0 8 0‘,0‘1.5*14)%5/2’+%/5’,.‘(+%(9’ ,0%’0%0‘ 01(+‘ 0‘(+*/%$’’ ’.5‘ %.)%$,(’ &%7%$’ 51%‘)*‘ 06%(,&,(’ -%$80’$%‘ .*)‘ *$5, .$/2‘ ((*1.)%5‘ ’0‘ 05,0*$5%$0‘ *&‘ 5,-%0),*. ‹)+*1-+‘ 8 ’.2‘ *&‘)+%,$‘ 8*0)‘ 8 ’$9%5‘ 0286)*80‘ 0‘ 3%/‘ ’0‘ ’.’)* 8,(’/‘ /%0,*.0‘ ’$%‘ (*..%()%5‘ 3,)+’)+%‘ 5,-%0),7%‘ 020)% 8 %&,(,%.)‘ 40*$6),*.‘ *&’)+%‘ -%0)%5‘ $*51()0 G +,0‘ 8 ’2‘$%’0*.’4/2’4%‘ 0166*0%5’)*‘(’10%‘ , .5,-%0),*.’ ’0‘,)‘(%$)’, ./2‘ 5*%0‘)+%‘ 0140%E1%.)‘,86’,$8%.)‘*&‘.1)$,),*.’ +%‘((181/’),*.’ ,’)+%‘0)* 8 ’(+’ ’.5‘ , .)%0;),.%0‘ *&‘ 8 ’)%$,’/0‘ 3+,(+‘ 0+*1/5‘ +’7%‘ 4%%.’ -$’51’//2‘ ’40*$4%5‘ , .)*‘)+%‘ 4/**5‘ *$‘ (+2/%‘ 7%00%/0‘ 810)‘ , .)%$&%$%‘ 3,)+’)+%‘ +%’/)+2‘ ’(;),*.’ *&‘)+%‘ 5,-%0),7%‘ 0%($%),*.0’ 81(+‘ , .’)+%‘ 0’8%‘ 3’2’ 6$*4’4/2’ ’0‘)+%‘ ’/(*+*/,(’ &%$8% .)’),*.’ *&‘ 01-’$‘ ,0‘ ’$%0)%5‘ , .’),8 %‘ 42’)+%‘ 6$%0%. (%‘*&‘)+%‘ 7%$2’6$*51()0‘*&‘01(+‘ &%$8% .)’),*.

’)’‘ &*$‘ %0),8 ’), .-’)+%‘ .*$8 ’/‘$’)%‘*&’4; 0*$6),*.’ &$*8’)+%‘ ’/,8%.)’$2’81(*10‘ 8%8 ; 4$’ .%‘*&’)+%‘*$5, .’$2’$%01/)0‘*&’5,-%0),*.’ ’$%‘ 7%$2’ ,86%$&%()H‘ ’.5‘ ,8),/‘)+%2’ ’$%‘ 8*$%‘ (%’$/2’’0(%$)’, .%5‘ ,)‘ ,0‘ .*)‘6*00,4/%‘)*‘5,’; - .*0%‘ 3 ,)+’(%$)’, .)2‘)+,0‘ &1 .(),*.’/ 5%&%()’)+*1-+‘ ,)0‘ %B,0)%.(%‘ 8 ’2‘ *&)%.’ 4%‘ , .&%$%5‘ 3 ,)+’ 81(+‘ 6$*4’4,/,)2’ ’.5‘ 8 ’2‘ 01--%0)‘ 8*5,&,(’),*.0‘ ,.’)+%‘0,C%‘ ,&’.*)‘ , .’)+%‘E1’/,)2‘ *&’)+%‘ 8 %’/0’)’9%.

.5),.0’ 16*.’ 3+,(+‘ ’.‘ ,86’,$%5‘ ’4; 0*$6),*.’ *&‘)+%‘ 5,-%0)’’ 8 ’2‘ 4%‘ ’0018%5’)*‘ 5%6%.5’’$%‘ A, R‘ &’,/1$%‘ , .’(*.7%$), .-’)+%‘ &**5‘)*‘ ’‘ 5,&&10,4/%‘ 0)’)%‘ &,$*8‘ , .%&&,(,%.(2‘*&’)+%‘ 0%($%),*.0H A, , R‘ , 86’,$%5‘ 6%$,0)’/0,0‘ 3+%$%; 42‘)+%‘ 8 ’)%$,’/0‘ ’$%‘ .*)‘ 4$*1-+)‘ , .)*‘ 01&&,; (,%.)/2‘ (/*0%‘ (*.)’()‘ 3,)+’)+%‘ 81(*10‘ 8%8 ; 4$’ .%H‘ A,,, R‘ 5%&,(,%.)‘ (,$(1/’),*.’*&’)+%‘ 4/**5‘ ’.5’/286+‘ , .’)+%‘ (+2/*6*,%),(’ ’$%’ ’‘ .5’(*.; 0%E1%.)‘+, .5%$, .-’*&‘*08*0%,0H A,7 R‘ 5,0%’0%‘*&‘)+%‘7%00%/ 3’//0’,86’,$, .-’)+%,$‘6%$8%’4,/,)2H ’.5’A7 R‘ 5%-%.%$’),*.’*&’)+%‘ %6,)+%/,18 ’ 3,)+’)+%‘0’8%‘$%01/)

! ‘ (‘ - ’ o o ‘ G’ +%‘ ’+.*0)‘ .184%$/%00‘ 0286)*80‘ 3+,(+‘ ,.5,(’)%‘)+%‘ 6%$7%$)%5‘ &1.(),*.0’ ‘4*7%‘ 5%0($,4%5’’.5’ ’$%‘ 6$,8 ’$,/2‘ 5%6%.5%.)‘ *.’ 8*$4,5‘ 0)$1()1$’/ (+’ .-%0‘ ,.’)+%‘ *$-’.0‘ (*.(%$.%5’ 8 ’2‘ 4%‘ (*.7%..%.)/2‘ -$*16%5‘ ,.)*‘ ‘ .5‘ ’ .2‘ 0* (’//%5‘ 5206%6),(’ 0286)*80’ +*3; %7%$’ ’$%‘ 8*$%‘ 6$*6%$/2‘ $%&%$’4/%‘)*‘ 0140%; E1%.)‘ 6%$7%$0,*.0‘ *&‘ 8%)’4*/,08’)+’.’)*‘ ’()1’/5,-%0),7%‘,86%$&%(),*.0

0 +%‘ ‘0286)*80G)+*0%’)+’)‘,0’3+,(+‘ ’B%‘ (*..%()%5‘ $%()/2‘ 3,)+’)+%‘ ’&&%()%5‘ 0)$1()1$%0G’$%’ 6%$7%$0,*.0’ *&‘ 0%.0’),*.H (*.0),6’),*.’ *$5,’$$+(%’H‘ 7*8,),..-H‘ 62$*0,0‘ ’.5‘ ’(,5,)2H +008’)%8%0,0H &/’)1/%.*%‘H %$1()’),*.’ ’.5‘ &*1/‘ 4$%’)+H‘ 0’/,7’),*.’ *$ 5$2‘ 8*1)+H‘ 8*$4,5’0)’)%0‘ *&‘)+%’)*.-1%H‘ ’4.*$8’/‘ (+’$’()%$’ *&’)+%‘ 0)**/0’ B(%6); ,.-’)+%‘ &,$0) 8%.),*.%5’)+%0%‘ $%(%,7%‘ 5%;)’,/%5’5%0($,6),*.’ ,.’)+%‘ 6$%0%.)’ 3*$9‘ 1.5%$‘)+%,$’$%06%(),7%’+%’5,.-0

$5,.’$,/2’3%’$%’)8(*.0(,*10’*&’)+%‘ 6$*(%00’ *&‘ 5,-%0),*.’ ‘41)‘ , .’5,0%’0%’)+%’ &1.(),*.’ 8 ’2‘ 4%‘ ’((*86’.,%5’ 42’ ’/)%$’),*.0’ *&‘ 0%.0’),*.’ 7’$2,.-’ &$*8’ ’‘ 8%$%‘ 0%.0%’ *&‘ 3%,-+)‘ ’.5‘ 5,0(*8&*$)‘ , .’)+%‘ ’45*8%.’)*‘)+%‘ 0%7%$%‘ 06’08*5,(’ 6’,.’ *&‘ (*+*’ 1(+’ +*3%7%$’ ’$%‘ .*)‘ (*.0)’ .)’&*$7%$2’5%&, .,)%‘ , .5,-%0),*.’ 8 ’2’%B,0)‘ 3,)+*1)‘)+%‘ 6’),%.)’%7%$‘ (*86/’, .; , .-’*&’ ’45*8,.’/‘ 0%.0’),*.0’ +%‘ , .-%0),*.’ ,*&’&**5‘ 8 ’2’4%‘ &*//*3%5’ 42’ ’‘ &%%/, .-’*&’ ’4; .*8’/‘ $%6/%),*.’*$*&‘%86),.%00’ 3,)+’ ($’7; , .-’&*$‘ &**5H‘ *$’)+%$%‘ 8 ’2’ 4%‘ +%’$)41$.’ ’.’ ,// 5%&, .%5’0%.0%’*&‘41$., .-’&%/)’, .’)+%’%6, .’0;)$,18’*$’*7%$’)+%‘ (+%0)’*$‘ %B)%.5, .-’)*’)+%‘)+$*’)‘H ‘$‘ 6*0,),7%‘ 6’, .’*$‘)%.5%$.%00’*7%$‘ 0*8%’)*/%$’4/2’5%&, .,)%’ ‘$%’’ %.0’),*.0’ ’0‘ *&‘ %B(%00,7%‘ 8*7%8%.)0’ *&’)+%’ 4*3%/0’ *&‘ 0, .9, .-’*$‘ *&’), .-+). %00’(‘($*00’)+%’ ‘45*8%.’ ‘$%‘ *&’&$%E1%.)’*((1$$%.(% 8*.-’)+%‘ .18%$*10’ ‘0286)*80’$%‘ 6’, .’ .’0+*1/5%$’4’(9’*$’/,840H +%’5’(+%G’ &$*.)’/’*((,6,)’/’’.5’7%$),(’/’H 7%$),-*’’.5’-,5; 5, .%00H 810(0%‘ 7*/,)’ .)%0H), . .,)10’ ’1$,18 H ($’860’ , .’)+%’ /,840H 810(1/’$’ 3%’9.%00H 6’/6,)’),*.’ (’$5,’(’ ,$$%-1/’$,)2’ &/10+, .-0’ ’.5’’ .-, .*10’))’(90H (*1-+’ ’.5’0, .-1/)10H ,86’,$%5’ ’66%),)%H ’// 5%-$%%0’ *&‘ 8%.)’/ 6%$7%$0,*.’ &$*8’ ,$$,)’4,/,)2’)*‘ ’6’)+2’ ’.5’ +26*(+*.5$,’0,0H 5$*30, .%00’ *$‘ , .0*8 .,’’H ’‘ 6%(1/,’$‘ 0’//*3’ 81552 /**9, .-’ 09, .H 7’$,*10’ (1)’.%*10’ %$16),*.0’ (+,%&/2’ 6’61; /’$’H >’1.5,(%H ’.5’ ’4.*$8’/,),%0’ *&‘ 1$, .%’ ’/5,-%0),*.’ 8 ’2’ /0*‘ 5%)%$8, .%’ ’‘ (*.5,;),*.’ *&‘ &%7%$’ 3+,(+‘ 8 ’2’ 4%‘ 0*‘ 0%7%$%‘ ’0‘)*‘ $%’(+’)+%‘)26+*,5’ 0)’)%‘ ’.5’ %.5’ ,.’ (*8’‘ 1(+’ -%.%$’/ 6%$7%$0,*.0’ *&‘ .1)$,;),*.’ ’0‘3’0), .-’’.5’*4%0,)2’8’2’$%01/’ &$*8’ , .5,-%0),*. ’ .2’*&’)+%0%‘ 0286)*80’8’2’ 4%‘ $%-’$5%5’ ’0‘ $%&/%B’ ,.’ (’10’),*.’01(+’’0

5,0)'/ 6',&/0' . .5 (*1-+')+% '&&%$%.) .%$7% 6')+ &*$3+,(+ ,0 6$*4'4/2)+% 7'-10 *)+%$0 '$% 5*14)/%00)*' 4% '))$,41)%5')*' '()1'/ 3' .) *& 6$*6%$ 8 ')%$,'/0 &*$)+% .*1$,0+8%.) *&)+%) ,001%0 *7*$,. -')*')+%,$,86$*6%$ 6$%6'; $'),*.' ,-')+% '/,8%.)'$2 (' ./H .5 *)+%$0 '-' .' '$% 6*00,4/2)*B,(' ,.' (+'$'()%$'51%)*' 6*,0*.*10 0140)' .(%0 6$*51(%5' ,.')+% (*1$0% *&)+% 6%$7%$)%5 5,-%0),*.

+% %B)$% 8 % 5,7%$0,)2 *&)+%0% 0286)*80 ,0 $% 8 '$9'4/%H)+%$% ,0 0(' $(%/2 '' &1.(),*.' *&)+% 4*52)+')' 8 '2 .*) 4% ,86/,(')%5' ,.')+% 5,0)1$4'.(% *& 5,-%0),*.' .5 (*.)$,41)% ,)0 0+'$%)*')+%)*)'/ 0286)*80 *& .2 -,7% .' ('0% +% 5%-$%%)*' 3,(+')+%0% 8 '.; &%0)'),*.0 8 '2 4% 6$%0%.)' ,0 '8*$%*7%$' 8*0) 7'$,%5' ,.' *.% 6'),%.)')+% 8 '/'52 8 '2 4% 8',../2 $%6$%0%.)%5 42 ''+% '5'(+%',.'' .*)+%$)+% %7,5%.(%0 *& ,// .%00 '$% 8*0) .18%$*10 .5'' -',.')+% 5,&&%$%.)' 3 '20 ,.' 3+,(+')+%0% 0286)*80 '$% '00*(,')%5 ,.' 5,&&%$%.)' ('0%0 '$% '/8*0) '0 8 '.2 '0')+% ('0%0)+%8 0%/7%0)' ,0 ,86*00,4/%')+%$%&*$%')*'))%86)' .2 5%0($,6),*.' *& '' ('0% *& ,.5,-%0),*.' 3+,(* 0+'/+'7% *)+%$)+' .')+% 8*0) /,8,)%5' 6; 6/,(',*.H '.5'0,.(%)+% 0286)*80 0%) &*$)+ &,.5')+%,$ &1//%$ %B6/' .'),*.'%/0%3+%$%,.')+,0 3*$9)+% 4'$% %.18%$'),*.' *&)+%8' 810) 01&&,(% +%$%)',0 ,86*$)' .)*' $%8%84%$)+')' 8 .2 *&)+% 0286)*80 8%.),*.%5' '0 ,.5,(',7% *& 5,0*$5%$%5 5,-%0),*.' '$% *& .*) ,.&$%E1%.)*((1$$%.(%,.')+% (*1$0% *& 8 '/'; 5,%0 E1,)% 5,0),.()*$ ')/%'0)' 6$,8 '$,/2 0*' &$*8 5,-%0),7% 5,0% '0%0 '+% '5'(+% 7*8,),.-' (*1-+' 6'/6,)','),*.' ^(' '$% ,//10)$'),*.0 *&)+,0 *')+)'')'/)+*1-+')+%$%(*-.,),*.' *&)+% 0286)*80 4% .*) 5,&&,(1/)'('$% '.5 %B6%$,; %.(% '$% .%%5&1/)*' 0($,4%')+% 8')*' 5206%60,'' 1)' 0166*0,.-')+')'('10%0 *)+%$)+'.',.5,-%0;),*.'+'7% 4%.'%B(/15%5')+%$% 0),// $% 8'..0)+%)'09 *& $%8%$%.-')+% 8'.,&%0)'),*.0 *& 5,0% '0% 3+,(+'.2 ('0% 8'2 6$%0%.)')*')+%,$ ('10'/ 6%$7%$0,*.0 ,.')+% 5,-%0),7% 6$*(%00H)*' 5%)%$8,.%')+')',0)*' 0'2'3+')' 8'2 4%)+% 8*$4,5 (+,8-%3+,(+'+'0)'9%. 6/'(% ,.')+%0%($%),*.0'.5'(*.0%E1%.)'(+%8,; ('/6$*(%00%0''*$)+% 5,0)1$4'.(%0 *& 8*),/,)2 *$8'2 4%)+% %$$*$*&5,%)H '.5',&'6*00,4/%')*' ,.&%$,4%2*.5)+%0% (*.5,),*.0')+% 1.5%$/2,.-' 0)$1()1$'/ %0,*.0' +%',.),8')%',.)%$5%6%.; 5%.(%*&)+%7'$,*.0^%)*$0*&5,-%0),*.'$%.5%$0')+% 5,0($,8,.'),&*.'' *&)+% 0286)*80 6$%0%.)' '' 8 '))%$'*&%B(%%5,.-' 5,&&,(1/)2H '.5',)',0')+,0 3+,(+'8 '9%0')+%' '(; (1$')% 5,'-.*0,0'*&'' ('0% *&5206%60,'' 0*'1.; (%$),.' '.5',)0')$%')8%.)'*&)%.'0*'%86,$,('/' '.2'*&)+% 0,-.0'.5'0286)*80'3,)+*1)' 5*14)',.5,(')% 3,)+')*/%$'4/%' (%$)',.)2')+% $%-,*.'*&)+%' /,8%.)'$2 020)%8'3+,(+',0')' &'1/)'.5'8'2'%7%.'01--%0)')+% .')1$%*&)+% 5,0%'0%H 41)'+*3'&'$'.5',.'3+')'8'..%$' 8*$4,5 (+'.-%',.'*.% 6')' &)+% ('.'/'*$ ')'*.%0)'-%*&)+% 5,-%0),7% 6$*(%00'8'2'5%)%$; 8,.%0140%E1%.)'(+'.-%0'.5'3+')'+% %B')' .')1$%*&)+%0% 8'2'4%'.5')+%,$'$%/')',*.')*')+% 0286)*80 8'.,&%0)%5''$% 5')'' ')'6$%0%.)

'/8*0)'1.9.*3.' +% 6$*=/ *&)+% &1.(),*.'*& 5,-%0),*. =')+% (*.),.1*10 0%$,%0 *& 0)'-%0 =' /')%$*.%0 '$% 5%6%.5%.)'*.')+*0% ,6/ $%.5%$0 &&%(),*.0 *&)+,0 020)% 8 &%$%.)',.')+%,$ 5%)%(),*.'&$*8')+*0%*/=' *$-'.0 /)%$'),*.0',.')+% 6+20,('/ $'()%$0 *&)+% 5,-%0),7% *$-'.0' 01(+' '5,/')%5 0)*8'(+' *$ '.' %./'$-%5 /,7%$M 8'2 101'//2 4% '0(%$)',.%5 3,)+' ((1$'(2 '.5 0*8% 0286)*80 8'2 4% $%'0*.'4/2 '00%$)%5)*' &*//*3' &$*8')+%0% (*.5,),*.0 3+,/0)')+%,$ %/'),*.')*')+%$ 8*$4,5'8'.,; &%0)'),*.0 ,0 *&)%.' *& 5*14)&1/ ,.&%$%.(% *5,&,(').*.0 ,.')+% E1'.),)2 *$ E1'/,)2 *&)+% 5,-%0),7% 0%($%),*.0' 8'2 4% 5%8*.; 0)$')%5 3,)+' (%$)',.)2 41)')+%,$ (*.%B,*.' 3,)+' 8 '.2 *&)+% 0286)*80 3+,(+' 8 '2 4% 6$%0%.)' ,0 *&)%.' 8*0) *40(1$% .5 '-'.')+%$% 8 '2 4% 8*0) 6%$0,0)%.)' '.5 0%$,*10 5,0)1$4'.(% *& 5,-%0),*.' 7$,)+' 0%7%$% 5,0(*8&*$)')*')+% 6'),%.)' '.5 ,)' 8 '2 4% E1,)% 1.(%$)',.'3+,(+' *$-'.' ,0 6$,8 '$,/2 ')' &'1/)'.5'0),/ 8*$% 5*14)&1/ 3+')')+% $%'/ 8*$4,5'(+'.-% ,0 *' &'$ '0 ,.5,7,51'/ 0286)*80 8'2 4% $%&%$$%5')*' 5%&,.,)% 5,0; %'0%0 *&)+% 7'$,*10 5,-%0),7% *$-'.0')+,0 ,0 '))%86)%5',.')+% '$),(/%0)% '),.-' *&)+% 5,0%'0%0 *&)+% 0)*8'(+' ,.)%0),.%0' 7%$' 6'.($%'0' ^(' 3+,(+' $% (*86/%8%.)'$2)*')+,0 0%(),*.

! G = +% %00%.),'/ 4'0,0 &*$)+% 01((%00&1/)$%')8%.)' *& ,.5,-%0),*.' ,0)+% $%(*-$5),*.*&)+% ('10% &)%.%$6%$+'60)+'.' 8'2 4% 0166*0%5')+,0 ,0 '' $%8*7'4/%*.%H ,.' %7%$2 ('0% ,)' 810) 4% 3%/ 0*1-+) &*$' '.5 (*$$%()%5',&'6*00,4/%' ' ('$%&1//2 $%-1/')%5 5,%)'4*)+''0'$%-'$50*$5,.'$2 &**5' '.5'06%(,'/ ,5,*0>8 ($'0,%0',0' ,86*$)'.)'' .5')+% 8%'.0 &$*8'3+,(+'81(+'-**5',0)*' 4% %B6%()%5'4*)+ 42'3'2'*&6$%7%.),*.'.' .5' (1$% *'/'2'5*3.' '$%E1,0,)% 5,%)' %.)',/0'' -%.%$'/9.*3/%5-% *&)+% '7%$'-% (*86*0,),*.'*&&**5 0)1&&0' .5' *&)+% (+'.-%0'3+,(+')+%2'.*$8 '//2'1.5%$-* ,.')+% 6$*(%00'*& 5,-%0),*.')*-%)+%$ 3,)+')+% .')1$%*&)+% ,.&/1%.(% %B$)%5 42'7'$,*10 ,.-$%5,%.)0'*&)+% &**5'16*.')+% 5,-%0),*.' *&)+% *)+%$0 G 0 0)+% $%)'$5,.-' %&&%(0)%''.5'(*&&%%*.'6%6),('5,-%0),*.'<A *4%$)0R +%)+%$' *$.*)' .2 -,7%.' $),(/%*& 5,%)0+*1/5' *$ 0+*1/5' .*)' 4% '//*3%5 8 10)' 5%; 6%.5'16*.',0' 5,-%0),4,/,)2',.')+% -,7%.'('0% '6')$)' &$*8' 3+')' 8 '2 4%',0' 7'/1%' 1.5%$ +%'/)+2',($(180)'.(%0'.5''/0*' 16*.' 3+')+'$8&1/ 42 65*51()0' *&5,-%0),*.',)' 8 '2 -,7% $,0%)*' 1.5%$')+% 5,0%'0%5' (*.5),*.0' 3+,(+' 8 '2 4% 6$%0%.)' B'()',.&*$8')',*.'*.'0%7%$'/ *&)+%0% 6*,.)0',0' .*)' 2%)' '7'./'4/%' .5' ')+% 0' 8 %),8%',)',0')*' 4% $%8%84%$%5')+')' $),(/%0'*&&**5'3/&,(+'.*$8 ''//2''$%$%-'$5%5''0 *&)+% 8*0)5,-%0),4/%' .5',.'(*)'(+'()%$ 8 '2 ')',8%0' 0%$,*10/2 5,0'-$%%'3+,/0)' 8*0) ,.5,-%0),4/%' $),(/%0' 8 '2 4%')'9%.' 3,)+',8; 61.,)2' +% 3$,)%$',0' (*.7,.(%5')+')'3+,/0) &*//2'$%(*-.,0,.-')+%'-$%')',86*$)'.(%*&5,%)' ,)',0' .%7%$)+%/%00')+% ('0%')+')' .*)' &%3

%,)+%$' +%$%5,)'$2' *$' '(E1,$%5' 3%' 0+'// ')' *.(%'$%(*-.,0%)+')')+%' *66*$)1.),%0'&*$' '4; .*$8'/0),81/''),*.'.')+%' ('0%'*&')+%'5,-%0;),7%'*$-'60'$% 8*0)'.18%$*10' *881.,' (''),'-'3,)+')+%'%B)%$.'/3*$/5''.5'(*.),.1l' *10/2'014>%()')*')+%' '58,00,*.' *&'&*$%,-6' 8'))%$' 3%' +'7%' ,.')+%' (+'$'()%$' *&')+%' ,.-%0)'' '41.5'.)'0*1$(%0'*&'5,0%'0%' *B,(' '-%.)0'/,7,.-'' .5'5%'5'&,.5'$%'52'%.)$'.(%H '.5'%B(%00%0',.'E1'.),)2'*&'&**5'.*'/%00')+'.' ,86%$&%(),*.',.',)0'E1'/,)2''/,9%'0%$7%')*'6$*; 51(%)+*0%'5%6'$)1$%0'&$*8')+%'.*$8'/0)$1(;)1$%'*.'3+,(+'6%$7%$0,*.0'*&'&1.(),*.'5%6%.5' 1$)+%$8*$%')+%',001%0'*&')+%''/,8%.)'$2' 7,0(%$''' '$%'%E1'//2'3,)+')+*0%'*&')+%'4*52' -%.%$'//2'014>%()')*')+*0%'8*$%'*40(1$%' +%$%5,)'$2',.&/1%.(%0'3+,(+'5%)%$8,.%',$$%-1; /'$,),%0',.'0)$1()1$%''.5')+%,$'0%E1%.(%' .5' &,.''//2''$$%0)0',.'5%7%/*68%.)'*&'*$-'.0'.*)' ,.&$%E1%.)' ,.')+*0%' 1.5%$' (*.0,5%$'),*.' (*86/%)%')+%'/,0)'*&'6*00,4/%'5,0%'0%0')*'3+,(+')+%'/,8%.)'$2'020)%8',0'/,'4/%

$',0')+,0'020)%8',.5%6%.5%.)'&'8*$4,5' (*.5,),*.0''&&%(),.-'*)+%$'*$-'.0' *' (*8; 6/,(')%5''0',0')+%'+18'.'4*52',)',0',86*00,4/%')+')'5,0%'0%'0+*1/5'&*$'/*.-'4%'/,8,)%5')*'*.%' $%-.*.' **.%$'*$'/')%$')+%'&1.(),*.0'3+,(+' '$%' '(),.-')+%'*.%'3,)+')+%'*)+%$')*'(*.0),')1)%')+%'+'$8*.,*10'3*$9,.-'*&'+%'/)+2'/,&%' 3,/'&%%/')+%'%&&%()0'*&')+%'*.%')+')',0'*1)'*& -%'$''.5'3,/'$%06*.5'%'(+',.',)0'*3.'8'.; .%$')*')+%'4.*8'/(*.5,),*.'*&',)0'%.7,$*.; 8%.)' 5,0%'0%'6$,8'$,/2'/*(')%5',.')+%' .%$7*10'020)%8'3,/'6$*51(%''.'%&&%()',.')+%' 3*$9,.-' &)+%'.1)$,),7%&1.(),*.0'.*.%'+%' /%00'$%'/4%('10%')+%'%B'()'/%0,*.'('..*)' '0' 2%)'4%5%)%$8,.%5' ,/1$%0',.'%/,8,.'),*.'*&)+%'6$*51()0'*&')+%'%B($%)*$2'-/'.50'8 10')%/' 4'(9'*.')+%'*$-'.0'(*.(%$.%5',.')+%'6$%6'$';),*.'.'.5'%/'4*$'),*.'*&')+%',.-%0)'H'.'501(+' (*.5,),*.0'(*.0),)1)%''&$%E1%.)'('10%'*&'5,0; *$5%$0'*&'5,-%0),*.' +%'('10%0'8'2'4%')+10')'41/')%5 G

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+ ' - ' ' '' ' - '

& J G +%$%' ,0'0('$(%/2' '.2'&*$8'*& 5,0%'0%5'0)$1()1$%')+')',0'.*)'*'4%'8%)'3,)+' ,.')+%'),001%0'(*86$,0,.-')+%'5,-%0),7%'*$-'.0' ,.(%''/8*0)'%7%$2'7'$,%)2'*&')%B)1$%',0'&*1.5' ,.')+%8'.'5')+%$%',0'0*'%B)%.0,7%''/,'4,/,)2)*')+%'('10%0'*&'5,0%'0%=')+,0'$%01/)',0'*./2')*' 4%'%B6%()%5

' &&%(),*.0'*&')+%' '0(1/'$')')%' %-'$5%5'(*//%(),7%/2')+%'*$-'.0'*&'5,-%0;),*.'6$%0%.)'0%7%$'/6*.,)0'3*$)+2'*&'$%8'$9' ,.'$%06%()')*')+%,$' **5 0166/2' ,$0)')+%' '$$'.-%8%.)'*&')+%' %00%/0',0' 1(+'0')*' %.01$%''7%$2'%B)%.0,7%'.'5')+%'0'8%),8%'7%$2'5,$%()'0166/2' +%'$)%$,%0')*')+*0%'/,8%.)'$2'*$-'.0'0,)1')%',.')+%'45*; 8%.'$%'/8*0)'//6$,8'$2'4$'.(+%0'*&')+%' '*$)'H'.5',)+,0')*-%)+%$'3,)+')),%'.18%$*10' .5'&$%%'.'0)*8*0%0'4%)3%%.')+%8'$%51(%0')*''8,.,818')+%'(+'.(%'*&'./1$%',.'(,$(1; /'),*.' %(*.5/2')+%'4/**5'&$*8')+%'0'8% '$%'',0'//'(*//%()%5',.)*'*.%/'$-%7%,.G)+% 6*$)'/G'.5'&)%$'(,$(1/'),.-')+$*1-+')+%/,7%$' ,0'('$$,%5'42'*.%G)+%'+%6'),(G5,$%()/2',.)*')+%',.&%$,*$'7%.'' %'7'' (/*0%')*')+%'$,-+)' '1$,(/%' 1(+'.'$$'.-%8%.)'3+,/0)'(*.; 0,5%$'4/2'$%51(,.-')+%'06%%5'*&')+%'4/**5&/*3')+$*1-+')+%'+%6'),('(6,//'$,%0'*&&%$0'' 5*14/%'(+'.(%G7,C',.')+%'/,7%$'.5',.')+%' +%')G*&'6$*51(,.-''-%.%$'/0)')%'*&'(*8' -%0),*.'*&')+%'/,8%.)'$2'*$-'.0' +,$5/2' ^%'%B,0)%.(%'*&01(+'.'*$-'.'0')+%'06/%%.' 3+,(+'42',)0'6*0,),*.'.5'0)$1()1$%''0'3%// '0',)0'6%$,*5,('$+2)+8,('(*.)$'(),*.0''//*30' *&'-$%')'7'$,'),*.',')+%'8*1.)'*&'4/**5',)' (*.)',.0'3,/'8')%$,'//2'&&%()')+%'%B)%.)'*& 7'0(1/'$,)2'*&')+%'5,-%0),7%'*$-'.0'.5' /'0)/2')+%'/,8%.)'$2'*$-'.0'6$*4/2'8' 5%$-*'3,)+,.'.*$8'/6+20,*/*-,('/,8,)0''' 3.5%$'7'$,'),*.',.''8*1.)'*&'4/**5')+'.'5*%0' .2')+%$' 20)%8' P# ''66%'$; '.(%0'*&')+%'7'0(1/'$,)2'*&')+%'(.'/'4*)+'W .*$8'/'.5'8*$4,5''$%'8*0)'5%(%6),7%'.'5' -,7%'/,))/%'*$'.*',.5,(',).*'*&'3+')'()1'//2' %B,0)0'51$,..'/,&%'+,0',0'51%',.'-$%')'6'$)')*')+%'(*.0)$,(),*.'*&')+%7%00%/0'&)%$'5%')+' '.5''(*.0%E1%.)'4/**5/%00'0)')%'*&')+%'),001%0

'P G 8%$0%$.,'',0'+%$%')'9%.')*'8%'.'.'%B(%00'*&' **5',.')+%'$)%$,'/0,5% *&')+%'('6,//'$,%0' *3'&'$''5%)%$8,.'),*.'*&' 4/**5')*')+%'/,8%.)'$2'('.'/8'2'%B,0)'1.'(; (*86'.,%5'42'.2'(+'.-%',.')+%),001%0',0''' 8'))%$'*&'5*14)',)'$'$%/2',&'%7%$'/%'50')*'.2' $%(*-.,0'4/%'8*$4,5'0)')%'.')+%'.*$8'/ 6$*(%00'*&'5,-%0),*.',)+,0'(*.5,),*.'*4)',.0' 41)'3,)+',)'+%$%',0''.''/)%$'),*.',.')+%' -/'.51/'$'%6,)+%+''',&'1'.*'E)+%$),001%' %/%8%.)0'),0'(*.(%,7'4/%'+*3%7%$')+')'' 7'0*8*)*$'6'$'/20,03,)+'(*.0%E1%.)'&/1B,*.' 8'2'*((1$''.5'01(+'8'2'4%')+%'('0%',.'(%$;)',.'8%.)'/0)')%0''0',.5,()%5'42'5,'$$+(%'' +%'8'>*$,)2'*&'(,$(180'.(%0')+')'6$*51(% +26%$0%8,''5*.*)'0)*6''')+')'6*,.)'41) 4$,.-''4*1)''0)')%'*&'(')'$$+''.5',.&/'88';),*.',.'3+,(+')+%'%6,)+%/,'/''.5'(*.%(),7%),001%0''$%'/0*'%.-'-%5

8*.-')+%5,-%0),7%'-/'.50')+%'/,7%$'1.; 5*14)%5/2'8'.,&%0)0')%0'*&'0,86/%+26%$' a8,''3,)+*1)''.2'66$%(,'4/%'(+'.-%0',.')+% +%6'),(')),001%0' B(%00,7%'&%%5,.-',$$,)'.)0' 01(+''0'06,(%0''.5'/(*+*/'+*)'(/,8')%0'.5

1/(%$'),*.' ^(' %$)',.' 7'$,'),*.0' 6$%0%.')')+%8 0%/7%0',.')+%' .')1$%' *&')+%' .%3=&*$8%5' 8')%$,'/'' .5' '/0*',.')+%' -%.%$'/ (*1$0%*&')+%' 6$*(%00'(*.0),)1),.-' &*$8 0' *&',.&/'8 8'),*.' '0' 0,86/%' (')'$$+'/' 5,6+)+%$,),('6+/%-8*.; *10' & ' .' 7'0(1/'$'),001%0')+%$%' '$%',.' '55,),*.')*')+%',001% (+'.-%0'(%$)',.''/)%$';),*.0',.')+%' (,$(1/'),*.',.')+%' &&%()%5' $%-,*.' (*88%.(,.-'3,)+'+26%$0%8,''' .5'/%'5,.-')*' ''7'$,'4/%' 8*1.)' *&'0)'0,0' .5'*%5%8' .&/'88'),*.' '0',)' &&%()0')+%' '/,8%.)'$2')$')' *&&%$0' 'B(%6),*.')*')+,0' 5%0($,6),*.')',0'$'%'&*$)+%' 810(1/'$'),001%)*'0+'$%',.')+%'6$*(%00'3+,(+',0'6$'(),('//2',8,)%5')*')+%' %6,)+%/,,1.' 81(*0''' .5' 8481(*0''' G+%')$'.0,),*.'0*' &'$' '0' .')*8,('/' '66%'$'.(%0' '$%' (*.(%$.%5' &$*8')+%' .*$8'/' 0)')%' *&' (),7,)2' *&')+%' *$-'.0'3,)+')+%,$',.($%'0%5' 7'0(1/'$,)2' .5' (/*152' '66%'$'.(%' *&')+%' %6,)+%/,'/' (%//0')*')+')' *&'0,86/%' ,.&/'8; 8'),*.' *$' (')'$$+',0'41)' '' 0)%6' 8'$9%5'42' .*' '4$16)'/,.% ,&&%$%.)'0%(),*.0' *&')+%' %.),$%' (' .'/'6; 6%'$')*' 4%' 8*$%' 6$*.%')*' (%$)',.'&*$80' <-' ,.&/'88'),*.')+'.' '$%' *)+%$0')' ,0' 1.; 101'/&*$)+%'3+*/%'/%.-)+')*'4%',.7*/7%5''.5' (%$)',.'$%-,*.0'.*)'4/2')+%' >%>1.18' '$%'41)' %B(%6),*.82'&%&()%5' +%'8*1)+'6+'$2.B' 0)*8'(+'/*3%$'6')' *&')+%',/%18' '.5' (*/*.' '$%')+%' 10.'/' 0%')0' " ' ,.&/'88';),*.' (+'$'()%$,0%5'42' ,.)%.0%' $%5.%00' .503%//,.-'*&')+%' 81(*10' 8%84$'.%'3,)+' .' %B(%00,7%' 0%(%),*.' 81(*10' *$' 0%$*10''.5' 5%0E1'8'),*.' *&')+%' %6,)+%+'/' (%//0',0' *&' (*88*.%0)*((1$%.(%''/8*0)')+$*1-+*1)')+%' (''/A0%%' ! / ! ')' ,0%'0%0'*&H' .5') ,0%'0%0' *&R' +%.' 41)' /,8,)%5''$%'0''$%' '&&%()%5' .5')+%' ('10%',0' $%8*7%5')+,0'(*.5,),*.'$1.0' .''(1)%' (*1$0%' .5')%.50')*'$%(*7%$2H 41)'3+%.')+%'-$%')%$' 6')' *&')+%' (' .'/',0',.7*/7%5'.5')+%' ('10%',0'*&06%(,&,('7,$1/%.(%')+%' %&&%()0' '$%8*$%' 0%$,*10' +,0',0')+%'('0%',.'(+*/%$''3+%)+%$' *&)+%' 0,'),(' *$.-+0+')26%')+%'.')*8,('/' /%0,*.'*&'3+,(+',0'%00%.),''//2''.',.)%0),.'/' (')'$$+')',0'.*),(%'4/%')+')'+%'%6,)+%+'' *&')+,0')$'('$%41)'+))/%'6$*.%')*'8'.,&%0)''' 61$1/%.)',.&/'88'),*.'''0',0'0*'(+'$'()%$,0),(' *&'0*8%'*)+%$'81(*10'01$&'(%0'01(+''0')+%' .'0'/'4$*.(+,'/''.5'7'-,.'/' E" ' 8&/'88'),*.'6$*4'4/2'4'0)%$,'/',.'*$,-,.' (*$$%06*.5,.-')*' %$20,6%/'0'*&')+%'09,.''.5' 5,0),.-1,0+%5'42')+%'&*$8')*.'*&'610',.')+%' 81(*0''' .5'01481(*0''$%6$%0%.)0''' 8*$% 0%7%$%',.&/'88')*$2'6$*(%00''((*86'.,%5'42' '' 8*$%'0%7%$%'(*.0),)1),*.'/5,0)1$4'.(%')' ,0'*&'8*0)'&$%E1%.)'*'((1$$%.(%',.')+%'&'1(%0' .5')*.0,/0'3+%$%',)'(*88*.'+' ' $) ,0%'0%0'*&R' .5'&'$' 8*$%' $'$%/2',.')+%' 0)*8'(+'3+%$%',)'(*.0),)1)%0''' 7%$2'0%$,*10' 5,0%'0%' .5%$')+%')%$8' (<' 0 # ' '$%',.(/15%5')+*0%'&*$80'*&',.' &/'88'),*.',.' 3+,(+')+%' .%3' 8')%$,'/' 0018%0')+%'&*$8'*&' '&'/0%' 8%84$'.%'*.' *$',.')+%' 81(*10'01$&'(%' +,0',0'$%6$%;0%.)%5',.')+%' 8,/5%0)' 5%-$%%' 42' '6+)+'% 3+,(+'(+'$'()%$,0%''' 06%(,'/'&*$8'*&'0)*8';),),0' .5' '$%'08'// 6')(+%0'*&'(*'-1/')%5' %B15'),*.'&$*8')+%'4/**5',.7*/7,.-'/%1(*(2)%0' .5')+%'5%%6%$'/'2%$0'*&')+%'0)$'),&,%5'*$'/ %6,)+%+1./ &)%$' '5'2'*$')3*0' 51$'),*.')+%2'4$%='5*3.'.5''$%')+$*3.'*&&'/%'7,.-' .'4$'0,*.'*$.*)''((*$5,.-')*')+%'%B)%.)')*' 3+,(+')+%',001%0'$%',.((15%5',.')+%'6')(+' +%'8*$%'0%7%$%'&*$80'*&',.&/'88'),*.''0; 0*(,')%5'3,)+'&*$8'),*.'*&'&'/0%'8%84$'.% '$%')%$8%5' '.5' " " '3*$50' 3+,(+'+'7%4%%.'%B)%.0,7%/2'8,0'66/,%5'3,)+' 81(+'$%01/),.-'(*.&10,*.' +%'&*$8%$'5%; .*)%0')+')'&*$8'*&',.&/'88')*$2'6$*51()' 3+,(+'(*.0,0)0'*&''(*'-1/')%5'&,4$,.*10'%B1; 5'),*.'%&&10%5''8*.-')+%'.%($*0%5'%6,)+%/,'/' (%//0'.'5',.)*')+%'81(*0''')*-%)+%$'3,)+' 8'.2'/%1(*(2)%0'.'5''&%3'$%5'4/**5(%//0H ,.')+%'/'))%$')+%'.%($*0,0'*&')+%',001% %/%; 8%.)0',0'8*$%'%B)%.0,7%''.5')+%'5+%$%.(% *&')+%'8%84$'.%',0'8*$%',.),8')%' +% &'1(%0''$%'42'&'$')+%'8*0)'&$%E1%.)'0%')0'*&)+%0%'0)')%0'41)'6')(+%0'*&'/0%'8%84$'.% '$%'*&'*(('0,*.'/'*((1$$%.(%',.')+%'0)*8'(+' .5'8*$%'(*88*./2'*.')+%'%5-%0'*&')+% 0'((,5%0'*&')+%'/'$-%',.)%0),.%'')',0'5*14); &1/'+*3%7%$'3+%)+%$'01(+'8%84$'.%0''$% 5,6+)+%$,),(',.')+%'(/,.,('/0%'*&'/0%'8%84$'.% '$%'*&'*(('0,*.'/'*((1$$%.(%',.')+%'0)*8'(+' .5'8*$%'(*88*./2'*.')+%'%5-%0'*&')+% 0'((,5%0'*&')+%'/'$-%',.)%0),.%'')',0'5*14); &1/'+*3%7%$'3+%)+%$'01(+'8%84$'.%0''$% 5,6+)+%$,),(',.')+%'(/,.,('/0%'*&'/0%'8%84$'.%)%$8'+*3%7%$'(/*0%/2')+%2'8'2'(*$$%06*.5' .'.')*8,('/'(+'$'()%$0 .'(1)%'*$014 (1)%'))'(9'*&'(')'$$+'/ ,.&/'88'),*.'*&')+%'0)*8'(+'*$,.)%0)8%0',0' /,9%/2',&')+%'('10%'6%$0,0)')*'4%(*8%'(+$*.,(')+%'0)$1()1$'/&%')1$%0'*&'3+,(+'$%'%06%,('//2' .')$*6+2'*&')+%'%=)+%/,18'3,)+'*$'3,)+; *1)'81(+'&,4$*,5'),(9%.,.-'*&')+%'81(*0'' +%'3')0),..-'*&')+%'%6,)+%/,18',0'*&)%.'7%$2' 8'$9%5'3+%.')+%'7,'/0*'4%(*8%0+$1.9%.')+%' 01$&'(%'*&')+%'81(*10'8%8; 4$'.%'3%'$0'08**)+'.5'-/'C%5'*7%$'/'$-%' '$%'0' .'2*1.-'(+,/5$%.')+,0')$*6+2'6; 6%'$0'&$%E1%.)/2')*'&*//*3''0,.-/%'))'(9'*&' '(1)%',.)%0),.'/'(')'$*+' *8%'&*$8'0' *& 0)*8'),),0')+*1-+'6%$0,0),..-''/*.-')1.%' (''0('$(%/2'4%'0',5')*'4%'(+$*.,(',.')+%' 0%.0%'*&'/%'5,.-')*'6%$8'.%.)'0)$1()1$'/' (+'.-%0H)4%'1)8*0)')+')*'((1$0',0''')+,(9%.; ,.-'*&')+%'%6,)+%/,18'34,%+'101'//2'5,0; '66%'$0',6'),8%' +%'&,4$*,5'*7%$-$*3)+' 8'2''&&%()')+%'0)*8'(+'*$'6')0'*&')+%',.;)%0),.%')*/%$'4/2'1.,&*$8/2'*$.*)',.&$%E1%.)/2' &*$8'6*/26*,5'%/%7'),*.0 %$)',.'6%(1/,'$,),%0',.')+%',.&/'88'),*.0' $-'06%(,'/'$%-,*.0'01(+''0')+%'('%(18'(/*.' '.5'$%()18''$%'&1//2'5%0($,4%5'%/0%3+%$%' ' ',*1 ' ,0%'0%0'$-%'0 ' !)' ,0%'0%0' $-H'.5'A(&+%''((%00*$2'-/'.50'A0'/,7'$2'6'.($%'0' '.5'/,7%$R'3+,(+'-%.%),('//2''$%'41)'5,7%$;),(1/''*&')+%'6$,8,),7%'5,-%0),*.)14%'%00%.I'),' /2'(*.0,0)',.')+%'51)/')')%'*&''-/'.; 51/'$'%6,)+%/,18'$$'.-%5',.'7'$,*10'3'20' '.5'0166*$)%5'42''' (*..%(),7%),001%0)$*8'' 3+,(+'('$$,%0'7%00%/0'/2'86+'),(0''.5'.%$7%0' .'0)$1()1$%')+%$%&*$%')+%2'(*$%06*.5')*')+%' 81(*10'8%84$'.%'*&')+%''/,8%.)'$2'('./

8 '2' 4%%%.' , .')+%')+, . . , . -' ' . 5'0+$, . 9, . -' %&')+%'0)* 8 ' (+' ' . 5', .)%0), . %0' 4%2* . 5' ' .' *40)$1(;), * . '*$' . ' ' $), &, (, '/ ' . 10 ' *$' 3+%. ')+%0%' *$- ' . 0' '$%' 6%$ 8 ' . %.)/2' 5,/ ')%5 ' $%001$%' * . ')+%' *$- ' .0 ' '0' &'2), -+) /' (, . -' ^ (' 8 ' 2' /% ' 5') *')+%'0' 8 %' $%01/)

' C 0 " " G +*0%' 8 *$4, 5'6$*(%00%0')*' 3+, (+')+%')%$ 8 '0 5%-%. %$ '), * . '.' , 0' '66/, %5 ' . 5' 3+, (+' %00%.), ' //2' * . 0, 0)' , . ')+%' (* . 7%$; 0, * . ' * &')+%'), 001%0' , .)*' 8 ')%$, ' /0' * &' '' /%00' (* 86/%B' (+%8, (' /' (* 86*0,), *. ')+ ' . ' . *$8 ' /' '00*(, ')%5' 3,)+' '' 5, 8, , . , 04%5' 7,)' /' (), 7,)2' 8 '2' &&%()' . 2' *$' //' *&')+%' 0)$1()1$' /' %/%; 8%.)0' *&' 3+, (+')+%' 5, -%0), 7%' *$- ' . 0' $%' (* 8 ; 6*0%5' /418, . *, 5' , . &, /)$ '), *. ' *$' (/*152' 03%//, . -', 0')+%', . 7 ', '4/%' '((* 86' . , 8%.)' *&' , . &/' 8 8 '), *. ' *&')+%' %6,)+%/, '/' . 5' 810(1/'$'), 001%0' '))2' 5%-%. %$ '), *. ', 0' '' &1$)+%$' $%; 01/)' *&', . &/' 8 8 '), *. ' *$' *&' *)+%$' 8 '/. 1)$,), *. ' '. 5' + '0' 4%%. ' &*1. 5', . ')+%' -'0)$, (' 81(*10' 8%84$' . %' '0' 3%//' '0', . ')+%' 810(1/'$' (* ')')' 7 '$, *10' 6 '$)0' *&')+%' (' . '/' /)+*1-+' . *)')+%' (* 8 8 * . %0)' *$- ' . 0')*' 4%' 0*' &&%()%5' 2%)' . *)', . &$%E1%.)/2')+%' , .)%0), . %' ' . 5' 0)* 8 ' (+' '$%')+%' 0%.)' *&' /'$5 ' (%*10' 5%-%. %$ '), *. ' . *)' /3 ' 20' + 8,)%5')*')+%' 7%00%/0' 41)' &&%(), . -' '/0*')+%' %6,)+%/, '/' &, 4$*10' . 5' 810(1/'$' (* ')0' +%'/, 7%$', 0' %06%(, '//2'+' 4/%')*+' 1. 5%$-*' 5%-%. %$ '), *. ' *4')+' &'))2' ' . 5'/'$5' (%*10

%6*0,), *. ' *&' 6, -8%.)' 8 '2' 4%&' *1. 5', . ')+%' 5%%6%$' %6,)+%/, '/' 0)$ ')'' *&')+%' 8 *1)+' . 5' , .)%0), . %0' , . ' 55, 0*. 0' 5, 0%'0%' , . ')+%' -'0)$, (' ' . 5' , .)%0), . '/ 81(*10' 8%84$' . %' '0')+%' $%01/)' *&' (+' . -%0' , . ' %&&10%5' 4/**5' '00*(, ')%5' 3,)+' (+$*. , (' , . &/' 8 8 '), *. ' ' . 5', . ')+%' /, 7%$' , . ' (%$)', . ' *'0%0' *&' 4/**5' 5, 0%'0%0' ' . 5', .)%$; 8,))%.)' &%7%$0' +%' 01/6+, 5%0' *&' 01(+' 8%)'/0' '0' /%'5' 8 '2' 4%' 5%6*0,)%5' , . ')+%' 81(*10' 8%84$' . %' *&' 8*1)+' *$' , .)0), . %0' , . ' /, . %0' . 5' 06*)0' *&' 4/' (9' *$' 4/1, 0+' ' 66%'$' . (%

F' +' . -%0', . ' *$' $%)%.), *. ' *&')+%'0%($%), *. 0' *&')+%' 7 '$, *10' -/' . 50' 8 '2' $%01/)' , . ')+%' 6$*; 51(), *. ' *&' G 0' /, 7' $2 ' 6' . ($%'), (' *$' 4, /, '$2

L' N 2 0 2 O G +%$%' , 0' 0(' $(%/2' . 2' 9. *3. ' &*$8' *&' . %*6/' 08' 3+, (+' 8 '2' . *)' 4%' &*1. 5', . ' 0*8%' $%-, *. ' *$' . *)+%$' *&')+%' '/, ; 8%.)' $2')$' ()

+%' . %3 -$*3)+0' /, 8,)%5')*')+%' %6,)+%/, '/' (*')' *$' (*8 8%. (, . -', . ' ,)' '$%' %*. (/2/*8 ')' ' 6' 6, //*8 ')' ' . 5' 7' $, *10' &*$80' *&' ('$(, . *8 ' ' . ')+%' &, 4$*10'), 001%' *((1$'0' $(*8 ' ' &, 4$*8 ' ' 82%/*, 5' '5%. *, 5' -188 ' '%. (+*. 5$*8 ' ' . 5' /, 6*8 '

. ' '55,), *. ')+%$ ' 8 '2' 4%' 6*/26, ' *$) 188 *1$0' *&')+%' 81(*10' 8%84$' . %H 82B*8 ' H 810(1; / ' $), 001%')188 *1$H (20)0H 7' 0(1/'$' -$*3)+0' 01(+' '0' . 0 7, ' . 5' + '%8 *$$+*, 50H ' . 5')+%' , . &%(), 7%' -$' . 1/*8 ')' ' 7, C ')14%$(/%' /1610' . 5' 026+, /, 0

M' G %$)', . ' 6' $)0' *&')+%' /, ; 8%.)' $2')$' ()' '$%' &$*8')+%, $' 6*0,), * . ' 8 *$%' /, '4/%')+' . ' *)+%$0' *' %B)%$. '/', . >1$2' . (, 0%5' . 5' 61. ()1$%5' 3*1. 50' *&')+%' 8*1)+' A%0*; 6+' -10' 0)* 8 ' (+' , .)%0), . %0' ' . 5'/, 7%$' '$%' *&' *((' 0, *. '/0*((1$$%. (%' ' . 5' $16)1$%' *&')+%' '45*8, . '/ 7, 0(%$' ' , 0' 0*8%), 8%0' 8%)' 3,)+' +%' , . -%0), *. ' *&' (*$$*0, 7%' 0140)' . (%0' 8 '2' 6$*51(%' 5%0)$1(), *. ' *&' (%$)', . ' 6' $)0' *&')+%' (' . '/' ' . 5' 3*1. 50' 8 '2' 4%' 5%)%$8, . %5' 42' &*$%, -. '4*5, %0' '0' 6, . 0' &, 0+ 4*. %0' ^*' 3+, (+' +' 7' 4%%. ' 03' //*3%5

' '/&*$8 '), *. 0' ' . 5' '/6*0, ;), *. 0 G ' P G &')+%0%')+%' 8*0)' , 86*$)' .)' $%+' $% /, 6H (/%&)' 6' /')%' H 8' ($*' -/*00, ' H' &, 0)1/*10' (*8 8 1. , (', *. ' 4%)3%%. ')+%' 6+' $2. B' . 5')+%' %B)%$, *$' *$' 4%)3%%. ')+%' -1//%)' . 5')$' (+%' H, .)%0), . '/ ('0(' H, 86%$; &*$')%' . 10H ' . 5' +%8, 0%

<' $ 3 G '/&*$8 '), *. ' ' . 5' 8 '/6*0, ;), *. ' *&')+%' 7, 0(%$' ' 8 '2' &*//*3' &$*8' 5, 0%' 0%' *8 8 1. , (', *. 0' 4%)3%%. ')+%' 0)* 8 ' (+' ' . 5' , .)%0), . %0' *$' 4%)3%%. ' 5, &&%$%.)' (*, /0' *&' , .)%0;), . %' *$' 4%)3%%. ')+%' -'// 4/'55%$' . 5')+%' -1)' 8 '2' $%01/)' &$*8' (+$*. , (' 1/(%$')', *. ' . '. 2' +%$. , 0%' '$%' . *)' 5%7%/*6%5' 1.), /' /*. -' '&)%$ 4, $)+' &$*8' 7, */%.)' 0)$', . 0' ^ (

)$, (), 1$%' *&' 7' $, *10' 6' $)0' *&')+%' (' . '/' , 0' &$%E1%.)/2' '00*(, ')%5' 3,)+')+%' +%'/, . -' *&' 1/(%$0' ' . 5' 3,)+' . %3 -$*3)+0' , /')', *. ' *&')+%' (' . '/' , 0' '6)' *' *((1$' *. ')+%' 6$*B, 8'/' ' . 5' (*.)$' (), *. ' *. ')+%' 5, 0)' /0, 5%' *&' 01(+' 0)$, (;)1$%0' +%' , .)%0), . %0' 8 '2' 4%' (*. 0, 5%$' 4/2' 5, 06/' (%5' &$*8' 5+%0, *. 0' &*//*3, . -' 6%$,)*. ; ,), 0' 3, 0)0' A7*/71/10R', .)10010(%6), *. ', .)%$; . '/0)$' . -1/'), *. 0' ' . 56$*/' 6010' . , ' ' $%' 8*$%' *$' /%00' (*8 8*. ' ' &&%(), *. 0' *&')+%' , .)%0), . %0

' 4. *$8 '/' *.)%')0' GW ' '

G +%0%' $%&*1. 5'*((' 0, *. ' //2', . ')+%'0' (; (1/%0' *&')+%' /' $-%', .)%0), . %' ('0(18 ' 66%. 5, B' . 5 8*$%$' $%/2' 0)* 8 ' (+' ' . 5' 08 ' //', .)%0), . %' +%2' 101' //2' '$%' 8 '5%' 16' *&' (*. (%.)$, (' /' 2%$0' *&' %' $)+2' . 5' *$- ' . , (' 8 '))%$')+%' &*$8%$' 4%, . -' 6$, . (, 6' //2' 6+*06+')%0' *&' /, 8%' . 5' 8 ' - . %0, ' ' +%2' &$%E1%.)/2' +' 7%' 0' '' . 1(/%10' 0*8%' &*$%, -. ' 4*52' , 8, /' $' 4*5, %0' +' 7%' 4%%. ' 8%)' 3,)+' &*$8%5' *&' (+' /9' 8 ' -; . %0, ' ' *$' *B, 5%' *&' 4, 081)+' 3+, (+' +' 7%' 4%%. ' 03' //*3%5' 1(+' /' $-%$' 8 '00%0' 8 ' , . /2' *8; 6*0%5' *&' 5%. 0%/2&%/)%5' +' , $0' *$' 7%-%)' 4/%' +1090' . 5' &, 4$%0' 3,)+' %' $)+2' . 5' &' %(' /' 8 '))%, ' $%' 0*8%), 8%0' 0%%. H -' 0)%$*/,)+0' $%' -%. %$' //2' *&')+, 0' 7' $, %)2' A0%%' ' 3B J' *$%, -. ' 4*5, %0' 01(+' '0' 6, . 0' 4*. %0' &$1,) 0)*. %0' (*, . 0' ^ (' 8 '2' /0*' /*5-%', . ')+%' /, 8%.)' $2' (' . '/

6 D 3# ' ', 8%.)' $2' *$-' . 0' $%', . ; &%0)%5' 42' . 18%$*10' &*$80' *&' 8, ($*$-' . , 080' 4%/*. -, . -' &*$')+%' 8*0)' 6' $)')*' . *' 7%-%)' 4/%' 9, . -5*8' +%' -$%')%$' . 184%$' $%' (*86$, 0%5' . ')+%' (+, C*82(%)%0' *$' 4' ()%$, ' ' 41)' '' &%3' 01(+' '0')+%' (), . *82(%0' &*1. 5', . ')+%' 8*1)+' . 5' /, 7%$' ' $%', . (/15%5', . ')+%' 5, 7, 0, *. ' 26+*' 82(%)%0' *$' 8*1/50H ' . 5' '0' . ' %B' 86/%' *&')+%' /' 0)*82(%) ' *$' 2%' 0)0' 8 '2' 4%' 8%.), *. %5')+%')+$10+ &1. -10' '((+' $*82(%0' /4, (' . 0

+%0%' ' *4), ' . %.)$' . (%')*')+%' (' . '/&$*8')+%' %B)%$, *$' (+, %&/2' 3,)+')+%' &**5' . 5')+%' >*$,)2' . , 7%' $, 0%')*' . *' 0286)*8 0' &5, 0%' 0%' 6$*7, 5%5' 6$*6%$' (/%' . /, . %00' 4%' *40%$7%5' +')' 8 ' . 2' 6$*6' -')%' . 5' &/*1$, 0+', . ' 5, &&%$%.)' 6' $)0' *&')+%')14%', 0' (%$)', . ' ' . 5' 0*8%' 66%' $')*') ' 9%' ' 5%&, . ,)%0+' $%' , . ' (*. 7%$), . -')+%&**5

)*' '5,&&'0,4/%' 0)')%' %06%(,'//2' ,.')+%' ,.)%0;),.%0' .5')*')+')' %B)%.)' $%')$1%' 5,-%0),7%' -%.)0' +%&%$8%.)0' 3+,(+'0%)'16')+%'/'(),(' '(,5' (+' .-%' ,.')+%' 0)*8'(+' $%')*' 4%' (*.; 0,5%$%5' '0' .*$8'/' 3+,/0)')+*0%' 3+,(+' 5%7%/*6' 41)2$,(' '(,5' '$%' (/%'$/2' '4.*$8'/' +%')$1%'6')+*-%.,('*$-'..,0 8 0'01(+''0')+*0%' 6$*51(,.-')14%$(/%')26+*,5'&%7%$'5,6+)+%$,''.5' (+*/%$''5%7%/*6' 0')+%2'8'2'&,.5')+%,$' 01$$*1.5,..-0 01,)'4/%H41)',)',0' /0*' 6$*4'4/%')+')' 0*8%' &*$8 0' &' -'0)$*,.)%0),.'/' 5,0;)1$4'.(%'01(+''0'01 8 8%$'5,'$'+(%''*&',.&'.)0' '$%' 51%')*')+%' ()',7,),%0' &' 4'()%$,'' 3+,(+' 6$*51(%')*B,('0140)'.(%0G6)*8',.%0G=,')+,(+' (*1$0%' *&' 61)$%&'(),7%' (+'.-%0' 0%)' 16' 42')+%8',.')+%',.)%0),.'/'(*.)%.)0

'&%3' 06%(,%0' &' $*)*C*'+'7%' 4%%.' 8%)' 8)+',.')+%',.)%0),.%0'01(+''0' 8*%4'' (*+' '$'8 0%(,18',%*/,' %$(*8*.'0',.)%0),.'/,0' '.5' 0*$*06%$8,0%' +%' *)+%$' '.5' /'$-%$' 6'$'0,)%0' 4%/*.-')*')+%'&/')'*$$*1.5'3*$80' '.5',.(/15%')+%'7',*10'06%(,%0'&' '%.,'' '.5' *)+$,*(%6+'/10' '8*.-')+%'&*$8%$' 0('$,0' /18 4$,%*,5%0' B21$,0%'7%$8,%,5'$,0' $,(+*' (%6+'/10'5,06'$' '.5' .+2/*0)*8''51*5%.'/%' '8*.-')+%'/'))%$' ' к

B G +%'-'0%0'.*$8'//2'*((1$$,.-',.')+%'0)*8'(+' *$',.)%0),.%0'3+%)+%$')+%2'4% 03'//*3%5'3,)+')+%' &**5' *$' &*$8%5' 51$,.-' &%$8%.)'),*.',.')+%' ('.'/' '$%' *&)%.' 81(+' ,.($%'0%5',.'' 8*1.)'%06%(,'//2'('$4*.,('(,5' 01/6+1$%))%5' +25$*-%.'' .5' 8'$0+' -'0')+%' /'0)' .'8%5'4%,.-',.&/'88'4/%=''.5'*((0,*.; '//2'%$1()'%5',.'(*.0,5%$'4/%'E1'.),)2

1 ' ' $$'

3 3 ' '5'%./'$-%R

)* G=,/')'),*.'*&''.2'*&')+%'('7,;),%0')14%0'*$'*$,&,(%0'*&')+%'4*52'8'2'%,)+%$' $%01/)'&$*8',.($%'0%5'6$%001$%'&$*8'3,)+,.' *$'&$*8'5,8,.1),*.',.')+%'$%0,0),.-'6*3%$'*&')+%'3'//0'*&')+%')14%0'*$'(7,),%0' +%0%')3*' ('10%0''$%'&$%E1%.)/2'(*84,.%5''.5',.5%%5')+%'/'))%$',0'*&)%.')+%'$%01/)'*&'')/*.-'(*.;),.1'.(%'*&')+%'&*$8%$' .($%'0%5'6$%001$%' &$*8'3,)+,.'8'2'4%'51%'%,)+%$')*',.($%'0%5' 0%($%),*.'*&')+%' .*$8'/'(*.)%.)0'*&')+%' ('7,)2'*$')*'0*8%')+%$'%&&10,*.',.)*' +,0',0')+%'101'/'(10%'*&'5,/')'),*.'*&')+%' (/*0%5'('7,),%0'*&')+%'4*52H3%'+'7%'%B; '86/%0',.')+%'7%.)$,(/%0'*&')+%'4$',.')+%' 6%$,('$5,18')+%'02.*7,'/'('7,),%0')+%'41$0'%')+%'&*,*/%0'*&')+%')+2$*,5'4*52',.'(20),(' -*,)$%''.5')+%'$''&,'.'7%0,(/%0',.'0*8%' &*$80'*&'*7'$,'.'5$*602'.')+%'7'$,*10')14%0'*&')+%'4*52',.($%'0%5'6$%001$%'&$*8' 3,)+,.'8'2'$,0%'&$*8'*40)$1(),*.''.5')+%' (*.0%E1%.)''((181/'),*.'4%+,.5')+%'0%')'*&' *40)$1(),*.'*&')+%'0140)'.(%0'3+,(+',0')+%' &1.(),*.'*&')+%')14%0')*')$'.08,) 0$ '/+'$# ! <' '3' " G .')14%0'3+,(+'4%-,.'42'4/,.5' %B)$%8,)%0')+%'$%01/)'*&'5,/')'),*.',0'-%.%$'//2')+%'&*$8'),*.'*&''(20)''.5')+,0',0')+%'101=' 8*5%'*&'*$,-,.'*&')+%'/'$-%'(/'00'*&' "D' '*$' ' "' %' +'7%' %B

'86/%0',.')+%'0%4'(%*10'(20)0',.')+%'(20)0' *&'81(*10'8%84$'.%0'51%')*')+%'51()0'*&')+%'81(*10'-/'.50'4%(*8,.-'*40)$1()%5'42')+%'6$*51()0'*&'(')'$$+'/',.&/'88'),*.','. (20)0' ')+%'9,5.%2'&*$8%5'42'5,/')')',*.0' ')+%' '/6,-+,'.'('601/%0''.5'1$,.,&%$*10')141/%0''.5',.'5,/')'),*.0'*&')+%'-'// 4/'55%$' '.5'*&')+%'6%/7,0'*&')+%'9,5.%2

@'3" ' ' " ' " G .')14%0'.*)'4%-,..,.-'42'4/,.5'%B)$%8,),%0')+%' %,&%()'*&')+%'*40)$1(),*.',0'101'//2')*'6$*51(%' '" ' '*$" ' '.5'.*)'' (20),(' 5,/')'),*.H)+*1-+'0*8%),8%0'.%'6')$')*&')+% 3'//'3,//2,%/5''.5'0*' ('10%''5,7%$),(1/18' *$'0'((1/10' +%0%'1.,&*$8'.5'(2/,.5$,('/' 5,/')'),*.0'8'2'*((1$',.''//')+%')14%0'*&')+% 4*52' +%2''$%'8%)'3,)+',.')+%'*0*6+'-10' '.5''//'6')0'*&')+%'5,-%0),7%'('.'/',.')+%' +%')$')7%,.0'4/'55%$'1$%)%$0'4,/%51()0')^(' +,0'&*$8'*&'5,/')'),*.'8'2'4%'))%.5%5' %,)+%$'3,)+')+,(9%.,.-''.5'+26%$)$*6+2'*$' 3,)+')+,...-''.5'$*6+2'*&')+%'3'//0' 01'//2'3+%.')+%')14%0''$%',.')+%'8',. 810(1/'$'+26%$)$*6+2'*((1$0'&$*8',.($%'0%5' %B%$(,0%'*&')+%'810(1/'$'&,4$%0',..')+%,$'%&&*$)0')*'*7%$(*8%')+%'*40)$1(),*.H41)'3+%.')+% 3'//0''$%'8',./2'&,4$*10'*$'%/'0),(')+%2' -%.%$'//2'4%(*8%')$*6+,%5''.5')+,..%5 "'' ' " ' ' ' "' .')+%$'&*$8'*&'5,/')'),*.'&$*8',.($%'0%5' ,.)%$.'/'6$%001$%'8'2'4%')%$8%5' "7 '*$' '5,/')',*.H,)',0'6$*51(%5' 42')+%')14%0'+'7,.-')*')$'.08,)''.5',.($%'0%5' E1'.),)2'*&'&/1,5',.'(*.0%E1%.(%'*&')+%'*4; 0)$1(),*.'*&'*)+%$'(+'..%/0'%0,5%0')+% 4/**5 7%00%/0'3%'8'2'8%%)'3,)+'%B'86/%0' *&'(*86%.0')*$2'5,/')',*.''.%'1$%)%$ 3+%.')+%')+%$'(,0'*&'5,/')',*.'(+,'/')14%0''.5')+%$'6')$0' %0%84,.-')+,0'&*$8',.',)0'8*5%'*&'*$,-,.',0')+%'5,/')';),*.'('10%5'42')14%0'+'7,.-')*').08,) 0140)'.(%0'*&')*'/'$-%''('/,4$%''0'&*$ %B'86/%',.')+%'6'00'-%'*&'('/(1/,'5*3.')+% -'// 51()'.5'1$%)%$0

'C "' '#"0 '"' #'2 +%'/'0)'(/'00'*&'5,/')',*.0'(*.0,0)0'*&')+*0% 51%')*'5,8,.,0+%5'6*3%$'*&'$%0,0)'.(%',.')+% 3'//0'*&')+%')14%0'*$'(7,),%0' +%'8*0)' ,86*$)'.)'%B'86/%0'*&')+,0'(/'00'*((1$',.')+%'(,$(1/')*$2''.5'$%06,$')*$2'020)%80',.)+%'+%'$)'&$*8'&')2'5%-%.%$')',.H,.'')+% '$)%$,%0'&$*8')+%$*8')*10'(+'.-%0'.')+% $%06,$')*$2'*$-'.0',)'*((1$0'4*)+',.')+% 4$*.(+,'/')14%0''.5',.')+%''$(%//0' %$%' +*3%7%$')+%'/*00'*&'$%0,0),.-'6*3%$',0',)0%/& 101''//2'('10%5'42'6$*/*.-%5',.($%'0%5'6$%0' 08%'&$*8'3,)+,.H3+,(+',.')+%''$(%//0W0')+%,$'3''//0''$%'%/'0),(''.5'.*)'810(1/'$' $'6,5/2'('10%0')$*6+2''.5'0140%E1%.)'5,/';)'),*.'3

'3'0+'*$'5,1)%R

F H& $&) *7 '5!#!' #) '!' /);$) $ '$-'-47' '!'+$$7

%! G' ')%$',0')+%'*./2'$%'/ 5,1%.)')',0'-,7%.'&$)+,0'61$6*0%',.'7'$,*10

&* . . 0 G ‘ P ’4 ‘ $/%2‘ 3 ‘)%$‘) * ‘ 0) ‘ . 5‘ 3 ‘)%$‘ 8 ,/9 ‘ /% 8 * . ‘ 5% ‘ ‘ %$ ‘) %5‘ 3 ‘) %$0 ‘ ^ (G ‘) *‘ E1% . (+‘)+,$0) ‘ . 5‘ , . ($% ‘ 0%‘ 0% ($%), * .

6 G ,/1% .)0‘ ‘ $%‘ % 8 6/*2%5‘) *‘ /%00% . ‘)+, $0) ‘ ‘ 0‘ , . ‘ &%7%$‘ ‘ . 5‘ 5 , ‘ 4%) %0 ‘ ‘ . 5‘) *‘ $% 8 *7%) +%‘ 6$*51() 0‘ *&‘) ,001% 3 ‘ 0) % ‘ 0‘) +%‘) +, $0) ‘ 8 ‘ 2‘ 5%6% . 5‘ 16*. ‘ -% . %$ ‘ /‘ 3 ‘ .) ‘ *&‘ &/1,5‘ , . ‘) +%‘ 020) % 8 ‘) +%‘ 6*3%$* *&‘ 3 ‘) %$‘) *‘ E1% . (+‘) +, $0) ‘ 8 ‘ 2‘ 4%‘ -$% ‘) /2‘ , . ($% ‘ 0%5‘ 42‘ ‘ 55, . -‘) *‘ ,) ‘ ‘ /,))/% 7%-%) ‘ 4/%‘ *$‘ 8 , . %$ ‘ /‘ ‘ (, 5‘ *$‘ 0* 8 %‘ ‘ $*; 8 ‘), (‘ 01 (+‘ ‘ 0‘ /% 8 *. ‘ *$‘ *$‘ . -%‘ 6%%/‘ 3 +, (+‘ 3 , /‘ 0), 8 1/ ‘) %‘) +%‘ &/* 3‘ *&‘ 0 ‘ /, 7‘ ‘ ‘ . 5‘) +10‘)%. 5‘) *‘ 9%%6‘) +%‘ 8 *1) +‘ 8 *, 0) ‘ ‘ &) %$‘) +%‘ /, E1, 5‘ ,) 0%/&‘ +‘ 0‘ 4%%. ‘ 03 ‘ //*3%5‘ +%‘) +, $0) E1% . (+, . -‘ 6*3%$* *&‘ 3 ‘) %$‘ , 0‘ ‘ /0*‘ ‘ , 5%5‘ 42‘) +%‘ ‘ 55,) , *. ‘ *&‘ 8 1 (, /‘ -, . *10‘ 0140) ‘ . (%0‘ 01 (+‘ ‘ 0‘ *‘) 8 %‘ / ‘ *$‘ /, . 0%%5‘) %‘ ‘ 3 +, (+‘ /%‘ 7, . -‘ ‘ ‘ 8 1 (, /‘ -, . *10‘ (*‘) *. ‘) +%‘ , . 0, 5%*&‘) +%‘ 8 *1) +‘ ‘ . 5‘ 6+‘ $2 . B ‘ $%) ‘ $5‘ %7‘ 6*$‘) , *. ‘ ‘ . 5‘) +10‘ /%00% . ‘) +%‘ 5$2; . %0‘ *&‘) +%‘ 8 1 (*10‘ 8 %8 4$‘ . %‘ +%‘ &$%%‘ 10%‘ *&‘ 3 ‘) %$‘ ‘ . 5‘ %06%(, ‘ //2‘ 5$, . 9, . -‘ +*‘) ‘ 3 ‘) %$* *. ‘ $, 0, . -‘ , . ‘) +%‘ 8 *$. , . -‘ *$* *. ‘ -*, . -‘) 6‘ 4%5‘) ‘ . , -+) ‘ ‘ . 5‘ 4%) 3 %% . ‘ 8 %‘ /0‘ , 0‘ 10%&1/ , . ‘ -*1) ‘ (+$* . , (‘ $+%1 8 ‘), 0 8 ‘ ‘ . 5‘ 4, /, ‘ $2‘ /,) +, ‘ 0, 0 ‘ /%00% . , . -‘ *$‘ 6$%7% .) , . -‘) +%‘ *((1$$%. (%‘ *&‘ ‘ %, /) %‘ ‘)) ‘ (90‘ ‘ % ‘) *) $&

U ‘ , <:E ‘ ‘* 09, . R G ‘ 7 Ĥ $ ‘ C # # ‘ C # - Ĥ %$‘ C # # ‘ C # #

& # G . ‘ ‘ (1) %‘ 06% (, &, (‘ (*.) ‘ -, *10‘ ‘ . 5‘ , . &%() , *10‘ ‘ . 5‘ *&) %. ‘ %6, 5% 8 , (‘ -%. %$‘ / 5, 0% ‘ 0%Ĥ ‘ ((* 8 6‘ . , %5‘ 42‘ 62$%B, ‘* ‘ . 5‘ -$% ‘) ‘ 3% ‘ 9 . %00Ĥ + ‘ 7, . -‘ ‘ 0‘ ,) 0‘ /* (‘ / ‘ 8 ‘ . , &%0) ‘), *. ‘ ‘ , . &/‘ 8 8 ‘), *. ‘ *&‘ 7‘ $, *10‘ 8 1 (*10‘ 8 %8 4$‘ . %0‘ 6‘ $), (1/‘ $/2‘) +0%* *&‘) +%‘) +$* ‘) ‘ . 5‘ /‘ $2 . B ‘ . 5‘) +%‘ &*$8 ‘), *. ‘ 16*. ‘) +%8 ‘ *$‘ 16*. ‘ %B;) %$. ‘ /‘ 3 *1 . 50‘ *&‘ 1/ (%$0‘ (*7%$%5‘ 42‘ ‘ &, 4$, . ; *10‘ &‘ /0%‘ 8 %8 4$‘ . Ĥ ‘ . 5‘ *&) %. ‘ &*// *3%5‘ 42‘ 6‘ $‘ /20, 0‘ *&‘ 7‘ $, %5‘ 5, 0) $, 41), *.

G $* 8‘) +%‘ 3$), . -0‘ *&‘) +%‘ 8 *0) ‘ . (, %.) ‘ 6+20, (, ‘ . 0‘ ,) ‘ , 0‘ %7, 5%.) ‘) +‘) ‘) +% 5, 0% ‘ 0%‘ 3%‘ 9 . *3‘ ‘ 0‘ 5, 6+) +%$, ‘ ‘ %B, 0) %5‘ , . ‘) +%‘ % ‘ $/, %0) ‘ ‘ -%0‘ ‘ . 5‘) +%. ‘ +‘ 5‘ 8 ‘ , . ‘ &%‘) 1$%0‘ 5, &&%$, . -‘))/%‘ , &‘ ‘)‘ ‘ //‘ &$* 8‘) +0%‘ 3 .) +‘ 3+, (+‘ ,) ‘ 6$%0%.) 0‘ ,) 0%/&‘) *‘ 10‘ . *3 ‘ ,66* ($‘) %0‘ $%) 0%10‘ ‘ /%. ‘ %/010 ‘ ‘ . 5‘ %), 10‘ +‘ 7%‘ ‘ //‘ /%&) ‘ &$‘ -8%.) ‘ $2‘ ‘ ((*1.) 0‘ *&‘ ‘ ‘ 5, 0% ‘ 0%‘ 6$%; 7‘ /%.) ‘ , . ‘) +%, $‘) , 8 %‘ 3+, (+‘ 0%$7%‘ &*$‘ ,) 0‘ , 5%. ;) , &, (‘) , *. ‘ 3,) +‘ 5, 6+) +%$, ‘ ‘ $* 8‘) +%‘ 0, B;) %%.) +‘ (%.) 1$2‘ *. 3‘ $50‘ 0, . (%‘ 3+, (+‘) , 8 %‘ 8 %5, (‘ /‘ *40%$7‘) , *. ‘ +‘ 0‘ 4%%. ‘ 8 *$%‘ &1//2‘ $%; (*$5%5‘ 3%‘ +‘ 7%‘ $%/, ‘ 4/%‘ 5%0($, 6), *. 0‘ *&‘ %6, ; 5%8, (‘ 5, 6+) +%$, ‘ ‘ *((1$$, . -‘ ‘) ‘), 8 %0‘ , . ‘ 7‘ $, *10‘ 6‘ $) 0‘ *&‘ 1$*6%‘ 3+, (+‘ /%‘ 7%‘ . *‘ 5*14) ‘ 0‘) *‘) +%‘ . ‘) 1$%‘ *&‘) +%‘ 5, 0% ‘ 0%‘ ‘ . 5‘ 0+*3‘) +‘) ‘ %00% .) , ‘ //2‘ ,) ‘ +‘ 5‘ . *) ‘ (+‘ . -%5‘ &*$‘ (%.) 1$, %0‘ $%) *. . %‘ 1 , . ‘ ‘ ‘ 3*$9‘ 614/, 0+%5‘ , . ‘ ?@0‘ -‘ 7%‘ ‘ . ‘ ‘ ((*1.) ‘ *&‘ +, 0‘ %B6%$, %. (%‘ *&‘) +%‘ 5, 0% ‘ 0%‘ 4%-, . , . -‘ 3,) +‘ ‘ . %6, 5% 8 , (‘ , . ‘ ‘ 1$0‘ , . ‘ ? ?Ĥ ‘ . 5‘ &$* 8‘) +, 0‘ 5%0($, 6), *. ‘ 5‘) %0‘) +%‘ (*6, *10‘ 8 *5%$. ‘ /,) %$‘) 1$%‘ 16*. ‘) +%‘ 014>%() ‘ $%‘) *. . %‘ 1‘) ** ‘ - ‘ 7%‘) +%‘ 8 *5%$. ‘ . ‘ 8 %‘) *‘) +%‘ 5, 0% ‘ 0%‘ 42‘ (‘ //, . -‘ ,) ‘ ‘ ‘ . 5‘ / ‘) %$‘ # ‘ , . ‘ ‘ //10, *. ‘) *‘) +%‘ 6$*51() , *. ‘ *& 8 %8 4$‘ . %0‘ *$‘ 09, . 0G ‘ 06%(, ‘ /‘ (+‘ $‘ ()%$‘ *&‘) +%‘ 8 ‘ /‘ 52‘ +%‘ 8 *0) ‘ 0%7%$%‘ *1) 4$%‘ 9‘ *&‘ 5, 6+) +%$, ‘ ‘ 3+, (+‘ +‘ 0‘ *((1$$%5‘ , . ‘ -/‘ . 5‘ 3 ‘ 0‘) +‘) ‘ , +, (+‘)) ‘ , . %5‘ ,) 0‘ +%, -+) ‘ ‘ 4*1) ‘) +% 2%‘ $‘ ?F?‘ 1) ‘ 3+, /%‘ /‘) %$‘ %6, 5% 8 , (0‘ 8 ‘ 2‘ . *) ‘ +‘ 7%‘ 4%%. ‘ 0*‘ 0%7%$%‘ ‘ 0‘) +, 0‘) +%, $‘ *((1$; $%. (%‘ +‘ 0‘ 4%(*8%‘ 8 *$%‘ &$%E1% .) ‘ ‘ . 5‘ ‘ 0‘ 3, //‘ 4%‘ 5, 0 (100%5‘ , . ‘) +%‘ 0%() , *. ‘ *. ‘ ‘) +*/*-2‘) +% 5, 0% ‘ 0%‘ , 0‘ . *3‘ %. 5%8 , (‘ , . ‘ *1$‘ /‘ $-%‘) *3 . 0‘ . ‘) +%‘ ‘ $), (/%‘ 6*. ‘ %() ‘) +%‘ 3$,) %$‘ +‘ 0‘ -, 7%. ‘ +, 0‘ $%‘ 0*. 0‘ &*$‘ 4%/, %7, . -‘) +‘) ‘) ‘ /%‘ 0) ‘ ‘ /‘ $-%‘ 8 ‘ >*&,) 2‘ *&‘ (‘ 0%0‘ (/‘ 00%5‘ 1. 5%$‘) +, 0‘ +%‘ 5‘ ‘ $%‘ $%‘ //2‘) $1%‘ 5, 6+) +%$, ‘ ‘ 7‘ , . -‘ ,) 0‘ 6$, 8 ‘ $2‘ 0%‘) ‘ , . ‘) +%‘ / ‘ $2 . B ‘ 1) ‘ 8 %8 4$‘ . *10‘ ($*16‘ . 5‘ 5, 6+) +%$, ‘ ‘ $%‘ %7%. ‘ 2%) ‘ (* . 0, 5%$%5‘ 42‘ 0* 8 %‘ 6+20, (, ‘ . 0‘ ‘ 0‘ 5, 0) , . ()‘ 5, 0% ‘ 0%0‘ ‘ . 5‘ , . ‘ &* $ 8 %$‘) , 8 %0‘) +, 0‘ 7, %3‘ 3 ‘ 0‘ 8 1 (+‘ 8 *$%‘ 6$%7‘ /%.) ‘ *. 0%E1% .) /2‘ 8 . 2‘ *&‘) +%‘ *1) ; 4$%‘ 90‘ *&‘ 0 ($*16‘ ‘ , . ‘ (*)/‘ . 5‘ ‘ . 5‘ -/‘ . 5‘ 8 10) ‘ 4%‘ (*. 0, 5%$%5‘ ‘ 0‘ %6, 5% 8 , (0‘ *&‘ 5, 6+;) +%$, ‘ ‘) ‘ , 0‘ . *) %3*$) +2‘) ** ‘) +‘) ‘) +% $%(%.) ‘ $%) 1$. 0‘ *&‘) +%‘ U%-, 0) $‘ %. %$‘ / 0+*3‘ ‘ . , . ($%‘ 0%‘ , . ‘) +%‘ . 1$. 4%$* *&‘ (‘ 0%0‘ *&‘ 5, 6+) +%$, ‘ ‘ . 5‘ ‘ 5%($%‘ 0%‘ , . ‘) +*0%‘ *&‘ ($*16‘ 5*14) /%00‘ &$* 8‘) +%‘ $%(*-. ,) , *. ‘ *&‘ 8 *0) ‘ (‘ 0%0‘ *&‘) +%‘ / ‘)) %$‘ 5, 0% ‘ 0%‘ 0‘ %B‘ 8 6/%0‘ *&‘ / ‘ $2 . -%‘ / 5, 6+) +%$, ‘

‘ % G &) %$‘ %B6*01$%) *‘) +%‘ 6*, 0*. ‘ *&‘ 5, 6+) +%$, ‘ ‘ ‘ (%$) ‘ , . ‘ , .) %$7‘ / %/‘ 60%0‘ 4%&*$%‘ 5%&, . ,) %‘ 6+%. * 8 %. ‘ ‘ *&‘) +%‘ 5, 0% ‘ 0%‘ ‘ 66%‘ $‘ 3+%) +%$‘) +%0%‘ 4%‘ *&‘) +%‘ . ‘) 1$%‘ *&‘ -%. %$‘ / 02 8 6) *8 0‘ *$‘) +%‘ 4%-, . , . -0‘ *&‘) +%‘ /*(‘ / /%0, *. ‘ +, 0‘ 6%$, *5‘ *&‘ , . (14‘) , *. ‘ 7‘ $, %0‘ -$%‘) /2‘) ‘ , 0‘ 8 1 (+‘ 0+*$) %$‘ &) %$‘ 5, $%() ‘ , . ; *(1/‘) , *. ‘) +‘ . ‘ 3+%. ‘) +%‘ 6*, 0*. ‘ . 0‘) ‘ 9%. ‘ .) *‘) +%‘ 020) %8‘ 42‘ *) +%$‘ (+‘ . . %/0‘ +%. ‘ . , 8 ‘ /0‘ ‘ $%‘ , . *(1/‘) %5‘ ,) +‘ 5, 6+) +%$,) , (‘ 6*, 0*. ‘ 0, - . 0‘ *&‘) +%‘ 5, 0% ‘ 0%‘ 8 ‘ 2‘ ‘ 66%‘ $‘ , . ‘ ‘ 4*1) ‘) 3%/7%‘ +*1$0‘ *$‘ 8 ‘ 2‘ 4%‘ 5%/‘ 2%5‘ ‘ 0‘ /* . -‘ ‘ 0‘) +$%%‘ 5‘ 20‘ . ‘) +%‘ +1 8 ‘ . ‘ 014>%() ‘ 01 (+‘ , . *(1/‘ ;) , *. ‘ ‘ ((‘ 0, *. ‘ //2‘) ‘ 9%0‘ 6/‘ (%‘ ‘ 0‘ 3+,) +‘ ‘ . ‘ 5, 6+;) +%$,) , (‘ 8 %8 4$‘ . %‘ (*8%0‘ , . ‘ (*.) ‘ ( ) ‘ 3,) +‘ ‘ . ‘ *6%. ‘ 3*1. 5‘ , . ‘ ‘ . *) +%$‘ 6‘), %.) ‘ *$‘ 3+%. ‘ , . 0) $1 8 %.) 0‘ 3+, (+‘ +‘ 7%‘ 4%%. ‘ 10%5‘ &*$‘ ‘ . ‘ *6%$‘) , *. ‘ 16*. ‘ ‘ ‘ 5, 6+) +%$,) , (‘ 014>%() ‘ +‘ 7%‘ . *) ‘ 4%%. ‘) +*$*1-+/2‘ (/%‘ . 0%5‘ ‘ . 5‘ 8 0, . &%() 0%5‘ 4%&*$%‘ 4%, . -‘ 10%5‘ &*$‘ *) +%$‘ 61$6*0%0‘ . ‘ 01 (+‘ *‘ 0%0‘) +%‘ 6%$, *5‘ *&‘ , . (14‘) , *. ‘ $%0%8 4/%0‘) +‘) ‘ 0%%. ‘ , . ‘) +%‘ %B6%$, 8 %.) 0‘ 16*. ‘ ‘ . , 8 ‘ /0‘ 41) ‘ 8 ‘ 2‘ 4%‘ 6$*/*. -%5‘) *‘ &*1$‘ 5‘ 20‘ +%. ‘ +*3%7%$*) +%‘ 6*, 0*. ‘ . ‘ , 0‘ $%(%, 7%5‘ , . ‘ *) +%$‘ . 5‘ 8 *$%‘ , . 5, $%() ‘ 3‘ 20‘) +%‘ , . (14‘) , *. ‘) , 8 %‘ , 0‘ 8 1 (+‘ 8 *$%‘ 7‘ $, ‘ 4/%‘ . ‘ . 5‘ 6$*4‘ 4/2‘ ,) 0‘ *$; 5, . ‘ $2‘ /, 8 ,) 0‘ ‘ $%‘ &$* 8‘) 3*‘) *‘ %, -+) ‘ 5‘ 20‘ %) (%$) ‘ 8 /2‘) +%‘ /*3%$‘ /, 8 ,) ‘ , 0‘ &$%E1% .) /2‘ ‘ .) , ; (, 6‘) %5‘ &*$‘) +%$%‘ , 0‘ . *‘ $%‘ 0*. ‘) *‘ 5*14) ‘) +%‘ ‘ ((1$‘ (2‘ *&‘ 8 ‘ . 2‘ 614/, 0+%5‘ (‘ 0%0‘ , . ‘ 3+, (+‘) +%‘ 5, 0% ‘ 0%‘ 4%-‘ . ‘ ‘ ‘ &%3‘ +*1$0‘ *. /2‘ ‘ &) %$‘ %B; 6*01$%) *‘ , . &%() , *. ‘ ‘ 0%0‘ ‘ $%‘ *. ‘ $%(*$5‘) ** ‘ 3+%$%‘) +%‘ , . (14‘) , *. ‘ 0%% 8 %5‘) *‘ +‘ 7%‘ 4%%. ‘ 8 1 (+‘ / *. -%$‘ 41) ‘) +%0%‘ ‘ $%‘ 8 *$%‘ 5*14) ; &1/‘ *) ‘ *. /2‘ 8 ‘ 2‘ ,) ‘ 4%‘ 01 - -%0) %5‘) +‘) ‘ ‘ 0%(*. 5‘ %B6*01$%‘ +‘ 5‘ *((1$$%5‘ 41) ‘ ,) ‘ , 0‘ /, 9%/2‘) +‘) ‘ 3+%$%‘) +, 0‘ (‘ . ‘ 4%‘ 5, 06$*7%5‘) +1‘ 6*, 0*. ‘ 3‘ 0‘ . *) ‘ $%(%, 7%5‘ , .) *‘) +%‘ 4*52‘ ‘) +%‘) , 8 %‘ *&%B6*01$%‘ 41) ‘ 3‘ 0‘ +%/5‘ 42‘ &* 8 ,) %0

P@

1.),/ ''6%$,*5 81(+ .%'$%$)*')+%' *1)4$%'9 3+%.')+%' 6'),%.) 3 0 ,. '' 8*$% &'7*1$'4/%(0)')%) *' $%(%,7%) +%' 5,0%'0%

 5,&&,(1/)2 ,. 5%)%$8,.,. -)+%' 6%$,*5 *&,.(14'),*. ,0,*5,*10 1$,. -)+%' ,.(14'),*. 3+,/%')+%$%' 8 2 4%* 02 8 6)*8 0 ') //')+%$%' 8 2 4% 8 %$%(. 5%&,.,)%' &%%/,.-0 *& 8 '/',0% .*) *' 4% 5,0),.-8 0+%5 &$*8')+%'%'$/2 02 8 6)*8 0 *&,.7';0,*.',. '' 8 ,/5 '))'(9

 +%$%' ,0 $%'0*.)*' 4%/,%7%')+')')+%' 8 *$%(%.)%.0%')+%' 6*,0%'0*.)*' 8*$%'/,'4/%')+%'6'),%.)')+%' 0+*$)%$,0)+%' 6%$,*5 *&,.(14';),*.

 !(! G5") " G ((*$5,.-)*')+%'0%7%$,)2 *&)+%'5,0%'0%',. ,)0 (/,.,('/ '06%()0)+$%%' 0%6$')%')26%0 *& 5,6+)+%$,'' 8 2 4%*5,0),.-1,0+%5G)+%' 4%.,-.)+%' *$5,.'$2 .5)+%' 8 '/,-.'.) +%0%' $%.*)'.')1$'/*$5%$0 41)' $%/'),7%')%$80 18%$*10 ('0%0 *((1$ 3+,(+')+$*1-+*1)')+%,$' (*1$0%' 8 2 4%' (/'0;0,&,%5' 0 4%/*.-,.-)*' *.%' *$ *)+%$ *&)+%0%' -$*160 %)' *.)+%' *)+%$ +'.5 ,.0)' .(%0 '$%' /0* .18%$*10 3+,(+' 0+*3' '')$' .0,),*.' &$*8'*.%')*')+%*)+%$-$*16 3+,(+'4%-,.,.-' &*$ %B'86/%' &)%$')+%'4%.,.-)26%' &)%$3'$50 0+*3')+%' 8 *0)'0%$,*10 02 8 6)*8 0 *$ 0%E1%/' *&)+%' 5,0%'0%H *$ 3+,(+' 6$%0%.),.-*./2 *$5,.'$2 02 8 6)*8 0 '))+%' *.0%)' $'6,5/2 '001 8%')+%' &%')1$%0 *& 8 /,-.'.)26%

)' 3,// 4% (*.7%.,%.)')*' 5%0($,4% ,.')+%' &,$0)' 6/'(%')+%' 02 8 6)*8 0 *&)+%' 5,0%'0%' 0 ,)' ,0 &") / '8%)' 3,)+

.' 01(+' ('0%0' '&)%$' '' 6%$,*5 *&,.(14'),*. '(+%)+%' 6'),%.)' 0 '' $1/%' -$'51'//2' 41)' *&)%.' /8*0)'0155%./2'&%%/0 ,//' %' +'0'3' .5%$,.-'(+%0 '.5'6',.0'5,0,.(/,.'),*.' &*$ %B%$),*.' 0/,-+)' +%'5'(+%' (+,//,.%00'/*00 *& '66%),)%'.'10%'G'.5 $'$%/2 %7%.' 7*8,),.-')+,$0)' .5')+%'-%.%$'/5,0(*8&*$)' *& ''&%4$,/%(*.5,;),*. +%')%86%$')1$%' *&)+%'4*52 ,0$',0%5 41)' .*)')*' '' -$%')' 5%-$%%G,.' 8*0)' ('0%0' '))+%' *.0%)')*' .*)' 8*$%')+'.' 8HHg *$! g ')')+,0),8%'+*3%7%$')+%' /*(/'02 8 6)*8 0 *&)+%' 5,0%'0%' 66%'$',.')+%' &*$8' *&0*$%.%00' .5')%.5%$.%00 *&)+%')+$*')' .5 0/,-+)' %./'$-%8%.)' *&)+%' -/'.50')')+%' .-/%0 *&)+%'>'30' +%'&'1(%0')*.0,/0'0*&)'6'/')%' .5'6+'$2.B' $%'03*//%.'.5'0+*3' '5,&&10%' 51092'$%5.%00' +%'61/0%' .5')+%'$%06,$'),'.' '$%' +1$$,%5',.' ((*$5'.(%3,)+')+%' -%.%$'/ &%4$,/%' 0)')%' +%' 1$,.%' 6$%0%.)0')+%' 101'/ &%4$,/%' (*.5,),*.

 +%'02 8 6)*8 0 *$'6,5/2',.($%'0%',.'0%7%$,)2 +%' 4*5,/2'3%'9.%00' 4%(*8%0' %B)$%8%' .5' .'%8,'' 0**.'6$%0%.)0',)0%/& +%' -/'.50'.*)' *./2')+*0%' ')+%' .-/%0' *&)+%>'30'41)')+%,$' /2 8 6+'),(' (*..%B,*.0' '/0*' 4%(*8%' -$%')/2 03*//%.'6',.&1/''.5')%.5%$H '.5')+%,$'(*7%$;,.-'*&'09,.' 8 '2'4%' $%55%.%5' +%' 61/0%',.0 &$%E1%.)'&%%4/%''.5'*&/*3' '$)%$,'/')%.0,*.H)+%' $%06,$'),*.0' '$%' 8*$%'+1$$,%5' +%'/*(/'/ 5,0*$5%$' .*3' 4%(*8%0' (+'$')()%$,0),(' +%')*.0,/0')+%80%/7%0' '001 8%' ''6'/%$' '06%()'41)' '$%' 01$$*1.5%5' 42')+%' $%55%.%5' 81(*10 8%84$'.%' **.' '' 3+,)%' +'C,.%00' '66%'$0',.'6')(+%0' *.')+%')*.0,/0')+%' 0*&)' 6'/')%'*$)+%' 6+'$2.B' +,/%')*.0,/0')+%' 03%//,.-'*&')+%' 6')0' /$%'52' 8%.),*.%5' -$%')/2',.($%'0%0')+%'+'C,.%00' 4%(*8%0' 8*$%'6$*.*1.(%5'1.),/',.'5,00%8,.')%5'6')(+%0' ''5,0),.()'&'/0%' 8%8;4$'.%',0' 0%%.'0/,-+)/2'$',0%5' &$*8')+%' 01$'$*81>,.-' 6')0' 2% *3,0+ 3+,)%' ,.' (*/*1$'$'--%5',.'*1)/,.%' ' .5' 01$$*1.5%5'42' ''C*.%'*&(*.-%0),*.'5,=,.-1,0+'4/%' %2%.'&$*8')+%'-.%.%$'/ $%5.%00' *&)+%' .%,-+4*1$+**5')&,$0)')+%' 8%84$'.%'('.'4% 5%)'(+%5'&$*8')+%'1.5%$/2,.-'6'$)0H '.5'3+%+'$%8*7%5',)'/%'7%0' '.',.)%.0%/2'$%5' 01$&'(%'4%+,.5' 1)' 7%$2 0**.',)'4%(*8%0' 8*$%' '5+%$%.)'' .5',)0' $%;8*7'/',0' *./2')'),.%5'42' /'(%$'),*.'*&')+%' 81(*10' 8%84$'.%' '.5')+%' %B6*01$%' *&'' 4/%%5,.-'1/(%$')%5' 01$&'(%'*.'3+,(+' '' .%3'/'2%$' *&'&'/0%' 8%84$'.%',0&*$8%5',.'' 0+*$),8%' +%' 8%84$'.%' 06$%'50' '.5' 8'2'(*7%$')+%'3+*/%' *&')+%'&'1(%0' '.5'6+'$2.B' +%.')+,0' *((1$0')+%$%',0' 101'//2'0*' 81(+' 03%//,.-'*&')+%'6')0')+')'0('$(%/2' .2'*6%.;,.-'*&')+%'&'1(%0' ('.'4%'0%%.' 1$)+%$')+%' '06%()' *&')+%' 8%84$'+%' (+'.-%0' $*8'4%,.-'2%//*3,0+ 3+,)%')+,.' '.5'5%/,(')%',)'4%(*8%0')+,(9%$'*&''4$*3.,.-'*&')+%'&,$8'.5'/%')+%$2',.')%)B)8%' +%'5,&%%$%.(%',.'(*/*1$,0'51%')*''58,B)1$%' 3,)+'5%(*86*0%5'4/**5'6,-8%.)')+%' %.)'.-/%8%.)'*&')8*06+%$,(6'$),(/%0''.5'5$2,.-'*&')+%'8'/,-.'.)'26%(*$2C''$%'6$%0%.)'' .5'&$*8')+%'.*0)$,/0''')+,.''($,5'5,0(+'$-%',001%0

 +%')*.-1%',0'5$2'(*')%5'3,)+'' 3+,)%'*$4$*3.,0+'&*$'.5'$%5''),)+%',6 66%),)%',0'%.),$%/2'/*0)'.5'0''$'%$%02 8 6)*8')+%$%'8'2'4%'7*8,),.-' 3'//*3,.-',0'5,&&,(1/)'.5'6',.&1/' +%'4*3%/0'$%''0''$1/%'(*.;0),6')%5 +%')%86%$')1$%'4%(*8%0'+,-+%$'41)'5*%0'.*)'))',.')+%' %B)$%8%'5%-$%%'0%%.',.'8'.2'*)+%$'&%7%$0')0'*$5,.'$2'+%,-+)',0'4%)3%%.' !@g''.5' !"g' +%'%B'8,;.'),*.'*&)+%' (+%0)')+,0),8%'6$*7,5%5')+%' ('0%',0'1.(*86/,(')%5'$%7%'/0' %,)+%$'.*)+,.-')'//'*$'*./2')+%'$+*.(+,''.5'$'/%0'*&'4$*.(+,'/(*.-%0),*.' +%'1$,.'0),//&%4$,/%''.5',.''/'$-%'.184$'*&('0%0(*.;)',.0'/418%.' /,-+)'5%/,$,18'8'2'*((1$'41)',0'.*)''&$%E1%.)'02 8 6)*8',.')+%' *$;5,.'$2')26%

 +%.'01(+'('0%0')%.5')*' ''&'7*1$'4/%',001%')+%'51$'),*.'*&)+%'5,0%'0%',0'7'$,'4/%K 7%.'&)%$'01(+'' 8*5%$')%/2'0%7%$%' &*$8'0')+')>10)'5%0($,4%5')+%'02 8 6)*8 8'2'4%-,.')*'5%(/,.%')'4*1')+%'&*1$)+'5'2H)+%'6')(+%0'*&'&'/0%' 8%84$'.%'&)%$'0%6'$),.-'(%0%)*' $% &*$8H '.5')+%'6'),%.)'$'6,5/2'$%018%0'+,0'*$5,.'$2'+%'/)+' 01'//2'+*3%7%$'4*)+%'-%.%$'/ '.5')+%/*(/'02 8 6)*8 0 '$%'6$*;/*.-%5'&*$' 81(+'/*.-%$'6$%,*5'0'2'16')*)+%)3%/&)+'*$&*1$)%%.)+'5'2'3+%.'0/*3'(*.;7'/%0(%.(%'4%-,.0

 1(+',0' '5%0($,6),*.'*&')+%'&*$8',.'3+,(+'5,6+)+%$,'' *$5,.'$,/2'6$%0%.)0',)0%/&'3,)+*1)'.2'*&)+%' .18%$*10 (*86/,(',*.0'3+,(+'8'2'*((1$' .2'*&)+%'02 8 6)*8 0'+*3

%7%$'$%E1,$% ' 8 *$% 5%)' ,/%5'5%0($,6),* . ' ' . 5'
)+,0 3 ,/ 4% -,7%>,' 4%/*3
@' +% " 0"' &*$8' ,0 0*' 8 ,/5')+') '' (* . ;
0,5%$'4/% . 1 8 4%$' *&' 6 '),% .)0 6 '00')+$*1-+',')
3,)+0*'/,))/% &%%/,. -'*&' ,// . %00')+')+%2' (* . ;
0,5%$,) 1 . .%(%00'$2')*' (* . 01/) '' 8 %5,(''/
8 '. ')' '//' +%$% (. '4% . *' 5*14)')+')0,H(+'
' 841/' .) ('0%0 '$%' ,8 6*$)' .) &' ()*$0 ,. '
06$%'5,. -')+% 5,0%'0%' +% 6'),%.)' 01&&%$0
+*$.' 41)0/,-+) 8 '/',0%' . 5 3%'9 . %00' 3,)+'
/*00 *&' '66%),)% ' . 5 0/,-+) &%7%$' +% 1$,. %
,0 101''//2 6,*) '/418,. *10' *' (*86/',.)
3+')%7%$ 8 '2'4% 8 '5%*&'0*$%. %00*&')+$*')H
' . 5'&*$)+,0 $%'0*. ')+% . ')1$% *&')+% (*8 ;
6/',.)',0&$%E1%.)/2'*7%$/**9%5'%7%. '42'8 %5,;
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8 %.)*&')+% -/' . 50')')+% ' . -/%0*&'>'30'
. '%B' 8 ,. '),*. ' ''&%3'3+,)%' 6')(+%0*&'&'/0%'
8 %8 4$' . %' %'0,/2'5%)'(+%5'3 ,/ 4%'0%%. ' *. '
)+%)*. 0,/0'$'$%/2'*. ')+%'0*&)'6'/')%*$6+'$2. B'
U'$%/2' 3,)+' *. /2'8 ,/5' -%. %$'/ 0286)*80'
7%$2' %B)%. 0,7%' 5%6*0,)' 8 '2' 4%' 0%%. ' 8 ')+%'
)+$*')' . '' &%3'5'20')+%' 6')(+%0'5,0'66%'$'
%,)+%$' 42' 4%,. -' (*1-+%5' *1)' *$' 42' -$*51'/
5,00*/1),*. H' . *' 8 *$% &*$8 H')+%' 0286)*80'
0/,-+)' '0')+%2'3%$%'5%(/,. %H' . 5')+%'6'),%.)'
$'6,5/2' $%018 %0' +,0' 101'/ +%'/)+' 1$,. -'
)+%'3+*/%'6%$,*5' *&')+%'5,0%'0%',)' 06*00,4/%
&*$')+%' 6'),%.)')*' 3'/9' '4*1)' . '. 5' %7%. '
'))%. 5')*'+,0'1 1'/ 51),%0' 1)')+,0',0'7%$2'
1. 5%0,$'4/%' . *'. /2' 4%('10%' 01(+' ('0%0'
'$%' '0'('6'4/%*&06$%'5,. -',. &%(),*. ' '0'8 *$%
0%7%$%' * . %0' 41)' 4%('10%' +*3%7%$' 0/,-+)'
8 '2'4%')+%'(*. 5,),*. ' ')' ^ %' *. 0%)' ')' . 2'
),8 %8 *$%0%$,*10'0286)*80'8 '2' '$,0%' . 5'
,. ')+,0')+%'4%. ,-. '&*$8')+%$%',0'. *'%B%86;
),*. '&$*8')+%'8 *0)'5'. -%$*10'(*86/,(',*. 0'
. 5'0%E1%/0%*&')+%'5,0%'0%'01(+' '0'06$%'5'
&')+%'8 %8 4$' . %')')+%'/'$2. B'('$5,'(&',/1$%'
. 5'6'$'/20,0
9' +% 30" '&*$8'*&'5,6+)+%$,'',0'(+'
$'()%$,0%5'42'0%7%$,)2'$')+%$'*&')+%'-%. %$'/
0286)*80')+'. '*&')+%'/*('/ %0,*. 0' *8 '
8 *,52' &$*8')+%'&,$0)')+%' 0286)*80' '$%
0%7%$%'+)+*1-+')+%'%'$/2'&%')1$%0'*&')+%'%'0%'
8 '2'4%')+*0%'*&')+%'*$5,. '$2'*$'%7%. '*&')+%'
4%. ,-. '&*$8' +%$%',0'%B)$%8 %6$*0)$'),*. H
)+%'61/0%',0'$'6,5'&%%4/%''. 5'*&'/*3')%. 0,*. '
' . 5')+%'$%06,$'),*. 0' '$%'+1$$,%5'. 5'0+'//*3'
+%'09,. ',0'5$2'61. -%.)')*')+%')*1(+''. 5'*&'
'' -%. %$'//2'51092'+1%' +%')*. -1%',0'5$2'
'. 5'4$*3. ' %$2'0**. ')+%'0)26+*,5$0)')%
5%7%/*60''. 5')+%$%'8 '2'4%0*8 %),8 %0''81);
)%$,. -' 5%/,$,8. ')+*1-+',. '8 *0)'('0%0')+,0'
,0''40%.)' '+0%8*$$+'-,(' 5,')+%0,0',0''' &$%;
E1%.)'6+%. *8 %. *. ',. ')+,0'(*. 5,),*. ' '. 5',0'
0+*3. '42')+%'*((1$$%. (%'*&'+0%8*$$+'-%0'
&$*8'7'$,*10'81(*10'8 %8 4$' . %0''*$4%. %')+'
)+%'**. >1. (),7''' . 5'42')+%''66%'$'. (%'*&''
61$61$,('$'0+'*. ')+%'09,. ' +%')%86%$')1$%
8 '2'4%'+,-+/2'&%4$,/%''*$. *)'1. 51/2'$',0%5'
+%'1$,. %',0''/418,. *10' +,/%')+%'0286;
)*80'*&')+%')+$*')/%0,*. ''$%'. *)'7%$2'%7,5%.)'
2%)',)0'0,-. 0' '$%'(+'$')(%$,0),(' +%'&'/0%'
8 %8 4$' . %',0'0*&)'61/)'(%*10''. 5'7%$2'5'$9G

0*8 %),8 %0'4/'(9',.' (*/*1$')',0'*&)%. '%B;
)%. 0,7%H ' . 5')+%'),001%0''$*1. 5''$%'0/*1-+,. -'
*$'-'. -$%. *10' '&*1/'0 8 %//' ',001%0'&$*8')+%'
61)$,&=-'8 '00'' ')')+%'4'(9'*&')+%')+$*')'
. '8 *0)'('0%0')**')+%'&'/0%' 8 %8 4$' . %'+'0'
06$%'5')*')+%'. *0%H ' . 5''' 0' . ,*10'5,0(+'$-%'
'/0*'*&'&*1/'0 8 %//',001%0'&$*8')+%'. *0)$,/0'
'. 5'42',)0',$$,)')',*. '%B(*$,')%0')+%'09,.'' 5'1. 5'
3,)+'3+,(+',)'(*8 %0',.)*'(*.)'()' +%'-/'. 50'
*&')+%'. %(9' '$%' '/3'20'81(+'%. /'$-%5''. 5'
,. &/'8 %5' 1(+'' (*. 5,),*. ',' 8 *0)'('0%0'
%. 50'&')' 2',.''0+*$)'),8 %
+,0'-%. %$'/ 5%0($,6),*. '*&')+%')+$%%')26%0'
&'5,6+)+%$,''$%E1,$%0')'4%'0166/8 %.)%5'42'
''5%)',/%5''((*,8)'*&'0*8 %'*&')+%'0286)*80
. "' ' ' #'. ' 7
" G +%'6$%0%. (%'*&')+%'/0%'8 %8 4$' . %'
,0')+%'(+'$'()%$,0),('&%')1$%'*&'5,6+)+%$,''' . 5'
)+')'&$*8' 3+,(+',)'5%$,7%0',)0' . '8 %')',0'
)+%'06%(,''/'/*('/ 8 ' . ,&%0)'),*. '*&')+%'5,0%'0%'
1)''0'3,/'4%(/%'$'&$*8')+%'5%0($,6),*. 0'
-,7%. ' . ' . 5,6+)+%$,'' 3%'+'7%')*'5%'/ 3,)+'
-%. %$'/0286)*80'3+,(+',. '6*,.)'*&0%7%$,)2'
8 '2'+'7%'. *' %%/'),*. ')*')+%'%B)%.)'*&')+%'
/*('/ /%0,*. ' . ')+%'4%. ,-. '&*$8'3%'8 '2'
0*8 %),8 %0'&,. 5')+%'-%. %$'/ 0286)*80'7%$2'
0/,-+)'*$'6$'(),('//2'40%.)'3+,/%''/'$-%'
E1'.),)2'*&'8 %8 4$' . %'8 '2'4%'0%%. ' ,. ')+%'
)+$*')' . ')+%'8 '/,-. '.)'&*$8'3%'8 '2'+'7%'
)+%'8 *0)'0%7%$%'-%. %$'/ 0286)*80'3+%. ')+%'
/*('/ 6+%. *8 % ' '0%7%$%',)'8 '2'4%' '$%'. *)'
0*'6$*8 ,. %.)'0')+%'0,-. 0'*&'-%. %$'/ 5,0%'0%'
+%'E1%0),*. ')+%. ''$,0%0'3+%)+%$'3%'8 '2'
((' 0,. ''//2'8 %%)'3,)+'-%. %$'/ 0286)*80'*&'
5,6+)+%$,),(' &%7%$'. *)'*. /2'3,)+*1)'0,-. 0'*&'
. 2'/*('/ /%0,*. '41)'3,)+*1)')+%'66%'$'. (%'
&'. 2'&'/0%'8 %844'. %''. 5'3,)+'8 %$%/2'(. ;
-%0),*. ''. 5'03% ,. -'*&')+%'&'1(%0'+'7,. -'. *'
06%(,'/,0%5'(+'$'()%$')',0',. ')+%'%B6%$,%. (%'
&(/,. ,(,'. 0')+')+,0'((1$0'41)'(%$)',./2'
7%$2'$'$%/2')',0'6*00,4/%')+')',. ')+%'(*1$0%
4%. ,-. '&*$8'8 '2'4%'8 %)'3,)+'3,)+*1)'8 *$%
/*('/ /%0,*. ')+'. ')+%'%'$/2'(*. -%0),*. ' 5%;
0($,4%5'H 2%)',. '01(+'('0%0''' 0/,-+)'&*$8')',*.'
*&'/0%'8 %8 4$' . %'8 '2'%'0,/2'4%'*7%$/**9%5'
%('10%'*&')+%'%B,0)%. (%'*&'01(+''(*. 5,),*. '
,$(+'3'*$,-,. '//2'5%0($,4%5''(')'$$+'/
&*$8'*&'5,6+)+%$,'' ,. ' 3+,(+'. *' 8 %8 4$' . %'
')' ' 3'0'&*$8 %5' 1)',)',0'4%2*. 5'5*14)'
)+')')+%'6*,0*. '*&'5,6+)+%$,'' 8 '2'('()'0*
6*3%$&1//2'16*. ')+%'020)%8' '0')*',. '%B;
)$%8 %/2'$'$%'('0%0'9,/')+%'6'),%.)'4%&*$%')+%
/*('/ /%0,*. '+'0'),8 %')*'5%7%/*6')',0'*./2'
01(+'('0%0''0')+%0%'3+,(+'('. '3,)+*1)'&%'$
&'%$$*$'4% 0%5'&$'$-18 %.)H 41)')+%2'+'7%'
4%%. '$%(*$5%5'42'01(+'(*86%)%.)'*40%$7%$0'
)+')',)'810)'4%'58,))%5')+')'5,6+)+%$,'' 8 '2'
')',8 %0''*((1$'3,)+*1)''. 2'06%(,'/,0%5'/*('/
/%0,*.
. '42'&'$')+%'8 '>*$,)=2'*&'('0%0'+*3%7%$'
&'/0%'8 %8 4$' . %'5*%0''66%'$' %. %$'//2',)'
((1$0'&,$0)'*. '0*8 %'6'$)'&')+%')+$*')G%,)+%$
. ')+%'). 0,/0'0*&)'6'/')%*$')+%'4'(9'*&')+%'
6+'$2. B' 01'//2')**',)',0'0%%. ',. '*. %'*$
8 *$%'06*)0'0,81/)'. %*10/2'*. '4*)+'0,5%0''. 5

P

3,)/,' 5%0)$1(),*.' *&')+%' 6 '$)0 ' *$' %7%.'
" " ' ' (" ' '. 5' . %($*0,0' *&')+%'4* .%'
8 '2'$%01/)
+%' *%0*6+'-10')** '8 '2' +%' '&&%()%5', ')+%'
3+*/%' *&' ,)0' /% . -)+ ' ' . 5' %7%.')+%' 0)* 8 '(+'
' .5' , .)%0),. %0 ' 0' 3 ,// 4%' 8 %.),*. %5', ')+%'
6')+*/*-,('/ 5%0($,6),*.
* 8 %), 8 %0' &'/0%' 8 %8 4$' .%' 8 '2' '66%'$', .'
7 '$,*10' 6 '$)0' *&')+%' 8 *.)+ ' 6$*4 '4/2' 42')+%'
, .&%(), *.' *&' '4$ '0, *. 0' *&' 01$&' (%
.' 8 *0)' ('0%0' '0' '4*7%' 5%0($,4%5')+%'
8 %8 4$' .%' 8 '9%0' ,)0' &,$0)' '66%'$'. (%', .')+%'
)+$*') %)' .18 %$*10' ('0%0' '$%' .*3' *.'
$%(*$5', .' 3+,(+' ,)' + '0' &,$0)' 4%%.' 0%%.' %/0%;
3+%$%
+%' 6$,8 '$2' /'$2 .-%'/ &*$8' *&')+%' 5,0;
%'0%' ,0' 3% '$%(*- . ,0%5' ' . 5' + '0' 4%%.' 9 .*3 .'
42')+%' . '8 %' *&' ,6+)+%$,),(' $*16' +%'
-%.%$'/ 02 8 6)* 8 0' *&')+%' 5,0%'0%' '$%')+%.'
)+%' 0' 8 %' '0',.')+%' *$5,. '$2' &*$8 ' 41)' 0,- .0'
*&')+%')$*14/%' ,.')+%'/'$2 .B' *(((1$' %'$/2' .5'
4%&*$%' . 2' '&&%(),*.' *&')+%' 6+'$2 .B' ('.' 4%
5%)%()%5' b ,)+')+%'/'$2 .-*0(*6%',&')+%' 6';
),%.)' 3 ,.' '//*3' *&',)' 4%, .-' 10%5'&'/0%' 8 %8;
4$' .%'+'7,.-')+%' *$5,. '$2' '66%'$'. (%' ('.'
4%' 0%%.' (*7%$, .-')+%' 6*0)%$,*$' 01$&'(%' *&')+%
%6,-/*)),0')+%' 3+*/%' *&')+%', .)%$,*$' *&')+%'
/'$J8 B' '.5' %7%.' *&')+%')$'(+%' ' +%' '&&%(;
),*.' 8 '2' $%8 ',.' /*('/,0%5', .')+%'/'$2 .B'
1.),/ 5%')+' *$' 8 '2' %B)%.5')+%.(%')*')+%'
6+'$2 .B' '.5' *)+%$'6'$)0
' 6$,8 '$2' .'0'/ &*$8' ,0' $'$%' 41)' 0* 8 %;
),8 %0' 8 %)' 3,)+' %$%')+%' (*$2C'/ 02 8 6;
)* 8 0' '.5')+%' 8 1(* 61$1/%.)' *$' 0'..*10' 5,0;
(+'$-%'&,$*8')+%' .*0)$,/0' *((1$' %'$/2',.')+%'
5,0%'0%H' .5'3+%.')+%' '&&%(),*.',0' '57'. (%5'
&'/0% 8%8 4$' .%' 8 '2' 4% 0%%.' .%'$')+%' .;
)%$,*$' .'$%0' . ')+%'6*0)%$,*$' .'$%0')+%'
/%0,*.' 8 '2' 06$%'5')*')+%'6+'$2 .B' '0',.')+%'
/'$2.-%'/ &*$8' 1(+'('0%0' '$%'*&)%.' *7%$;
/**9%5', .')+%,$' %'$/2' 0)' -%0' 4%('10%' *&')+%'
*40(1$%'6*0,),*.' *&'&/,%' (+'$')()%$,0),(' 8 %8;
4$' .%' +%2' '$%' -%.%$'//2' 0%7%$%',.' (+';
$')()%$
B)%$. '/3*1.50' *$' 4$'0,*&,0' 8 '24%'0%(*.;
5'$,/2', .&%()%5' .5' (*7%$%5' 42' &'/0% 8 %8;
4$' .%', .')+%' (*1$0%' *&')+%' *$5,. '$2' 5,0%'0%'
1)' *.')+%' *)+%$' +'.5')+%$%' +'66%.' ('0%0'
, .' 3+,(+' .*)' *./2' +'0')+%'&,$0)' /*('/'66%'$;
' .(%' *&')+%' 5,0%'0%' 4%%.'0%%.', .' .' %B)%$.'/
3*1.5'41)' +%', .*(1/'),*.' *&'01(+' '3*1.5'
+'0' 4%%.')+%' 8 %'.0' *&', .&%(), .-')+%' -%.%$'/
020)%8 ' +10' 5,6+)+%$,'' +'0' *$,-, .')%5'
&,(*8')+%' 10%' *&' .', .&%()%5', .0)$18%.)', .'
)+%' *6%$'),*.' *&', ($(18(,0,*. ' 5,6+)+%$,),(
8%8 4$' .%' &,$0)' 5%7%/*6, .-' *.')+%' 3*1.5'
$' ,/ +'0' $%(%.)/2' 5%0($,4%5' %'0%0' .'
3+,(+')+%' 6$,8 '$2' /%0,*.' 3'0' *.')+%' 6%$,'
.0%18 ' $' $'B)*.' ,(90' .5'*)+%$0'+'7%'
'/0*' 5%0($,4%5' ('0%0' 3+%$%')+%' &,$0)' '66%'$;
'.(%' *&')+%' &'/0%' 8 %8 4$' .%' 3'0' *.' 0* 8 %
6'$)' *&')+%' &% 8 '/%' -%.,)' /' *$-'.0' 5*14)/%0'
'0')+%' $%01/)' *&' '((,5%.)' /', .*(1/'),*.
& "' ' # ' B " G +%' -/'.50'
4%.%')+')+%'>'3' '$%'03*//%.' '.5')%.5%$',.' '//
41)' 7%$2' %B(%6),*.' /' ('0%0' *&'5,6+)+%$,' .
8 *0)')+%2' '$%' 0*' /'$-%' '0')*' 4%' %'0,/2' 0%%.H
,.'.%'$/2' '/')+%2' (.' 4%&%/)' 1)',.' 42' &'$'
)+%' /'$-%$' 8 '>*$,)2' *&' ('0%0')+%' 03%//,.-' *&'
)+%' -/'.50',0' '' 7%$2' 8 '$9%5' &%')1$%' .
0%7%$%' ('0%0')**' ,)' ,0' .*)' *./2')+%' -/'.50'
4%.%')+')+%' >'3' 41)' '/0*' '//')+*0%' *&')+%'
.%(9' *.' 4*)+'0,5%0')+*1-+')+%' '&&%(),*.' *&'
*.%' 0,5%' 8 '2' 6$%5*8,.')%' +%' 09,.' (*7%$;
,.-')+%8', 0' 03*//%.'$%55%.%5' .5'*%5 8 ')*10'
*8%), 8 %0')**')+%', 001%' /2,.-'4%) 3%%.')+%'
-/'.50',0' -$%')/2',.&/' 8 %5H' .5',.''&%3' ('0%0'
'' 4$' 3.2' +'$5.%00'%B)%.5,.-'&,$*8')+%'>' 3'
)*')+%' (/'7,(/%' .5',.7*/7,.-''66'$%.)/2' '//
)+%'),001%0' *&')+%'.%(9' '.' "0)
+'0' 4%%.' *40%$7%5' '$%/2')+%' -/'.51/'$
,.&/' 8 8 '),*.' 8 '2' 6$*(%%5')*' 01661$'),*.'
('10,.-'' '/'$-%' '.5'&*$8,5'4/%' '40(%00' +%'
'&&%(),*.'*&')+%' -/'.50' .5'01$$*1.5,.-'),001%'
,0' 8 *$%' 8 '$9%5',.')+%' 0%7%$%' '.5'%06%(,'//2'
,.')+%' 8 '/,-.'.)' &*$8'
" "' ' # ' 3 " G +%' 1$,.%' ,.'
5,6+)+%$,''$%0%8 4/%0',.')0'-%.%$'/(+'$')%$0'
)+')' *&' *)+%$' &%4$,/%' 5,0%'0%0')+*1-+')+%$ &%';
)1$%0' '$%'/%00' 8 '$9%5')+'.',.'*)+%$' '&&%(),*.0'
)',0' 5,8,.,0+%5',.' E1'.),)2' +,-+ (*/*1$%(/'
'.5'5%6*0,)0'1$')%0''.5'1$,(''(,5' *8%),8%0'
)**',)' 8 '2' '66%'$'41)'/,))/%'(+'.-*5' 1)''
06%(,''/ &%')1$%*&')+%'5,0%'0%',0')+%'*((1$$%.(%
&' '/418,.1$,'' '0' &,$0)' 6,.)%5' *1)' 42' $'
'5%*&' ,$8,.-+'8',.')+%" 'A 7
2 " ?FM' +,0' '66%'$;
'.(%',0' 7%$2' &,$%E1%.)'' .5',0' &*1.5''((*$5,.-'
)*')0')',0),(0',.'*.% +'/&*$'%7%.')3*)+,$50' *&'
)+%')*)'/.184%$' *&'('0%0' +%' '8*1.)' *&'
'/418%.'8 '2' 4% *./2' 0/,-+)' *$' *.')+%' *)+%$
+'.5'7%$2'-$%')H' .5',)' 8 '2' 5,0'66%'$' &$*8'
5'2')*' 5'2')*' -',.'$%)1$.' ,)+',)' 8 '2' 4%
&*1.5',.')+%' 1$,.%'+2'/,.%'*$' %6,)+%/,'/'('0)0'
41)' *./2' 7%$2' $'$%/2' 4/**5''.5')+%'*((1$$%.(%
*&' '/418,.1$,'' ,0' ,.' */2' %B)$% 8 %/2' %B;
(%6),*.'/'('0%0' '((*86'.,%5' 42''.'0'$('' *$'
&*//*3%5' 42' .2'1$'%8,(' 02 8 6)*8 0' +%)+%$'
'/418,.8,.'' ,0' 6$%0%.)' *$' .*)')+%' 5',/2' %B;
($%),*.'*&' 1$%'' ,0' .*$8'/' *$',.($%'0%5')'
5,&&%$0' 8 '$9%5/2' &$*8')+%' '/418,.1$,'' *&'
0('$/%)' &%7%$',.'8 '9,.-',)0''66%'$'.(%.%'$/2'
'&,3'20'51$,.-')+%'(1)%'(*1$0%'*&')+%'5,0%'0%'
7%$2'0%/5*8''))+%'),8 %'*&'(*.7'/%0(%.(%'.
8*0)' ('0%0',)' '66%'$0'*.')+%'),+,$5' *$' &*1$)+'
5'2' ''.F' '8*.-0)' *)+%$0'+'0' 8'5%' %B;
)%.5%5',.7%0),-'),*.0',)*')+,0' (*86/,(',.*.
%' %B'8,.%5', .' $%&%$%.(%')*' '/418,.1$,''
@@ '*'0%0H' .5'&*1.5')+')',)' '66%'$%5'*.')+%
&,$0)' 5'2',.')+$%%'*.')+%'0%(*.5'5'2',.')%.'
*.')+%')+,$5' .5' '/0*' *.')+%' &*1$)+'5'2',.'
)+,$)2'*.')+%&,&)+'5'2',.')3%.)2)3*' &)%$
)+%' &,&)%%.)+'5'2' /418,.1$,''*((1$$%5'*./2'
.(%'&$')+%'&,$0)'),8 %' 0' '-%.%$'/$1/%')+%'
-$%')%$')+%'E1'.),)2'*&'/418%.',.')+%'1$,.%'
'.5')+%'%'$/,%$',)0''66%'$'.(%')+%'8*$%0%7%$%
,0')+%'('0%H41)')+%'8%$%'6$%0%.(%'*&'/418,;
.1$,''5*%0' .*)' &&%()')+%' 6$*-.*0,0' *&')+%'
5,6+)+%$,'' .'8*0)' ('0%0')+%' '/&,.8%.'5,0;
'66%'$0'51$,.-'(*.7'/%0(%.(%H)+*1-+'0')+%'
3$,)%$' (' .' (*.&,$8' ,)' 8 '2' (*.),.1%' ,.')+%'
1$,.%' &*$' 8*.)+0' ,.' 8*5%$')%' '8*1.)' '.5

1. '((*86'.,%5' 42' *)+%$' 0286)*80' 4%2*.5' 0/,-+)' 3%'9.%00' .5' '.'%8,' ' .')+%' *)+%$' +'.5')+%' 3$,)%$' +'0' $%'0*.')*' 4%/,%7%')+')' ,.' %B(%6),*.'/' ('0%0' (+$*.,(' .%6+$,),0' 8 '2' +'7%',)0' *$,-.',.' ' .' ')))'(9' *&'5,6+)+%$,'

G +%')%86%$')1$%' ,.' 5,6+;)+%$,''+'0.*'5%&,..),%'(*1$0%')$,0%0'0155%./2' %'$/2',.')+%'5,0%'0%' '.5' '0' '' $1/%' (*.),.1%0' 3,)+' 8*$.,.-'$%8,00,*.0'1.),/')+%'4%-,..,.-' *&'(*.7'/%0(%.(%'3+%.',)'5%(/,.%0'-$'51''//2' +%'7%$'-%')%86%$')1$%''')')+%'+%,-+)'*&')+%' '))'(9',0'&$*8' !@g')*' !"g''.5'7%$2'$'$%/2' 5*%0',)'%B(%%5' ! g')'8'2'4%(*8%$',0%5' '4*7%)+%' '7%$'-%' /,8,)'42')+%' '57%.)' *&'(*86+(''),*.0'01(+''0'4$*.(+*6.%1./*.,'' *$' 01661$'),*.','.')+%'.%(9ℍ+1)'3,)+')+%0%' %B;(%6),*.0')+%'+%,-+)'*&')+%')%86%$')1$%',0'.*' (%$)','.'-1,5%')*')+%'0%7%$,)2'*&')+%'-%.%$'/5,0%'0%'*$')*')+%' %B)%.)'*&')+%'/*('/'/%0,*.' .'*'0%0'*&'6$*/*.-%5'5,6+)+%$,''01(+''0'3,//4%'.*)%54%/*3''&)%$'$%8,00,*.0'*$%7%.',.)%$; 8,00,*.0'*&')+%'$',0%5')%86%$')1$%'$%.%3%5' ''))'(90'*&'62$%B,''$%'8%')*3,)+'-%.%$'//2'0; 0*(,')%5'3,)+',.(%'0%'*&')+%'-%.%$'/0286;)*80

#'6 ' " 'P / G=+%61/0%',.'5,6+;)+%$,'',0')+$*1-+*1)'*&'.'0)+%.,('+'$'()%$' 0+*$)',// 010)',.%5''.5'*&'/*3')%.0,*.' .')+%'8'>*$,)2'*&'*'0%0',)'0&$%E1%.)''4*7%)+%' 5%-$%%')*'4%'%B6%()%5'&$*8')+%'&%7%$' $' ,5.%2' +,//,60',.')+%' $ #' ' O " ' ?P!','6'PD!'+'0' .'/20%5'!!' ('0%0'*&'5,6+)+%$,'' 3,)+'$%&%$%.(%')*')+%' 0)')%0'*&')+%'(,$(1/'),*.'3+,(+'8'2'*(_\1$' .')+$%%'6%$'(%.)''*&'+,0'('0%0')+%'61/0%'3'0' 1.51/2'0/*3''.5')+%0%',.0)'.(%0'3%$%'(+';$'()%$,0%5'42'7*8,),.-''.5'42''&')'/',001%' %'(*.(/150')+')''7%$2'$'6,5'61/0%''/0*' ''7%$2'5'.-%$*10'0286)*8'8'2'*((,.$3,)+; *1)''.2')+%$'6+%.*8%.*.'41)'8'2'4%''(; (*86'.,%5'42'7*8,),.-''.5'%B)$%8%'5$*3; 0,.%00' $$%-1/'$,)2'4*)+',.')+%'$+2)+8''.5')+%'&*$(%'*&')+%'61/0%',0'.*)'1.(*88*.''.5' .*)'1.&'7*1$'4/%' +%'+%'$)0*1.50' '$%' &%%4/%''.5')+%'&,$0)'0*1.5'0+*$)' ,0)B84' '.(%0'*&')+%',.)%$7'/0'4%)3%%.')+%'0*1.50' '$%',.')+%'*6,.,*.'*&')+%'3$,)%$'*&'-$%')',8; 6*$)'.(%' '$'6,5'0%E1%.(%'*&')+%'0%(*.5' 0*1.5'16*.')+%'&,$0)'41)'%06%(,'//2'006'(,.-' *&')+%'0*1.50''0'+%'$5' ')+%'6%B'*&')+%' +%'$)G)+')',0''.'%E1'//,.-'*&')+%',.)%$7'/0' 4%)3%%.')+%'&,$0)''.5'0%(*.5''.5')+%'0%(*.5' '.5'01((%%5,.-'&,$0)'0*,85'$%06%(),7%/2G'$%' *&'8*0)'0%$,*10',86*$)''.5',.5,(')%''/,'; 4,/,)2')*'0155%.'('$5,'(&',/1$%')+%'8*0)'5'.; -%$*10'(*86/,(')',*.'*&'5,6+)+%$,''+%0%' '/)%$'),*.0',.')+%'0*1.50'*&')+%'+%')$'8'2'4% 5%)%()%5'4*)+''')+%'+%,-+)'*&')+%'&%7%$''.5' 51$,.-'(*.7'/%0(%.(%''.5''$%'%E1''//2',8; 6*$)'.)''),+%$),8%' (1)%5,/')'),*.'*&')+%'+%')$'101''//2'*&')+%'$,-+)'7%.)$,(/%' 0*8%),8%0'*&')+%'/%&)',0'.*)',.&$%>>1%.)',.' 5,6+)+%$,''')'8'2'4%''((*86'$5%5'42''' 020)*/,(' 81$81$',0'.*)'51%')*'%.5*('$5,),0' *1;

(+'$5''.5' '4'5,% '-$'7%'+'7%'8',.)',.%5')+')'%.5*('$5,),0',0''' &$%E1%.)'(*86/,(','),*.' *&'5,6+)+%$,''41)')+%,$'*6,.,*.'+'0'4%%.'016; 6*$)=' 42'.*')+%$'*40%$7%$0' +%'('$5,'(5,/')',*.'5*%0'.*)*((',0,*.'5$*602''0',)'5*%0' ,.' 8*0)')+%$'(*.5,),*.0'41)')+%'3%'9.%00' *&')+%'+%'$)<0',861/0%',0')+%'('10%'*&')+%)+$*84*0,0'*&')+%'/'$-'%,.*.'0' 3+,(+'0*8%;),80')+*1-+'$'$%/2'*((1$0 $ # G '(%$)',.'5%-$%%'*&'%&&/*$%0(%.(% *.')+%'09,.',0'.*)'1.(*88*.',.'1.8,B%5' ('0%0'*&'5,6+)+%$,'='.5'%06%(,'//2',.')+% 0%7%$%'7'$,%)2'')'0'101''//2'0%%.'*4*1)')+% .%(9'.5')+%'166%$'6')'*&')+%'(+%0)')' ,0''5,&&10%'$%5.%00'.*)'61.()')%''.5'.*) 6'61/'$',.')+%'0/,-+)%0)'5%-$%%' +,0',0'.*)'' 06%(,&,('$'0+''.5'810)'4%'('$%&1//2'5,0),.; -1,0+%5'&$*8')+')'*&'0('$/%)'&%7%$' *')+%' 3$,)%$',)' +'0' '66%'$%5')*' 4%' 0*8%3+')' 5'$9%$',.'(*/*1$')+'.')+%'$'0+'*&'0('$/%)' &%7%$' .')+%'8'/,-.''.)'&*$80'61$61$,(' 06*)0'*&' 5,&&%$%.)'0,C%0'8'2'4%'*40%$7%5' 0(''))%$%5'*7%$')+%'3+*/%'01$&'(%'*&')+%'4*52' ,.'-$%')'.184%$0

$BHB $&' &F C 4 'B '' $-' !'#$*/ # $ '!.')+ 7''+ '7 #)+ 7' ' !'-$) 3$ 3' ##$4 '$-'!'7 $)7)' 7' 4#!'5 +'!)'$ '' 4*) 7

' B)%.0,*.'*&')+%'&'/0%' 8%84$'.%')*')+%' /'$2.B''.5'/*3%$' ',$ 6'00'-%0')*')+%'.*0%' %'$'.5'%2%

<' *$8')',*.'*&'&'/0%' 8%84$'.%')*'.%B;)%$.'/3*1.50''.5'4$'0,*.0

"' B)%.0,7%'1/(%$')',*.''.5'%7%.'-'.-$%.%' *&')+%'),001%0'*&')+%')+$*')' %.*(+'8%.;),*.0'6%$&*$'),*.'*&')+%'6'/')%''0''.'*((';0,*.'/'$%01/)

' $%')',.&/'88')',*.',.')+%.%(9''.5' $'$%/2'01661$'),*.

F' /418,.1$,'

L' 166$%00,*.'*&'1$,.%''.5'1$'%8,'' +,0' +'0'4%%.'5%0($,4%5'42' %$)%/'.5'42''' &%7' *)+%$'*40%$7%$0'41)',)0'*((1$$%.(%',0'(*.;)$'$2')*'-%.%$'/'%B6%$,%.(%H''.5''0' $' ,/)*.' '--%+'0'$%8'$9%5',)'0'6$*4'4/%)+')'0('$/%)'&%7%$'+'0'4%%.'*7%$/**9%5',.' 01(+'%'0%0

M' ,/')'),*.'*&')+%'+%'$)

9' '$5,'(' &',/1$%'02.(*6%'.'5'0155%.' 5%')+' +,0'(*86/,(',*.','0')+%'8*0)'5'.; -%$*10'3+,(+'(''.*((1$' .'5'%06%(,'//2',.')+%, 8'2'(*8%*.'')'.2'6%$,*5'*&')+%'5,0%'0%''.5' %7%.'51$,.-'(*.7'/%0(%.(%')',0'6$%(%5%5' 101''//2'42''7%$2'&$%E1%.)'*8%),8%0'42' 0/*3'61/0%'41)',)0'06%(,'/'3'$.,.-',0''.' '/)%$'),*.',.')+%'0*1.50'*&')+%'+%')$)'0' 5%0($,4%5'4*7%' +%'('$5,'(&',/1$%'8'2',.' 0*8%'('0%00+*3',)0%/&'42''-$'51'/'&',/1$% *&')+%'(,$(1/'),*.'41)'101''//2'42'0155%.' 02.(*6%'3+,(+',0'.%'$/2''/3'20'&')'/'+% 8*0)'5,0)$%00,.-'('0%0',.'3+,(+')+,0'*((1$0 '$%')+*0%'3+%$%')+%'6')',%.)'0'8%'),8%'&)%$)+%'5%(/,.%'&'62$%B,''',0',.'&1/'(*.7'/%0; (%.(%'*$%7%.',.''66'$%.)/2'-**5'+%'/)+'2%)' 0155%./2'&',.)0''.5''/8*0)',.0)'./)/2'5,%0' *'6'),%.)',0'40*/1)%/2'0'&%'&$*8')+,0'&')'/

8,0+'6' 1.),/' ')' /%'0)' 0,8' 3%%90' '&)%$')+%' '66'$%.)'%.5' *&')+%' 5,0%'0%

P' '%8*$$+'-%0' +%0%' 8'2' *((1$' .*)' *./2' &$*8')+%' 1/(%$')%5' 8 1(*10' 8%8 4$'.%0' 41)' '/0*' &$*8' ' .2' 8 1(*10' 01&'(%' +%2' 8'2' 4% 0*' (*6,*10' '0')*' 0%$,*10/2' 3%'9%.')+%'6'),%.)

!' +$*8 4*0,0' *&'7%,.0

' &&%(),*.0' *&')+%' 4$*.(+,' '.5'/1.-0' %.%$'/' 4$*.(+,),0' 8'2' +%' 8%)' 3,)+' ,.' 5,6+)+%$,'' 4%&*$%')+%'/'$2.B',0' '))'(9%5'' .5' 8'2'4%'&*//*3%5'42'%B)%.0,7%' 4$*.(+* 6.%1; 8*.,'')*)+'%0%' (*8 6/,(',*.0' '$%'+*3; %7%$'8*$%'&$%E1%.)'3+%.')+%'',$ 6'00'-%0'4%; (*8%',.7*/7%5',.')+%'06%(,'/'5,6+)+%$,),(',.; &/'8 8'),*.' * '60%'*&'/1.-' %86+20%8''.5' +'%8*$$+'-%',.)*')+%'),001%0'*&')+%'/1.-' '$%' '/0*' 8%)' 3,)+' ')'),8%0' +%,$' 06%(,'/ 02 8 6)*8 0' '$%' '55%5')*')+*0%*'&')+%' *$,-,.'/ (*8 6/',.)'' .5'.%%5'.*)'4%'+%$%'5%),/%5

@' '$'/20,0' +*1-+' 6'$'/20,0' 8'2' &*//*3' *)+%$' &%4$,/%' 5,0*$5%$0' 2%)' ,)' ,0' 0*' &$%E1%.)/2' .'' 00*(,'),*.'*&' 5,6+)+%$,'' '0')*' &*$8' '' (+'$'()%$,0),(' &%')1$%' *&')+%' 5,0%'0%' +%'6'$'/20,0' '0' 0)'),0),0)(0'0+*3'7'$,%0'0%' &$%E1%.(2',.' 5,&&%$%.)'%6,5%8,(0' '5%)' 5% '00,(*1$)' &*1.5')+')' ,)' *((1$$%5',.' @?' ('0%0'*1)'*&' P?M' $' *3%$0'0)')%0')+')',)0' &$%E1%.(2'+'0' 4%%.'$%6*$)%5''0'&$*8'9')*'LL' 6%$'(%.)'+')'6$*4'4/2'*.%&*1$)+'*&')+%' (' 0%0' 3+,(+' 5*' .*)' 5,%' &$*8')+%' 6$,8'$2' 5,0%'0%' 01&&%$' &$*8'6'$'/20,0' +%'6'$'/20,0' '0' '' $1/%' '66%'$0' '4*1)')3*'*$')+$%%' 3%%90' '&)%$')+%' 5%(/,.%'*&')+%' 62$%B,''41)',)' 8'2' *((1$' 51$,.-')+%'+%,-+)'*&')+%' 5,0%'0%'%7%.' '0' %'$/2' 0')+%' 0%(*.5' 5'2' A '.. R' '.5',)' 8'2'4%'5%/'2%5'1.),/')+%'&*1$)+'*$&,&)+'3%%9' &$*8')+%' '))'(9' 0' '.5*1C2'+'0'0+*3.')+%'*/5%$')+%'6'),%.)')+%' 8*$%'/,'4/%'+%',0')*')+,0' 0%E1%/'')',0' 8*$%'(*8 8*.'&)%$' 0/,-+)'%'0%0' *&'5,6+)+%$,''41)',)0' *.0%)',0' %'$/,%$',.')+%' 0%7%$%'&*$80

+%&,$0)'6'$')*'4%''&&%()%5'42')+%'6'$'/20,0' ,0')+%'0*&)'6'/')%' +%'6'),%.)')+%.'06%'90' 3,)+'1'.'0'/'7*.(%''.5',0'1.'4/%')*'03''/*3' &/1,50'0,.(%')+%',8 8*4,/%'6'/')%' .*'/*.-%$ (/*0%0')+%%.)$*.(%')*')+%'6*0)%$,*$'.'$%0''.5' 0*'&/1,50'$%-1$-,)')%')+$*1-+')+%'.*0%' +% 6'/')%'+'.-0'8*),*./%00'51$,.-'$%06,$'),*.' '.5'6+*.','.'.5',0',.0%.0,),7%')*')*1(+' ((' 0,*.'//2''.5'&*$''),8%'*./2''*.%'0,5%'*&)+%'6'/')%'$%8',.0'1.'&&%()%5''.5')+%.')+% 171/'',0'5$'3.')*'*.%'0,5%''.5')+%'(1$7%0'*&)+%'6'/')'/'%5-%0'$%'1.%E1'/' .'$'$%'(0%0')+%' ,.'4&/,)2')*' 03'//*3'%B)%.50')*'0*/,50' '/0*'&$*8'6'$'/20,0'*&')+%'8 10(/%0'*&')+% 6+'$2.B

+%'.%B)'8*0)'(*8 8*.'6'$'/20,0',0')+')' *&')+%'%2%' +%'8*0)'*47,*10'%&&%()'*&'),0' 6'$'/20,0''.5')+')'3+,(+'8*0)'$%'5,/2'))$'()0')+%' '))%.),*.'*&')+%'6'),%.)<0'&$,%.50',0''.' %B)%$.'/'0)$'4,08 10'&$*8'6'$'/20,0'*&')+%' ,.)%$.'/'$%()10'8 10(/%' 1)')+,0',0'.*)')+% 8*0)'(*8 8*.'$%01/)' *$0'&$%E1%.)/2'3% 8%%)'3,)+'''6'$'/20,0'*&')+%'(,/,'$2'8 10(/%' 101''//2',.'4*)+'%2%0'3+,(+'+'0' '0',)0'%&&%()

''/*00'*&')+%'6*3%$'*&'((*8 8*5'),*.' .; /%00')+%'6'),%.)'+'0'6$%7,*10/2'4%%.' 8 2*6,(' +%',0'.*3'1.'4/%')*' '5>10)'+,0'%2%' &*$'.%'$' *4>%()0' '0'&*$',.0)'.)'*4>%()0'$%8',.0'1.; '/)%$%5' +%'616,/')**',0'0/1--,0+',.'(*.;)$'(),.-')*'+-+)')+%$'8 10(/%0'*&')+%'%2%; 4'//' 8'2' 01&&%$'0*')+')'7'$,*10'&*$80'*& 0E1,.)'$%'8%)'3,)+''.5'0*8%),8%0'6)*0,0H 3+ %',.'%B(%6),*.'/'('0%0'*.%'*$'%7%.'4*)+' %2%0'+'7%'4%(*8%'40*/1)%/2'8*),*.%00'&$*8' 6'$'/20,0'*&''//')+%,$' 8 10(/%0' *.(%.)$,(' (*.)$')*(),*.'*&')+%'&,%/50'*&'7,0,*.'+'0'4%%.' 5%0($,4%5

)+%$'*$-'.0'*&'0%.0%'01&&%$'41)'$'$%/2'41)' $' *3%$0'0)')%0')+')'+%'+'0'8%)'3,)+'/*00' *&')'0)%'.5'/*00'*&'08%/'3,)+*1)'/*00'*&')'0)%

+%'/,8 40'.%B)'01&&%$'&$*8')+%'6'$'/20,0' '.5'101''//2')+%'/*3%$'4%&*$%)+%'166%$'/,8 40' +%'6'$'/20,0',0'-%.%$''//2'6$%(%5%'42'),.-/,.-' &%%/,.-0'0%.0%'*&'06,.0''.5'.%%5/%0<*$' ')()1'/'6',.')+%'6')0'4*1)')*'4%'))'(9%5' +%.'-$'51''//2''.5'0/*3/2')+%'6'$'/20,0'0%)0' .' ')' ,0'41)'$'$%/2'(*86/%)'41)'/3'20' 01&&,(,%.)'*'$%.5%$')+%'8 10(/%0'6$'(),('//2' 10%/%00'+%'8 10(/%0'$%'&/'((,5'.5'0**.' 4%-,.')*'')$*6+2' +%'9.%% >%$90'$%'/*0)H 4,$)')+,0'6+%.*8%.*.'8'2'4%'8%)'3,)+'' 0' $' 1CC'$5'.5' $' '55%.'+'7%'0+*3.' %'$/2',.')+%'6$,8'$2'5,0%'0%H''.5' $' .-%/ 4/*.%2'+'0'&*1.5')+')')+%$%' 8'2' 4%' '' 6$%7,*10'%B'--%$'),*.'*&')+%'9.%% >%$90' // $%&/%B%0'$%'4*+0+%5' +%'&&%()%5'8 10(/%0' '&)%$'')',8%'('..*)'4'0),8 1/')%5')*'(*.)$'(;),*.'42')+%'&'$'5,(' (1$$%.)')+*1-+')+%2'0),// $%)',.')+%,$'$%'(),*.')*'-'/7',/,0 8' *-%)+%$' 3,)+')+%'6'$'/20,0''.5'0*8%),8%0'3,)+*1)',)' ')'(%$),.''8*1.)'*&')'B2',0'.*),.&$%E1%.)/2' 0%%.'8*0)'*47,*10',.')+%/%-0')+*1-+'/0*' 0*8%),8%0'&*1.5',.')+%'$80

%.0'),*.',.''.%'*$'//'*&',)0'7'$,%),%0',0'Q 101''//2'/*0)')*' '-$%')%$'*$'/%00'%B)%.)'41)' .*)'/3'20',.'6$*6*$),*.')*)+%/*00'*&'8 10(1; /'$'6*3%$' +%'5,0)$,41),*.'*&')+%'-'%0)+%0,'' 7'$,%0')'8'2'4%'06$%'5'*7%$')+%'3+*/% /,8 4'*$'66%'$'*.(2',.'6')(+%0')',0'101; ''//2'8*0)'8'$9%5',.')+%'&,.-%$0'.5')*%0 +%0%'&&%(),*.'*1-+'.*)'.%(%00'$(2'%E1'/'*.')+%)3*'0,5%0

+%$%',0'0('$(%(2''6'$)'*&')+%'4*52'3+,(+' 8'2'.*)'4%'&&%()%5'42')+%'6'$'/20,0'41)' *)+%$'6'$)0')+'.')+*0%'8%.),*.%5'$%'(*8; 6'$'),7%(2'$'$%(2'))'(9%5''.5'*./2',.'0%'%$%' *'0%0' +%',.)%$(*0)'/'8 10(/%0'8'2'4% 6'$'/20%5''.5'/%00'&$%E1%.)/2')+%'5,'6+$'-8' 0*')+')'$%06,$'),*.'4%(*8%0'5,&&,(1/)'*$%7%.' ,8 6*00,4/%' +%'+%'5'&'//0'&*$3'$5',&')+% 6'),%.)',0',.')+%'16$,-+)'6*0,),*.'&$*8'3%'9; .%00'*&')+%'.%(9'8 10(/%0' +%'8 10(/%0'*&)+%'/'$2.B'$%'0*8%),8%0'))'(9%5' +% 8 10(/%0'))'(+%5')*')+%'%6,-/*)),0'(%'0%)* (/*0%)+%'*$,&,(%'*&')+%/'$2.B''.5'&**5'8'2' 8%)'3,)+'''6'$'/20,0'*&')+%'(,/,'$2'8 10(/%' %0' *$%'$'$%/2')+%.'$%'(+')+%''$6'00'-%0' *$%'$'$%/2')+% 8 10(/%0'*&')+%'7*(/'(*$50')+%8 0%/7%0'*$%

3%'9%.%5' *$ 6'$'/20%5' '.5') +%' 7*,(%' ,0' '/)%$%5' ,.' E1'/,)2' *$ %.),$%/2' /*0)' +%' 4/'55%$' .5'$%()18'8 '2'4%' '&&%()%5',.'0%7%$%' ('0%0' 41)' -%.%$''//2') +%2' '$%')8 '&&%*)%5' 8*.-0)')+%' 8 10(/%0' 8 *0)' $'$%/2' '))' (9%5' '$%')+*0%' *&')+%' &'(%' '.5')*.-1% .')+%' 8*0)' 0%7%$%' ('0%0',)' ,0' 6*00,4/%' &*$' .%'$/2' '//') +%' 8 10(/%0''4*7% 8%.),*.%5')*' 4%' 6'$'/20%5''))+%'0'8%'),8%'0*')+')'+%'6'),%.)' /,%0' ,.' 4%5'1))%$/2'+%/6/%00' +,0' (*.5,),*.' +*3%7%$' ,0' %B)$%8%/2' $'$%' *$%' 101''//2')+%' 6'$'/20,0' $%(*7%$0' ,.' *.%' 6'$)' 3+,/%' ,)' 6$*-$%00%0' ,.' '.*)+%$' '.5'0' '*$1/%'5*%0' .*)' $%(1$',.' ''6'$)' ,)'+'0' '/$%'52'/%&)' '6'),%.)')+%' 014>%()' *&' 5,6+)+%$,),(' 6'$'/20,0' ,0' ,.' 8*0)'5'.-%$*'&'+%'$) &',/1$%'&*$')+,0' (*86/,;(')',*.' 3+,/%' +'4/%') *' %.%' 6'$)' ,.' 51$,.-') +%' +%,-+)' *&') +%' 6$,8 '$2' 5,0*$5%$' ,0' 06%(,''//2' 6$*.%')*' *((1$' 51$,..-'6'$'/20,0' +%' .1)$,;),*.' *&')+%' 4*52' 8 '2'&',/&$*8')+%' .'4,/,)2')*' 03''//*3'&**5H '.5'&$*8'&**5%.)%$,.-') +%' /'$2.B' 6.%18*.,'' 8 '2'!$,0%' .' 7%$2'$'$%' ('0%0' 5%')+' %.01%0' &$*8' 6'$'/20,0' *&') +%' $%06,$')*$2' 810(/%0' %)' ''/') +%0%' 5'.-%$0' '$%'(*86'$'),7%/2'$'$%H '.5'101''//2') +%'6'$';/20,0' +*3%7%$' 0%7%$%' '&)%$' '') ,8%'-$'51''//2' '.5'%.),$%/2' 5,0'66%'$0' ((*$5,.-') *' $' *3%$0') +%' '7%$'-%'51$'),*.' *&') +%'6'$'/20,0' ,0' &$*8' 0,B')*' %,-+)' 3%%90' ,.' ('0%0')+')' $%(*7%$'41)',)' $%8',.0' /*.-%0)',.')+%'/,840' '.5'8'2') +%$%'/'0)' &*$' '0' /*.-' '0' &*1$*'$'0,B' 8*.)+0

! ' G'A R' $ "'G' +%.')+%' '))'(9'%.50'&'7*1$'4/2')+%'&%7%$'5%(+.%0' 42'/20,0H)+%' 8%84$'.%0'0*&)%.'0%6'$')%''.5' 5*' .*)' $%'66%'$H')+%' 6'),%.)' -$'51''//2' $%; (*7%$0' 0)$%.-)+' '.5' $%018%0' +,0' *$5,.'$2' +%'/)+' +%' 51$'),*.' *&' *$5,.'$2' ('0%0',0' '4*1)')%.')*' &*1$)%%.' 5'20' 41)')+%' '))'(9' 8'2' 4%' 6$*/*.-%5' 42' $%($15%0(%.(%0')*' '' 81(+'/*.-%$'6%$,*5

AQ0R' C # G %')+' *((1$0',.' 5,6+)+%$,' ^'42'-$'51'/'0)+%.,''&$*8'8'/.1)$,),*.H AXR' 42'$'6,5''0)+%.,''&$*8'%B(%00,7%'%&&%()' *&')+%' 6*,0*.H A(R' 42'('$5,'(' &',/1$%H A5R' 42'';0;6+2B,''&$*8'06$%'5'*&')+%' 8%84$'.%')*')*' /'$2.B'*$6'$'/20,0'*&')+%'$%06,$')*$2'810(/%0H *$' '42'.2'*&')+%'(*86+(',*.0%.18%$')%5''4*7%

! ' $' ' ? . ' 7 " G +%' .'9%5%2%' '66%'$'.(%0'*&')+%' &'/0%'8%84$'.%'+'7%''/$%'52'4%%.'01&&,(,%.)/2' 5%0($,4%5' +%.' '' 0%(),*.' *&')+%' 81(*10' 8%84$'.%' (*7%$%5' 42')+%' %B15'),*.',0' %B;'8,.%5'1.5%$')+%' 8,($*0(*6%')+%'&'/0%'8%8;4$'.%',0'0%%.')*' (*.0,0)' *&'%,)+%$'50' *$0+'6%/%00'8'00%0'*&'&,4$,.',.'3+,(+'$%'%8;4%55%5'/%1(*(2)%0'8*$%'*$'/%00'5%-%.%$')%5'$%5'4/**5(*$610(/%0' '.5'0+$,7%//%5'(% '..(/%,' .')+%' 5%%6%$'/'2%$0'*&')+%'&'/0%'8%84$'.%'+'7%'*1)/,.%0'*&%,)+%/,'/(%//0'('.'4%'0%%.'0+*3,.-')+%,$'4*5,%0'03*//%.',.)*' '' +2'/,.0*'$-$'8&,'$'8'00H)+%'.1(/%,'$%'.*)' 7,0,4/%H '.5')+%0%' (%//0'.*'/*.-%$'%'0,/2')'9%')+%' *$5,.'$2'0)',.0' *' 5%&,.,)%' /,.%' *&' 5%8'$('),*.'4%)3%%.') +%' &'/0%' 8%84$'.%

'.5')+%')$1%'81(*10'8%84$'.%'('.'4%'0%%.')+%' *.%>*,.0')+%'*)+%$'-$'51'//2' '.5',$%%-1' /'$/2' +%' 81(*10'8%84$'.%'0+*30'03%/',.-''.5'6$*/,&%$'),*.'*&',)0' %6,)+%/,'/'(%//0''.5',0',.&,/)$')%'5'3,)+'/%1(*(2)%0')0'4/**5'7%00%/0''$%'(*.-%0)%5'0*8%),8%0')+$*84*0%5''.5' +'%8*$$+'-%0' '$%' 0%%.' ,.')+%'),001%' 18%$*10'8,($*'$-'.,080'*&'3+,(+''&1//%$''((*1.)'3,/'4%'-,7%.',.')+%'.%B)'0%(),*.''$%'&*1.5'.*)'*,52',.')+%'&'/0%'8%84$'.%'41)',.')+%'),001%'*&')+%'81(*10'8%84$'.%',)0'7%,.0''.5'/286+'),(0' .')+%'/'))%$'0)'-%0'&'$)+%$'5%-%.%$'),7%'(+'.-%0''$%'&*,85',.')+%'&'/0%'8%84$'.%')',0')+%.'81(+'8*$%'-$'.1/'$''0'0%%.'1.5%$')+%'8,($*0(*6%H (*.)',.0'.18;4%$0'*&'&'))2'-/*41/%0''.5'($20)'/0'*&'&'))2'(,50''.5'(+*/%0)%$,.'H '.5'03'$80'3,)+')+%'8,($*'$-'.,080'*&'61)$%0(%.(%' +%'&'/0%'8%84$'.%'(*.0,0)0',.'6'$)'*&'.'%B15'),*.'*&&,4$,.'%/%8%.)0'41)'8','./2'*&')+%'6$*51()0'*&'(*'-1/'),7%'.%($*0,0'*&')+%'%6,)+%/,'/(%//0' %.(%',)0'(/*0%'(*..%B,*.'3,)+')+%'81(*10'8%84$'.% ' G +%'03*//%.'-/'.50''$%'*.'0%(;),*.'0*&)'$%5''.5'61/62'$%0%84/,.-'06/%.,(),001%' +%2'0+*3')+%'(+'.-%0'*&' '(1)%/286+'5%.,),0''.5'(*.)',.'8,($*(*'(1)%/286+'),(0'/%'5,.-')*')+%8'$%' '/0*'%./'$-%5''.5',.&/'8%5''.5'(*.)',.'8,($*'$-'.,080'6*)0'*&'01661$'),*.'$%'*(('0,*.''//2' 41)'$'$%/2'&*1.5',.')+%'-/'.50

$ ' 0 " G +%'/'$2.B')$'(+%''.5'4$*.(+,'8'2'4%'(*7%$%5'42'&'/0%'8%8;4$'.%')0'(+'$'()%$0'+%$%' '$%'0/,-+)/2'5,&;&%$%.)'&$*8')+*0%'&*1.5',.')+%'6+'$2.B'),0')+,..%$'0*8%3+')'0*&)%$'.5'8*$%'%'0,/20%6'$')%5'&$*8',)0' '))'(+8%.)0' +%0%' (+';$'()%$0''$%'51%')*' .*'6%(1/,'$,)2',.')+%'8%8;4$'.%,)0%/&'41)'6$*4'4/2')*')+,..%$/'2%$'&%6,)+%/,18'&$*8'3+,(+',.')+,0'0,)1'),*.',)'9%0',)0'$,0%' +%'8%84$'.%'8'2'4%'6$*;/*.-%5',.)*' 08'//%0)'4$*.(+,'3+,(+'(',4%'&*//*3%5'*1)' *$%'(*88*./2'+*3%7%$'&)%$'6$*(%%5,.-'5*3.')+%')$'(+%'' '+))/%'3'2',)'4%(*8%0'0*&)'/**0%'.'5'')'/'0)'(*.;),.1*10'3,)+' '),(9'61$1/%.)'*$'81(*;61$1/%.)'%B15'),*.'3+,(+'(*7%$0')+%'81(*10'8%84$'.%'*&')+%'4$*.(+,'41)',0'.*)'))'(+%5')*',)' +%'/1.-0'8'2'4%'(*.-%0)%5''*$0+*3')+%'(+'.-%0' *&'4$*.(+*6.%18*.,'' *$' *&'61/8*.'$2''6*6/%B2' %$2'&$%E1%.)/2')**'%86+20%8'' *$' ,.0 &/ '),*.' *&')+%' /1.-0',0'0%%.',.'6')(+%0

+%' 8%5,'0),.'/'-/'.50'8'2'4%'03*//%.''.5'$%0%84/%',.' '66%'$'.(%')+*0%' *&')+%'.%(9

' 0 G +%'(7,),%0'*&')+%'+%'$)'%06%(,''//2')+*0%'*&')+%'$,-+)'0,5%'(*.;)',.' '(/*)0'&,$8/2'5+%$%.)')*')+%'.5*('$5,18' .5*('$5),)0',0'.*)'&*1.5' +%'810(1/'$),001%'*&')+%'+%'$),.5'' 9/2'/3'20'0*&)%.%5''.5'8'2'0*8%),8%0'0+*3'('$5),)0'*$&'))2'5%-%.%$'),*.' .' '' &%3' ('0%0' '0')+%'3$,)%$'+'0'&*1.5'(*/*.,%0'*&'8,($*'$-'.,080'8'2'4%' 0%%.' %84%55%5',.')+%' 810(1/'$),001%' $%E1%.)/2' '.5'%06%(,''//2',&')+%$%

+'0 4%%.5 5,&&,(1/)2*&5%06,$'),*.'08'//61.*'),&*..5+'%8*$$+'-%08'2'4%*40%$7%5'4%.%')+)+%7,0(%$'/ /'2%$0 *&')+% 6%$,('$5,18'.5'6%1 &&,' .')+%.>'/,-.'+)&*$8')+% 4/**5''&)%$'5%')+,0&*1.5')*4%*&''5'$9(+*(*/')%(*/*1$'.5'7%$2&/1,5

/%1$,02'.5'6%$,('$5,),0'$%'*./2'$'$%/2'0%%.

C0)' 0 " G +%&'/0%'8%84&'.%'8'2'4%&*1.5'%B)%.5,.-'5*3.')+%'3+*/%*&')+% *%0*6+'-10'.5'8'2'&&%(0')+%'81(*10'8%84$'.%*&')+%'0)*8'(+''.5'%7%.')+')'*&)+% ,.)%0),.%0' +% %2%$<0'6')(+%0'.5')+% /286+'),(.*5),/%0'*&')+%',.)%0),.%0'$%03*//%.''.5'8'2'0*8%),8%0'0+*3'1/(%$';),*.0' +% /,7%$',0'(*.-%0)%5' +% 06/%%.',0'%./'$-%5'41)'.*)'%B(%00,7%/2'0*''.5'*.'0%(),*.',0'&*1.5')*'4%'0*&)%.%5''.5'61/62

3 " ' 0 " G +% 9,5.%20',.'//('0%0'0+*c ')+%'(+'.-%*&')+%,$'%6,)+%/,'/(%//0'('//%5'(/*152'5%-%.%$'),*.' +%.'/418,.1$,'' +'0'4%%.'6$%0%.)'51$,.-'/,&%')+% 9,5.%20'6$%0%.)'+% 101'/'66%'$'.(%0'*&'(1)% 6'$%.(+28')*10'.%6+$,),0' +%*$-'.0'$%03*//%.'6'/%',.'(*/*1$'.5'0*&)'*.'0%(),*.' +%'(*$),('/6*$),*.',0',851/2'%./'$-%5''.5'*&''2%//*3,0+3+,)%'(*/*1$'.'8,($*0(*6,('%B'8,.'),*.')+%'(%//0'*&')+%*(*.7*/1)%5')14%0''.5'/0*')+*0%*&')+%-/*8%$1/'$'.5'(601/'$%6,)+%/,18'$%0%%.')*4%'03*//%.''.5'*&)%.'6$*/,&%$'%5'+%*(+'.-%0'*./2'5,&&%$'&$*8')+*0%*&'0('$/'),.'/.%6+$,),0',6'4%,.-'*&''/%00',.)%.0%5%-$%%'/%00'+&&,8*$$+'-,('.5',.'4%,.-'6$%0%.)'*&)%.'0(')%$%5'6')(+%0'$')+%$)+'.'5,&&10%5'*7%$'+%$3+*/%*$-'.'.%'00%$)%5')+')',.'8*0)'*'0%0'*./2'*.%'9,5.%2'3'0''&&%()%5''.5')+10'%B6/',.%5')+%'40%.(%'*&'1$'%8,''.5'5$*60,('/02886)*80'+,0'00%$),*.'+*3;%7%$',0'.*)'(*.&,$8%5'42')+%'*40%$7'),*.0'*&')+%3$,)%$'*$'*&'*)+%$0

'"‹" G +%'%B)%$.'/8 10(/%0''.5'0*8%),8%0')+*0%'*&')+%'+%'$)'8'2'0+*3')+%'3'B2'5%-%.%$'),*.'*&'V%.9%$'.'$'$%'(0%0')+%'>*,.)0'8'2'4%'&*1.5',.&'8%5

N) ' G 00*(,')%5'3,)+')+%'6'$';/20,0'(+'.-%0'+'7%'4%%.'&*,85',.')+%'06,.'/(*$5''.5')+%'6%$,6+%$,('.%$7%0'U%-%.%$';),*.''.5''$*6+2'*&')+%'.)%$,*$'(*$.1''*&')+%'06,.'/(*$5'+'7%'4%%.'*40%$7%5'42'$0'4%$($*84,%'%$(2'55'*))''.5'*)+%$03+,/%'%B)%.0,7%'5%-%.%$'),*.'*&')+%'6%$,6+%$,('.%$7%0'3'0'&,$0)'(/%'$/2''.5'&1//2'5%8*.0)$')%5'42'%>'%$,.%'.''*40%$7')*.'(.&,$8%5'42'8'.2')+%$0'+%'5%-%.%$'),*.'*&')+%.%$7%0'0%/5*8'&*1.5',.')+%'3+*/%*&')+%,$'%B)%.)''.5'8'2')'(9')+%'6*$),*.0'.%'$')+%'06,6'/(*$5'*$')+*0%'8*$%'$%8*)%'+%'(+'.-%(*$$%06*.50',.',)0'5,0)$,41),*.''.5'5%-$%%3,)+')+%'$%-,*.''.5'0%7%$,)2'*&')+%'6'$'/20,0'+%'&&%()%5'8 10(/%0'0+*3'-$'.1/'$''.5'&'))2'5%-%.%$'),*.

$ G +%'*/5%$'5,0(100,*.0''0')*3+%)+%$'5,6+)+%$,''3'0'&$*8')+%'&,$0)''-%.%$'/5,0%'0%'3,)+'''/*(/'8'..&%0)'),*.',.')+%)+$*')G(*86$'4/%',.5%%5')*'%.)%$,(&%7%$G.%%5'.*3'4%8%$%/2'8%.),*.%5')+%'6$%0%.)'),8%'4%2*.5'5*14)')+')+%'6$,8$2'/*('/'/%0,*.',.'5,6+)+%$,'',0'51*)*'(+'.-%0')')+%'0,)%'*&',.*(1/'),*.''.5')+')'&$*8')+,0'$%'40*$4%5')+%'6*,0*.*10'8'))%$0'3+,(+'-,7%'$,0%')*'+)+%'-%.%$'/02886;)*80'.')+%'&'/0%'8%84$'.%')+%$%'$%&*$85'03'$80'*&'8,($*-'.,080'8*0)'*&'3+,(+'+*3%7%$''$%%,)+%$'%.)$'66%5'42')+%&,4$,.*10'%B15'),*.'*$'$%')+%'((*86'.,;8%.)'*&')+%'61)$%^(),7%'(+'.-%0'-*.-'*.',.')+%'8%84$'.%'.5',.',)0'7,(,.,)2'1(+'57%.),),*10'*$-'.,080'$%&*1.5'*./2',.')+%016%$&,(,'/'/'2%$0'*&')+%'&'/0%'8%84$'.%'%B(%)',.')+%'8'/,-.'.)'&*$8'3+%$%')+%2'8'2'4%'8%)'3,)+',.')+%'5%%6%$',001%0','.)+%')+$*84*0%5'7%00%/0''.5',.')+%/286+'),(0''.5'-/'.50'.'??'"/%40'5,0(*7%$%5''4'(,//10',.')+%'5%%6%$'/'2%$*&')+%'8%84$'.%'3+,(+'+%'4%/,%7%5')*'4%')+%'06%(,&,(*$-'.,08'*&')+%'5,0%'0%'0)'$%/'),*.')*')+%'(/*152'5%-%.%$'),*.'+%.'/418,.1$,''+'0'4%%.'6$%0%.)'51$,.-'/,&%')+%'9,5.%20'6$%0%.)'+%'101'/'66%'$'.(%0'*&'(1)%'6'$%.(+28')*10'.%6+$,),0'+%*$-'.0'$%'03*//%.'6'/%',.'(*/*1$'.5'0*&)'*.'0%(),*.'+%'(*$),(/'6*$),*.',0',851/2'%./'$-%5''.5'*&''2%//*3,0+3+,)%'(*/*1$'.'8,($*0(*6,('%B'8,.'),*.')+%'(%//0'*&')+%*(*.7*/1)%5')14%0''.5'/0*')+*0%*&')+%-/*8%$1/'$'.5'(601/'$%6,)+%/,18'$%0%%.')*4%'03*//%.''.5'*&)%.'6$*/,&%$'%5'+%*(+'.-%0'*./2'5,&&%$'&$*8')+*0%*&'0('$/'),.'/.%6+$,),0',6'4%,.-'*&''/%00',.)%.0%5%-$%%'/%00'+&&,8*$$+'-,('.5',.'4%,.-'6$%0%.)'*&)%.'0(')%$%5'6')(+%0'$')+%$)+'.'5,&&10%5'*7%$'+%$3+*/%*$-'.''..%'00%$)%5')+')',.'8*0)'*'0%0'*./2'*.%'9,5.%2'3'0''&&%()%5''.5')+10'%B6/',.%5')+%'40%.(%'*&'1$'%8,''.5'5$*60,('/02886)*80'+,0'00%$),*.'+*3;%7%$',0'.*)'(*.&,$8%5'42')+%'*40%$7'),*.0'*&')+%3$,)%$'*$'*&'*)+%$0'"‹"G +%'%B)%$.'/8 10(/%0''.5'0*8%),8%0')+*0%'*&')+%'+%'$)'8'2'0+*3')+%'3'B2'5%-%.%$'),*.'*&'V%.9%$'.'$'$%'(0%0')+%'>*,.)0'8'2'4%'&*1.5',.&'8%5'+%'(+'.-%0'+'7%'4%%.'&*,85',.')+%'06,.'/(*$5''.5')+%'6%$,6+%$,('.%$7%0'3'0'&,$0)'(/%'$/2''.5'&1//2'5%8*.0)$')%5'42'%>'%$,.%'.''*40%$7')*.'(.&,$8%5'42'8'.2')+%$0'+%'5%-%.%$'),*.'*&')+%.%$7%0'0%/5*8'&*1.5',.')+%'3+*/%*&')+%,$'%B)%.)''.5'8'2')'(9')+%'6*$),*.0'.%'$')+%'06,6'/(*$5'*$')+*0%'8*$%'$%8*)%'+%'(+'.-%(*$$%06*.50',.',)0'5,0)$,41),*.''.5'5%-$%%3,)+')+%'$%-,*.''.5'0%7%$,)2'*&')+%'6'$'/20,0'+%'&&%()%5'8 10(/%0'0+*3'-$'.1/'$''.5'&'))2'5%-%.%$'),*.

$ G +%'*/5%$'5,0(100,*.0''0')*3+%)+%$'5,6+)+%$,''3'0'&$*8')+%'&,$0)''-%.%$'/5,0%'0%'3,)+'''/*(/'8'..&%0)'),*.',.')+%)+$*')G(*86$'4/%',.5%%5')*'%.)%$,(&%7%$G.%%5'.*3'4%8%$%/2'8%.),*.%5')+%'6$%0%.)'),8%'4%2*.5'5*14)')+')+%'6$,8$2'/*('/'/%0,*.',.'5,6+)+%$,''',0'51*)*'(+'.-%0')')+%'0,)%'*&',.*(1/'),*.''.5')+')'&$*8')+,0'$%'40*$4%5')+%'6*,0*.*10'8'))%$0'3+,(+'-,7%'$,0%')*'+)+%'-%.%$'/02886;)*80'.')+%'&'/0%'8%84$'.%')+%$%'$%&*$85'03'$80'*&'8,($*-'.,080'8*0)'*&'3+,(+'+*3%7%$''$%%,)+%$'%.)$'66%5'42')+%&,4$,.*10'%B15'),*.'*$'$%')+%'((*86'.,;8%.)'*&')+%'61)$%^(),7%'(+'.-%0'-*.-'*.',.')+%'8%84$'.%'.5',.',)0'7,(,.,)2'1(+'57%.),),*10'*$-'.,080'$%&*1.5'*./2',.')+%016%$&,(,'/'/'2%$0'*&')+%'&'/0%'8%84$'.%'%B(%)',.')+%'8'/,-.'.)'&*$8'3+%$%')+%2'8'2'4%'8%)'3,)+',.')+%'5%%6%$',001%0','.)+%')+$*84*0%5'7%00%/0''.5',.')+%/286+'),(0''.5'-/'.50'.'??'"/%40'5,0(*7%$%5''4'(,//10',.')+%'5%%6%$'/'2%$*&')+%'8%84$'.%'3+,(+'+%'4%/,%7%5')*'4%')+%'06%(,&,(*$-'.,08'*&')+%'5,0%'0%'0)'$%/'),*.')*')+%'(/*152'5%-%.%$'),*.'+%.'/418,.1$,''+'0'4%%.'6$%0%.)'51$,.-'/,&%')+%'9,5.%20'6$%0%.)'+%'101'/'66%'$'.(%0'*&'(1)%'6'$%.(+28')*10'.%6+$,),0'+%*$-'.0'$%'03*//%.'6'/%',.'(*/*1$'.5'0*&)'*.'0%(),*.'+%'(*$),(/'6*$),*.',0',851/2'%./'$-%5''.5'*&''2%//*3,0+3+,)%'(*/*1$'.'8,($*0(*6,('%B'8,.'),*.')+%'(%//0'*&')+%*(*.7*/1)%5')14%0''.5'/0*')+*0%*&')+%-/*8%$1/'$'.5'(601/'$%6,)+%/,18'$%0%%.')*4%'03*//%.''.5'*&)%.'6$*/,&%$'%5'+%*(+'.-%0'*./2'5,&&%$'&$*8')+*0%*&'0('$/'),.'/.%6+$,),0',6'4%,.-'*&''/%00',.)%.0%5%-$%%'/%00'+&&,8*$$+'-,('.5',.'4%,.-'6$%0%.)'*&)%.'0(')%$%5'6')(+%0'$')+%$)+'.'5,&&10%5'*7%$'+%$3+*/%*$-'.''..%'00%$)%5')+')',.'8*0)'*'0%0'*./2'*.%'9,5.%2'3'0''&&%()%5''.5')+10'%B6/',.%5')+%'40%.(%'*&'1$'%8,''.5'5$*60,('/02886)*80'+,0'00%$),*.'+*3;%7%$',0'.*)'(*.&,$8%5'42')+%'*40%$7'),*.0'*&')+%3$,)%$'*$'*&'*)+%$0'"‹"G +%'%B)%$.'/8 10(/%0''.5'0*8%),8%0')+*0%'*&')+%'+%'$)'8'2'0+*3')+%'3'B2'5%-%.%$'),*.'*&'V%.9%$'.'$'$%'(0%0')+%'>*,.)0'8'2'4%'&*1.5',.&'8%5'+%'(+'.-%0'+'7%'4%%.'&*,85',.')+%'06,.'/(*$5''.5')+%'6%$,6+%$,('.%$7%0'3'0'&,$0)'(/%'$/2''.5'&1//2'5%8*.0)$')%5'42'%>'%$,.%'.''*40%$7')*.'(.&,$8%5'42'8'.2')+%$0'+%'5%-%.%$'),*.'*&')+%.%$7%0'0%/5*8'&*1.5',.')+%'3+*/%*&')+%,$'%B)%.)''.5'8'2')'(9')+%'6*$),*.0'.%'$')+%'06,6'/(*$5''

F!!

6,. , .')+')' , .' (')0')+%' 6$,8 '$2' 0%')' *&' , . ; &%(),* . ' , .',5,*6')+,(' ('0%0 ' ,0')+%' /1 . -0
, ,,* *2 G$ +%' %B(,), . -' ('10%' *&' 5,6+;)+%$,'', 0' 5*14)/%00' . ' .' *$- ' . ,0%5' 6*,0* . ' ' . 5' ,)' 8 '2' 4% ' ((%6)%5 ' 6$*7,0,* . ' //2' ')' /%'0) ')+')' ,)' ,0')+%' 5,6+)+%$,'' +' (,//10' 5%0($,4%5' 42' $' /%, . ' +%' 8 %' . 0 ' +* 3%7%$ ' 42' 3+, (+')+,0' -%$8' *4) ' , . 0' ' ((%00')*')+%' 4*52' ' . 5' ,0' '//*3%5')*' 3*$9' ,)0' ,//' %&&%()0')+%$%, . ' '$%' *&' ' ', 8 6*$)' . (%' ' . 5' (* . 0),)1)%')+%' 6$%5,06*0; , . -'('10%0' *&')+%' 5,0%'0%' +%0%' 8 '2' 0+*$)/2' 4% 5,0(100%5' '0' &*//*3 0 G
' &0 G +%' 0)'),0),(0' *&')+%' , . (,5%. (%' *&' 5,6+)+%$,'' ')' 7 '$,*10' ' -%0' + ' 7%' 4%%. ' (*//')%5' 42' $' +*$. %' +*$. %' , . '+,0' 0 ,/$*2' %()1$%0' <&*$?P ' +%' -$%')%0)' . 18 4%$' *&' ('0%0 ' +%' $%8 '$90 ' *((1$' 4%)3%%. ')+%' ' -%0' *&')3*' . 5' &,7%$ 2%' $0' *$' 8 *$%' 3,5%/2' 0)')%5' 4%)3%%. ')+$%%' . 5')3%/7%' 2%' $0' . 5')+,0' %B(%00' 8 '2' 6*00,4/2' 4%' 51%')*')+%' -$%')%$' %B6*01$%')*' , . &%(),* . ' 51$, . -')+,0' 6%$,*5' &$4 8')+%' ' --$%-' ;),* . ' *&(+,/5$%. ' , . ' 0(+**/0
@' (G +%' 5,0%'0%' ,0' 8 *$%' &, %E1%.)' , . ' &%8 ' /%0' 6*00,4/2' ' ((*$5, . -')*' $' +*$. %' 4%('10%' *&')+%' -$%')%$' 5' . -%$' *&' , . &%(),* . ')+%2' 1 . 5%$-*' , . ' . 1$0, . -')+%' 0,(9
"' P D 'G' +%$%')85*14)%5/2' '$%0*8 %' &' 8 ,+%0' , . ' 3+*8' ' ' 8 *$%')+' . ' 01'/ . 184%$' *&' ('0%0' *&' 5,6+)+%$,'' *((1$' ' . 5')+,0' 6$*4' 4/2' ,0' 51%')*' ' . ' , . +%$,)%5' 3%' 9 . %00' $%. 5%$, . -')+%' 8 %8 4%$0' 1 . 51/2' $%(%6),7%' *&')+%' 6*,0* .
' " G $' ')+' 8 ' 3+%. ' 8 %5,('/' *&&,(%$' *&' +%' /)+' &*$' '/&*$5' 614/,0+%5' , . ' +,0' $%6*$)0' 8 *0)' ('$%&1/ 0)'),0),(0' '0')*')+%' . 184%$' *&' ('0%0' *((1$$, . -' , . ')+')' /*(')2' 3+%$%' 5,6+)+%$,'', 0' %06(, '//2' $,&%' ')' 7 '$,*10'),8%0' *&')+%' 2%' $' $' ')+' 8' +' 0' 9, . 5/2' &1$. ,0+%5')+%' 3$,)%$' 3,)+')+%')'4/%' 3+, (+' &*//*30' , . ' 3+, (+' ,)' ,0' (/%' $/2' 0+*3 . ')+')' . ' , . ($%'0%' , . ')+%' . 184%$' *&' ('0%0' *&' 5,6+)+%$,'' 4%-, . 0' , . ')+%')+,$5' E1'$)%$' *&')+%' 2%' $H)+%' . 184%$' '))', . 0' ,)0' 8 'B,818' , . ')+%' &*1$)+' E1'$)%$' ' . 5' 3+,/%' 5%(/, . , . -' . . ')+%' &,$0)' E1'$)%$' . %7%$)+%/%00' ,0') /' . '%B(%00' *&')+%' . 184%$' *((1$$, . -' . ')+%' 0%(*. 5' E1'$)%$
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+%')'4/%' '/0*' 0+*30' A0%%' 6%$(%.)'-%' *&' 5%')+0%')+')' , . ')+%'),$5' E1'$)%$' *&')+%' 2%'$)+%' 8 ,/5%$' ('0%0' *((1$' ' . 5')+%' -$%')%0)' . 18 ; 4%$' *&' 5%')+0' , . ')+%' &*1$)+' ' . 5' &,$0)' E1'$)%$0')+%' %B(%00' , . ')+%' &,$0)' E1'$)%$' 4%, . -' 6$*4' 4/2' 51%')*' '' /%-' (2' *&' 0%7%$%' ('0%0' /%&)' &$*8')+%' 6$%(%5, . -' E1'$)%$
F' $ # G= +% 5,0%'0%' ,0' 8 *$%' 6$%7'/%.)' 8 *. -')+%' 6**$'6$*4'4/2'4%('10%'*7%$($*35; , . -', . ($%'0%0' &' (,/,),%0' &*$' (*.)' -,*. ' . 5', . &%(;),*.
L' P 0 " ' " " 'G' +%$%' ,0' . *' 5*14)')+')' %B6*01$%')*' 0%3' -%' 8 ' . '),*. 0' ,0' '' &$1,)&1/ 0*1$(%' *&' 5,6+)+%$,' ' *3')+,0' (*8%0' '4*1)' ,0' . *)' 6$%(,0%/2' (%$)' . ' 13%' 5*' . *)' 2%)' 9 . *3')+')')+%' 5,6+)+%$,' -%$8' -$*30' , . '0%3' -%' *$' ,0' -,7%. ' *&&' , . '0%3' -% -' 0' +%' *'0%0' $%6*$)%5' 42' $' /*&' 6%$, . %' /5,6+;)+%$,' ' '/$%' 52' 8%.), *. %5')%. 5')*' 0+*3')+')')+,0' 8 ,-+)' 4%')+%' 8*5%' *&' , . &%(),* . ' $' %' +*$. %' +*3%7%$' ,0' *&' *6, . , *. ')+')' 0%3' -%' -'0'6$*51(%0' '' 8*$4,5'(*. 5,), *. ' *&')+%' &' 1(%0' 3+, (+' $%. 5%$0')+%' 6'), %.)' 8 *$%' /, '4/%')*')+%' $%(%6), *. ' *&')+%' 5,6+)+%$,'' 6*,0* . ' %' 8 '9%0')+%' 7%$2' '66*0,)%' $%8 '$9')+')' 5,6+;)+%$,''+'0'-$%')/2', . ($%'0%5' *&'/')%' 2%'$0''. 5' %06(, '//2', . ')*3 . 0' 3+,/0)', 86$*7%8%.)', . ' +2-,%. , (' 01$$*1 . 5, . -0' ' . 5' %06(, '//2', . ')+% 5,06*0'/' *&' 0%3' -%' +'0'$%(%,7%5' 81(+' 8*$%'))%.), *. ' ' . 5', . ' (*. 0%E1%. (%' *&')+,0'5,0%'0%0' , 85*14)%5/2'51%')*' 0%3' -%', . &%(),* . ' 01(+' '0' %.)%$, (' &%7%$' +' 7%' -$%')/2' 5,8, . ,0+%5' +,0' ,0' '' &' ()' 3+, (+' 8 , /,)')%0' ' -', . 0)')+%' 7,%3')+')' 5,6+)+%$,'' ,0' (*. . %()%5' 3,)+' 6*,0* . , . -' 42' 0%3' -%' 41)')+%'0)'),0),(0'*&')+%' '00*(,')*. ' 4%)3%%. ')+%')3*' $%' 7%$2' 6*0,),7%
. ' &*$8%$2%' $0' 5,6+)+%$,'' 3' 0' 8 *$%' (*8; 8 *. ', . ' (*1.)$2' 5,0)$,()0')+' . ', . ')*3 . 0' *$')*' 06%' 9' 8 *$%' '((1$')%/2', . ')+% ' 06' $0%/2' 6*61; /')%5')+' . ', . ')+%' 5%. 0%/2' 6*61/')%5' 6')$)0' . ' $%(%.)'), 8%0' '0' 0+*3 . ' 42' $' *. -0)' &&', . ')+%' $ ' ') " " ' $ ' &*$' ???')+,0' $%; /'), *. ' +' 0' 4%%. ' $%7%$0%5' . 5' . *3' 5,6+)+%$,'' ,0')+% 8 *$%' (*88*. ', . ')+, (9/2' 6*61/')%5' 5,0)$,()0' +%' 0)')0),(0' '/0*' 0+*3')+')')+%' -%*/*-, (' /' (*. 5,), *. 0' +' 7%' 41)' /,))/%' %&&%()' *. ')+%', . (,5%. (%' *&')+%' 5,0%'0%' $' +*8%' +*3%7%$' '00%$)0')+')')+,0' 0' *. /2')$1%' 0' $%-'$50')+%' 0)$1()1$%' *&')+%' 0*,/' ,)0%/&' , . $%/')*. ')*' 5$', . '-%' ' (/'2' 0*,/' 8 '2' 4% $%. 5%$%5' , 8 8 1. %' &$*8' 5,6+)+%$,'' 42')+% 6*00,4,/,)2' *&' &$%%' 5$', . -%' 1)' 3+%$% 8 *,0)1$%' ,0' ((181/')%5' ' . 5' '/0*' '//*3%5')*' $%8', . ' 0)' - . ' .)')+%$%' 5,6+)+%$,'' ,0' $,&% M' 5" " ' ' # ' G +%' 3'2' &*$')+%' 5,6+)+%$,'' 6*,0*. ' 8 '2' 4% 6$%6'$%5' 42' *)+%$' 5,0%'0%0' 01(+' '0')*. 0,//,),0' $%. 5%$; , . -')+%' &'1(%0' '' 71/. %$'4/%' 6*,.)' *$ 42' 5,0%'0%0' 3+,(+' 3%'9%. ')+%' 020)%8' '. 5' 0* 5,8, . ,0+' ,)0' 6*3%$' *&' $%0,0)' . (%' $*4'4/2')+% 61%$6%$'/ 0)')%' 0+*1/5'4%' '00*(,')%5' 3,)+')+%' /'))%$' -$*16' *&' (*. 5,), *. 0
. ' 8 *0)' 3*$90' *. ' 5,6+)+%$,'' +,)+%$)*' 614; /,0+%5' ,)' +'0' 4%%. ' (10)*8 '$2')*' 06%'9' *&' '' 6$,8 '$2' . 5' *&' '' 0%(*. 5'$2'&*8' *&')+% 5,0; %'0%' +%' &*$8%$',0')+')' *$5, . '$,/2' 8%)' 3,)+' 2')+%' /'))%$' ,0' 1. 5%$0)**5')+%' *((1$$%. (%

*((1$$%.(%‘ 0+*1/5‘ 4%‘ 01&&,(,%.)‘)*‘ $%8*7%‘)+%‘ (+‘.(%‘*&‘ %$$*$

+%‘6‘$‘/20,0‘ *&‘5,6+)+%$,‘‘+‘0‘)+%‘ (+‘$‘(;)%$0‘ *&‘6‘$‘/20,0‘ 51%‘)*‘6%$,6+%$‘/‘.%1$,),0‘,.‘)+%‘ ‘$),(/%‘ 16*.‘ 3+,(+‘ 014>%()‘ 5%)‘,/0‘ 3,// 4%‘ &*1.5‘ ‘0‘)*‘,)0‘ 5,‘-.*0,0‘ +%‘06%(,‘/‘(+‘$‘(;)%$0‘ 5,0),.-1,0+,.-‘,)‘ ‘0‘*&‘5,6+)+%$,),(‘*$,-.‘‘$%G)+%‘+,0)*$2‘*&‘)+%‘)+$*‘)‘)$*14/%‘,&‘)+,0‘ 4%*4)‘,.‘4/%Ĥ)+%‘ 6%(1/,‘$‘ 6$*-$%00‘*&‘)+%‘ 6‘$‘/20,0Ĥ‘.5‘)+%‘%‘$/2‘‘&&%(),*.‘*&‘)+%‘6‘/‘)%‘ ‘.5‘ %2%0‘3+,(+‘‘$%‘$‘$%/2‘)*1(+%5‘ 42‘*)+%$‘ &*$80‘*&‘ 6%$,6+%$‘/‘.%1$,),0‘ ‘ ; 5 ‘ ($‘.

G +%‘ 6$*-.*0,0‘ ,.‘ 5,6+)+%$,‘‘ 810)‘ ‘/3‘20‘ 4%‘ -1‘$5%5‘ %7%.‘,.‘)+%‘ 8,/5‘ (‘0%0‘&*$‘0%$,*10‘02 8 6)*8 0‘8 ‘2‘‘)‘ ‘.2‘),8 %‘ 4$%‘9‘*1)‘ +%‘6$*-.*0,0‘,0‘)+%‘ 8*$%‘0%$,*10‘)+%‘-$%‘)%$‘)+%‘E1‘.),)2‘L&‘ 8%84$‘.%‘)*‘ 4%‘ 0%%.‘,.‘)+%‘)+$*‘)‘)+%‘+,-+%$‘)+%‘)%86%$‘)1$%‘‘.5‘)+%‘-$%‘)%$‘)+%‘3%‘/8%00‘‘.5‘)+%‘0%7%$,)2‘*&‘)+%‘-%.%$‘/‘02 8 6)*80‘ +%‘%‘$/2‘0,-.0‘*&‘+%‘$)&‘,/1$%G.‘8%/2‘‘.‘1.51/2‘0/*3‘*$7%$2‘$‘6,5‘61/0%‘‘.5‘)+%‘ ‘/)%$‘),*.0‘,.‘)+%‘ (‘$5,‘(‘0*1.50‘‘/$%‘52‘5%)‘,/%5=‘$%‘3‘$.,.-0‘*&‘,86%.5,.-‘ -$%‘)‘ 6%$,/‘ +%‘ 8‘/,-.‘.)‘ &*$8‘,0‘6%‘$/2‘‘/3‘20‘&‘)‘/Ĥ‘.5‘(*.0%E1%.)/2‘)+%‘ *((1$%.(%‘ *&‘ 81(+‘+‘%8*$$+‘-%‘ &$*8‘)+%‘)+$*‘)‘ *$‘ .*0%‘ ‘‘-‘.-$%.*10‘(*.5,),*.‘ *&‘)+%$&‘/0%$‘ 8%84$‘.%‘‘.5‘01$$*1.5,.-‘6‘$)0‘*&‘)+%‘)+$*‘)‘ *$‘ 0,-.0‘*&‘ 81(+‘.‘0‘/‘ &&%(;),*.‘‘$%‘ *&‘-$‘7%‘ 0,-.,&,(‘.(%‘ +%‘*((1$;$%.(%‘*&‘ /418.,1$,‘‘ ‘550‘.*)+.-‘‘)‘ //‘)*‘)+%‘ 0%7%$,)2‘*&‘)+%‘ *$,-.‘/‘ 5,0%‘0%‘ ‘.5‘)+%$%&*$%‘,0‘ ‘ ‘*&‘.*‘(*.0%E1%.(%‘,.‘>15-;,.-‘)+%‘6$*-.*0,0‘ 1)‘3,)+‘),0‘%B(%6),*.‘‘.2‘*.%‘*&‘)+%‘(*86/,(‘),*.0‘8%.),*.%5‘‘4*7%‘ ‘550‘)*‘)+%‘ -$‘7,)2‘*&‘)+%‘ ‘))‘(9‘ +,0‘,0‘ %06%(,‘//2‘)+%‘ (‘0%‘3,)+‘%B)%.0,*.‘*&‘)+%‘5,0;%‘0%‘)*‘ /‘$2.B‘ 3+,(+‘,&‘1.$%/,%7%5‘42‘*6%$‘),*.‘,.‘.%‘$/2‘ //‘ (‘0%0‘3,//9,//‘)+%‘6‘),%.)‘ &)%$‘*6%$‘),*.‘)**‘‘‘/‘$-%.184%$‘*&‘6‘),%.)0‘5,%‘%,)+%$‘&$*8‘)+%‘ 0%7%$,)2‘*&‘)+%‘*$,-,.‘/‘))‘(9‘*$‘&$*8‘%B)%.0,*.‘*&‘)+%‘ 8%84$‘.%‘5*3.‘)+%‘4$*.(+,‘.5‘(*.0%E1%.)‘*((1$$%.(%‘*&‘5,&&10%5‘6.%18*.,‘‘ .‘)+%‘%B;6%$,%.(%‘*&‘)+%‘3$,)%$‘)+%‘(‘0%0‘*&‘/‘$2.;-%‘/‘5,6+)+%$,‘‘3+,(+‘+‘7%‘&*//*3%5‘*.‘0(‘$;/‘),.‘/‘02 8 6)*80‘‘$%‘06% ,‘//2‘&‘)‘/‘ %.%;$‘//2‘06%‘9,.-‘)+%‘6$*-.*0,0‘,0‘)+%‘/%00‘&‘7*1$;‘4/%‘)+%‘2*1.-%$‘)+%‘014>%()

+%‘ 6$*-.*0,0‘*&‘5,6+)+%$,),(‘6‘$‘/20,0‘,0‘*.‘)+%‘3+*/%‘&‘7*1$‘4/%‘ %‘$/2‘‘/3‘20‘)+%‘6‘$‘/20,0‘$%(*7%$0‘ +%‘1.&‘7*1$‘4/%‘(‘0%0‘‘$%‘)+*0%‘,.‘3+,(+‘)+%‘ 810(/%0‘*&‘)+%‘/‘$2.B‘.5‘)+*0%‘*&‘)+%‘)$1.9‘‘$%‘6‘$‘/20%5

! ‘G‘‘6 # (‘G‘ ,6+;)+%$,‘‘ ,0‘1.5*14)%5/2‘4*)+‘ (*.)‘-,*10‘‘.5‘,.&%(),*10‘ +%‘,.&%(),*.‘./,%0‘,.‘)+%‘ %B+‘;/‘),*.0‘*&‘)+%‘6‘),%.)‘‘.5‘%06%(,‘//2‘,.‘)+%‘6*$),*.0‘*&‘/0%‘8%84$‘.%%B6%//%5‘&$*8‘)+%‘)+$*‘)‘ *$‘)+,0‘$%‘0*.‘,)‘,0‘.%(%00‘$2‘)+‘)‘‘‘ (‘0%‘*&‘5,6+)+%$,‘‘0+*1/5‘4%‘0)$,.-%.)/2‘,0*/‘)%5‘‘.5‘)+‘)‘//‘&‘/0%‘8%84$‘.%‘(*1-+%5‘16‘0+*1/5‘4%‘‘)‘*.(%‘$%(%,7%5‘,.)*‘‘‘7%00%/‘(*.)‘,.,.-‘‘.‘‘.),0%6),(‘&/1,5‘01(+‘‘0‘(‘$4*/,(‘(,5‘D8‘,.‘<H‘*$‘6%$(+/*$,5%‘*&‘8%$(1$2‘D8‘,.

F!!R‘ 1$,.-‘)+%‘ (*1$0%‘*&‘.‘%6,5%8,(‘.*8,/9‘0+*1/5‘4%‘6‘$)‘9%.‘*&‘42‘+%‘/)+2‘6%$0*.0‘1./%00‘4*,/%5‘0+*$)/2‘4%&*$%‘4%,..-‘10%5‘ .‘)+%‘+-+)‘*&‘*1$‘6$%0%.)‘9.*3/%5-%‘5*14)&1/)+*1-+‘)+,0‘8‘2‘4%‘,)‘3*1/5‘‘/0*‘4%‘3%/‘)*‘4‘.,0+‘(‘)0‘.5‘4,$50‘&$*8‘‘‘ +*10%+*/5‘51$,.-‘‘.‘*1)4$%‘9‘*&‘5,6+)+%$,‘‘ *&&/%$+‘0‘&,B%5‘%,-+)‘5‘20‘‘&)%$‘)+%‘ ‘66‘$%.)‘5,0‘6%‘$‘.(%‘*&‘)+%‘5,0*$5%$‘‘0‘)+%‘6%$,*5‘51$,.-‘3+,(+‘‘6‘),%.)‘0+*1/5‘$%8‘,.‘,.‘E1‘$‘.),.%

@‘ " "0‘ ‘ # ‘ ‘G‘ +%‘6‘),%.)‘0+*1/5‘4%‘9%6)‘,.‘‘‘3‘$8‘3%// 7%.),;/‘)%5‘$**8‘ &‘)+%8‘,0‘‘.2‘0,-.‘*&‘&&%(),*.‘*&‘)+%‘ $%06,$‘)*$2‘6‘00‘-%0‘)+%‘ ‘,$‘ *&‘)+%‘$**8‘0+*1/5‘4%‘9%6)‘8*,0)‘‘.5‘)+,0‘8‘2‘4%%&&%()%5‘42‘ //*3,.-‘)+%‘ .*CC/%‘*&‘‘ 4$*.;(+,),0 9%))/%‘)*‘%.)%$‘3,)+,.‘)+%‘ (*7%$,.-‘*&‘‘)%.)4%5‘ 3‘$.,.-‘8‘2‘+%$%‘4%‘-,7%.‘)+‘)‘3,)+*1)‘ 51%‘(‘$%‘ ‘.5‘.*)‘# ‘8*,0)1$%‘8‘2‘)+10‘4%‘0166/,%5‘)*‘)+%‘6‘),%.)‘.5‘8‘24%%B)$%8%/2‘+‘$8&,,/‘42‘5%6$%00,.-‘)+%‘7,)‘/‘6*3%$0‘.5‘,.51(,.-6.%18*.,‘‘ %%5‘)*‘)+,0‘6*,.)‘,0‘%06%(,‘//2‘.%(%00‘$2‘‘&)%$‘)+%‘6%$&*$8‘.(%*&‘)8(+%*)*82

"‘C G +%‘%B)$%8%/2‘3%‘9%..-‘%&&%()‘*&‘5,6+)+%$,‘‘810)‘‘/3‘20‘4%‘4*$.%‘,.‘8,.5‘.5‘%7%$2‘%&&*$)‘8‘5%)*‘+%/6‘)+%‘6‘),%.)‘*‘00,8,/‘)%‘.1)$,8%.)‘51$,.-‘)+%‘))‘(9‘ +,0‘+*3%7%$‘,0‘‘‘5,&&,(1/‘8‘)%$‘&*$‘.*)‘*./25*%0‘)+%‘6‘),%.)‘&$%E1%.)/2‘/*‘)+%‘&**5‘41)‘,&‘,‘06,)%‘*&‘)+,0‘,)‘4%‘‘58,.,0)%$%5‘,.‘,.>‘(/,(,*10‘E1‘.),),%0‘7*8,),.-‘8‘2‘4%0%)‘16‘3+,(+‘3,/‘)*)‘//2‘6$%(/15%‘.1)$,8%.)‘4%,.-‘-,7%.‘,.‘)+%‘*$5,.‘$2‘3‘2‘ .‘)+%0%‘8‘))%$0‘)+%‘>15-8%.)‘*&‘)+%‘(‘$%&1/6+20,(,‘.‘8‘24%‘)‘B%5‘)*‘)+%‘1)8*0)‘‘.5‘8 10)‘5%(,5%‘*.‘)+%‘8%$,)0‘*&‘%‘(+‘,.5,7,51‘/‘(‘0%‘‘6‘$)‘&$*8‘‘.2‘-%.%$‘/‘/‘30‘‘ 0‘‘‘$1/%‘8,/9‘8 10)‘4%‘)+%‘0)‘6/%‘$),(/%‘*$),.5‘‘.5‘8,B%5‘3,)+‘/,8%‘3‘)%$‘*$0*5‘ 3‘)%$‘,.‘)+%‘ 6$*6*$),*.‘*&‘@‘,.‘‘‘)‘0+*1/5‘4%‘-,7%.‘‘)‘,.)%$7‘/0‘*&‘)3*‘+*1$0‘*$‘,&‘*./2‘08‘//‘E1‘.),),%0‘(‘.‘4%‘)‘9%.‘‘)‘‘),8%‘%7%$2‘+*1$‘ ,)+‘,)‘)7$,(%‘*$‘)+$,(%‘‘5‘2‘)+%‘2*/9‘*&‘.‘%-‘8‘2‘4%‘4%‘)%.‘16‘*$‘$$*3$**)‘4*,/%5‘,.‘8,/9‘8‘2‘*(‘.‘//2‘4%0140),)1)%5‘ -‘,.‘0)$*.-‘4%%&)%‘‘0+*1/5‘‘)‘,.)%$7‘/0‘4%‘-,7%.‘.*)‘*./2‘‘0‘‘$%+%&‘)*‘)+%‘ 8,/9 5,%)‘41)‘ /0*‘&*$‘,)0‘ 0),81/.)‘%&&%()0‘ &‘)+%‘ (*.5,),*.‘*&‘)+%‘)+$*‘)‘5*‘.*)‘5%4‘$‘)+%‘6‘),%.)‘&$*8‘03‘//*3..-‘)+%8‘4%%& >%//2‘*$‘ (+,(9%.‘*$‘ 4%%& %00%.(%‘8‘24%‘-,7%.‘0,8,/‘$/2‘ +%$%‘8,/9‘5,0‘-$%%0‘$‘3‘4%%& >1,(%‘3,/‘0*8%),8%0‘4%‘&*1.5‘*&‘-$%‘)‘7‘/1%‘ +,/5$%.‘3,/‘.*)‘,.&$%E1%.)/2‘$%&10%)‘*‘03‘//*3‘&**5‘%7%.‘3+%.‘)+%‘)+$*‘)‘‘&&%(),*.‘5*%0‘.*)‘,.)%$&%$%‘3,)+‘,)0‘6‘00‘-%‘ %$%‘)3*‘ 8%‘.0‘8‘2‘4%‘ 8‘5%‘10%‘*&‘)*‘ 8‘,.)‘.‘)+%‘.1)$,),*.‘%,)+%$‘)+%‘(+,/5‘8‘2‘4%‘&%5‘42‘)+%‘.‘0‘/‘14%‘‘‘5,0‘-$%%‘4/%‘6$*;(%%5,.-‘3+,(+‘.0‘$‘%/2‘‘66/,(‘4/%‘.‘5,6+;)+%$,‘‘*$‘)+%‘&%%5,.-‘8‘2‘4%‘(‘$$,%5‘*.‘‘ ‘42‘8%‘.0*&‘.1)$,%.)‘%.%8‘)‘‘*$016;6*0,)*$,%0‘ +%‘/‘))%$‘8%)+*5‘8 10)‘‘/3‘20‘4%‘$%0*$)%5‘)*‘3+%.‘0%7%$%‘7*8,),.-‘6$%7%.)0‘&**5‘4%,.-‘-,7%.‘42‘)+%‘8*1)+

F! :

 ' " G /(*+*/' ,0' . %%5%5' , . ' %7%$2' ('0%' *&' 0%7%$%' 5,6+)+%$,' ' . 5' ,0' 4%0)' -,7% . ', . ')+%'&*$8'*&'(+' 86'- . %' *$' 4$' . 52 ' ')' ,.)%$7'/0' *&')3 *' *$')+$%%' +*1$0', . ' E1' .),.),%0' 6$*6*$),*. ')%')*')+%' '-%' *&')+%' 6'),%.)' ' . 5')+%' 0%7%$,)2' *&')+%' '))'(9 ')' 8 10)' '/3 '20' 4%' -,7% . ' &$%%/2' 3+%. ' ' . 2' *&')+%' 0,- . 0' *&' ('$d'%'&',/1$%' '$%' 6%$(%,7%5

 F' 5" " ' / " G &' $%(%.)' 2%' $0' $'),*. '/')+%$'6%1),(0' +'0' 4%%. ' %86/*2%5' 3,)+' -$%')' '57' .)' -%' ,. ')+%')$%')8%.)' *& 5,6+)+%$,' ' +%' 5,0%'0%' +'0' /* . -' 4%%. ')+*1-+)')*' 4%' 51%')*')+%' '(),*. ' *&' -%$80' *$ *&')+%' 6$*51()0' *&')+%,$' -$*3)+' ' . 5' &*$')+,0' $%'0*. ' 8' . 2' -%$8,(,5%' $%8%5,%0' +'7%' 4%%. ' 6$*6*0%5' X1,. ,. %'3'0' 10%5' 4%&*$%' . 2'01(+')+%*$,%0' 3%$%' 8**)%5' 41)',0' '' 8*0)' 7'/1'4/%' $%8%52' -',. ')+%' 6%$(+/*$,5%' . 5' '/0*')+%' 6%$,*5,5%' *&' 8%$(1$2'+'7%'4%%. '%86/*2%5' 3,)+' -$%')' 01((%00' +%' 6%$(+/*$,5%' *&' 8%$; (1$2') *' = ' *&' '-$',. ' 3,)+' 01/6+')%' *& E1,. ,. %' <' -$',. 0' '58,. ,0)%$%5')*' . ' '51/)' 6'),%.)' %7%$2')+,$5' *$&*1$)+' +*1$',0' . '%&&,; (',(,*10'(*84,. '),*. ' +%' 6%$,*5,5%' *&' 8%$; (1$2' ('. ' 4%0)' 4%' -,7% . ', . ')+%' 0*/14/%' &*$8' $%(%.)/2',.)$*51(%5' 42' 6+'$8' (,0)0' '0), ' 8*$%' 6*3%$&1/' 5$1-')+%' (2' . ,5%' *&' 8%$(1$2' +'0' 4%%. ' $%(*88%. 5%5'41)'(' . . *)' 4%' *)+%$')+' . '' 5' . -%$*10' $%8%52' '/,(2/,(' '(,5' . 5' ,)0' (*86*1.50')**' +'7%' 4%%. ' 10%5' 3,)+' '66'$%.)' 4%. %&,)' &')+%' */5%$' . 5' %86,$,(' $%8%5,%0' 6%$(+/*$,5%' *&' ,$*. ' . 5' (+/*$')%*&'6*)'00,18'+'7%'4%%. ')+%'8*0)'%8; 6/*2%5' . 5' '$%' 1.5*14)%5/2' *&'-$%')' 7'/1%' +%2' 8'2'4%' -,7%. ', . ' (*84,. ')*. ')*-%)+%$' 3,)+' -/2(%$,. %' . 5')+%' ,$*. ' 0+*1/5' 4%' '5; 8,. ,0)%$%5' &$%%/2' 0*' /*. -' '0' 7*8,), . -' 5*%0' . *)' *((1$' +%' -%. %$'/' .),&%4$,/%' $%8%5,%0' 8'2'/0*' 4%' -,7%. ', . '5,6+)+%$,''41)' (,50' '$%' 6$%&%$'4/%')*' '/9'/,. %' (*86*1.50' 0,. (%')+%' /')%$' '$%' 5%6$%00,. -')*')+%' (,$(1/'),*. ' . ' . *' '((*1.)'3+')%7%$' 0+*1/5' ' .),&%4$,. ' ' .),; 62$,. ' *$' ' . 2' *&')+%' 0*('/%5' . %3' ' .),; 62$%),(0'4%'10%5', . '5,6+)+%$,'

 +%' . 184%$' *&' *)+%$' 5$1-0' 3+,(+' +'7%' 4%%. ' %86/*2%5', . ')+%')$%')8%.)' *&')+,0' 5,0; %'0%' ,0' 7%$2'/'$-%' 41)' 0')+%' 3$,)%$' +'0' . *' %B6%$,%. (%' *&')+%8' +%' ('. ' 5*' . *' 8*$%')+' . ' 8%.),*. ')+%8 ' 8*. -0)')+%8' '$%'6%$*B,5%' *&' +25$*-%. ' +26*01/6+,)%' *&' 0*5,18' ' . 5')1$6%.),. %' . *)')*' 0'2' (+/*$'/' . 5'>'4*$' . 5, ' 3+,(+', . ')+%' *6, . ,*. ' *&')+%' 3$,)%$' '$%' 5' . ; -%$*10

 +%' */5%$' 6+20,(,' . 0' &$%E1%.)/2' 58,. ,0;)%$%5'%8%),(0' . ' 5,6+)+%$,' ' 3,)+' 01/6+')%' *4>%()' *&' 5%)'(+, . -' ' . 5' %B6%//,. -'&'/0%' 8%84$' . %0' &$*8')+%' ',$ 6'00'-%0' ' . 5')+$*')' +%,$' $%01/)0' &$*8')+,0')$%')8%.)' 3%$%' *&)%. ' -**5' 1)' . *3')+')' 8*$%',0' 9 . *3 . ' *&')+%' +%')$)' &', /1$%'0*'(*88*. ', . ' 5,6+)+%$, ' ' . 5' *8' +%' 5%6$%00' .)' %&&%()0' 3+,(+' %8%),(0' +'7%' 16*. ')+%' (,$(1/'),*. ')+%2' '$%' 10%5' 8*$%' $'$%/2' &'%86/*2%5' ')' //' * . /2')+%' /%'0)' 5%6$%00' .) ' 01(+' '0' 01/6+')%' *&' C,. (' ,6%('(1' . +' ' *$' '6*8*$6+,. %'0+*1/5' 4%' -,7% .

 L' S G +%')+$*')' ,0')+% /*('/,)2' &$*8' 3+,(+')+%' 06%(,&,(' 6*,0*. ' *& 5,6+)+%$,' ' ,0' '40*$4%5', .)*')+%' 020)%8'41)' ,)' ,0'7%$2'5*14)&1/' 3+%)+%$' $%8%5,%0' '66/,%5')+%$%)*' '$%' *&' . 2' %&&%()' 16*. ')+%' 6*,0*. ' ,)0%/& ' %7%$)+%/%00'3%'+'7%', . '5,6+)+%$,' ' ' 6*,0*. . . -'42' -. %$' /'0%),(' 8')))%$')+%'$%01/)' *&')+%' 61)$%&'(),7%$ (+' . -%0' -*, . -' *. ' , . ')+%')+$*')' . '5' 81(+' -**5' (' . ' 4%' 5*. %' 42' $%8%5,%0'3+,(+'$$%0)'),0'6$*(%00' *' &*$(%' +')%7%$'0+*1/5'4%'10%5')*'$%8*7%')+%' 8%8; 4$' . %0'41)')+%')+$*')'0+*1/5'4%'06*. -%5'*1)' &$%E1%.)/2',)+' '' 0*/1),*. ' *&'6%$(+/*$,5%' *B 8%$(1$2'A', . ' F!!R'*&'('$4*/,%' ',(,5'A', . ' !R' *$' *&' $%0*$(, . 'A', . '@!R' . '%B(%//%.)' '66/,; ('),*. ')**', (0')+%' 0*/1),*. ' *&')+%' 6%$(+/*$,5%' *&',$*. '%,)+%$' '/*. %' *$' 8,B5'3,)+' . '%E1'/ E1' .),)2'*&'-/2(%$,. %' +%'),. (1$%'*&',*5,. %' '66/,%5'/*('//2'+'0' /0*'4%%. '&*1.5'7%$2'4%. %; &,(,'/!' +%0%''66/,(',*. 0' 8' 2'4%'/)%$. ')%5' 3,)+')+%'10%*&')+%'('$4*/,(' 06$'2' '/'$-% . 184%$' *&')+%$' '66/,(',*. 0' +'7%' 4%%. ' $%; (*88%. 5%5')'7'$,*10'),8%0'41)')+*0%'>10)' 8%.),*. %5' 3,/!' 4%' &*1.5')+%' 8*0)' 10%&1/' ' . 2' *&')+*0%' 3+,(+' +'7%' 4%%. ' 10%5'+'7%' . *' *)+%$' 8%$,)')+' . ')+')' *&' 4%, . -'+'$8/%00' * 8%'01(+' 0'6'6', . ' ^(' +'7%'4%%. '$%(*8; 8%. 5%5'4%('10%')+%2'+'5')+%' 6*3%$' *&5,0; 0*/7, . -' 5,6+)+%$,)(' 8%84$' . %' *1)0,5%')+%' 4*52' +%2'+'7%'+*3%7%$' . *)' 4%%. '&*1.5' 0*' %&/ (',(,*10', . '5,00*/7, . -')+%' 8%84$' . %' "' H ' . 5', &')+%2'+'5'4%%. ')+%2' 3*1/5'*./2' +'7%' 4%%. ' *&' 10%' 3+%. ')+%' 8%84$' . %' ');)'(9%5')+%' ',$ 6'00'-%0' +%,$')+*$*1-+' '66/,(',*. ', . ' 01(+' (*.5,),*.0' ,0' 5,)&,(1/)' *$' ,86*00,4/%' . '5' 8*$%*7%$', . ')+%' 0'8%' ,($(180)'.(%0' *)+%$')$%')8%.)' ,0' 8*$% 1$-%.)/2'$%E1,$%5

 M' " ' ' " ' " G' A'R ' ' # ' # /"' :' # ' " ' 0 G .'7,3'*&')+%'%B)$%8%&')'/,)2'*&')+,0'(*86/,('),*. ' *6%$'),7%')$%')8%.)' ,0' ')' *. (%' ('//%5'&*$' '0'0**. ' '0',)' ,0'5,'-. *0%5'42')+%'0,-. 0' '/$%'52'5%)' ,/%5' %7%. ')+*1-+' ,)' 4%' , . ' . ' %'$/2'0)'-%' +%' *6, . , . ' *&'01$-%*. 0' ,0' '0'2%)'5,7,5%5' '0')*')+%'(*86'$'),7%'8%$,)0' *&')$'(+%*)*82' . 5' $' < 32%$<0' , .)14';),*. ' *&')+%'/'$J8B'41)' *. %' *$' *)+%$' *6%$'),*. ' 810)'4%'6%$&*$8%5')',0')$1%')+')'%7%. ' '&)%$)+,0')+%'6$*-. *0,0',0'0),//' 4'5' &*$5%')+' &$*8' 6. %18*. ,'' ,0'7%$2'(*88*. !'2%)')+%' 4%0)' (+' . (%'+'0'4%%. ' '&&*$5%5')*')+%'6'),%.)

 AF!R ' ' # /"' ' # ' " / G' +%. '= 0'*((1$0'' .),0%6),(' 0*/1),*. 0',8,/'$)*')+*0%'10%5'&*$')+%')+$*')'0+*1/5'4%', . >%()%5' &$%E1%.)/2', .)*')+%' . '$%')*'=*1/5' 4%')'9%. ')*'E1,(9/2'3,6%' '3'2'//' 0%($%),*. ' ,001,. -' &$*8')+%' . *0)$,/0', . ' *$5%$')+')' %B; (*$,'),*. ' 0' . 5' 0%(*. 5'$2', . &%(),*. ' 8'2'4%' '7*,5%5

 A(R 8 "0 G +,0',0'4%0)')$%')%5'42')+%' 01(9,. -'*&',(%'. 5')+%' 58,. ,0)$'),*. '*&('$; 4*/,(' '(,5'($%'0*)%' *$' 4,081)+' (%')*')+% ' ' (. ' ' .) %' ' '

0%6,-'0)$,7' .'*$' ''4/,0)%$'*7%$')+%'%6,-'0)$,18 '
3,/!&$%E1%.)/2'4%'*&'10%H 41)',&''' 4/,0)%$'4%'
10%5' ('$%8 10)'4%'%86/*2%5')+')'+%' $%;
01/),..-'0*$%4%'.*)',.&%()%5'42'+%'5,6+)+%;
$,),(' 8%84$'.%' &')+%'7*8,),..-',0'0%7%$%'
&**5'8 10)'4%'-,7%.'42')+%'$%()18
A5R P G %$%'&$%%'0),81/'),*.'
8 10)'4%'$%0*$)%5')+'4*)+'51$,.-')+%' '))'(9'
'.5'3+%.' ,)' ,0')+$%')%.%5' 1$,..-')+%'
'))'(9'$%8%5,%0' '$%' .*)'*&'81(+' '7',/'&*$
5%')+',0'0*'&$%E1%.)/2'0155%.H41)',&'6*00,4/%'
.,)$,)%'&'82/'*$'.,)$*-/2(%$,.%'8'2'4%'5;
8,.,0)%$%5' +%'014(1)'.%*10',.>%(),*.'*&'
/,E1*$'0)$2(+.,.[' +25$*(+/*$')',0',.'5*0%0'*&'
)+$%%' 8,.,80'$%6%')%5'%7%$2'+'/&'+*1$'A&*$
'51/)0R3,//0*8%),8%0'),5%')+%'6'),%.)')+$*1-+'
)+%'5'.-%$*10'6%$,*5' +%))')+%'0,-.0'*&'
+%'$)&',/1$%' '$%'6%$(%,7%5'%7%.',&')+%'6'),%.)'
,0''66'$%.)/2'(*.7'/%0(%.)'+%'810)'4%'9%6)'
,.')+%'$%(184%.)'6*0)1$%' ')'*40*/1)%'$%0)'
%.%$'/')*.,(' $%8%5,%0'0+*1/5'4%' -,7%.'
)*-%)+%$'3,)+'0)$2(+...%',$*.''.5'5,-,)'/,0
' 6 G *$')+,0'(*86/,(''),*.')+%'
8*0)'%&&,(''(,*10'$%8%5,%0''$%'-**5'5,%)'-**5'
',$''.5')+%'58,.,0)$'),*.'*&',$*.''.5'0)$2(+;
.,.%' '00'-%'3+%.')+%' %B)$%8,),%0' '$%
'&&%()%5',0'*&)%.'*&'7'/1%'.5')+%'66/,(''),*.'
*&''' 3%'9'&'$'5,(' (1$$%.)'0%%80'0*8%),8%0'
)*'6$*8*)%'$%(*7%$2
0 > ' %
// G %/'),..-')*'5,6+;
)+%$,'' +%')%$8',0' '66/,%5')*')+%'8%8;
4$'.%'&*$8%5',.'5,6+)+%$,'H''.5',)'0'/0*'
'00*(,')%5'3,)+'(%$)'..'0286)*80'*((1$$,..-'
,.')+%'(*1$0%'*&')+%'5,0%'0%'01(+'0'5,6+)+%;
$,),(' 6'$'/20,0' ' %(% / '.5'& (2

' ,0%'0%0'*&'G %%))'
,0%'0%0'*&

Y, ',#" KE '5*14/%H'.5' '
'0%%R G *14/%'7,0,*.' ' !%

' < ')+,$0)H'.5') '
8'5.%00R G 6 '-' " " " H $' " '
OI 3 '*$' H %$' " #
& # G .',$$,)'4/%'(*.5,),*.'*&')+%'
.%$7*10'020)%8' (+'$'()%$,0%5'42''" ($'7,..-'
-%.%$'//2'6%$,*5,(' &*$ '/(*+*/,(' '.5' *)+%$'
0),81/'.)0
= /*.* G=+,0'6%(1/,'$'(*.5,),*.'8'2'
4%'4$*1-+)'*.'42'" (*1$0%'*&',.)%86%$')%'
5$,.9,.-H41)',)',0'0%/5*8')+%'$%01/)'*&')+')'
('10%''/*.%'.'.5',0'.*)',.&$%E1%.)',.'6%$0*.0'
3+*'+'7%'.%7%$' 4%%.' ,.)%86%$')%' 6$,*$
)*')+%'5%7%/*68%.)'*&')+%'8*$4,5'($'7,..-'
+%'*((1$$%.(%'*&')+,0'&*$8'*&',.0'.,)2''0'
*&')+%$'5%-%.%$'),7%'.%$7*10'5,0%'0%0'8'2'
-%.%$'//2'4%')$'(%5',.')+%'&%8,/2'+,0)*$2'*&
)+%'6'),%.)0' 1)'01.0)$*9%''' 4/*3'*.')+%'
+%'5'*$*)+%$'5,$%()',.>1$2')*')+%'4$',.'8'2'
%B(,)%',)H''.5',)'8'2'4%'0286)*8'),(''*&
%6,/%602'*$*&')$1()1$'/'5,0%'0%'*&')+%'4$',.'
)'8'2'4%'5%7%/*6%5''')''.2'6%$,*5'*&''51/)'
/,&%H41)'8*0)'&$%E1%.)/2'5%(/'$%0' ,)0%/&'
51$,.-')+%'614%0(%.)'.5'(/,8'()%$,('6%$,*50

'#o # G=',.0)'4,/,)2'&'(+'$'()%$''.5'
,.5,(''),*.0'*&'6%(1/,'$' .%$7*10',$$,)'4,/,)2'
8'2'-%.%$''//2'4%$%(*-.,0%5''0'+'7,..-'6$%;
(%5%5')+%'5,0),.()'5%7%/*688%.)'_$&)+%'($'7,.-'
)',0''/0*'101'/')*'&,.5'01(+'6%$0*.0''0''$%'
6$%5,06*0%5')*')+%',5,0*$5%$'4.*$8''//2'0%.;
0,),7%')*')+%',.&/1%.(%'*&'0),81/'.)0'*8%;
),8%0'7%$2'08//'E1'.)),%0'*&'/(*+*/6$*51(%'
'66$%(,'4/%',.)*B,(''),*.'+%'51$'),*.'*&'
)+%'6%$,*50'*&'($'7,..-',0'7'$,'4/%H41)'8*0)'
(*88*./2')+%2'/'0)'*.%'*$'3*'3%%90'
+%'$%8,00,*.0'(*.),.1%'&*$'6%$,*50'7'=''
,-'&$*8')3*')*')3%/7%'8*.)+0'1.-'
)+%'6%$,*5'*&'($'7,.-')+%'3+*/%'8*$'/4%,.-'
,0'%.)+$'//%5'42')+%'8*$4,5'5%0,$%H'.5')+%'
$%-'$5'&*$)$1)+'5%(%.(2'*$51)2',0'-%.%$'//2'
'/)*-%)+%$'/*0)' *5%$')%',.51/-%.(%',.'''
0),81/'.)'8'2'4$,.-'*.')+%'8*$4,5'($'7,.-H
41)')+%'5%0,$%',0'&$%E1%.)/2'5%7%/*6%53,)+*1)'
'.2'01(+',.)$*51(),*.' %84%$0'*&')+%'
+*10%+*/5',.'3+,(+''6'),%.)'/,7%0'('.',.5%%5'
&)%.'$%(-.,0%')+%',.5,(''),*.0'*&''(*8,.-'
'))'(9'42''$%0)/%00.%00'.5'5%6$%00,*.'3+,(+'
6$%(%5%'.2'01(+',.51/-%.(%' 1$,.-')+%'
,.)%$7'/0')+%'6'),%.)'0%%80'%B(%6)'3+%.')+%'
4$','+'0'4%%.'3%'9%.%5'42'&$%E1%.)'))'(90'
)*'$%(*7%$'(*86/%)%/2H''.5'+%'-%.%$'//2'
5,06/'20'-$%')'(*.&,5%.(%',.'+,0''4,/,)2')*'
$%0,0')+%')%.5%.(2',.'&1)1$%' %6%')%5'
'))'(90''/3'20'6$*51(%''6%$8'.%.)'5%-$'5';
),*.'4*)+',.)%//%()1'/'.5'8*$'/H''.5',&')+%'
6'),%.)'/,7%'/*.-'%.*1-+'+%'/'60%0',.)*''
0)'%'&'5%8%.),''')'0*8%),8%0'+'66%.0')+')'
0*8%' %$%4$'/'/%0,*.''*&'3+,(+'5,%'5,60*;
8'.,''+'5'4%%.'0286)*8'),(' 8'.,&%0)0'
,)0%/&',.'6'$'/2),('*$'(*.71/0,7%'0286)*80H'
'.5')+%'66%'$'.(%*&01(+'6+%.*8%.''',0'*&)%.'
'((*86'.,%'42''8**/,&,(''),*.''*&')+%'($'7,.-
-2 $1%'5,60*8'.,'' 8'2'%'0,/2'
4%'.5'*&)%.',0'(*.&*1.5%5'3,)+'8%)%'
+'4,)1'/'5$1.9%..%00' .'5,60*8'.,''+*3;
%7%$')+%$%',0''0''' &1.5'8%.)'/(*.5,),*.''
6')+*/*-,('/(*.5,),*.''*&')+%'4$',.'3+,(+'
'.,&%0)0',)0%/&',$$%06%(),7%'*&'%B)%$.'/(,$;
(180)'.(%0'*&')=6)'),*.'.' +'4,)1'/'
5$1.9%..%00')+%'($'7,..-'(*.0,0)0'8'1,./2',.-'
''5%0,$%')*'9%%6'16'''(*.5,),*.''*&'0),81/';
),*.')*'3+,(+')+%'4$',.'+'0'4%(*8%'((10;
)*8%5' +%'+'4,)',0')+%'$%01/)'8%$%/2'*&'
(*86/,'.(%'3,)+''7,(,*10'(10)*8''.5')+%$%'
,0'.*'01(+'6%$,*5,(,)2'*$'..5%6%.5%.(%'*&'
%B)%$.'/'..&/1%.(%0',.')+%'0286)*80'0'&*1.5',.')+%')$1%'5,0%'0%
2 $*/*.-%5''40),.%.(%'&$*8'
0),81/'.)0''.5'5+%$%.(%')*')+%'.,('$%-,;
8%.''$%')+%'*./2'8%'01$%0'&$*8'3,.(+''.2'
'8%/,*$'),*.('.'4%'+*6%5'&*$')',0'0%/5*8'
6*00,4/%')*'$%0)$',.')+%' -$'),&,(',*.''*&')+%'
($'7,..-'3,)+*1)'(*861/0*$2'0%(/10,*.H''.5'
%7%.'3+%.')+,0'+'0'4%%.'01((%00&,,2'%.;
&*$(%5'&*$''(*.0,5%$'4/%'6%$,*5')+%'8*$4,5'
)%.5%.(2',0'0%/5*8'%$'5,()%5'2')+%'
0'4,)1'/'$1.9'$50'()'?MP<'8%.5%5'
'.5'8'5%'6%$6%)1'/'42')+%'0.%4$,')%0'()'
???<''6%$0*.'3+*',0'42'$%'0*.'*&'+'4,)1'/'
,.)%86%$'.(%''')',8%0'5'.-%$*10')*'+,8 0%/&

*$' *)+%$0' *$,.('6'4/%' *&' 8'.''-,.-' +,8 0%/&' *$' +,0' '&&',$0' 8'2' 16*.' +,0' *3.' 3$,))%.' '66 (','.*.'' '))%0)%5' 42')3 *' >10),(%0'4%' '5; 8,))%5',.)*' ''/,(%.0%5'0 %)$%')&'.5'5%)',.%5' &*$01(+'6%$,*5'.*)'%B(%%5,.-')3%/7%' 8*.)+0' '0' +%' 8'2' 06%(,&2' ,.' 01(+' '66/,(','.*.' %7%$'/ $%)$%')0' +'7%' 4%%.' /,(%.0%5'1.5%$')+%' 6$*7,0,*.0' *&')+,0' ()' &*$')+%')$%')8%.)' *&' 5,60*8'.,'(0' 3,)+' ,.' 8'.2' *'0%0'0'),0; &'()*$2' $%01/)0' ' *

' , P " ' '0%6'$')%R G +,0' '5>%(),7%' ,0' 10%5',.' $%&%$%.(%')*' (%$)',.'(1)'; .%*10' %$16),*.0',.'3+,(+')+%' 06*)0' *$ 610;)1/%0' '$%' 0%6'$')%' &$* 8' %'(+' *)+%$H &*$' %B; '86/%' 5,0($%)%' 08' 6*B' '0' 5,0),.-1,0+%5' &$* 8' (*.&/1%.)

& ' 3 ' ' 5$,7%' '3'2R

- . G= *('/''66/,(','),*.0' 3+,(+' '$%' 0166*0%5')*' $%8*7%' *$' 5,06%$0%')+%'(*.-%0),*.' '.5'%&&10,*.'*&'..&/'8%5'6'$)0'' .5')+%'03%//,.-' *&')+%' 09,.'*7%$')+%8

G +%'(+,%&'5,0(1),%.)'8%'; 01$%0' *$ '-%.)0' '$% G $,(),*.H $%001$%H '$8'8*.0)'66/,(','),*.0' *1.)%$,$$,)',),*.' 42' 4/,0)%$0' *$' /,.,8%.)0H' %$(1$2' '.5',)0' 6$%6'$'),*.0H' *5,.%' '.5',)0' 6$%6'$'),*.0' ,.(/15,.-')+%' *5,5%0'*&' *)'00,18' %'5'' .5' '58,18

= G +%0%' $%8%5,%0' '$%' -%.%$'//2' '6; 6/,%5'*7%$'%./'$-%5'>*,.)0'%./'$-%5'-/'.50'*$ (20),(')1.*1$0' +%'8*0)'6*3%$&1/'8*.-0)')+%8' '$%' 4/,0)%$0'3+,(+'0*8%),8%0'$%8*7%' %./'$-%8%.)0' 3,)+' -$%')' $'6,5,)2H' .%B)')*')+%0%' (*8%' 8%$(1$2' '.5',*5,.%' '.5')+%,$' 6$%6'$'),*.0' %,)+%$'/*.%'*$',.'(*84,.'),*.' +%,$' '(),*.',0' ,5%5'42'+%')' '.5'6$%001$%' +%' %&&%()'*&')+%'&*$8%$',0'0%%.',.')+%' .5,'.')$%')8%.)'*&'-*,)$%'3+,(+'(*.0,0)0',.'$144,.-' ,*5,5%'*&'8%$(1$2'*,.)8%.)'*7%$')+%')18*1$' '.5'%B6*0,.-')+%'6'),%.)')*')+%'&1/'$'20'*&')+%' 01.'*$')*')+%'3'$8)+'&'''/'$-%'&,$%' +%'4%.%&,(,'/%&&%()0'*&'6$%001$%''$%'*40%$7%5' ,.')+%'5,8,.1),*.'3+,(+')'9%0'6/'(%',.'%,.' /'$-%5'.5'03*//%.'>*,.)0',85%$')+%''66+(''),*.'*&'8%$(1$,'/*,.)8%.)'*$'0)$'66,.-')+%' &,5(),*.'3,)+')+%'+'.5',.''66/2,5-')+%'*,.); 8%.)''.5')+%'6$%001$%'%B%$)%5'42')+%'0)$'6; 6,.-'-$%')/2',.($%'0,.-')+%' %&&,('(2'*&')+%' 8%$(1$,'/6$%6'$'),*.',.'$%8*7,.-'03%//,.-' ' ! '

' &,$*8H'.5' '%'0%R' *' 'H $' g %$'F "-# - . G ,0%'0%'8'2'4%'5%&,.%5''0''' 5%7,'),*.'&,*8')+%'0)'.5'$5'*&'+%'/)+',.''.2' *&')+%'&1.(),*.0'*$'(*86*.%.)'8')%$,'/0'*&')+%'4*52' '$ ' +%'%B6$%00,*.'0''5,0%'0%<,0'&$%E1%.)/2' 10%5'3,)+'&,*8')+%'0)'.5'$5'*&'+%'/)+',.''.2' *&'('10'),*.' +10',)'8'2'4%'66/,%5')*'0*8%' 0,86/%'6+%.*8%.*.'&*$'%B'86/%'.%1$'/-,'' 3+%.')+')'6+%.*8%.*.',0')+%'0*/%'%&&%()*&''' ('10%'01(+''0''('($,*10')**)+H'*$',)'8'2',.; (/15%'8'.2'(*.(1$$%.)'*$'(*.0%(1),7%'$%01/) ' .)'6+%.*8%.''01(+''0')+*0%'*&'026+,/,0'*$)26+*,5'&%7%$ 1 ' % ' G')',0'3%//' 9.*3.')+')'(+'.-%0'*&'&1.(),*.''.5'*&'0)$1(;)1$%''$%'4$*1-+)''4*1)''.5',.&/1%.(%5'42' '-$%')'7'$,%)2'*&'-%.(,%0' +%0%''-%.(,%0' 0*8%'*&'3+,(+'()'&$*8'3,)+,.'*')+%$0'&)K*8' 3,)+*1)''$%'$%(*-.,0%5'0')+%' '*&' 5,0%'0%' 1(+'(+'.-%0'3+%)+%$')+%2'4%' &1.(),*.''/''&&%(),.-'8*$%'%06%(,''//2')+%'7,)'/' 6$*6%$),%0'*&')+%'4*52'3,)+*1)'8'..,&%0)''/)%$';),*.0'*&0)$1()1$%'*$0)$1()1$'/'(/%'$/2''&&%(); ,.-',)0'6+20,('/'6$*6%$),%0'(*.0),)1)%'3+')',0' &'8,/,'$/2'9.*3.'0'-'3+,(+',0'+%.(%' 0',5')*'4%'3 " '*$' '$%06%(;),7%/2' +%0%'(+'.-%0''$%'8%$%/2')+%'%7,5%.(%' *&''.'/)%$%5'*$'6%$7%$)%5''(),*.'3+,(+',0')+%.',1'*6%$'),*.'*$'+'0'/$%'52'*((1$$%5')+%' .')1$%'*&'3+,(+',0'(*.0,5%$%5',85%$')+%'+%'5' *&'$ +%.')+%0%'5%7,'),*.0'&,*8' +%')+'(+'.5'6%$7%$)%5'0%($%),*.0')*' (*86'.,'*&')+,$0)K'.5'*&'6',.'')'+%'>*.,.)0' 3,)+'%&&10,*.',.''.5'*$1.5')+%8'3%'0'2')+')'01(+'6%$0*.',0'/'4*1$,.-'1.5%$'5,0%'0%H ''.5'3%'H48',)'0$+%18'),08'4%('10%')+')' .'8%'+'0'4%%.''00,-.%5')*''(*86/%B10'*& 5%7,'),*.0'&$*8'+%'/)+'01(+'0')+*0%')+%.' 6$%0%.)%5'42')+,0',.5,7,51'/' +%.')26+*,5' 6*,0*.'+'0'4%%.',.)$*51(%5',.)*')+%'4*52',)' /%'50',.'+9%'8'..%$')*''.184%$'*&'&1.(;),*.'/''.5'0)$1()1$'/(+'.-%0'3+,(+')'9%.')*-%)+%$'(*.0),)1)%'3+')'3%'(''0)26+*,5' &%7%$'$'-',.'1.5%$'(%$)',.'(,$(18; 0)'.(%0')+%$%''66%'$0')*'4%'-%.%$')%5',.')+%' 020)%8'3+%)+%$'0')+%'$%01/)'&''')%.5%.(2' %0)'4+0+%5'4%&*$%'4,$)+'A+%$%5,)'$2'*$'42' +'4,)0'*&'/,&%'A'(E1,$%5R''.''-%.(2'3+,(+' '(),.-'8*$4,&,('//2'6$*51(%0''0%$,%0'*& 6+%.*8%.''3+,(+'3%'('//0-*1)<+%0%' 0%7%$'/&*$80'*&'5,0%'0%'8'2'4%' ,.'-$*160''$$'.-%5',.''((*$5'.(%'3,)+')+%' ('10%0'3+,(+'-,7%'$,0%')*')+%8'L$')+%,$' .')1$%')+%,$'0%')')+%,$'51$'),*.'^*'U1/%0' '$%/',5'5*3.'&*$')+%'8*5%0'*&'5,0),.-1,0+; ,.-'*$ 0" "0'*.%'5,0%'0%'&$*8' '.*)+%$H&*$' 0" "0''0'&$'0'8'2' 4%')+%,$'$%01/)H'.5'&*$')+%,$')" "' '.5' "

+10',)'(*8%0')+')')+%'5,0(100,*.'*$5%; 0($,6),*.'*&'2(0' / / '(*.0,0)0'*&' .''((*1.)'*&')+%'('10%0')+')'-,7%'$,0%)*',)' *$',)0'5 ' ')+%'(+'.-%0'*&'0)$1()1$% *$*&'&1.(),*.'3+,(+'(*.0),)1)%',)')+')',0',)0') # ' % ' '.5' $ ')+%'6+%.*8%.'' '))%.5,.-')+%0%'(+'.-%0' *)+%$3,0%')+%'*'#0 3'.5'* '*&')+% 5,0%'0%H)+%'&'(0)0')+')'0%$7%')*'5,0),.-1,0+')+,0'6$),(1/'$5,0%'0%'&$*8'*)+%$'5,0%'0%0')+')',0',)0'-' ')+%'8%'.0'*&'&*$%; ('0),.-',)0'6$*-$%00'.5')%$8,.'),*.'3+,(+' (*.0),)1)%',)0'$ ' .5'&,.'//2')+%

6' '(%',)' ,0' 1. E1%0),* . '4/%')+ ')' (%$)' , . '06%(,&,(' 5,0%'0%0 ' 01(+' '0' 0 8 ' 6*B' . 5' 026+,/,0 ' 8 ' 2' 4% 5,$%()/2')$' . 0 8 ,))%5'&$* 8' 6 '$% .)')*' (+,/5 ' +%' 0%(* . 5' . 5' 8 *$%' (* 8 6/%B' 6$*4/% 8 $',0')*' 5%)%$ 8 , . %' 3+%)+%$' *$')*' 3+ ')' %B)% .)' , 8 ; 8 1 . ,)2'&$* 8 '*$ 010(%6),4,/,)2')*' 06%(,&,(' (* . ')'-, ' '5,0*$5%$%5'&1 . (),* . 0 ' *$' 5,0%' 0%5'),001%0 ' (' . '4%)$' . 0 8 ,))%5'&$* 8' 6 '$% .)')*' (+,/5 ' +%')%$ 8 0' 0)% 8 6%$' 8 %.)<' . 5' 0,5,*02 . ($' 02'<' $%' '0' $' 1)(+, . 0*. ' +' 0' 6*, .)%5' *1)' 0, 8 6/2' %B6$%00,* . 0' *&', . 5,7,51 ' /' +%$%5,)2

'7,$-, . ' (* 8 8 1 . ,)2' 01&&%$0' 8 *$%' 0%7%$%/2' &$* 8' ' . '%6,5%8 ,(' *&' 0 8 '// 6*B')+' . ' . %' , . ' 3+,(+')+%' 5,0%' 0%' +' 0' /* . -' 4%%. ' 9 . *3 . ' * 8 %' 9, . 5' *&')$' . 0 8 ,))%5', 8 8 1 . ,)2', 0')+%$%; &*$%' 6$*4 '4/%' * 8 %' 06%(,&,(' 5,0%' 0%0' $1 . ' . ' &' 8 ,/,%0' &')+%0%')+%' 4%0)' %B' 8 6/%', 0')14%$; (/%' 3 ,)+' 3+,(+' +' 7%' 4%%. ' (/'00%5' /%6$*02' . 5'%7%. ')26+*,5'&%7%$' . 5'5,6+)+%$, ' %$%' ,)', 0' 6$*4 '4/2' '' 6$%5,06*0,),* . ')*' . *)' ''5,$%()')$' . 0 8 ,00,* . ' *&')+%' 5,0%' 0%' ,' E1%0),* . ' +%$%', 0' ' 8 * . -0)' 8 ' . 9,. 5 . *)'*,52' ' . ',. +%$,); ' . (%' *&' 01(+' 6$* 8 , . %.)' 5,0%' 0%0' '0' 6+)+,0,0' 41)' *&' 6%(1+' $,),%0', . ')+%' 8 ' . . %$')+%2' 8 %%)' ' . 5' 6 '00')+$*1-+' 8 , . *$' ,/8 %.)0' +10' , . ' &' 8 ,/,%0' 3,)+' '' 0 . %$7*10' +,0)*$2<' 3%' 8 %%)' 3,)+' 6$%5,06*0,),* . ')*' +%' 5' (+%0' *&' . %$7*1]')26%', $%-1/'),%0' *&' 5,-%0),* . ', . ')+%' &*$8' *&' , '$$+*%'' ' . 5' 7* 8 ,),. -' ' . 5' '' 8 1/),)15%' *&' (* . 5,),* . 0' 3+,(+' +' 7%' 4%%. ' '0($,4%5')*' 7 '0*; 8 *)*$' 5,0)1$4 ' . (%0' +%' 8 %8 4%$0' *&' 0* 8 %' &' 8 ,/,%0' /,7%' /* . -' , . ' 06,)%' *&' %B6*01$%')*' '/8 *0)' %7%$2' %B(,), . -' 0*1$(%' *&' 8,0(+,%&' ' . 5' (* .)$' 0)' 8 *0)' &' 7*1$' 4/2' 3,)+' +)+%$0' 3+*' ' 0' &' $' 0' *. %' (' . ' 5%)%$ 8 , . %' +' 7%' '/')+,. -0' , . ')+%,$' &' 7*8$' +%$%' ,0' . *' 5*14)')+')' ' ')%. 5%. (2')*' -*1)')+%' +%8 *$$+' -,(' 5, ')+%,0,0' 60%15* +26%$)$*6+,(' 6' $'/20,0' $,%5$%,(+<0' 5,0%'0%' +' 2' &%7%$' %. 1$%0,0' ' . 5' *)+%$' 5,0; %' 0%0' ,0' +' . 5%5' 5*3 . ' &$*8' -%. %$'),*. ')*' -%. %$'),*. ' &' 8 ' . 2' 8 , . *$' (* 8 6/' , .)0')+%$%' ,0' /%0' (%$)', .)2H 41)' ,)' ,0' %B(%%5, . -/2' 6$*4; '4/%')+')' 6%$0*. 0' '$%' 6$%5,06*0%5')*' 4$*. ; (+,),0' ' . 5' *)+%$' (')'$$+0' 42' , . +%$,)' . (%')' ,0' '(9 . *3/%5-%5')+')' %6, /%602' 5%0(%. 50' &, * 8' 6 '$%.)')*' (+,/5' ' . 5')+')' , . ' &' ()' , . 5,7,51 '/0' 4%('10%' *&' +%$%5,)2' '$%' *&)%.)')+%' 014>%()0' *&' . %$7*10' 5,0%'0%0' %B(,)%5' 42' ('10%0' 3+,(+')+*0%' &, * 8' ' 5,&&%$%.)' 0)*(9' '$%' %. '4/%5')*')+$*3' *&&' $%'5,/2' +%' 7'$,*10' &*$8 0' *&', . ; 0' . ,)2' '$%' 0)$,9, . -' %B' 8 6/%0')', 0' 0166*0%5')+')')+%', . +%$,)' . (%' +%0', . ')+%'),001%0')+%8 ; 0%/7%0G)+')')+%$%' ,0' '' 0* 8 %)+, . -' , . ')+%'),001% %/% 8 %.)0' 3+,(+' 6$%5,06*0%0')*' (%$)', . ' 5,0%'0%0' , . ' (%$)', . ' &' 8 ,/,%0' **' 8 1(+' '))%.),* . ' ,0' -%. %$'//2' 4%0)*3%5' *. ' 5,$%()')$' . 0 8 ,00,* . ' *&' 5,0%' 0%0' &/=*8' 6 '$%.)')*' (+,/5' ' . 5')**' /,))/%' *. ')%. 5%. (,%0' $%01/),. -'&$* 8')+%' 01 8' *&' &*$(%0' '(),. -')+$*1-+')+%', . . 1 8 %$' 4/ '-%. %$'),*. 0' *&')+%' 6' 0)' ') #'H ' . 5'

3

9' %B G +%$%' '$%' -$%')' 5,&&%$%. (%0')+%' *$-' . 0' ' . 5' &1. (),* . 0' *&')+%' 0%B%0' ' . 5', . ' (* . 0%E1%. (%' '' -$%')' (* .)$' 0)' , . ')+%, $' 6$%; 5,06*0,),* . ')*' =0%' 0%' +%' &%8 '/%' ,0' 8 *$%' 5%/,(')%/2' (* . 0)$1()%5')+' . ')+%' 8 '/%' ' . 5

)+*0%' *$-' . 0' 3+,(+')+%')3*' 0%B%0' 6*00%00' , . ' (* 8 8 *. ' 5,&&%$' , . ' 3%, -+)' ' . 5' , . ' 0&, . %. %00' <H ' . 5' '' -%. %$' /' (* . 0,5%$'), *. ')' *. (%' , . 5, (')%0')+')')+%' &%8 '/%' <')*' $%0,0)' 8 ' . 2' %B(,), . -' (' 10%0' *&' 5,0%' 0%' +,0' ,0' 6' $),(1/' $/2' %7,5%.)' ')' (/, 8 '%)5$,*' 6%$,*50' *&' /,&%' 3,)+')+%' *. 0%)' *&' 614%$)2' -,$/0' 01&&%$' &' $' 8 *$%')+' . ' 8 '/%0' ' . 5' %06%(,; ''//2' &$* 8' ' ' 7' $,%)2' *&' $%&/%B' 06' 0 8 *5, (' 5,0; *$5%$0' 3+,(+' $%E1,$%' 41)' /,))/%' 6$*7*(')*. ' &*$')+%,$' 5%7%/*6 8 %.)' /')+%' 6+%. * 8 %. ' ' (/' 00%5' 1. 5%$')+%' +%' 5' *&+20)%$, ' ' *&)%. '*((1$' ')+,0' 6%$,*5')')+%' 0' 8 %'), 8 %' . 5'0+*$)/2' '&)%$3' $50')+%$%', 0' ' ')%. 5%. (2')*' 1/(%$*&')+%' 0)* 8 '(+')*' 6%$0,0)%.)' (* . 0),6'),* . ')*' 6%(1; /,'$' '))' (90' *&' . %1$'/-,' G %06%(,''//2' *&')+%' , .)%$(*0)' /' . %$7%0' ' . 5')*' (1)%' $+%, . . '),0 8 ' /' 60, . -' , .)*')+%' 014' (1)%' *$' (+$*. ,(' 9, . 5' . 0%8,'' ' . 5' (+/*$*0,0' '$%' '/0*' (* 8 8 *. /2' 8 %)' 3,)+' ')')+%' 6%$,*5' *&' 614%$)2' ' . 5', &')4%. ' . %-/%()%5')+%2' '$%' '6)')*' 6%$0,0)' ' . 5' 6$%(/,06*0%')+%' , . 5,7,51' /' 0),/' 8 *$%')*' 5,0; %' 0%' *,)$%')**' ,0' 8 *$%' 6$%7' /%.)' 8 *. -' &% 8 '/%0')+' . ' ' 8 *. -' 8 '/%0

7%. '0*%'$/2' 0')+%' 6%$,*5' *&' 614%$)2')+%' %B)%$. '/' (,$(180)' . (%0' *&')+%' 0%B%0' 5,&&%$' . 5' *. ')+,0' 5%6%. 50', . '' (%$)', . '8 %'01$%')+%' 5,&&%$%. (' +' 4,)0' . 5' (10)*8 0' . 5' '4*7%' ' *((16')*. '6/'2' . ', 8 6*$)' .)' 6$)' ' . 5')+%0%' '$%'/'$-%/2', . &/1%.),'/', . ')+%' 6$*51(),*. ' *&')+%' 5,0%'0%0' >10)' 8 %.),*. %5' 1)' 1. 5%$/2, . -')+%0%' *1)0,5%', . &/1%. (%0')+%$%', 0', . +%$%.)', . ')+%' 0%B%0' ' 5,&&%$%. (%', . ' 6$%5,06*0,),* . H &*$' 3+%. ')+%2' '$%' %B6*0%5' '0' *&)%. ' +' 66%. 0')*')+%' 0' 8 %' 01$$*8 5, . -0')+%2' 01&&%$' &$* 8' 3,5%/2' 0%6$')%5' 5,0%'0%0' '/%0' '$%' 8 *$%' 014>%()')*' %6, /%602')%)' . 10' -*1)' 5,' 4%)%0' /*(* 8 *)*$')' B2'60%15* +26%$)$*6+,(' 6' $'/2; 0,0' +' %8 *6+,/,' ' 7%0,(' /')*%' 0%' ' . 5' ' (1)%' /,8 - '&&%(),* . 0')+' . '&%8 '/%0' +%'/,0)'0+* 30')+')' *((16'),* . 0' 3+,(+' . 7*/7%' +' $5' 8 %.)' /' . 5' 4*5,/2' 3*$9' . 5' (* . 0)' .)' %B6*01$%' %B; 6/' . ' 0* 8 %' *&')+%' 7' $,%), %0' , . ' 6$%^06*0,), * . ')',0' 6$*4 '4/%')+')'&% 8 '/%0' '$%' 8 *$%'&$%E1%.)/2' ', /, . -')+' . ' 8 '/%0' 41)' 7%$2' *&)%. ')+%,$', //; . %00%0' '$%' '00*(, ')%5' 3,)+')+%' 8 %. 0)$1' /&1. (),* . 0' ' . 5' '$%')$, &/, . -' , . ' 5%-$%%H ' . 5')+*1-+' 8 *$%' 8 '/%0' '$%' 4*$. ')+' . ' &% 8 '/%0')*3' $50')+%' /')%$' 2%' $0' *&' /, &%')+%' '7%$' -%' *&)+%' 0%B%0' 4%(* 8 %0' 8 *$%' %E1' //2' 4' /' . (%5' *$ %7%. ' $%7%$0%5' 4%(' 10%')+%' 8 *$)' /,)2' *&' 8 '/%0', 0' -$%')%$')+' . ')+' ' *&' & 8 '/%0')', 0' 01&&, (, %.)' *' //15%')*')+%' &' ()')+')' 6$%-. ' . (2' ' . 5' /2, . -, . ' 6$%5,06*0%' &% 8 '/%0')*' =0%' 0%0' &$* 8' 3+,(+' 8 '/%0' '$%' %.), $%/2' %B% 8 6)H ' . 5')+')')+%$%', 0' '' (* . 0,5%$' 4/%' 5,&&%$%. (%' . ')+%' 0%B%0' '0'$%-' $50' 7%. $%'/' &&%(), * . 0' 4*)+' 0')*' 6$%5,06*0,), * . ' . 5')+%' %&&%()0' *&')+%' 5,0%'0%0' -% G = +,0 +'0' '' 8 *0)' , 8 6*$)' .)' , . ; &/1%. (%' '0' '' 6$%5,06*0, . -' (' 10%' *&' 5,0%'0%' , . ' . ' '- . %$<0' " ' ' B " '6 # 0')+%' 6$%, *50' *&' '-%' '$%')+10' 0145,7,5%5 A R' 1$0, . -' '-%' A, . &' . (2RG&$* 8' 4,$)+')*' M)+ 8H)+' 8 *.)+ A@R' + 5+**5G&$* 8' 0)')*' @ . 5' 5%.),),*.

40%$7'),*.0 34,(+ +'7% 0+*3.')+') 3+%$%' '6$*6%$ 020)%8'&5$',.'-%*&0*,/ 3')%$,0 ($$,%5 *1)')+%)%.5%.(2)* 61/8*.'$2 5,0%'0%0 ,0 7%$2 -$%')/2 5,8,.,0+%5 /'2 0*,/0 '$% (*/5 5186' .'5',86%$8%'4/% .'5 &'7*1$ 5,0%'0%0 '$*10%5 42)+%0%(*84,.%5 '-%.(,%0H 0'.52 .'5 -$'7%//2 0*,/0 $%'5,/2 5$',.')+%80%/7%0 '$% 3'$8' .'5 5$2' .'5)+10 ^$)%.5')* 6$*)%()')+*0% 3+*/,7%*.')+%8' '-',.0) 5,0%'0% /,8')%0 '$% '/0* 8*5,&,%5 42IK)$%%0 $*(90 $,7%$0 /'9%0' .'5 *)+%$ 6+20,(' / (*.5,),*.0 %)$,)10 ('$$,%5 5*3.' 42 0)$%'80 .'5 5%6*0,)%5 '/*.-')+%,$ 4'$$90 *$ '))+%,$ %0)1'$,%0'+'0'/,9%-$*)85 7%-%)'),*.' .'5',)0 5%('2' .'1.5*14)%5 6$%; 5,06*0,.-',.&/1%.(%,.')+% 06$%'5 *& 8 '/'$,' +% 16)1$.,..'*&/'$-%)$')0 3,)+,86%$&%() (1/),7'),*.',0 '/0* &$%E1%.)/2 &*//*3%5 42*1); 4$%'90 *& 8 '/'$,' $),(1/'$ 5,0)$,()0 '/0* 6$%5,06*0%)* (%$)',.' 5,0%'0%0 $%),..,08',0 8*0 (*88*.',. (/*0% 7'//%20H 1$,.'$2('/; (1/10 ,0%.5%'$%)$,(',.' 8'.2 5,0)$,()0 & $%') $,)',.' .'5 %/0%3+%$% .' *8% (,$(8.' 0($,4%5 '$%'0 ,.' (*)/'.5',.' *$&*/9' .'5 *)+%$ 5,0)$,()0 ,.5,7,51'/0 '$% %06%(,'//2 /,'4/%)* 0)*.%

*-0 ,/'$-% (,),%0 5%6$%00 8*0)6%*6/%H '.5',)',0 .*)')* 81(+)* 0'2)+') 8'.2 5,0%'0%0 8'2 4%)$'(%5)* ' 6$%5,06*0,),*.' 3+,(+ 04'5 3%')+%$ < +'0 0)'$)%5 /(*; ++/,08'+'0 4%.' 6$*7*9%5 ,.')+,0 3'2'),0 (/%'$')+%$%&*$%')+') B85%$)+% +%'5 *& (/,8')%)+%$%'$%8'.2'(*84,.,.-',.&/1%.(%0 3+,(+ '&,%%))+% 8*$'/' 8%.)'/' .'5 4*5,/2 .')1$%*&',.5,7,51'/0 '.5')+$*1-+ *.%*$ '// 8'2 6$%5,06*0%)* 5,0%'0% .')+,0 (*1.)$2 '.5 6$*4'4/2 %/0%3+%$%')+*0% 3+* 53%//*.' 8*1.)',.0 '$% /%00 /,'4/%)* 5,0%'0%)+'.')+% 53%/%$0 *.' 6/',.0G8'$0+2 6/',.0 %0; 6%(,'//2 %3'(*8%$0 '$% 8*$% 6$*.%)*)+% %.5%8,(5,0%'0%0 &' 5,0)$,()')+'.')+% .',)7%0 +%'4%0)',.0)'.(%0*&')+,0 '$% 520%.;)%$2 .'5 8'/'$,'')'0+*1/5'4%$%8%84%$%5' +*3%7%$')+')',0 .*)(/,8')%'/*.% 3+,(+ 7'$,%0)+% 6$%5,06*0,),*.' '8*.-0) 6%$0*.0 $%0,5,.-',.'5,&&%$.)'$%-.*.0H &*$)+%,$'+'4,)0 5,%)' '.5 0*(,/' (*.5,),*.0 5,&&%$ &'$* 8*$%)+')+% (/,8')% ,.' 3+,(+')+%2 53%//'.'5 6$%5,06*0,),*.')* 5,0%'0% 0+*1/5 .%7%$ 4% '0($,4%5 0*/%/2')* (/,8'),(' (*.5,),*.0 1./%00 '((,5%.)'/ ,.&/1%.(%0'+'7% 4%%.',.7%0),-')%5 '.5'%/,8,.')%5'' , &,

9') ' '& $G +%',.&/1%.(%0 *&')*3.' .'5 (*1.)$2'0 6$%5,06*0,.-')*'5,0; %'0%'$%E1,$% 0%6$')% (*.0,5%$%5 53%//,.-0'.5')+10 6$%; 5,06*0%0)* 61/8*.'$2 5,0%'0%0 42',.)%$%$,.-3,)+ 7%.),/').*.G,.'&')'42 6$%7%.),.-')+% '58,00,*.'*& 61$%',$,.)* 01(+ 53%//,.-0 +0)$1)+ 4%'$0*1))+%)%'(+,.-0 3%+'7% 5%$,7%5 &$*8 $' 1(+'.'.0 ,.7%0),-'),*.0') /2'.5 %0%3+%$%

$%06%()' 8*.-0)')+%80%/7%0 +%'+%'/)+ *&)+% 0, -%0)(,)2',.' $%') $,)',.'&*$%B 86%' (*86'$%0 &'7*1$'4/2 3,)+' .2'*&')+%'/'$-% 8'.1&'()1$,.-')*3.0'.5 3,^' 8'.2 1'/ (*881.,),%0')',0 %'02')* 1.5%$0)'.5')+') 5,&&%$%.(%0 810)' 5%6%.5'*6')+% *((16'),*.' &**5'.5'+'4,)0 *&)+% 6%*6%'.5'*.')+%,$ %B)%$.'/ 01$$*1.5,.-0G ',$' /,-+)' 5$',.'-%' .5' /,9%(*.5,),*.0 .'/'$-%$')*3.0 *((1; 6'),*.0 '$% 8*$%/*3%$,.-')+'.',.' (*1.)$2 5,0)$,()0H 3+,/%')+% 6+20,(' / '.5 8%.)5' 0)$',.',0 -$%')%$'.5'+'0 &%3%$,.)%$$16),*.0' ')%' +*1$0',.)%86%$'.(%' .5'6$*0),)1),*.' 6$%7',/ ,.')*3.0H 41)' ,)' ,0 42' .* 8%'.0 (%$)',.')+')',.'6$*6*$),*.')*')+%'6*61/'),*.')+%0%',//0 '$%/%00 &$%E1%.)',.')+%'8*$%$%8*)% 5,0)$,()0 .')*3.0 *7%$($*35,.-'(+%(90 7%.),/'),*.'8'9%0 5$',.'-%5,&&,(1/)'0*)+') 0140*,/0 4%(*8%0')1$')%5'(/*150)+%')8*; 06+%$%3,)+ 8*9%'.5 510)',.)%$8,.-/%0)+%'0%B%0 A'8*.-0)')+%'/*3%$ (/'00%0R'0*)+')' 01((%%5,.-'-%.%$'),*.0 '$% 0)1.)%5',.')+%,$ 5%7%/*68%.)''.5',.''7'$,%)2'*& *)+%$ 3'20 6$%%5,06*0%0)* 5,0%'0% 1)',.'0*8%)*3.0)+%0% %7,/0 +'7% 4%%.'*47,')%5 42 0'.,)'$2 8%'01$%0''.5'0''(*.0%E1%.(%')*3.0*&)%.' 6$%5,06*0% /%00')+'.'(*1.)$2 5,0)$,()0 * 5,0%'0%0 51%)* 5%&%(),7% 5$',.'-%'.5*7%$; ($*35,.- *8% 0)'$)/,.-',//10)$'),*.0 *&)+,0&'()'+'7% *(*8$%5'0,.(%0'.,)'$2 0(,%.(% +'0 4%%.'(9.*3/%5-%5)* 4% *&',.'/' ,86*$)'.(% .'7,//'-%0'&*$,.0)'.(%'$%61;)%5/2 0 8*5%/ <%6,5%8,(0*&5,0%'0%'00*(,')%5 3,)+ 5%&%(),7% 5$',.'-%'.5 %7,/ 5*8%0),(' '$$'.-%8%.)0+'7%5%(,8')%5')+%',.+'4,)'.)0 '.5')+%7,$1/%.(%*&')+%0%6,5%8,(0+'0 4%%.' -$%')%$')+'.')+')*&')+*0% 8%)'3,)+',.'/'$-%)*3.0 +%'/'))%$ '$% .*3'5'20 &*$')+% 8*0)'6'$)4%))%$ 5$',.%5')+'.'(*)8)$2 5,0 W$,()0H)+10 8&/9 %6,5%8,(0*&)26+*,5 &%7%$ +'7% 4%%.' ,86*$)%5',.)6/'$-%(,),%0 &$*8' ,0*/')%5 &'$80 3+%$%')+% 5$',.'-% /*.% 0%%8%5')* 4% ')*&'1/) 8*.-0)(+,/5$%.' $,(9%)0 0($*&1/'')14%$(1/*0,0 .'5 (+*/%$',(5,'$$+*%'')%*&'$ 8*$%6$%7/%.)',.')*3.')+'. (*1.)$2 H .'5')+% 8*$%($*35%5')+%6*61/';),*.')+% -$%')%$')+% 8*$)/,)2 &$*8'6+)+,0,0 +% 8*$)/,)2 '8*.-0) 2*B8-(+,/5$%.,0 &'$ -$%')%$',.')*K3.0)+'.',.(*,8)$2 5,0)$,()0 51/)%$'),*.0 '$% '.%7,/ ,.'/'$-% (*881.,;),%0''&&%(),.-'6%*6/%*&''//'-%0 $*8'.2 *&')+%0% (*1.)$2 5,0)$,()0 '$% &$%%' .; '51/)%$')%5'8,/9',0 .*3''0%'0,/2*4),.%5',.)*3.0''0',')+%' (*1.)$2' *'3+,/% 53%//%$0 ..')+% (*1.)$2 8 2'+'7% 4'5'5$',.'-% .'5 4'5'+*10%0')+%2+'7% 61$%',$'0''$1/%'.'5 %7%$2*66*$)1.,)2*&'4$%')+,.-,)*1)*&'5**$0 7%.')+% '/**+*/,0%5'5$,.90',.'8'.2'(*1.)$2 5,0)$,()0 '$% +*8% 8'5%'.5'+'$8/%00'3+%.' (*86'$%5'3,)+)+% '51/)%$')%5' $'3'06,$,)0 '9%.'42')+% /*3%$ (/'00%0'*&'/$-%)*3.0' .')+% *)+%$ +'.5'+*3%7%$'520%.)%$2',0 5,0%'0%'*&7,//'-%0'$')+%$')+'.'*&')*3.0 P'%$, '& M .%*&')+% 8*0)'(*88*.'('10%0'*&5,0%'0%'(*8,.-'1.5%$)+,0 +%'5',0 3'.)'*&(/%'./,.%00' *')+,0

51% '' 7'$,%)2 *&09,. 5,0%'0%0'01(+''0'%(C% 8 '' *&')+% 0('/6',.' (+,/5$%.'' .5' 5,0%'0%0' ('10%5' 42 6%5,(1,/ ')',.)%$&%$%0' 3,)+')+% &1.().(,*.0' *&')+% 09,.' -%.%$'//2'' .5' 42',)' %7%.'' ' (* 8 ; 8*.'(*/5',0' 8*5,&,%5' /*)+,.-',0''6'$)' *&)+% 014>%()' .01&&,(,%.)',8 6$*6%$'*$' %B(%0; 0,7% (/*)+,.-' '$%' 8*0)',8 6*$)'.)' 0*1$(%0' *& 6$%5,06*0,),*.' ' 8*.-0)')+% 6**$H &*$')+*1-+')+% (/,8')%' *&'),0' (*1.)$2',0' 0*' 7'$,'4/%' (*$%06*.5,.-' '5'6)'),*.0' *&' 5$%00' '$%' &*$')+% 8*0)' 6'$)' .%-/%()%5' /*)+,.-',0' 10%5')*' 6$%7%.)')+% /*00' *&'+%')' 3+,(+' *((1$0',+)+$%%' 3'20 =42 $'5,'),*.' (*.51(),*.' ' .5' %7'6*$'),*.H ' .5' '' 6$*6%$' '5'6)'),*.' 0+*1/5' 6$%7%.)' B851% /*00' *&'+%')' ''//*3,.-'&*$')+% %0('6%',.0)%'5' *&'%.01$,.-')+%'(*.5%.0'),*.'*&')+%0%($%),*.0' &$*8')+% 09,.' .5' 0+*1/5' 4% 01&&,(,%.)/2' /**0%')*' 6%$8,)')+% 8*7%8%.)' *&')+% /,840' .5')+*$'B' *. (*.51(),.-'/**0%/2'3*7%.' &/%B,4/% 8')%$,'/0' $%' (/%'$/2')+% 4%0)'5'6)%5' &*$')+,0' 61$6*0% %-/%()' &')+%0% $%E1,$%; 8%.)0',0'/'$-%/2',.0)$18%.)'/',.')+%'(10',*.' *&' 5,0%'0%'6'$),(1/'$/2',.' 2*1.-' 3*8%8'*&' *1$'/'$-%')*3.0' '7%$2'(*88*.' ('10%' *& 6$%5,06*0,),*.')*' 5,0%'0%' ,0' .%-/%()' *&'6$*6%$' 4%55,.-' %&,(,%.)' 7%.),/')',*.' ' .5' *7%$; ($*35,..-' '$%' 6$*+&,%' 0*1$(%0' *&' 8,0(+,%&' 7%$($*35,.-'''.5',..01&&,(,%.)'7%.),/'),*.''$%' '8*.-') +%' -$%')%0)' %7,/0' *&' *1$'(+,%&'(,),%0' '.5')*3.0H ' .5' .*)'*./2',0',)',.')+%,$'+*8%0' '.5' 3*$%0+*60')' 6*61/'),*.0' '$%' *7%$; ($*35%5'41)',.')+%,$'6/'(%0'*&'$%($%'),*.'' .5' *&'$%/,-,*10'3*$0+,6' $,%&/2',)' 8'2'4%' 0',5')+')' *7%$($*35,..-'6$%5,06*0%0')*' 8*$'/'8%.;)'/' .5'6+20,('/'5%)%$,*$'),*.H)*' ' (*8; 81.,('4/%'5,0%'0%0',.(/15,.-' ' 0%6),('.5' 6'$'0,),'((*.5,),*.0'' .5'%06%(,''//2')*')26+10' &%7%$' .5')14%$(/%H)*'61/8*.'$2' &&%(),*.0H ' .5')*' 7'$,%)2' *&'.%$7*10' 5,0%'0%0' 2' /*3%$,.-')+%' ' *&'6*61/'),*.0',)',.; ($%'0%0' '/' *)+%$' 6$%5,06*0,),*.0' .5',.-' ('10%' *& &'()'6'00%0',.)*' .'')(,7%'%B(,),.-' ('10%' *& 5,0%'0%

! ((16'),*. G ((16'),*.''(0',.')3'20'0''&'()*$',.')+%'6$*51(),*.'*&'5,0%'0%' A R)'8'2'%B6*0%')+%'3*$9%$')*'(%$)',.'5%/%;)%$,*10',.&/1%.(%0'3+,(+' '$%')+%8 0%/7%0' %B; (,),.-'('10%0'*&'5,0%'0%' &')+,0'(/'00')+% 4%0)',//10$'),*.',0'&1$.,0+%5'42'3*$9%$0',.' 6*,0*.*10'0140)'.(%0'01(+''0' '.),8*.2' '$0%.,('(*66%$'4$'00'/%'5'8%$(1$2'8,.%$'/' (,50'6+*06+*10'.5,.5,'$144%$' ,.%$0' 9.,&% -$,.5%$0''.5'0)*.% 8'0*.0'01&&%$&$*8' ,.&/'88')*$2'5,0%'0%0'*&')+%,$' ,$6'00'-%0' '.5'/1.-0',.51(%5'42')+%',.+''/'),*.'*&'&,.% 6'$),(/%0'$%01/),.-'&$*8')+%,$'3*$9' *$.0' (+$*.,(' ,.&/'88')*$2'.*51/%0''.5'7'$,*10' 5%&*$8,),%0'$%' 6$*51(%5',.')+*0%'3+*0%'*(; (16'),*.',.7*/7%0'(*.0)'.)'6$%001$%'*.' '.2' *.%' 6'$)' +*%8'9%$0' .5'(+',$8'9%$0' ,//10)$')%')+,0'0')'%8%.)')+%'/'))%$'6$%0%.),.-' '(+'$'(0%$,0),(' (*$.' '.5'014>'(%.)'6/%1$&&,')+,(9%.,.-',.')+%'&,$0)'$,-+)',.)%$06'(%

A<R ((16'),*.'+'0''0),/'3,5%$'6$%5,06*0; ,.-',.&/1%.(%' +%' -%.%$'/'+%'/)+' 8'2'4%

/*3%$%5'' .5')+%'$%0,0),..-'6*3%$'5,8,.,0+%5' 42')+%'(*.5,),*.0'*&'/,&%',.'3+,(+'8'.2'*((1; 6'),*.0'$%' ('$%,%5'*.' 8*.-')+%0%' '$%')+% # "0') ' '51%')*'7*%$; ($*35,.-'*$')*'5%&,(,%.)'7%.),/'),*.H ' 7 " ' (g ' (# "'6+20,('/'*$' 8%.)''/' &$*8' *7%$3*$9H A5R)+% ( ) ' ' ' ' *&')+%'4*52H ' (7 ')*' (*/5' '.5' 3%)' *$')*' %B(%00,7%' (+'.-%0'*&')%86%$')1$%H A R',86$*6%$' *$' ,$$%-1/'$ "0 ' 0' *$'*.')+%'(*.)$'$2' '40%.(%*&'5%E1')%*%86/*28%.)' +%0%',.; &/1%.(%0''$%*&)%.'(*84,.%5''.5')+%,$'%&&%()0' 6$*6*$),*.')%/2',.($%'0%5 +20,('/*7%$3*$9',0'*&)%.'(*.>*,.%5'3,)+' %B6*01$%' '.5',86$*6%$' *$',$$%=''$' &**5' 0166/2''.5')+%'(*.14,.'),*.'+'0''' 8'$9%5' %&&%()')'+'0'0*' 6$%5,06*0%5' '$8,%0')*' 5,0; %'0%')+')'+%,$'$'.90'+'7%'4%%.'5%(,8')%5' 42' &%7%$'6.%18*.,'' '.5' 4$*.(+,),0' &'$' 8*$%')+'.'42' '()1'/'&,-+),.-' *)'' &%3' 8%5,('/'8%.*'+'7%' 4%%.' '&&%()%5'42')+%'(*.')'-,'' *&')+%' (1)%' 06%(,&,(' 5,0%'0%0'4%('10%' 3+%.' %B6*0%5')*')+%8')+%2'3%$%'3*$.'*1)' 42'4*5,/2''.5' 8%.)'/'%B%$),*.'''.5'42'6$*;)$'()%5'&'0),.- '.2')+%$',//10)$'),*.0' 8,-+)'4%' -,7%.' */5,%$0'$%' 8*0)'/,'4/%')*')+*$'(,(''.%1$20 8' '.5'01.0)$*9%H ''.5'2*1.-'3*8%.'3,)+'.*' &,9%5'%86/*28%.)'*$'%B+'10)%5'&$*8'*7%$; 3*$9'.5''.B,%)2')*'+20)%$,''(*'(+8'.' 3+*'10%0'&*$8'.2'+*1$0'+,0'6%()*$'/8 10; (/%0',.'5$,7,.-'01&&%$0'(+,%&/2',.')+%8'3+%.' +%'+'0''.'))'(9'*&'810(1/'$'$+%18'),08 '.2*&')+%'5,0%'0%0'8',.'/2'5%6%.5%.)'*.' *((16'),*.'8'2'4%'7*,5%5'*$''//%7,')%5'42' ('$%&1/'))%.),*.')*'+2-,%.,('6$%('1),*.0 ,$G +%'E1%0),*.'*&',$'+'0'/$%'52' 4%%.'//15%5')*' ,.' (*.0,5%$,.-'(/,8')%' *((16'),*.')*3.'.5'(*1.)$2'*7%$($*35,.-' ^(''.5',)'0'($%/2'.%(%00'$2')*'53%// 81(+'8*$%'*.',)0'a),*/*-,('/'%&&%()0' ,$' ,.&/1%.(%0')+%'6$%5,06*0,),*.')*'5,0%'0%' '(; (*$5,.-')*',)0'5%-$%%'*&'$'$%&'(),*.'8*,0)1$%' 3*$'5$=%00'3'$8)+'*$'(*/5.%00''.5')+%' ,861$,),%0'8%(+'.,('/'*$'(+%8,('/'3+,(+' 8'2'51/)%$')%',)' .')+%'$),(/%' # ' 8'.2'*&')+%0%')8*06+%$,(' (*.5,),*.0''$%' &1//2'53%/)'16*.'''.5')+%,$'%.5%.(,%0'%B; 6/',.%5' 861$,),%0',.')+%'',$''$%'%B(%%5; ,.-/2'6$%7'/%.)H '.5'8%(+'.,('/0140)'.(%0' 0106%.5%5',.'),)'('.'%B(,)%',$$,)'4/%' *.5,),*.0' *&')+%',$6'00'-%0'3+,(+'8'2'6'00'*.')*' ,.&/'88'),*.''.5'%7%.'5%0)$1(),*.''*&')+% /1.-0' +'$2.-%'/''.5'/'$2.-%'/'&&%(),*.0' '$%'('*88*.'(*.0%E1%.(%'*&')+%0%,861$,),%0' '.5'*((1$/'$-%/2'*8*.-0)'(%$)',.'(/'00%0' 3+*0%'*((16'),*.'/*'50')+%',$'3,)+'&,.%6'$),; (/%0'0'/$%'52'5%0($,4%5' +%$%',0'0('$(%/2'' 8,.%$'/10%5',.')+%''$)0'3+,(+'('..*)'42' ,.+'/'),*.'%B(,)%'*$'6$%5,06*0%')*'5,0%'0%' +%',$'8'2'/0*'4%'$%.5%$%5',861$%'42' (+%8,('/'-%.(,%0''.5')+%'8*8%.)'+% .*$8'/'6$*6*$),*.'*&',)0'%/%8%.)0',0'5,0)1$4%5 ,)'4%(*8%0''0*1$(%'*&'5,0%'0%' B(%00'*&' ('$4*.,(''(,5',0'%06%(,'//2''.'%/%8%.)'*&

F' */5' ' . 5' +,// G */5' ('$$,%5')*' %B(%00' 8 '2' 6$*7%' &')'ƒ ')' *. (%' +%' ,. ; &/1%. (%0' *&' 0%7%$%ƒ (*/5' '$%' 5%0($,4%5' 1 .5%$' ,)0' *3 .' +%' 5, - ' ' . 5' ,)' ,0' * ./2' 3,)+')+%' 5,0%'0%0' %B(,)%5' 42' (*/5' ,. ')+%' %7%$25'2' '((%6)'),*.' *&')+%0%')%$8 0')+')' 3%' 0+'// 5%'ƒ +%$%' ' *. . ' &&%()0' *&' %7%$%' *$' B)$%8 %

*/5',0')+%' 8 *0)' (* 8 8 *.' ('10%' *&' 5,0%'0%' ,.')%86%$')%' (/,8 ')%0' %06%(,'//2' ,.')+%' (+'. -%'4/%' (/,8 ')%' *&')+,0' (*1.)$2')' (.' %B(,)%' 5,0%'0%' 5,$%()/2'' . 5' (.' '&&%()' 6$*4; '4/2' ' ')+%' *$-' .0' *&')+%' 4*52' ('10,. -' %,)+%$' 5,0)1$4%5'&1 .(),*.' *$' *$-' .,(' 8 ,0(+,%&' */5' 3+%.' 0%7%$%' (*.)$' ()0')+%' 7%00%/0Ħ ,.)%$&%%0' 3,)+')+%' (,$(1/'),*. ' '. 5' '// 7,)'ƒ ' (),7,)2Ħ ' .5' ,.')+,0' 3 '2' 8 '2' ('10%' 5%')+' 1)' ,)' ,0' 3,)+' 8 *5%$')%' 5%-$%%0' *&' (*/5' 3%' +'7%' (+,%&/2')*' 5%'/' ' 8 *8%.)'$2'%B6*01$%')*' '' (*/5' 5$'1-+)' ,0' 0' &$%E1%.)' .' %B(,)' .)' *&' 5,0%'0%' 0' -%.%$'ƒ%B6*01$%'&*$' /* .-'),8%' ' (*/5' 5$'1-+)' 6/'2,. -' *.')+%' (+%9' 8 '2' ('10%' &'(,'ƒ 6'$'/20,0' 0*$%)+$*')' *$' 4$*.; (+,),0'Ħ)+')',0')*' 0'2'(*/5''66/,%5'/*('//2'8 '2' %B(,)%' 5,0%'0%' ,.')+%' .%,-+4*1$+**5' *&' ,)0' '66/,(')',*.' *$',.' 5,0)' .)' *$-' .0')',0' 6$*4; '4/%')+%$%&*$%')+')' (*/5' 8 '2' ()' ,.' 0%7%$'/ 3 '20' A8Ħ ,)' 8 '2',.)%$&%$%' 3,)+',($(1/'),*.Ħ A<Ħ ,)' 8 '2' '&&%()')+%' %B)$%8 ,),%0' *&' .%$7%0' ' .5' %B(,)%' 5,0%'0%' 42' $%&/%B' (),*.Ħ *$' A"Ħ ,)' 8 '2' (+%(9' 0%($%),*.0' *&')+%' 09,. ')+%' 81(*10' 8%84$' .%0' *$' *)+%$' 6')$)0

%' (' . .*)' 3*.5%$')+%$%&*$%')+')' 5,0%'0%0' *&')+%')+$*')'/'$2.B' '.5'/1.-0' '$%&$%E1%.)/2' %B(,)%5'42' (*/5' $*.(+,),0' ' .5'6.%18*.,'' '$%',)0' 8 *0)' (* 8 8 *.'$%01/)0Ħ ' .5' 0')+%'2*1.-' ' .5')+%' */5' '$%'/%00' ('6'4/%' *&' %.51$,. -' (*/5')+' .' '51/)0',)0' $%01/)0' '$%',.')+%,$'%'0%' 8 *$%' &$%E1%.)/2' &')'/' ,'$$+*%' ' $%. 'ƒ 5,0%'0%0' (*. -%0),*.' *&')+%' /,7%$' '(1)%' ' .5' (+$*. ,(' $+%18 '),08 ' 0,86/%' 5206%60,'' ' . 5' '*+*0)' *&' *)+%$' '&&%(),*.0' '$%')$'(%'4/%' ,.' 8 '. 2' ,. ; 0)' . (%0' *./2')*' (*/5' $%5,06*0,),*.'+'0' 81(+')*'5*'3,)+')+%'%&&%()0' *&' (*/5' 0*8%',.5,7,51'/0' 01&&%$' &$*8' *.%' &*$8'*&'5,0%'0%' 3+%.'%B6*0%5')*',)'+)+%$0' &$*8' *.%)$%/2'5,&&%$%.)' '&&%(),*.0' ' .'0*8%'0'' (*8 8 *.' (*/5'ᵡ,0' 8 *0)'%7,5%.(%5' 42'0%7%$%' 810(1/'$'6',.0' '.5'&%7%$',.'*)+%$0' 42' '' .'0'ƒ5,0(+'$-%',.' *)+%$0' 42'+%'5'(+%' '.5'0*' *.' *8%' 6%$0*.0' .%7%$'01&&%$'&$*8' 0(*/5'ᵡ3,)+*1)' +'7,.-' ' .')')'(9' *&'+%$6%0' /'4,'/,0Ħ ' .5' 0*8%' '$%' 8 *0)'6$*.%)*'0(')(+' (*/5'ᵡ3+%.%7%$')+%'3%')+%$'0155%./2'4%(*8%0' 3'$8' 18%$*10' 0,8,/'$' ,5,*02.($'0,%0' 8 ,-+)'4%' -,7%.' +%' %&&%()0' *&' (*/5' 0+*1/5' '/3'20' 4%' (*.0,5%$%5',.' '/8*0)' 'ƒ 6$%5,0; 6*0,. -'('10%0' *&' 5,0%'0%' 0 */5'ᵡ,0' ''7'-1%')%$8' '.5' .*)')+*$*1-+/2' 1.5%$0)**5Ħ)+%$%' ,0')+%$%&*$%' 'ƒ)+%' 8 *$%' $%'0*.'3+2'3+%.' ,)' (*8%0' 1.5%$' (*.0,5%$'),*.' ,.' ,.5,7,51'/' ('0%0' ,)0' 6$%(,0%' %&&%()0' 0+*1/5'4%' .,*0)' ('$%; &1//2' (*.0,5%$%5' '.5'$%(*$5%5

D' *,0*.0 G *,0*.*10'-'0%0' *$%'6*3%$' &,/ƒ %B(,)'.)0' *&' 5,0%'0%' '.5' 0*' *$%' 6*,0*.0' -%.%$'//2' 3+%)+%$' ' .,8 '/' 7%-%)'4/%' *$' ,.*$-'.,(' +%2' 8 '2' 9,// E1,(9/2''*$' %B(,)% ''5,0%'0%' *&'/*.-(*.),.1%5'*$%7%.'6%$8'.%.)' .')1$%

M' ,%) G **5' '.5'5$,.9' 8 '2'42')+%,$' '410%' %B(,)%' 5,0%'0%' '.5'-/1))*.2',0' '0' (%$;)',./2' '.' %B(,)'.)' '0' 5$1.9%..%00')+*1-+')+,0'&'()',0'*&)%.'/*0)'0,-+)'*&' B(%00'*&'**5' 5*%0' .*)' $%&%$' 0,86/2')*')+%'E1'.),)2')'9%.' 41)')*',)0' E1'/,)2G,)0' .')1$%'$,(+.%00''.5')+%'),8%0'3+%.',)',0')'9%.' I(' ' ' *7%$/*'50')+%'0)*8'(+'8'9%0' ('//0'16*.',)' 3+,(+',)' ('..*)'8%%)'' .5'5206%60,'',0')+%' $%01/)' B(%00'*&'&**5',&'5,-%0)%5'(+'$-%0')+%'4/**5',)+'8')%$,'/0'.*)'5%8'.5%5'42')+%'%(*.*82'' .5'5,0%'0%'*&'%B($%)*$2'*$-'.0' *$'&%))2'5%-%.%$'),*.0'8'2')+10'4%'%B(,)%5' R " ' ' 42'5,8,.,0+,.-')+%'$%0,0),.-' 6*3%$' '/0*' 6$%5,06*0%0')*'5,0%'0%'01(+'0' 6.%18*.,'' .5'4$*.(+,)0' +%.')+%' " ' ' # ' " ' *&' &**5' '$%' .%-/%()%5'5,0%'0%'$%01/)0'0' 0'0(1$72'&$*8' 5%&,(,%.(2'*&'&$%0+'7%-%)'4/%0' ,(9%)0''(; (*$5,.-')*' $' +%'5/%',0'51%')*'3'.)'*&')' 3+,/%'-*1)',0'*&)%.'6$*7*9%5'42''/'$-%/2'.,)$*; -%.*10'5,%)'.5'5,'4%)%0'42'.'%B(%00,7%/2' 0'((+'$,.%'.%'6 " 2 '3,/ƒ,8 8 %; ,')%/2'%B(,)%'7,*/%.)'-'0)$,(')'$$+0',.'0*8%' ,.5,7,51'/0'3+,/%*)+%$0'(.'.'4%'$')+%8'6%$; &%()/2'3% ' /*))%5'/18 60'*&'('0%,.'*$0)'$(+2' &**50'8'2',$$,)')+%'/,8%.)'$2'('.'/'*&'.' ,.&'.)' 0'3%//'0'&$*8')+%,$',.5,-%0),4,/,)2' '&&*$5'.*'.*1$,0+8%.)' .'2'5%')+0'0($,4%5')*'0(*.018 6),7%4*3%/0'ᵡ '$%'51%')*')+,0'('10% 1)$,5'&**5',0'.'.'(),7%'6*,0*.' %$)',.'9,.50' *&' #'$%'6*,0*.*10',.')+%80%/7%0'.'5'0* 8 '2' 4%' 0+%// &,0+' .5' ($10)'(%'.0' +%' *)+$,*(%6+'/10'/')10'%.)%$0')+%'4*52')+$*1-+')+%' &/%0+*' *&')+%' 6,9%Ħ '.5' '((*$5,.-')* 1)(+,.0*./%6$*02',0'5%$,7%5'&$*8'0'/)%5'&,0+' ,0%'0%5'$2%'6$*51(%0'%$-*),08 ' '.5'5,0%'0%5' 8 ',C%'6%//'-$' /%0+'&$*8' '.,8 '/0'01&&%$,.-' &$*8'0)$%84%0ᵡ,0'4%/,%7%5')*'-,7%'$,0%')*' Ⱪ8,/9'0,(9.%00<Ħ)$,(+,.*0,0' '.5')+%'(*8 8*.' &*$80'*&')'6% 3*$8'$%01/)'&$*8')+%',.-%0),*.' *&'4%%&'*$'6*$9' '&&%()%5'3,)+')+%' 6')$),(1/'$ 6'$'0,)%' ,.' E1%0),*.Ħ '.5'0*8%' 7%-%)'4/%' &**50'/'5%.'3,)+'0')/)0'*&'/,8%'+'7%'4%%.' 0166*0%5')*'('10%' 1$,.'$2'('/($5,' ')%$' '.5'8,/9''$%' 6$*/,&,(' 0*1$(%0'*&'8,0(+,%&')+$*1-+')+%',861$,),%0')+%20'0*'*&)%.'(*.)','.' +%' 5$,.9,.-3')%0' *&' /'$-%')*3.0' '$% 101'//2'5%$,7%5'&$*8'$,7%$0')*'.5'&,/)$'),*.',0' .*)' '' 01&&,(,%.)'61$,&,(',)*.Ħ *$'&'*4)'.%5' &$*8' '' 61$%$'0*1$(%')+%2'8'2'4%(*8%'(*.;)'8,.')%5',)$'.0,)'*$')*$'-%'0*')+')'5,0%'0% 8'2'4%%B(,)%5'42')+%,$'10%'%06%(,'//2')26+*,5' &%7%$' ('$/%)'&%7%$'(+*/%$'' .5'8'/'$,''+'7%' '((*$5,.-')*'0*8%'4%%.')$'(%5')*')+%'0'8%' 0*1$(%' .2'6'$'0,)%0')+10'&,.5'%.)$'.(% 0')+%'*7''*&')+% 0%.,'' 0*/,18'A5%7%/*6; ,.-',.')+%'(20),(' 0 ,0)*8''+0%8')' 4,18' .92/*0)*8''51*5%.'/%' '$,'' 0'..; -1,.,0'+*8,.,0'.5' 1,.%' 3*88' 25'),50' 8'2'4%5%$,7%5'&$*8')+%'0'8%0*1$(%'*$(*.; 7%2%5'5,$%()/2')*')+%'&**5'&$*8')+%'.*0%*$ &'%(%0'*&'.',.&%()%5'5*-' ,'$$+*%''520%.;)%$2' $,%.)'ƒ 4*,/' '.5'7'$,*10'&*$80'*&

,0' '' 6%$8 '.%.)' (*.5,),*.H' %B)%.0,7%' 5$*602' '.5' *)+%$' 0286)*80' '00*(,')%5' 3,)+' ('$5,' (' 5,0%'0%' 8 '2' /0*' 4%' -*)' $,5' *&' 3+,/%')+%' *$; -'.,(' 8,0(+,%&'0),// $%8',.0' 155%.'/%0,*.0' 8 '2')%$8,.')%' ,.' 6'$),'/ $%(*7%$2' *$' ,.0)'.(%' '' ('0%' ,.' 3+,(+' '' 0155%.' +0%8*$' $+'-%' ,.)*')+%' 4$'.,)+' 0' *((1$$%5' ')%.5%5' 3,)+' 8 '$9%5' '6*6/%(),(' .5' 6'$'/2),(' 0286;)*80'.*)'1.(*88*./2',86$*7%0' $%8 '$9'4/2' ,.'(*1$0%' *&'),8%')+%' (/*)'4%,.-' 8*$%' *$'/%00' '40*$4%5' *8%' (*86/'..)0'3+,(+' '$%' 101; ''//2' 0155%.' ,.')+%,$' *.0%)' 8 '2' '66'$%.)/2' 4%' $%(*7%$%5'&$*8'(*86/%)%/2'41)'0*8%),8%0' 0%)' 16' (*.5,),*.0' 3+,(+' 1/),8 ')%/2' /%'5')*' 6%$8'.%.)' 5,0%'0%' +10')+%' 6'00'-%' *&' '' -'// 0)*.%' *$'*&' '' $%.'/ ('/(1/10' 8 '2' %B(,)%' 01(+',$$,)',*.' '0')*' ('10%' '.',.&/'8 8 ')*$2' 6$*(%0O')*' 4%' 0%)' 16' 3+,(+' 8 '2',.51(%' 6%$; 8'.%.)' 8,0(+,%&'01(+' '0' (/*01$%'*&')+%'4,/%' 51()'*$'*&')+%' 1$%)%$',.')+%' 0%7%$'/.0)'.(%0' '.5')+%' %&&%()0' 8 '2'.*)' 4%' 6%$(%6),4/%' 1.),/' '(*.0,5%$'4/%',.)%$7'/+'0' %/'60%5 '0)/2',)' 8 10)' 4%' $%8'$9%5')+')' 0*8%' '&&%(),*.0' ('.'+'$5/2' 4%' 0','5')*' +'7%' '.2')%$8,.'),*.' +%2' (*.),.1%' 51$,.-')+%' /,&%' *&')+%' ,.5,7,51'/' 6%$+'60' ,.)%$&%$,.-' 41)' /,))/%' *$'.*)' ')' '//3,)+')+%' +%'/)+' *$' ')' '// %7%.)0' .*)' ,.' '.2' 3'2' (*.)$,41),.-')*')+%' 5%')+' *&')+%' 6'),%.)' 3+%.')+')' %7%.)' 5*%0' +'66%.' +,0' '66/,%0')*' 8'.2' *&')+%' ',/; 8%.)0' &$*8' 3+,(+'6%*6/%'01&&%$H '0' 3%//' '0')*' 8'.2' (+$*.,(' *$-'.,(' 5,0%'0%0' .*)' ,.')+%80%/7%0' 0%$,*10' *$' -,7,.-'$,0%')*' '.2',8; 6*$)'.)'0286)*80''.5'.*)',86/,(',.-'0)$1(;)1$%0' %00%.),'/)*'/,&% 4 '5' ' *

+ ! 3 ! *' ' M +,0')%$8' +'0'$%&%$%.(%')*')+%' 8%'.0'42'3+,(+'5,0%'0%' 8'2'4%' 6$%7%.)%5G # ' *$') "7) ')$%')8%.)H *$' ,)0' %&%()0' (*1.)%$'()%5' 3+%.',)' *((1$0G ' *$' 2) ')$%'); 8%.) 8' # # ' '3, '4%'&*1.5' 5,0(100%5' 1.5%$')+%' +%'50'G' '/ $! /&)' '10%0'*&H' & # ' / $' / % $ '' $ / E '')'N'/'0'3%//'0',.')+%' 0%7%$'/ '$),(%0')$%'),.-'*&'06%(,'/ 5,0%'0%0')',0')+%$%&*$%'1..%(%00'$2')*'0'2'8*$%'16*.')+%'014>%()',.')+,0'6/'(% @'& # ' M %'$,.-',.' 8,.5')+')'5,0%'0%',0''5%7,'),*.'&$*8'+%'/)+' ,.')+%'&,8(),*.0'*$'(*86*.%.)'8')%$,'/0'*&')+%'4*52',)'810)'4%'$%8%84%$%5')+')')+%$%' ,0',.'*$-'.,0%5'4*5,%0''')%.5%.(2')*'8',.)' ,.' ('0%'*&'5,0%'0%'*$',.>1,2')*'$%018%',)' +,0' %06%(,''//2'8'.,&%0)',.')+%'/*3%$')26%0'*&' '.,8'/0'8'.2'*&'3+,(+'3+%.'81),/')%5' '$%'('6'4/%'*&'$%018.,.-'8*$%'*$'/%00'(*8; 6/%)%/2')+%,$'*$,-.,'/&*$8')*')+%'%B)%.)' %7%.'*&')+%'$%0)*$'),*.'*&'/*0)'6'$)0' .' 8'.'.5')+%'+,-+%$'.,8'/0')+,0'6*3%$'*&' (*86/%)%'$%0)*$')*.'0'/%'5'(*8; 6*$)'.)'0286)*80''.5'.*)',86/,(',.-'0)$1(;)1$%0' %00%.),'/)*'/,&% 4 '5' ' *

*&'3+,(+')+%'4*52'(*.0,0)0H)+%'8*$%'(*8; 6/%B'),001%0''$%'.*)'$%6$*51(%5'.*$'$%'/*0)' 6'$)0'$%0)*$%5' +%$%',0'+*3%7%$',.' 8'.' '0',.' ' '*$-'.,0%5'4%,.-0' '')%.5%.(2')*' $%(),&2'5%7,'),*.0'&$*8'+%'/)+' '.5')*'$%0)*$%')+%'*$-'.,0'),*.')*',)0'.*$8'/'(*.5,),*.' *' $%8*7%'*$'01451%')+%' ('10%0'*&'5,0%'0%'.5')*',5')+,0'$%0)*$'),7%'6*3%$',.')+%'0)*4/,0+; 8%.)'*&'+%'/)+2'&1.(),*.'.5'0)$1()1$%',0'&*$')+%'(1$%'*&'5,0%'0%')+%'8*0)'6+,/*0*6+,('/,.; 5,(),*.')+')'('.'4%'*5*6)%5' 1)'*1$9.*3; /%5-%'*&'5,0%'0%' .5'*&'$%8%5,'/'-%0)'.5'*&'$%8%5,'/'-%0)'0',0'.*)' 01&&,(,%.)'*' %.'4/%' 10'/3'20')*' ('$%2'*1)')+%0%'6$,.(,6/%0' 0')+%')$%')8%.)'*&'5,0%'0%' +'0'4%%.'5,$%()%5'0*8%),8%0')*')+%'*.%'*4; >%()'.5'0*8%),8%0')*')+%'*)+%$'&$%E1%.)/2')*'.%,)+%$',)'+'0'-,7%.'*$,-,.')*'-$%')' 7'$,%)2'*&'020)%80'*$'8%)+*50'*&'6$'(),(%' +10',.')+%'%'$/,%0)'+,0)*$2'*&')+%'+%'/,.-''$)' 8%'.0')+'8*0)'5,7%$0%'3%$%'10%5'&*$')+%' $% %&'*&'01&&%$,.-' *8%),8%0')+%'01&&%$,.-' *$')+%'5,0%'0%'2,%/5%5'3+,/0)'+%0%'8%'.0' 3%$%'4%,*-'%86/*2%5H'.5',)'3'0'(*.(/15%5' *.'7%$2',.01&&,(,%.)'-$*1.50')+')')+%0%''-%.)0' +'5'0(1$%5'')+%'5,0%'0%' %$0*.0'3+*'+'5' &%/)''0')+%2'0166*0%5')+%'4%.%&,(,'/%&&%()0' *&')+%0%'6'$),(1/'$%8%5,%0'(*8 1.,(')%5')+%8')*')*+%$0'0')+%'$%01/'*&')+%,$'%B6%$,; %.(%H'.5')+10'3'0'%0)'4+0+%5'3+')'+'0'4%%.' 9.*3.',.' %5,(,.%''0G I G +,0'8*5%'*&'6$'(),(%'+'0' ,)0''57'.)'-%0'.5',)0'5,0'57'.)'-%0'L +%.' ',5%5'42''((1$')%9.*3/%5-%''.5'5,0($,8,6' '),*.',)'*&)%.)'/%'5O')*'0'),0&'()*$2'$%01/)0H'.5' 8'.2'$%8%5,%0'01--%0)%5'42'%B6%$,%.(%''.5')+')'/*.%''$%'.*3'&*1.5')*'4%'.,'((*$5' 3,)+'*1$8*$%'57'.(%5'0(,%.),&,('9.*3/%5-%H)'9%'&*$'%B'86/%')+%'10%'*&'8%$*,=',.' 026+,/,0'3+,(+')+*1-+'/*.-'10%5'%86,$,('//2' ,0'.*3'9.*3.')*' ()'42',)0'(*.)$*f*7%$')+%' .1)$,),*.'*&'*2*1.-'(%//1/'$'-$*3)+0' *' '/0*' 3,)+'$%06%()'*' E1,.,.'.5'*)+%$'$%8%5,%0' *&'.*3'%0)'4/,0+%5'10%&1/.%00' .')+%')+%$' +'.5'8%$%'%86,$,(,08'3+%.'7'-1%/2''6; 6/,%5')',.)0'.5'5'8'-%0')*')+,0'5'2')+%')$%')8%.)'*&'5,0%'0%')',0'),+,0'6$'(),(%'3+,(+' &*$'%B'86/%'01--%0)0'*6,18')*'E1,%)'(*1-+' *$''(*/,('3,)+*1)'$%&%$%.(%')*')+%'('10%'*&')+%'*.%*$')+%')+%$''.5'3+%.''.%B6%()*$'.)' *$''61$-'),7%'3*1/5'+'7%'4%%.')+%'01,)'4/%' $%8%52H'.5',)',0')+,0'86,$,(,08'3+,(+'5*%0' 01(+'+'$8',.')+%'+.50'*&'8')%,&$'6$'(;),),*.%$0'/%'5,.-')+%8')*' $%(*88%.5'&*$')+%' $%/,%&' *&'0286)*80' $%8%5,%0' 3+,(+')+%2'0166*0%5'+'5'$%/,%7%5' 9%'0286)*80' .' *)+%$' ('0%0'+*3%7%$' 5,&&%$%.)'+%' $%'/' .')1$%' *$'('10%0' *&')+%0%'0286)*80' 8'2' +'7%$4%. $ " ' " G .')+%')+%$'+'.5' 8*5%8'0(,%.(%'%.5%'7*1$0')*')'9%'(*-.,0'.E>% *&')+%'.)1$%'*&'5,0%'0%'.5'/0*'*&')+%06%(, =,' '(),*.'*&'$%8%5,%0H',)'0%%90')*'(*1.)%$'()' # '*6%$')',*.'*&')+%'*.%'42')+%',.&/1%.(%'*&'),.%)+%$' +,0'(*.0),)1%0')+%$')',*.'/')$%')8%.)' *&'5,0%'0%' *'%B)%.5')+,0'020)%8'0+*1/5'4%')+%'*4>%()'*&')+%'0(,%.),&,(' 6$'(),),*.%$' .

F@ ' '

! 3 ! !*' $0 ' ' *& G .')+%' ('0%' *&' 8 '.2' 5,0%'0%0' 8 *$%' *$ /%00' 5,0),.()') ' '$%' $%(*-.,0%5' 3+,(+' ,.' 0*8%' ,.0)'.(%0' (*.0),)1)%' 3%// 5%&,.%5' ')' ,0' ,86*$)'.)')*' 1.5%$0)'.5')+%' 6$%(,0%'0,-.,&,('.(%'*&')+%0%')%$80',.'5,&&%$%.)' ('0%0 .')+%'&,$0)'6/'(%')+%'7'$,%),%0'*&''6'$),(1; /'$''&&%(),*.'8'2'4%'&*1.5%5'16'.'5,7%$0,),%0' *40%$7%5',.',)0' " ' # ' +10'' (; (*$5,.-')*')+%',.)%.0,)2'*&')+%'0286)*80'.5')+%,$'51$'),'*.''''/'$-%'.184%$'*&'(*86/',.)0' '$%''0'+'0''/$%'52'4%%.'6*,.)%5'*1)'5,7,5%5' ,.)*'(1)%'014'(1)%''.5'(+$*.,('7'$,%),%0' -',..'8'.2'5,0%'0%0'3+,/%'6$%0%.),..-',.')+%' 8''>*$,)2'*&'('0%0''(%$)',.'-$*16'*&02286)*80' 16*.'3+,(+')+%,$'-%.%$'/(/,.,('/5%0($,6),*.' ,0'&*1.5%5'%B+,4,)'0)$,9,..-'5,&&%$%.(%0',.')+%' %B'()'.')1$%'*&')+%'6+%.*8%.''*40%$7%5''0' 3%//'0',.')+%,$'-$'7,)2'3+%.')+%'8'00'*&' ('0%0',0')'9%.',.)*''((*1.)'.'.5'*.')+%0%' 5,&&%$%.(%0')2 '*$' '$%'&*1.5%5' +,0',0'3%// %B%86/,&,%5'42'0*8%'*&')+%''(1)% 06%(,&,(' &%7%$0'01(+''0')26+*,5'&%7%$'0('$/';),.''8%'0/%0''.5'08'// 6*B' &')+%0%'&&%(;),*.0'0%7%$'/7'$,%),%0''$%'5%0($,4%5'5%6%.; 5%.)'16*.')+%'0%7%$,)2'*&')+%'0286)*80')+% .')1$%'*&')+*0%'3+,(+''$%'8*0)'6$*8,.%.)' *$')+%'(+'$'()%$0'*&')+%'%$16),*. .')+%'.%B)'6/'(%')+%'(/'00,&,('),*.''*&''' 5,0%'0%',.)*'7'$,%),%0'8'2'4%'&*1.5%5'16*.' '' # 0 '4'0,0' *$',.0)'.(%'61/; 8*.'$2'6+)+,0,0'8'2',.')+%'3$,)%$0'*6,.,*.' '$,0%'&$*8'5,&&%$%.)'8*$4,5'6$*(%00%0''.5' 8'.2'))%86)0'+'7%'4%%.'8'5%')*''$$'.-%')+%*'0%0'*&')+,0'5,0%'0%',.)*'(*$$%06*.5,.-' -$*160' //10)$'),*.0'*&')+%0%'6')+*/*-,('/ 7'$,%),%0''$%''/0*'&*1.5',.')+%'5,&&%$%.)'&*$80' *&('.(%$H,.')+%'7'$,%),%0'*&'6.%18*.,''*& /'$>,-,),0,''.5'*&'&'))2'5,0%'0%'*&')+%'+%'$)H '.5',.')+%'(/'00,&,(''),*.'*&'0%$*10',.&/'88';),*.0''((*$5,.-')*')+%,$'8*$4,5'6$*51()0'01(+' '0'&,4$,.*10'0%$*10'61$1/%.)'^(' -',.'01(+' '6')+*/*-,('/(*.5,),*.''0'5$*602'*$'&%7%$' 8'2'4%5,7,5%5',.)*'7'$,%),%0' +10'5$*602' ,0''$$'.-%5''((*$5,..')0'0,)1)',.'.5' 5,0)$,41),*.'0''.'0'$('' '0(,)%0'^(H *$' '((*$5,..')*',)0'6')+*/*-,('/('10%'3+%)+%$' ('$5,'('61/8*.'$2'+%6'),(''^(' %7%$',0' $%(*-.,0%5''0'+'7,.-'0%7%$'/,86*$)'.)'26%0' &*1.5%5'16*.',)0',.)%.0,)2',)0'(*1$0%''.5')+%' %B'()'.')1$%'*&')+%'6+%.*8%.''((*86.2; ,.-')+%'62$%B,'/0)')% .*)+%$'5,7,0,*.'*&''5,0%'0%',.)*'7'$,%),%0' ,0' 0 ')+%'('0%0'4%,.-'-$*16%5''(; (*$5,.-')*')+%,$'('10'),*.'%,)+%$')+%',88%5,; ')%'6')+*/*-,('/'*$')+%'8*%$%8*)%'%B(,),.-' ('10%0'4%,.-'%86/*2%5''0')+%'40'0,0'*& 5,7,0,*.' +10'3%'+'7%')+%'5,&&%$%.)'&*$80' *&'8%.,.-,),0'A0,86/%'$)14%$(1/'$'$+%8.'),('^(RH)+%'0%)*/*-,*'/7'$,%),%0'*&'6/%1$,02'*$' 6%$,)*.,),0'A,5,*6')+,(')$'B1.'),('6%$&*$'),7%')14%$(1/'$'0%(*.5'$2'^(RH)+*0%'*&'>*,.)' ,.&/'88'),*.'A0,86/%'$+%18'),(' -*1)2' 0($*&1/*10'^(RH*$')+*0%'*&',.)%0),.'/*4; 0)$1(),*.'),*/*-,('/7'$,%),%0''$%'*&)%.'')+%'0'8%),8%'(+'$'()%$,0%5'42'5,&&%$%.(%0',.')+%'6')+*/*-,('/$%01/)0''.5'6$*51()0 '0)/2',)'810)'4%'8%.),*.%5')+')'0*8%;),8%0''(%$)',.'0' ' ,0'0188%5' 16'&*$'(*.7%.,%.(%'1.5%$'0*8%'0,.-/%')%$8' 3+,(+'02286)*80'$%'//2'5%6%.5'16*.'7%$2' 5,&&%$%.)'8*$4,5'(*.5,),*.0''.5'('10%0'H '.5')+%$%&*$%',)*&)%.'4%(*8%0'.%(%00'$2')*'(/'00,&2' '&&%(),*.0')+10'.'8%5',.)*'7'$,%),%0' 20; 6%60,''.%1$'/-,''6*6/%B2'%6,/%602''.5' 6'$'/20,03,/'&&*$5',//10)$'),*.0'*&'01(+''.' '$$'.-%8%.) 4 '5' 0'*

! (& 6 M*' ' $'S ' " "H %$'C " " - G=,0,.&%(),*.',.')+%'6$*6%$' 0%.0%'*&')+%')%$8'8%'.0'.2'6$*(%00'42' 3+,(+')+%'(*.)'-,18'*&''-,7%.'5,0%'0%'8'2' 4%'5%0)$*2%5'*$'4%'$%.5%$%5',.%$) ,0,.&%()'.)0'+*3%7%$'('$%'10%5',.'6$'(;),(%'&*$'0%7%$'/'*4>%()0''.5',.'(*.0%E1%.(%)+%')%$8'+'0'*&)%.'4%%.'7'-1%/2''66/,%5')*')+%'10%'*&'+%')'*$'(+%8,('/'8%'.0'&*$'6$%; 7%.),.-')+%'-%.%$'),*.'*$&*$')+%'5%0)$1(),*.' *&'.*B,*10''-%.)0'3+%)+%$'6$*51()0'*& 06%(,&,(',5,0%'0%'*$'.*)'.')+,0'7'-1%$'.5' %$$*.%*10'0%.0%'5,0,.&%()'.)0'+'7%'4%%.'(*.; &*1.5%5'3,)+' " ' 3+,(+'8%$%/2' (*7%$'*$'5%0)$*2'*&&%.0,7%'*5*1$0'3,)+*1)' '&&%(),.-')+%'(*.)'-,'H'.5'3,)+' " 3+,(+'0'$%&')'/)*')+%'-$*3)+'.5'811),6/,; (''),*.'*&'8,($*C28%0<*//*3,.-')+%'&,.%' .,5,('),%5'42')+%'/')%' $' 'B)%$',.'+,0'7'/1; '4/%'$%6*$)'*.''.'%B6%$,8%.)'/0)152'*&(%$)',' 5,0,.&%()'.)0',)',0'.%(%00'$2')*'5,0),.-1,0+G ' +%')$1%'8%'.,.-'*&')+%'3*$5G)+')'*& '(),.-'*.')+%'06%(,&,(' 6*,0*.0'*&'(*881.; ('4/%'5,0%'0%0',.'01(+''3'2'0'6$%7%.)0')+%,$' 06$%'5,.- @' +')'*&'(),.-'16*.'*$-'.,(' 0140)'.(%0' ,.'01(+''3'2'0'$%.5%$0')+%'8'/%00'+'4/%')*' 1.5%$-*'8*/%(1/'$('+'.-%'.'5'5%(*86*0,),*.' 3+%)+%$'06*.)'.%*10/2'*$'1.5%$')+%',.&/1%.(%' *&'()'/2),('-%.)0''0',.')+%'%'0%'*&'%81/0,.' 16*.'.'82-5'/,.H*$',85%$')+%',.&/1%.(%'*& /,7,.-'*$-'.,080'01(+''0'$%'(*..%()%5'3,)+' &%$8%.)'),*.''.5'61)$%&'(),*.' B'86/%0'*&)+,0'9,.5'*&'(),*.''$%'0%%.'.,.'0'/),.-'8%')' '.5',.'6$%0%$7,.-'08'//'.,8'/0'.,'3%'9' 0*/1),*.0'*&'($4*&,('(,5 "' +')'*&'6$%7%.),.-'*$'$%%0),.-'5%(*8; 6*0,),*.'42'9,//,.-')+%')*$1/[''00*(,')%5'3,)+' &%$8%.)'),*.',.-'0/,-+)/2'(,5'8%5,''*$')+% 4'()%$*,5'*$-'.,08 0'00*(,')%5'3,)+'61)$%&'(;),*.',.'.%1)$'/'*$'/9'/,.%'8%5,''$*6%$/2' 06%'9,.-')+,0',0')+%''(),*.'*&'.'.',)%6),(' 41)')+%'$%/'),7%'6*3%$'*&'5,0,.&%()'.)0'+'0' 4%%.'/'$-%/2'%0),8')%5'42')+%,$'%&&,('(2',.')+,0'$%06%()G=6'$)/2'.*5*14)'4%('10%''.),; 0%6),(' 6*3%$',0'5%0,$'4/%',.'''5,0,.&%()'.) 41)'(+,%&/2'4%('10%',)',0'0*'5,&&,(1/)')*'014; 8,)'5,0,.&%()'.)0')*')+%,$'6$*6%$')%0)'42' %B6%$,8%.),.-'16*.'.(*.)'-,18'%(%.)'%B; 6%$,8%.)0'16*.',.+,4,),*.''&'-$*3)+'&'6')+*; -%.,(' 4'(0)%$,''0+*3')+')'8%$(1$,(' (+/*$,5%

'//2ƒ '/(* */' *,ƒ *&' '$'0)'$5' '.5' (%$)',.' *)+%$' %)+%$%'ƒ *,/0' 6$%7%.)')+%' -$*3)+' *&' '.)+$'B'4'*,/+',.'%B)$%8%'5,/1),*.' X1,..%'3*'6'$)0'6%$')+*10'.5'6$%7%.)0')+%'5%7%/*6;8%.)' *&' '.)+$'B'4'(,//,' *$')+')' *&')+%'06,$*'(+a)a' *&'$%/'60,.-'&%7%$

+')' *&')+%' 5%0)$1(),*.' *&')+%' .*B,*10')%' *&'6*)'00,18'.5'(+/*$,.%'41)'+'0ƒ,/))/%'6$*51()0' *&')+%' 8%)'4*/,08'*&'5%'5' *$-'.,('8')%$'+*3%7%$'4$*1-+)' '4*1)' +%0%'6$*;51()0' (*.0,0)' (+,%&/2' *&' -'0%0' *$ 7'6*1$0'8'.2' *&'3+,(+'01(+' '0' 0$56+1$%))%5' +25$*;-%.' '8 8*.,' ' '.5'01/6+,5%' *&' '8 8*.,18'$%' %'0,/2' 5%0)$*2%5' 42' '66$*6$,')%' '-%.)0'%7%.' 3+%.' 10%5',.' ''7%$2'5,/1)%' 0)')%H '.5'01((%00',.')+,0'$%06%()',0'.*'6$***&'*&')+%'7'/1%'*&''5,0,.&%()'.)',.',)0')$1%'0%.0%'*&''8 8*.,18'$%' *&' 5%0)$*2,..-'01(+' %8'.'),*.0',0'6*00%00%5'42' '/8*0)' '5,0,.&%()'.)0'*&'6$'(;),('/1),/,)2

1 ' 3 N 4 ' +'0' 4%%.' 6$*7%5'+')')+%' (*.)'-,'' *&' 0%7%$'ƒ 5,0%'0%0' 810)'(*.0,0)' *&' 8,.1)%'0*/,5'6'$),(/%0'&*$')+%2' '$%.%,)+%$' 0*/14/%' .*$' 5,&%0,4/%' .*$' 7*/'),/%H)+%2' ('.' 4%' 0%%.' 3,)+')+%' 8,($*0(*6%' '.5'('.' 4%' (1/),7')%5' *1)' *&')+%' 4*52H '.5'3%'8 '2',.&%$')+' '//*)+%$'(*.)'-,'' '$%'6'$),(1;/')%'/,9%3,0%' '(+'$')()%$,0),('*&'%*.)'-,18'51%')*',)0'6'$),(1/')%'.'),$$%',0')+')' 5,/1),*.'/%00%.0')+%' (+'.(%'*&',.&%(),*.'41)'+'0')+))/%'%&&%()'16*.')+%'('0%',&')+%'5,0%'0%'4%')'9%.'+%$%' ,0'%,)+%$'.*' %&&%()' ')' //' *$'' &1//06%(,&,(' %&&%()' *.)'-,18'6'$),(/%0'$%'6)')*' %B,0)' '0' (/*150',.'',$' 3')%$' *$' 8,/9',.0)%'5'*&'4%,.-'%E1''//2'5,0)$,41)%5')+$*1-+;*1)H '.5')+,0'4%'$0'16*.'6$'(),('/'5,0,.;&%(),*.' +%' 6'$),(1/')%' '.5'.*.-'0%*10'&*$8'*&'(*.)'-,18'&/*'),..-',.')+%'')8*06+%$%6$%7%.)0',' &$*8'4%,.-''40*$4%5'42',.2'/,E1,5'*$'0* 5'5,0,.&%()'.)' 3+,(+'5*%0'.*)' 3'0+'*$ (*8%',.)*' ,.),8')%' (*.)'()' 3,)+' %7%$2'6*$),*.'*&')+%' ,$'.'5' '0')+,0',0',8 6$'(),;('4/%',.&%()%5' ',$' ('.'*./2'4%' 61$,&,%5'42'-'0%*10'5,0,.&%()'.)0'01(+'0'01/6+1$*10'.'5'*$ (+/*$,.%' ,0,.&%()'.)0'*&')+,0'9,.5')*'4%%&%(),7%'8 10)'4%'6$%0%.)',.'01(+' 'E1'.),)2''0',0' ,.(*86'),4/%' 3,)+')+%' %B,0)%.(%' *&'+18'.'4%,.-0' $*8')+,0',)' &*//*30')+')'0'1(%$0' *&'5,0,.&%(),.-'&/1,50' *$' ,$$,)'),.-'7'6*1$0' '.5' -'0%0' ,.')+%' 0,(9$**8' '$%8%$%/2' '' 10%/%00' '.*2'.(%')*')+%' 6'),%.)'%B(%6)',.'0*' &'$' '0')+%2'8'2'4%' 5%0,$%5' '0'5%*5*$'.)0' +%' 4%0)' 8%)+*5' &*$' 5%'/,.-'3,)+',.&%()%5' ',$',0')*' $%6/'(%',)' 42'7%.),/';),*.'%06%(,'//2'42'8%'.0'*&') " "0'*6%.'&,$% 6/'(%0' +%' 6$*6%$' 10%' *&'7*/'),/%' 5,0;,.&%()'.)0',0')+%' 61$,&,(','),*.'*&'3'//0'(% ,.-0''.5',.''((%00,4/%'6/'(%0H '.5'&*$)+,0'61$6*0%',&'6*00,4/%'%.*1-+'0+*1/5'4%'10%5')*'0')8$')%)+%')8*06+%$%'$%8%84%$,.-')+')')+%'7,$1;/%.)' 6'$),(/%0' '$%' 8*0)' ,/9%/2'6$*)%()%5' 42'4%,.-'41$,%5',.'' 4,)' *&'%6,)+% 18'*$'01$;$*1.5%5'42''.'/418,.*10'%.7%/*6%K

K' +*1-+'5,0,.&%()'.)'*$' .),0%6),('-'0%0'*&'01(+'0)$%.-)+' '0' (' .'4%')*/%$')%5',.')+%' 0,(9$**8' '$%1))%$/2',.%6)'0'$%-'$50'10%&1/%&&%()'16*.'(*.)'-,18'.)',0'>10)' 6*00,4/%')+')')+%2' 8'2'4%' *&'0%$7,(%',.

+%' .')1$%'*&')+%' 8%5,18',.'3+,(+'(*.;)'-,*10'6$),(/%0'$%'0106%.5%5'+'0')+%'8*0)'(,86*$)'.)' 4%'$,.-'16*.')+%' 0%/%(),*.'*&' '5,0,.&%()'.)' +%' 6$%0%.(%'*&''/418%.',0'&*)85')*'6$*)%()'0%6),(' -%$80')*' '(*.0,5%$;'4/%'%B)%.)' '-',.0')+%' '(),*.'*&'6%$8'.-';6$*51()0' *&')+%' 8%)'4*/,08'*&'5%'5' *$-'.,('8')%$'+*3%7%$'4$*1-+)' '4*1)' +%0%' 6$*;51()0' (*.0,0)' (+,%&/2' *&' -'0%0' *$ 7'6*1$0'8'.2' *&'3+,(+'01(+' '0' 0$56+1$%))%5' +25$*;-%.' '8 8*.,' ' '.5'01/6+,5%' *&' '8 8*.,18'$%' %'0,/2' 5%0)$*2%5' 42' '66$*6$,')%' '-%.)0'%7%.' 3+%.' 10%5',.' ''7%$2'5,/1)%' 0)')%H '.5'01((%00',.')+,0'$%06%()',0'.*'6$***&'*&')+%'7'/1%'*&''5,0,.&%()'.)',.',)0')$1%'0%.0%'*&''

5,0%'0%' +,0' ,0' 6$*4'4/2' %B6/',.%5' 42')+%' $'6,5' 81/),6/,(','),*.' *&'.2' 06%(,&,(' 5,0%'0%' *$-'.,080' (*.)',.%5' ,.')+%' &,/)+' %.5,.-')+%' $%8*7'/*&'((181/'),*.0'*&'5,$)'.5'&*$')+%' 6$*)%(),*.'*&'3*$98%.'&%$8%.)',),*.'8'2' 4% 5%/'2%5' 42')+%' '66/,(','),*.' *&' ($15%' ('$; 4*/,(' ,(,5'*$0*/1),*.' *&'8%$(1$,(' (+/*$,5% +%'1/),8')%'&')%'*&'(*.)'-,18',0')*' 4% 5%; 0)$*2%5'42'61)$%&'(),*.'.5')+,0' '66%'$0',.; 7'$,'4/2')*' 5%0)$*2',)0'06%(,&,(',.&%(),7%'6*3%$' .'(%$)',.' ('0%0' 3+%$%' $%'/' 5,0,.&%(),*.' ,0' ,8 6$'(),('4/%' '0' ,.' 5%'/,.-'3,)+' %.5,.&%(),*.' ,0' 81/'),*.'*&'8'.1$%' .5'/,))%$'&$*8'' .18 4%$' *&' .,8'/0' 01&&%$,.-' &$*8' ('))/% 6/'-1%')+%' .')1$'/6$*(%00%0' 8'2'4% +'0)%.%5'42'0)'(9; ,.-')+%' 8')%$,'/' 0*')+')',)' 0+'//'0+%')'<'*$ 8'2'%7%.'4% 5%0)$*2%5' 42'06*.)'.%*10'(*8; 410),*.' %$)',./2'61)$%&'(),*.' 0+*1/5' 6*) 4% 5%/'2%5' 42' 08'//' '55,),*.0' *&' 5,0,.&%(;)'.)0'3+,(+' ('.*)' ((*86/,0+')+%' 5%0)$1(;),*.'*&'//' .*B,*10' 8'))%$'6$%0%.)

(' $'& ' 5 G '% G% *5$2'*$ 8*,0)',0'6%$+'60')+%'4%0)'5,0,.&%()'.)'3%' 6*00%00' ,-+')%86%$')1$%' '.5'/%.-)+'*&'%B6*01$%' '$%')*' ''(%$)',.'%B)%.)'81)1'//2'(*86%.0')*$2'41)',)' '66%'$0')+')' '')%86%$';)1$%'4%/*3' !g' 'AD!g' ℞3,//'.*)' 5,0,.&%()'7'((,.%'%7%.'3,)+'/*.-'%B6*01$%' 2.5'//6*,.)0'*1)')+')'0*8%' -%$80'0%%8')*' 4%',.' '5*$8'.)'(*.5,),*.',.'3+,(+')+%2'$%0,0)')+%'(),*.'*&'+%')'1./%00' 66/,%5'7%$2'/*.-'*$',.;)%$8,))%.)/2'0*' '0')*' 0)'$)')+%,$'7,)'/,)2',.*' -$*3)+'3+%.')+%2''$%' %'0,/2'9,//%5' ,0,.;&%(),*.'42'5$2'+%')'A3+,(+' ,0'+*3%7%$'4%0)'&*$')+%'5%0)$1(),*.'*&',.0%()'7%$8,.℞,0'.*3'4%,.-'016%$0%5%5'42'0)%'8' $2'+%')'6%.%;)$')%0'0*'0/*3/2',.)*'&'4$,(0')+')')+%2''$%',.;>1$%5' 4%&*$%' '5,0,.&%(),.-')%86%$')1$%',0' '))',.%5')+$*1-+*1)' +%'6$%0%.(%*&'8*,0;)1$%' '00,0)0')+%' '(),*.'*&'+*)' ,$''0',)'/,9%;3,0%'5*%0')*'&-'0%*10' '.5'/'*(+'&*,85')+')' +*1$0'%B6*01$%'3,)+,.')%0)'14%0',.''.'*7%.'(*.)',.,.-''$'0')1$')%5'3,)+'8*,0)1$%' ')' ')%86%$')1$%' &$*8'@"!g' ')*'@ Fg' '5%0)$*2%5'06*$%/%00'8,($*%$-'.,080'.5'06*$%0'*&'&1.-,'41)'5,5'.*)' '&&%()'06*$%0'*&')+%'4'(,//,'*&'6*)')*'+'2''.5''.)+$'B'.*$)+%'06*$%0'*&'-'$5%.'%')+' +%0%'3%$%' '//5%0)$*2%5'42')+$%%'+*1$0%B6*01$%')*'@? g' '(1$$%.)*&'0)%'8''.5')'@ @g' '5%0)$*2%5'06*$%0'*&'%')+''.)' ,)+' ''6$*6%$' '66'$')10')+%' $),(/%0'(*8%*1)'5$2')%'8',.0)'./)2'$1,.0'/%')+%$' '.5'&,B%0'6%$8'.%.)/2' '.2'0)',60'*&'4/**5'*$5,0(+'$-%0')',.%5'(/*)+,.-'0+*1/5'4% 6$%;7,*10/2'0*'9%5',.' (*/5'3')%$' '.5')+%' 3')%$'(&)%$3'$50'5,0,.&%()%5'42'8%$(1$,('(+/*$,5%)' +'0'4%%.' '4,85'.)/2'6$*7%5')+')'*$5,;.'$2'4*,/,.-' '.5'3'0+,.-' 3 /'(*86/%)%/2'5,0,.&%()')+%'/,.%.'*&''!$&7%$'+*06,)'/' +%3')%$'0+*1/5' '))',.')+%'&1//)%86%$')1$%'*&@ @g'

%'$/2''//')+%' (+%8,('/' '-%.)0'10%5',.'5,0,.&%(),*.' '$%'81)1'//2',.(*86')%)/2',4/%' '.5')+%$%&*$%' 6./2'*.%'0+*1/5'4% 10%5''),8%

@' '$4*/,(' (,5 G '0*/1),*.' *&')+,0'0140)'.(%'*&')+%'0)$%.-)+' *&'F'6%$'(%.)''*$'g',.'<H',0')+%'*./2'*.%&,)'&*$'10%',.'5,0,.&%(;),*.' *$'0)%%6,.-'&,.%'(/*)+,.-''' 0*/1),*.'0+*1/5'4% 8'5%'&,*8'($20)'/0' +%'0*/1),*.'-%.%$'//2'10%&1/'0')+')'*4)',.%5'42'8'9,.-'16'*.%'-'//*.'*&'($15%'?!'6%$'(%.)''(,5')*'0,B;)%%.'-'//*.0'3,)+'3')%$' +%'$%0,5)0'*&')+%'%B6%$,8%.)0'*&' 'B)%$'.5'*)+%$0'6$*7%')+')'0.'*7,$1/%.)'/,E1,5'('.'4% (*.0,5%$%5'5,0,.;&%()%5'42'('$4*/,(' ',(,5'1./%00',)'(*.)',.'')'/%'0)'@'6%$'(%.)'42'3%,-+)'*&')+%'61$%' ,5℞ *$%'$%(%.)'%B6%$,8%.)0'0+*3')+')' ,.'0*8%'(' 0%0')+,0'6$*6*$),*.'*&'('$4*/,(' ',(,5',0'.*).%'$/2'%.*1-+' .)+$'B'06*$%0'$%E1,$%5')*'0*'9'*7%$')3%.)2&*1$'+*1$0',.'F'6%$'(%.)'('$4*/,(' 0*/1),*.')*'4% 5%0)$*2%5')+*1-+*4/**5'(*.)',.,.-'.)+$'B'4'(,//,'3'0'/8*0)',.0)'.)/2'0)%$,/,0%5'42'*'8'6%$'(%.)'0*/1),*.',)+'*1$6$%0%.)'9.*3/%5-%',)'3*1/5'4%'0'&%$)*'%86/*2'0)$*.-%$'(,5'*$',.''.2'('0%')*'10%'*/'$-%'E1'.),)2'*&'F'6%$'(%.)' *84,.'),*.0'*&'('$4*/,(' ',(,5'%$'-$%')/2',.&%$,*$')*')+%61$%'(,5''.5',)0'0*/1),*.0',.'/*.'.5''/(*+*/'$%'&*1.5')*'4%'40*/1)%/2',.%$)' +28*/'.5'0'+(2/,('(,5'%$'&&%()%5',.')+%'0'8%3'2'42'0*/1),*.'.'',.'*/' 15-,.-'&$*8')+%'/,-+)'*&%B6%$,8%.)0'('$4*/,(' (,5'7'6*1$',0'E1,)%'10%/%00' %$2'08'//'E1'.),),%0'*&')+%'/,E1,5'(,5'8,B%5'3,)+'*$-'.,(&/1,50%.'4/%)+%8')*$%8',.'&$%0+'.5'$%0,0)'5%('2'&*$''/*.-',)8%' *'/,))/%'0'*.%&,&)+'6%$(%.)'6$%0%$7%0'8,/9')',0'*47,*10')+%.')+')'08'//E1'.),),%0'*&')+,0'5,0,.&%()'.)',.0)%'5'*&'5%;0)$*2,.-'(*.)'-,18'8'>,''(0)1'//2'6$%0%$7%,)0'(),7,)2'3+%.'*)+%$3,0%',)'3*,,/5'+'7%01((184%5')*')+%'(),*.-'.)'/'-%.(,%0' +,0'5'.-%$'8'2''((*86'.2')+%'/,8,)%5'10%*&'.2'5,0,.&%()'.)+')'+'0''06,(9/,.-℞*6%0%$7'),7%'(),*.',.'08'//E1'.),)2' ,.-'6')/2')*')+%'7*/'),/,)2'*&'('$4*/,(' ',(,5'3+,(+'$%8*7%0',)',.'),8%'.5'6)/2')*')+%'6%(1;/,'$),)2'*&',)0'(),*.''.*)+%$'5'.-%$')%.50',)0'10%,.''.2)+,.-'0+*$)*'&'&1//0)$%.-)+''.5'/'$-%'E1'.),)2'3+%.''66/,%5')*'9,//(*.)'-,18'+%'(,5'8'2'&*$''),8%'5%6$,7%')+%'(*.)';-,18'*&',)0',.&%(),7%'6*3%$'3,)+*1)'6%$8';.%.)/2'4*/,0+,.-',)''.5')+%'7,$1/%.)'6$*6%$;),%0'8'2'4%$%-',.%5'3+%.%7%$')+%'(,5'+'0'%7'6*$')%5' +,0'+'0'4%%.'6$*7%5'%B6%$,;8%.)'//2'42' $' *1-'//'*& /'0-*3'3+*&*1.5')+')'7'((,.%8,B%5'3,)+'('$4*/,('(,5'A',.'F!℞0 " ',)0',.&%(),7%'6*3%$'&)%$8H'5'20<%B6*01$%')*')+%',$

*$'$%8*7,.-'*5*1$&$*8')+%'+'.50'&)%$3*$9,.-',.')+%'5,00%(),.-$**8'!''g'6%$(%.)'0*/1),*.'*&'('$4*/,(' ',(,5',0'016%$,*$',.'%&&,('(2

)*' 6%$8 ' .-' . ')%' *&' 6*)' 00,1 8 ' %7%.' 3+%.' 0)$* .-' %. *1-+')*' 0)' ,.')+%' 09,. ' ' .5',0' '/0*' 6$%&%$'4/%')*' (+/*$,. ')%5'/,8 %

9' 1/6+),$' ,*B,5 % ' G' +%' 'E1%*10',0' 0140)' . (%' ,0' .*. 6*,0*. *10' ' .5',0' '' -**5'5%*5*$' .)' %06%(,' //2'&*$')+%'%8 ' . '),*. 0' &$* 8' *$-' .,(' 4*5,%0')' ,0' 8 *$%*7%$' &$%%' &$* 8' *5*1$' ' .5',)0' 'E1%*10' 0*/1),*.' 0+*30' 42'/*00'*&' (*/*1$' 3+%.',)',0'%B+' 10)%5')',0' '' 7%$2' 01,)' 4/%' 5%*5*$' .)' &*$')+%' 0,(9 $** 8 ' 0' 3+%.' 5,00*/7%5' ,.' 3')%$' ' .5' '' /'$-%' 01$&' (%'*&')+%' 0*/1),*.' %B6*0%5')*')+%' ',$',)' 3,/' '40*$4' -'0%0')*' 0*8%%B)%.)' *.)' -,18' 4%,. -' .*. -'0%*10',0' .*)' '&&%()%5' 1./%00',.' (*.)' ()' 3,)+')+%' 0*/1),*.' %$8 ' .-' .')%' *&'6*)'00,18',0' '')$1%' 5,0,. &%()' .)' *B,5,0,. -' ' .5' 5%0)$HJ1. -' (*.)' -,'' '0' 3%/' '0' 61)$,5' 8 '))%$0H 41)')+%' E1' .),)2' $%E1,$%5' ' .5')+% 6$,(%' $%.5%$' ,)0' 10%' '/8*0)' ,8 6*00,4/%' &*$ %.*1-+' 6%$8 ' .-' .')%' +'0')*' 4%' 10%5')*' 5%0)$*2')+%' 8%5,18' *$' 7%+,(/%' 4%' $,. -' (*.)' -,18' 0' 3%/' '0')+%' (*.)' -,18' ,)0%/&' +%' */1),*.' +*)55' *.)' .' F' 6%$' (%.)' 6%$8 ' .-' .')%' '&)%$' '//' (+%8,('/' '(),*.' +'0' 0140,5%5' *.52H&/1,5' ,0' ''0*/1),*.' *&')+,0' 0140)' .(%' ,.' 3')%$' +%.')+%' 7,$1/%.)' /,E1,5' *$' 8')))%$0' '$%' 08'//' ,.' E1' .),)2' 6%$8 ' .-' .')%' 0*/1),*.' &*$8 0' '' (' 6),)' /' $%(,. 6,%.)' ' .5' 8' 2' 0)' .5' 42')+%' 4%50,5%' 0' '' 5%*5*$' .)' ,)//' $%E1,$%5' 0' '' 5,0,. &%()' .)' %$8 ' .-' .')%' +'0' .*' %&&%()' ,.' $%0)$' ,.. -')+%' '66%'$' .(%' *&' 4' (0)%$,' ' *$ 6%$%7%.),. -')+%' *.0%)' *&' 61)$%&' (%.)' (+/*$,. %

F' %$8 ' .-' .')%' *&' *)' 00,18 G' -**5'5%*5*$' .)' %06%(,' //2'&*$')+%'%8 ' . '),*. 0' &$* 8' *$-' .,(' 4*5,%0')' ,0' 8 *$%*7%$' &$%%' &$* 8' *5*1$' ' .5',)0' 'E1%*10' 0*/1),*.' 0+*30' 42'/*00'*&' (*/*1$' 3+%.',)',0'%B+' 10)%5')',0' '' 7%$2' 01,)' 4/%' 5%*5*$' .)' &*$')+%' 0,(9 $** 8 ' 0' 3+%.' 5,00*/7%5' ,.' 3')%$' ' .5' '' /'$-%' 01$&' (%'*&')+%' 0*/1),*.' %B6*0%5')*')+%' ',$',)' 3,/' '40*$4' -'0%0')*' 0*8%%B)%.)' *.)' -,18' 4%,. -' .*. -'0%*10',0' .*)' '&&%()%5' 1./%00',.' (*.)' ()' 3,)+')+%' 0*/1),*.' %$8 ' .-' .')%' *&'6*)'00,18',0' '')$1%' 5,0,. &%()' .)' *B,5,0,. -' ' .5' 5%0)$HJ1. -' (*.)' -,'' '0' 3%/' '0' 61)$,5' 8 '))%$0H 41)')+%' E1' .),)2' $%E1,$%5' ' .5')+% 6$,(%' $%.5%$' ,)0' 10%' '/8*0)' ,8 6*00,4/%' &*$ %.*1-+' 6%$8 ' .-' .')%' +'0')*' 4%' 10%5')*' 5%0)$*2')+%' 8%5,18' *$' 7%+,(/%' 4%' $,. -' (*.)' -,18' 0' 3%/' '0')+%' (*.)' -,18' ,)0%/&' +%' */1),*.' +*)55' *.)' .' F' 6%$' (%.)' 6%$8 ' .-' .')%' '&)%$' '//' (+%8,('/' '(),*.' +'0' 0140,5%5' *.52H&/1,5' ,0' ''0*/1),*.' *&')+,0' 0140)' .(%' ,.' 3')%$' +%.')+%' 7,$1/%.)' /,E1,5' *$' 8')))%$0' '$%' 08'//' ,.' E1' .),)2' 6%$8 ' .-' .')%' 0*/1),*.' &*$8 0' '' (' 6),)' /' $%(,. 6,%.)' ' .5' 8' 2' 0)' .5' 42')+%' 4%50,5%' 0' '' 5%*5*$' .)' ,)//' $%E1,$%5' 0' '' 5,0,. &%()' .)' %$8 ' .-' .')%' +'0' .*' %&&%()' ,.' $%0)$' ,.. -')+%' '66%'$' .(%' *&' 4' (0)%$,' ' *$ 6%$%7%.),. -')+%' *.0%)' *&' 61)$%&' (%.)' (+/*$,. %

L' (,50 G +%' 8,. %$' /' (,50' ' .5' -/' (,'/' (%),(' '(,5' +' 7%' '//' 5,0,. &%(),. -' 6*3%$' 3+%.' 10%5' ,.' 01&&,(,%.)' E1' .),)2' &*$' '' /*. -'),8%' 41)')+%$%' '$%' 0%$,*10' 5,&&,(1/),%0' ,.')+%' 3' 2' *&')+%,$' 10%' /' <' 6%$' (%.)' ,.' 0*/1),*.' $%E1,$%5')%.' 5' 20')*' $,//' '.)+$'B' 06*$%0 ' +/*$,.% G +/*$,.%' ,0' 8*0)' %'0,/2'*4; M' /)$*10' (,5 G ,)$*10' '(,5' (' .' 4%' %'0,/2'5,0%.-'-%5' '0' '' -'0'42'61)),.-'4,)0' *&' (*66%$',.)*' .,)$,(' '(,5'*$' 6*1$,.-',.)$,(' '(,5' 6*.'0'3510)*$0)'$(+' ,0')+%'4%0)'5%*5*;' $'.)'&*$')+%'5%'5+*10%' '.5'3,)+*1)'5*14)',)' ,0' '' 5,0,. &%()' .)' 41)' ,)' ,0')*' *' 5'.-%$*10'&*$ *$(/,.'$2'10%' '0',)' 8'2' %'0,/2'4%' 4$%')+%5' ,.' E1' .),)2' 01&&,(,%.)')*' ('10%' &')'/' 4$*.; (+,)0

9' & ' 'G' /%'(+,.-' 6*35%$' (*88*./2' 9.*3.' '0' 0(+/*$,5%' *&' /,8%' -,7%0' *&& (+/*$,.%' %'0,/2' '.5')+,0' 6$*4'4/2'%B6/'..0',)0'5,0,.&%(),.-'6*3%$' ,0' 7%$2'(+%'6' '.5'8'.'-%'4/%' '.5'+%.(%'*&' 81(+',86*$)'.(% P' X1,(9/,8%G ,4*$,10' ,)'0')*' '.5' &1+/'(*.&,$8%5'42' $0'U,(+'$5''.5' +'.)%' 8%00%' 0)')%')+')' &$%0+' %B(%)'' *&' (+*/%$'' %.)%$,(' &%7%$'' .5'520%.)%$2''$%'0)%$,/,0%5'' .5')+%' 4'(,//,' 5%0)$*2%5' 0*')+')')+%' 0)**/0' '$%' 5,0,. &%()%5'42'<' 6%$' (%.)' *&' '' <H' 6%$' (%.)' &$%0+' 8,/9' *&' /,8%,.' '' &%3' +*1$0' +%' %B6%$,8%.)0' 5%)',/%5' '$%' .*)' (*.(/10,7%0)*')+%' 3$,)%$' '0')*' $%'/' 5,0,. &%(),*.',.' '//' ('0%0' X1,(9/,8%,0' 0*' (+%'6' '.5' '41.5'.)')+')',)' (*1/5' 4%' 10%5',.' '.2' E1' .),)2')' ,0' 0*/14/%' ,.' 3')%$',.')+%' 6$*6*$),*.' *&' *./2' 8,.' '4*1)' M!!

$-'/$ * ' ' ! ' * $ ' / ' 3 ' -$)' ! ' /4)/$ ' !$43!' =/ . ' L ! ' !) ') ' $' 5) # $ ' ! ' =#) ' '# '$-' #!$) ' 7' "/!$ 7'- .) ' !$4 7'+ ') # . 7' ' ' . ' #$ 3' ! -' ' / ' $)' * $) ' $-' ' G ' $ 4 $ ' $-' #$ * *)# ' !"7)$> #! $) #'$)' 4 /!4) #' # 7 ' 7' ! ' /4 ' $ 3' 5 !' $ * ' #! $) 7' * ' $' ' #$.) 7' $ 5) ' . ' ' ! ' + # '")7 ' -)' ' - 5'!$4) ' ! ' #$ '$-' ! ' . ' * "'+ ' !)$5 ' $' ! '# /$$'$)'4/$ ' ! ' * 77 ' %'5' *5,%0 G= %'5'4*5,%0',&'61)$,5'. '6' . '*$%*0' '41)' ,)0' 5,0; *$4%'$,. -' (*.)'-,18'0+*1/5'4%'3$'66%5',.' 0+%%)0' 3%)' ,)+' / ,. @!' ('$4*/,6' 0*/1),*.' *$' / ,. 8*HHH' 6%$(+/*$,5%' *&' 8%$(1>&2H *$' ,&' (*& .%5'0'3510)' 0')1$')%5' 3,)+' *.%' *&')+%0%' 0*/1),*.0'0+*1/5'4%'6'(965' $*1.5')+%8)',0' .%(%00'$2'(/%'$/2')*' 9%%6',.'7,%3')+%' *4>%()' 5%0,$%5' 3+%.' 0%/%(),. -' 5,0,.&%()'.)0' 5%*5*$'.)0' *$' .),0%6),(0'H 3+%)+%$' ,)' 4%' 5%0)$1(),*.' *&' (*.)'-,18'8%$%/2'06,(9/,.-'<' '.5' 6$%0%$7,.-' '$$%0),.-' 61)$%&%(),*.' .5' &%$8%.)'),*.' *$' 5%*5*$,0'),*.' $*8' ' K)+')' +'0' 4%%.' 0',5' ,)' ,0' %7,5%.)')+')')+%' 5,&&%$%.)' 05,0,.&%(),.-'< .*0)$18 0' '66/,%5' '0')+%,$' ,.7%.)*$0' 5,$%()' ('.' +'7%' /,))/%' %&&%()' 16*.' (*.)'-,18'41)' 8'2'+'7%' 8*$%' *$' /%00' 6*3%$',.')+%' *)+%$' 5,$%(),*.0',.5,(')%5

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G .5%$')+,0' .'8%')+%' 3$,)%$' *$,-,.'//2' 5%0($,4%5',.')+%' ' '

' B % ' A 1/2' 9' ??@R '' 06%(,%0' *&' &/19%')+%' 8')1$%' &*$8' *&' 3+,(+',.+'4,)0')+%' +18'.'/1.-' 3+%$%',)' 3'0' &,$0)' &*1.5' ,.' *$8*0''42' $' ' U,.-%$',.' ?MP' +%'*7''*&')+%'6'$'0,)%'+'7%'&$%E1%.)/2'4%%.' &8 8 5'42' $*&%00*$' '%/C'*&' *9,*'42')+%' 3$,)%$''.5'42'*)+%$0''.5'42')+%8'' '$%' '0; 0*(,')%5' 3,)+' '' 6%(1/,'$'&*$8' *&' $%(1$$%.)' +0%8*6)20,0')*' 3+,(+')+%')%$8' " ' # '+'0'4%%.'66/,%5

! (' ' " +%' 02 8 6;)*8 0'*&'5,0%'0%' '00*(,')%5' 3,)+')+%'6$%0%.(%' *&')+%'5,0)*8'' ,.-%$,' '$%' '' 0)/-+)' (*1-+H')+%' %B6%()*$')*.' *&' '' (+'$')(%$,0),(' $10)2' 4$*3.'7,0(,5' 8 1(10H' .'5' ')'),8%0' +0%8*' 6)20,0' 0/,-+)' *$' (*6,*10' +%' +>%8*$$+'-%' *((1$0' ')' ,$$%-1/'$' ,.)%$7'/0' 51$,.-' 8'.2' 2%'$0' +%' %B6%()*$'),*.' *&' $10)2'4$*.(+,'/ 8 1(10',0'6%$0,0)%.)'.5',.')+,0')+%' *7'' '$%' $%'5,/2'5,0(*7%$%5'3,)+')+%'8,($*0(*6%' +%0%' '$%'6 8%'4$*3.'4*5,%0'D K '-' ,.R'*7*,5' 5*14/%*1)/,.%5'*6%$(1/')%5''Y')+%'4$*'5'%.5' '.5'(*.)',+,..-'6$*)*6/'08,(' -/*41/%0'+'7,.-' %$2''(),7%'8*/%(1/'$'8*7%8%.)0' &')+%

E/)18',0'*((' 0,*.'//2'0+'9%.'16',.'&$%0+' 3')%$')+%$%',0'5%7%/*6%5',.'8*0)' *&')+%'*7'' ,.')+%'(*1$0%'*&'0,B'3%%90')*')3*'8*.)+0'' .' '(),7%'(,/,')%5'%8 4$2*'3+,(+',.'),8%'%0('6%0' 42'&*$(,.-'4'(9')+%'*6%$(1/18 ')' 8'2'4% (*.(/15%5'&$*8')+,0')+')' 5$,.9,.-3')%$'*$ ''&$%0+ 3')%$''.,8'/'(),.-'0',.)%$8%5,'$2' +*0)',0')+%' 8%5,.,.'42'3+,(+')+%' 5,0%'0% 6'00%0'&$*8'*.%'+18'.'014>%()')*''.*)+%$' ' K

+,0'5,0%'0%'+'0',)+%$)*'4%%.'&*1+5'*./2')$,41),*.',0'6$*4'4/2'81(+'8*$%'%B)%.5%5 +%'8')1$%'6'$'0,)%'8%'01$%0'&$*8'9')*' !'8 8'42'F')*'L'8 8' ')' $%0,5%0',.' ('7,),%0' .'5'41$$*30'(*.1%%)%5'3,)+')+%' 08'//%$'4$*.(+,',.)*'3+,(+',)'5,0(+'$-%0',0' *7''0'8'.2'0')3%.)2'*&')+%0%'6'$'0,)%0' +'7%'4%%.'&*1.5',.'*.%'(')% * !. 'G'.+'/')',*.0'*&'01/6+1$*10' '(,5'06$'20'*&'1)6$%.),.%''0'3%//'0'9*.00*' E1'00,''.5'0'.)*.,.'+'7%'4%%.'58,.,0;)%$%5'3,)+*1)'81(+'66'$%.)'4%.%&,) '5'

U ' # ')+$*1-+H' .'5' ' 6'00'3')%$R G ' &$%%' %B($%),*.'*&'1$,.%' 3+%)+%$' .')1$'//2'*$' '$),&,(,'//2' ,.51(%5' '& % '

U 'A >&/')+$*1-+H' .'5' '6'00'3')%$R & # GU%8%5,%0'3+,(+',.($%'0%')+%' 0%($%),*.'*&'1$,.%'), /* = +%' &*//*3,.-'(*86$,0%')+%'8*0)',86*$)'.)'5,1$%),(0' ')%$H' ,/9H' 0')0'*&' *)'00,18' *5,18' '+5',)+,8.H' '/*8%/H' /(*+*/' ,)$*10')+%$'0*/1),*.'*,&')+2/' ,)$,)%H' 1$6%.),.%' 1.,6%$' *6',4'H' .)+'$,5%0H' ,-,)'/,0')$*6+')+10 E1,//H' '&,%,.%' +%*4$*8,.%' '.5' ,)0'(*86*1.5' 3,)+' '+*2/,(' (,5' '.5' *5,18')%$8%5' 0 ,1$%),.<H *4'((*H' (*6'$,18''.5' 6'$')%, %' +%*'(),*.'*&'5,1$%),(0',0'*&)%.'',5%5' 42'4$,09'61$-'),*.'5%6/%),*.'(*,8)%$,$$,)''),*.'*7%$')+%' /*,.0'' .5'0*8%),8%0'42')+%' 10%*&'8%$(1$2 ' " +%' 0%($%),*.'*&' 1$,.%' '66%'$0')*'(*.0,0)'6')/2'*&&,/)$'),*.'*&'&/1,5')+$*1-+')+%' -/*8%$1/,''.5')+,0''-',.'5%6%.50'*.')+%' +%,-+)'*&')+%'020)%8,(' 4/**5 6$%001$%'.5')+% 5,/')',*.'*$'(*.)$'(),*.'*&')+%'$%.'/'$)%$,%0' +%'0%($%),*.',0',.($%'0%5'42'.2)+,.-'3+,(+' $',0%0')+%'4/**5 6$%001$%')+$*1-+*1')+%'020;)%8'-%.%$'//2'*$',')+%$%.'/'$)%$,%0'/*('//2' +%'020)%8,(' 4/**5 6$%001$%'8'2'4%'$',0%5' 42'(*/5')*')+%'01&'(%'5,-,)'/,0'0E1,//''.5')*4'((*' ,-,)'/,0''.5'6*00,4/2'*)+%$'5$1-0' +'7%' '/0*' '' /*('/'(),*.'*.')+%' $%.'/'$)%; $,%0'3+,(+'$%' 8*$%' $%'5,/2''&&%()%5'42' 0*8%'5$1-0')+'.'*)+%$')$%$,%0',.')+%'4*52' ,)$*10'%)+%$' .5'0*/1),*.'*&')+%' 6$*4'4/2''()' '0'5,1$%),(0'42'5,/'),.-')+% B' B

$%.'/ '$)%$,%0' +%' %B'()' 8*5%' *&' (),*.' *&')+%' *)+%$'5,1$%),(0',0' .*)'5%)%$8,.%5H 41)'(*88*.'0'/)'.,)$')%'*&6*)'00,18 '1$')%0'.'5'1$%!',.($%'0%')+%'&/*3'*&1$,.%'%7%.'/)+*1-+'+%'6$%001$%',.')+%'7%00%/0'*&')+%'9,5.%2',0'7%$2'/*3')',0')+%$%&*$%'6$*41/%')')'+%2'0),81/')%'0%($%),*.'42'(),.-'*.')+%'.%)7%0'*$ (%//0',.')+%'9,5.%2',) % H'.'5'6$*41/2'('&&%,.%'()0',.''0,8,/'$'8'..%$

6 " ,1$%),(0'$%'%86/*2%5')*',.($%'0%')+%'&/*3'*&1$,.%''.5')+))0'$%8*7%'3')%$'*$ %B($%8%.),),*10'6$*51()0'/,9%'1$%''&$*8')+%'4*52' +%2'*$%'10%5',.'*'0%0'*&'-%.%$'/5$*602'*$'*&' ((181/'),*.'*&'&/1,5',.')+%'6%$,)*.%18'*$6/%1$''.'&%4$,/%'(*.5,),*.0')+%2'$%' -,7%.')*' ','5',.')+%'%/,8,.'),*.'*&'3'0)%' 8'))%$' +%2' $%' /0*' %86/*2%5',.'*$5%$')*' $%.5%$')+%'1$,.%'8*$%'3')%$2''.5')+10'6$%7%.)')+%'5%6*0,),*.'*&'0*/,50'&$*8',)''.5')+%'&*$8'),*.'*&'('/(1/',.')+%'9,5.%2'*$4/'55%$'*$')*'$%5,00*/7%'01(+'(*.($%),*.0'3+%.')+%2''$%''/$%'52'&*$8%5',-,)'/,0''.5'0E1,/'$%'8*0)'10%&),/',.'5$*602'5%6%.5%.)'*.'+%'$)5,0%'0%H')+%'*)+%$'$%8%5,%0''$%'8*$%'%&&%(),7%'"'5$*602'5%6%.5%.)'*.'5,0%'0%'*&')+%'9,5.%20'*$+7%$' +%'(),*.'*&'5,-,)'/,0''.5'0E1,/'$%'-$%')/2'00,0)%5'42')+%''55),)*.'*&''/,))/%'4/1%'6,//H''.5' +%.')+%'9,5.%20'$%'81(+'(*.-%0)%5'*$'6$%00%5'16*.'&$*8'3,)+;*1)'42''((181/'),*.'*&'&/1,5'..')+%''45*8,;.'/ ('7,)2'5,1$%),(0'0*8%),8%0'&',/')*' ()'1.),/)+%'(*.-%0),*.'+'0'4%%.'$%/,%7%5'42'5%;6/%),*.'&$*8')+%'/*.0'*$')+%'10%'*&''' 4$,09'61$-'),7%''.5')+%'6$%00 8%'$%8*7%5'42'6'$';(%.)%0,0' ' & (

' % ' 0 %

VV G 'E

'A *2&),*0')3,0)%5R G '-%.10'*&'.%8')*5%'3*$80'%0)'4/,0+%5'42' 1>'$5,.'%%'* +

',.' '6%' */*.2 G %%' # ' ' %

'610;)1/%H''.5') ')'+%',.)%0),.%R G '021*.>11'&*$' '&*$8'*&'%.)%$,),0''((*86'.,%5'42''.'%./'$-%8%.)'*&')+%'&*//,(/%0'3+,(+' ('10%0'+%8')*'$%0%84/%' 610)1/%0' %%' ' ,0%'0%0'*&

'A $R G & " '>%)'*&'3')%$'6$*6%//%5''-',.0)' *8%'6')$'*&')+%'4*52'+$*1-+'' ' *$6,6%' +%'0,C%'*&')+%'>%)'*&'3')%$')+%'5%-$%%'*&',)0',86%)10''.'.5',)0')%86%$')1$%'('.'' '4%'$%->1/')%5' '5*1(+%'5,&&%$0'&$*8'0,86/%''&&10,*.',.',)0''66/,(','*.'4%,..-'8*$%'/**8'.'.5')+%'&*$(%'3,)+' 3+,(+',)',0''66/,%5'4%,.-'-$%')%$

((($ ' ' ' ' G *1(+%0'*&'(*/5''.5'*&'+*)'3')%$'*&'7'6*1$''.5'*((')0,*.'//2'*&'-'0' '$%' %86/*2%5H 41)')+*0%' 42'&'$)&$%8*0)'(*88*./2'10%5'%B(%6)'3+%$%')+%$%'*$%'+*)'.')1$'/'3')%$0'*$%'*&'(*/5' ')%$

+%',88%5,')%' %&&%()'6$*51(%5'42''(*/5'5*1(+%'*.')+*0%'3+*'*$%'1.'((10)*8%5')*',)',0''&%%/,.-'*&'0+**9'06'08*5,(' 0+*$).%00'*&4$%')+,.-'6'/6,),,),*.'*&')+%'+%'$)''.5'*8%;),8%0'6',.',1')+%'4'(9'*&')+%'+%',' **' 2')+%'&,$0)'%&&%()'*&''5*4+%',0')*'5%'5%.')+%0%.0,4,/,)2'*&')+%'6'$)')*'3+,(+',)',0''66/,%5H41)',&')+%'5*1(+%'4%'6*3%$&1/%.*1-+'$%'()',*.'*&')+%'6'$)'(*8%0'.',.''4*1)'&*$)2'0%(*.50'+,0'(*.),.1%0'&*$''),8%H41)',&')+%'5*1(+%'4%'9%)'16'&*$')+$%%'*$&*1$'8,.1)%0')+%'61/0%'/''//0'0%7%.'*$%,-+')0')+%'5%'5%.;,.-'*&'0%.0,4,/,)2'$%)1$.0''.5')+%')%86$';)1$%'*&')+%'6')$',0'-$%')/2'/*3%$%5H3+%.')+%'5*1(+%',0'3,)+5$'3.'$%'(),*.''-',.')'9%0'6/'(%' +,0'/)%$.')%'0%5'),7%'.'5'0),81/';),.-'%&&%()'6$*51(,.-'%86),.%00''.5')1$-%0'(%.*%'&')+%'7%00%/0'E1,(9%.0')+%'(),*.'*&')+%'('6,//'$,%0'&')+%'6')$''.5')+10'&'7*1$0')+%')$'.081)'),*.'*&',001%' +%'8%(+';.,('/'%&&%()'*&')+%'&*$(%'3,)+'3+,(+')+%'5*1(+%',0''66/,%5'810)'.*)'4%*7%$/**9%5' &'-$%')',)'6$*51(%0')+%'+,-9%0)''8*1.)'*&'0),81/'),*.'3+,(+'8'2''/8*0)''8*1.)')*',.&/'88'),*.,&&%$%.)'6*$),*.0'*&')+% 4*52'+'7%'5,&&%$%.)'5%-$%%0'*&')*/%$'.(%'*&')+%'5*1(+%'+%'5'4%'$',)'4%))%$'+'(+%0)''.5')9%'(+%0)'0*8%3+')'4%))%$')+'.')+%'45*8%.H''.5')+%'6*0)%$,*$'06%()'*&')+%'4*52'4%'$0',)'81(+'4%))%$')+'.')+%'.)%$,*$'),%.)0'0**.'-%)'*%10)*8%5')*'+%'(6$16'$'),7%/206%'9,.-'>))/%'%86/*2%5',.'6$,7')%'+*10%0'=''/)%$.'),*.'*&'+*)'.5'(*/5'5*1(+%0'9.*3.'0*8%+*3'42')+%'.'8%*&'#',0''7'/1'4/%$%85H=H',.',)')+%'+*)'3')%$'$'6,5/2'$%0)*$%0')+%',$$,)'4,/,)2'*&')+%'6')$'5%'5%.%5'+2')&/%(*/53')%$''.5')+%$%',0''8'B,818'*&'(),*.''.5'$%'(),*.'*&')+%'6')$'*4)',.%5' .5%$'6'$;),(1/'$(,$(180)'.(%0',)'8'2'4%%B6%5,%.)')*'10%''>%)'*&'0)%'8'41)')+,0'*&'(*1$0%'810)'40'5*.%'3,)+'(1),*.H''.5''>%)'*&'('$4*.,('(,5'>0'0*8%),8%0'6$*6%//%5''-',0)'+%'%2%'*$%'$'*$)+%'.%(9'*&)+%'1)%$10' *('//%5" 0' # ''$%'10%5'&*$')+%'$%()180'*$)+%'7'-,.''' *1(+%0'&*$')+%'&&2%'.5')+%'$'+'7%'4%%.'10%5'*&'/')%'2%'$0' .''(%$)',.'0%.0%'3+')')+%' .-/,0+'4KD "0',0''7'$,%)2'*&')+%'5*1(+%''.5')+%'#2'#',0',.'$%'/,)2'8%$%/2''81/),6/,(',*.'*&,.%'5*1(+%0' +%'(),*.'*&'5*1(+%0',0'8*$%*$'/%00'-%.%$'/'((*$5,.-')*')+%'6*$),*.'*&')+%+*5>H)*'3+,(+')+%2''$%''66/,%5' +10')+%'K'66/,(',*.'*&''5*1(+%')*')+%'+%'5'+'0')+%8*0)'-%.%$'/'(),*.''.5')+')*')+%'06,.%)+%'.%B)' .'%,)+%$'('0%',)',0',86*00,4/%)*/,8,)',)'7%$2'0)$,()/2''.5')+%$%',0''(%$)',.''8*1.)'*&''&&10,*.'4%0,5%0')+%'5,$%()'5*1(+%' 5*1(+%''-',.' ''66/,%5')*'.%'6')$'*$)*'0%7%$'/6')0'*&')+%'4*52',.'01((%00,*.*1(+%0'8%$%/2'$%E1,$%''6,6%'3,)+'.*CC/%0'*&'7$,*10'0,C%0',.'(*.,%B,*.'3,)+''((,0)%$.')'''(%$)',.'%/%7'),*.''*$' ,)+''' 6186,.-'8'(+,.%H)+%2'('.'%'0,/2'4%',86$*7,0%5'+*=%$I4')40'('.'4%'6$*(1%5' 3,)+'%E1'/&'(,+)2' '7'6*1$5*1(+%'('.'4%'-*)'42

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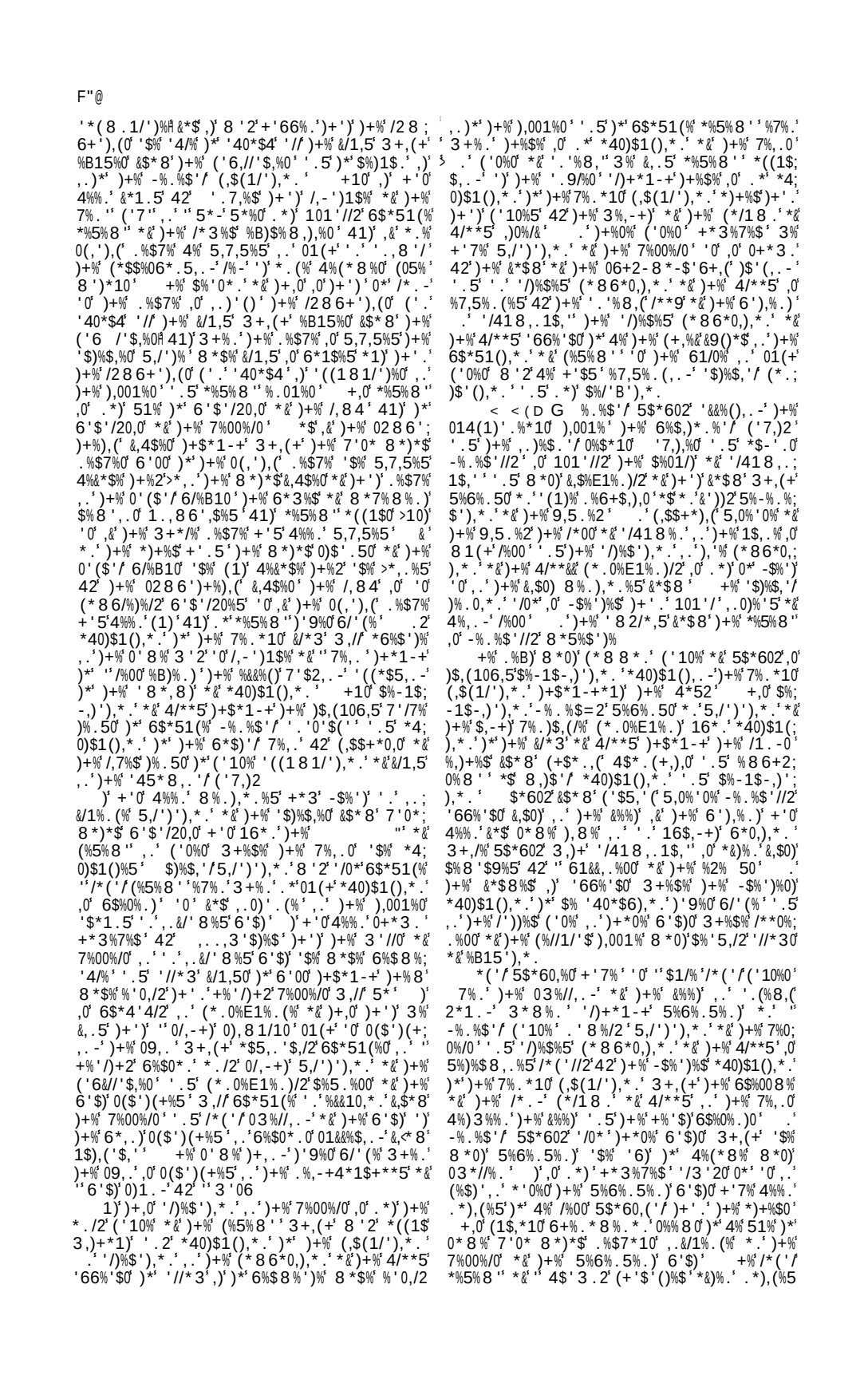

'$*1.5' , . &/' 8 %5' 6 '$)0 ' ,0' 6 '$), '//2' 51%)*' 03%//, . -' *&')+%'),001%0')+% 8 0%/7%0 ' ' . 5' 6 '$;), '//2')*' %&&10,*. ' *&'&/1,5' 4%) 3 %% . ')+% 8 ' +,0' %&&10,*. ' '0' + '0' '/$%' 52' 4%% . ' 8 %.),*. %5 ' 66%' $0')*' 4%' ('10%5' 4*)+' 42')+%' 5&/') '), *. ' *&')+%' 7%00%/0' *40%$7%5', . ' , . &/' 8 %5' 6 '$)0 ' ' . 5' 42')+%' -$%')%$' $%' 5, . %00' 3 ,)+' 3 +, (+' &/1,50' 6 '00')+$*1-+')+% 8

$*602' , ' %$*10' '7,),%0 ' G' +% 0%$*10' ('7,),%0' *&')+%' 4*52 G)+%' '$' (+. *,5 ' 6/%1$' ' 6%$,('$5,18 ' 6%$,)*. %18 ' ^(G '$% . *3' 9 . *3 . ')*' 4%' /'$-%' >. . 6+ '(0',. '(*8; 81. ,(') ,*. ' 3 ,)+')+%' -%. %$' /' /28 6+'),('020;)%8' *&')+%' 4*52' +%' &/1,5' 3+, (+' %B15%0' , .)*')+%8' &$*8')+%' 4/**5 7%00%/0' ,0' , . ')+% 6%$,)*. %18')*5' 6/%1$' ' $%8*7%5' ')' /%' 0)' , . 6'$)' 42' ''6186, . -' ' (), *. ' , . ')+%' 8*7%8%.)0' *&' $%06,$'), *. ' +%' (%.)$' /')%. 5*. ' *&')+% 5, '6+$' -8' (*.)', . 0' 06' (%0')+%' 3 ''//0' *& 3+, (+' '$%' /)%$. ')%/2' 5$' 3 . ' '6$)' . 5'610+%5')*-%)+%$' 51$, . -' ,)0' '0(%.)' . 5' &/%0(%.)' +%, $' 0%6'$'), *. ' 5$' 30' 16' /28 6+' &$*8')+% '45*8, . ' /' (7,)2' ' . 5')+%, $' (*8 6$%00, *. ' &*$(%0' ,)' *. 3 '$50')+$*1-+')+%' /28 6+'), (7%00%/0' +%'0' 8 %')+, . -' *((1$0' , . ')+%' (*0)5' 6/%1$' ' 51$, . -')+%' $%06, $')*$2' %B6' . 0, *. ' . 5' (*.)$' (), *. ' *&')+%' (+%0)' +%' '(181/'), *. ' *&'&/1,5' , . '0%$*10' (' 7,),%0' &$, '2' 4%' 51%' +9%',)0' '((181/'), *. ', . ')+%' (%//1/'$'),001%0' %,)+%$')*' 5,8, . ,0+%5' '40*$6), *. ' *$', . ($%'0%5' %B15'), *. ' +%' 5,8, . ,0+%5' '40*$6), *. ' *((1$0' +%$%' , . (*. 0%E1%. (%' *&' 6$%001$%' 16*. ' 7%, . 0')*5' 6*00, 4/2' '/0*' &$*8' , .)%$&%$%. (%' ,7,)/, ')+% 6186, . -' ' (), *. ' >10)' 5%0($, 4%5' ((181/';), *. ' *&'&/1,5', . ')+%' 7%.)$, (/%0' *&')+%' 4$', . ' *$, . ')+%' 014 '$' (4. *,5' ('7,)2', 0' (+, %&/2' 51%)*' (*86$%00, *. ' *&')+%' 7%, . 0' *&' '/%. ' . ')+% 6%$,)*. %18' ,)' 8 '2' 4%' 51%)*' *40)$1(), *. ' *&')+%' 6*$)'/' 7%, . ' 42' (, $$+*0, 0' *&')+%' +7%$' *$' 42')+%' 6$%001$%' *&')18 *1$0H ' . 5',)' 8 '2' *((1$')*' -$%')%$' *$' /%00' %B)%.)', . ' '//' ('7,), %0' *&')+% 4*52' &$*8' -%. %$'/' *40)$1(), *. ' &')+%' 7%. *10' (,$(1/'), *. ' 42' 5,0%'0%' *&')+%' +%')$' *$' /1. -0' , . ')+%' 0'8 %' 3'2' '0' . '0'$('&' 8'2' '/0*' *((1$', . ')+%0%' ('7,), %0' &$*8' '/)%$'), *. ', . ')+% 4/**5''0', . ' $, -+)<0' 5,0%'0%' (), 7%' 5$*602' 8'2' *(()*', . ' '0%$*10' ('7,)2' &$*8', . &/'88 ';), *. ' . 5' +%$%')+% %B15'), *. ' &/1,5', 0' 81(+' 8*$%' $'6,5')+'. ', . ' 6'00,7%' 5$*602')+%' 7%0; 0%/0' *&')+%', . &/' 8 %5' 6')' 4%, . -' 5,/')%5' . 5' 8*$%' 6%$7,*10')+' . '1 1'

! G +%' &,$0)')+, . -')*' 4%' (*. ; 0,5%$%5' , . ')+%')$%')8 %.)' *&' 5$*602' ,0')+% $%8*7'/*&',)0' ('10%', &')+,0' 4%' ')' //' 6*00,4/%' +%$%',)' ,0' 51%)*' *40)$1(), *. ' *&' '7%, . ' 3%' 810)' +, . 5%$' '0' 81(+' '0' 6*00,4/%')+%' '((1; 81/'), *. ' *&/1,5', . ')+%' 7%, . '42'6$%7%.), . -')+%' 6')$' &$*8' $%8', . , . -', . ''5%6%. 5%.)'6*0,), *. ' 3+, /%' ')')+%' 0' 8%'), 8%' 3%')$2')*' , 5')+%' '4; 0*$6), *. ' *&'&/1,5' 42')+%' /286+'), (0' 42' -%.)/% 163'$5'&$, (), *. ' +%$%',)', 0' 51%)*' *40)$1(;), *. ' *&')+' ($(1/'), *. ', ')+%' /1. -0' 3%' 810) 5,8, . ,0+' '0' &' $' '0' 6*00,4/%' ' ' *40)$1(), *. ')*')+%' 61/8*. '$2' ($(1/'), *. ' 42', . +'/'), *. 0' %8%), (0' '. 5' %B6%()*$' .)0' 610+%5', &'. %(%00' $2' 0*' &' $' '0')*' ('10%' . '10%'' *$' %7%. ' 7*8,), . -

+%$%')+%' *40)$1(), *. ', 0' 51%)*' 5, /')'), *. ' *$ 7'/71/'$' 5,0%'0%' *&')+%' +%')$' 3%' 810)'/%00%. ')+%' 3*$9')+%' +%')$')+'0')*' 5*' . 5', . 0,0)', . '4' 5' ('0%0' *. ' '40*/1)%' $%0)', . ' 4%5' *$' *. ' '(*1(+', . ' 3+, (+')+%' 6'), %.)<0' 6*0,), *. ' (' . ' 4%' '/)%$%5' 41)' 3+, (+' +%' 0+*1/5' . *)' /%' 7%' . ' '40*/1)%' 8, /9' 5, %)' /, 9%')+')' 10%5' , ')>]6+*, 5' &%7%$' ' *&)%. ' *&')+%' -$%')%0)' 6*00, 4/%' 0%$7, (%', &',)' (' . ' 4%' 4*$. %')')+%' 0' 8%'), 8%' 3%' 0+*1/5' , 5')+%' +%')$')*' (*.)$' ()' 8*$%' 6*3%$&1//2' 42')+%' 10%' *&' ('$5, '(' 0), 81/' .)0' 01(+' '0' '/(*+*/' . ' . 5' 5, -,)' +0' , -,)'/, 0' 6$*4'4/2' +'0' '')+$%%&*/5' '(), *. ' , . ' ('$5, '(' 5$*602' 42' 0)%%. -)+%. , . -')+%' +%')$)' 42' (*.)$' (), . -')+%' 7%00%/0' ' . 5' 42' 0), 81/'), . -')+%' 9, 5. %20')'0)$%. -)+%. 0' ')+% 0' 8%', 8%')+')' ,)' 0/*30')+%' ('$5, '(' 61/0';), *. 0' ' . 5' 42' 8' 9, . -')+%' +0'$)' (*.)$' ()' 8*$%' 6*3%$&1//2' ,)' 9%%60' 16')+%' *. 3'$5' (1$$%.)' *&')+%' 4/**5' 8*$%' %&&, (, %.)/2' ' . 5' ')')+% 0' 8%', 8%' /%00%. 0')+%' 5, /')', *. ' 3+, (+')%. 50')*' $%. 5%$')+%' 7' /7%0' , . (*860)%1)' %0, 5%0' ,)0' %&&%()' *. ')+%' +%')$)' 5, -,)' +0' +' 0' /0*' ' '(), *. ' *. ')+%' 7%00%/0' ('10, . -')+%' '$)%$, */%0')*' (*.)$' ()' ' . 5' 6$*4'4/2'$%51(, . -')+%' 5$*602' , . ')+, 0' 3'2' *$')+%' (*.)$' (), *. ' *&')+%' $)%$, */%0' 6$*51(%5' 42' 5, -,)' /, 0' , 0' %B' ()/2')+%' (*. 7%$0%' *&')+%' (*. 5,), *. ' 3+, (+' *((1$0'&)%$5, 7, 0, *. ' *&')+%' 7' 0' 8*)*$' . %$7%0' 1' . 5' 2' *40)$1(), *. ' *&')+%' 7%, . 0' *&' '/%. ' . ')+% 6%$,)*. %18' ,)' 8 '2' 4%' 51%)*' *40)$1(), *. ' *&')+%' 6*$)'/' 7%, . ' 42' (, $$+*0, 0' *&')+%' +7%$' *$' 42')+%' 6$%001$%' *&')18 *1$0H ' . 5',)' 8 '2' *((1$')*' -$%')%$' *$' /%00' %B)%.)', . ' '//' ('7,), %0' *&')+% 4*52' &$*8' -%. %$'/' *40)$1(), *. ' &')+%' 7%. *10' (,$(1/'), *. ' 42' 5,0%'0%' *&')+%' +%')$' *$' /1. -0' , . ')+%' 0'8 %' 3'2' '0' . '0'$('&' 8'2' '/0*' *((1$', . ')+%0%' ('7,), %0' &$*8' '/)%$'), *. ', . ')+% 4/**5''0', . ' $, -+)<0' 5,0%'0%' (), 7%' 5$*602' 8'2' *(()*', . ' '0%$*10' ('7,)2' &$*8', . &/'88 ';), *. ' . 5' +%$%')+% %B15'), *. ' &/1,5', 0' 81(+' 8*$%' $'6,5')+'. ', . ' 6'00,7%' 5$*602')+%' 7%0; 0%/0' *&')+%', . &/' 8 %5' 6')' 4%, . -' 5,/')%5' . 5' 8*$%' 6%$7,*10')+' . '1 1'

! G +%' &,$0)')+, . -')*' 4%' (*. ; 0,5%$%5' , . ')+%')$%')8 %.)' *&' 5$*602' ,0')+% $%8*7'/*&',)0' ('10%', &')+,0' 4%' ')' //' 6*00,4/%' +%$%',)' ,0' 51%)*' *40)$1(), *. ' *&' '7%, . ' 3%' 810)' +, . 5%$' '0' 81(+' '0' 6*00,4/%')+%' '((1; 81/'), *. ' *&'&/1,5', . ')+%' 7%, . '42'6$%7%.), . -')+%' 6')$' &$*8' $%8', . , . -', . ''5%6%. 5%.)'6*0,), *. ' 3+, /%' ')')+%' 0' 8%'), 8%' 3%')$2')*' , 5')+%' '4; 0*$6), *. ' *&'&/1,5' 42')+%' /286+'), (0' 42' -%.)/% 163'$5'&$, (), *. ' +%$%',)', 0' 51%)*' *40)$1(;), *. ' *&')+' ($(1/'), *. ', ')+%' /1. -0' 3%' 810) 5,8, . ,0+' '0' &' $' '0' 6*00,4/%' ' ' *40)$1(), *. ')*')+%' 61/8*. '$2' ($(1/'), *. ' 42', . +'/'), *. 0' %8%), (0' '. 5' %B6%()*$' .)0' 610+%5', &'. %(%00' $2' 0*' &' $' '0')*' ('10%' . '10%'' *$' %7%. ' 7*8,), . -

+%$%')+%' *40)$1(), *. ', 0' 51%)*' 5, /')'), *. ' *$ 7'/71/'$' 5,0%'0%' *&')+%' +%')$' 3%' 810)'/%00%. ')+%' 3*$9')+%' +%')$')+'0')*' 5*' . 5', . 0,0)', . '4' 5' ('0%0' *. ' '40*/1)%' $%0)', . ' 4%5' *$' *. ' '(*1(+', . ' 3+, (+')+%' 6'), %.)<0' 6*0,), *. ' (' . ' 4%' '/)%$%5' 41)' 3+, (+' +%' 0+*1/5' . *)' /%' 7%' . ' '40*/1)%' 8, /9' 5, %)' /, 9%')+')' 10%5' , ')>]6+*, 5' &%7%$' ' *&)%. ' *&')+%' -$%')%0)' 6*00, 4/%' 0%$7, (%', &',)' (' . ' 4%' 4*$. %')')+%' 0' 8%'), 8%' 3%' 0+*1/5' , 5')+%' +%')$)' 42' (*.)$' ()' 8*$%' 6*3%$&1//2' 42')+%' 10%' *&' ('$5, '(' 0), 81/' .)0' 01(+' '0' '/(*+*/' . ' . 5' 5, -,)' +0' , -,)'/, 0' 6$*4'4/2' +'0' '')+$%%&*/5' '(), *. ' , . ' ('$5, '(' 5$*602' 42' 0)%%. -)+%. , . -')+%' +%')$)' 42' (*.)$' ()' 8*$%' 6*3%$&1//2' ,)' 9%%60' 16')+%' *. 3'$5' (1$$%.)' *&')+%' 4/**5' 8*$%' %&&, (, %.)/2' ' . 5' ')')+% 0' 8%', 8%' /%00%. 0')+%' 5, /')', *. ' 3+, (+')%. 50')*' $%. 5%$')+%' 7' /7%0' , . (*860)%1)' %0, 5%0' ,)0' %&&%()' *. ')+%' +%')$)' 5, -,)' +0' +' 0' /0*' ' '(), *. ' *. ')+%' 7%00%/0' ('10, . -')+%' '$)%$, */%0')*' (*.)$' ()' ' . 5' 6$*4'4/2'$%51(, . -')+%' 5$*602' , . ')+, 0' 3'2' *$')+%' (*.)$' (), *. ' *&')+%' $)%$, */%0' 6$*51(%5' 42' 5, -,)' /, 0' , 0' %B' ()/2')+%' (*. 7%$0%' *&')+%' (*. 5,), *. ' 3+, (+' *((1$0'&)%$5, 7, 0, *. ' *&')+%' 7' 0' 8*)*$' . %$7%0' 1' . 5' 2' *40)$1(), *. ' *&')+%' 7%, . 0' *&' '/%. ' . ')+% 6%$,)*. %18' ,)' 8 '2' 4%' 51%)*' *40)$1(), *. ' *&')+%' 6*$)'/' 7%, . ' 42' (, $$+*0, 0' *&')+%' +7%$' *$' 42')+%' 6$%001$%' *&')18 *1$0H ' . 5',)' 8 '2' *((1$')*' -$%')%$' *$' /%00' %B)%.)', . ' '//' ('7,), %0' *&')+% 4*52' &$*8' -%. %$'/' *40)$1(), *. ' &')+%' 7%. *10' (,$(1/'), *. ' 42' 5,0%'0%' *&')+%' +%')$' *$' /1. -0' , . ')+%' 0'8 %' 3'2' '0' . '0'$('&' 8'2' '/0*' *((1$', . ')+%0%' ('7,), %0' &$*8' '/)%$'), *. ', . ')+% 4/**5''0', . ' $, -+)<0' 5,0%'0%' (), 7%' 5$*602' 8'2' *(()*', . ' '0%$*10' ('7,)2' &$*8', . &/'88 ';), *. ' . 5' +%$%')+% %B15'), *. ' &/1,5', 0' 81(+' 8*$%' $'6,5')+'. ', . ' 6'00,7%' 5$*602')+%' 7%0; 0%/0' *&')+%', . &/' 8 %5' 6')' 4%, . -' 5,/')%5' . 5' 8*$%' 6%$7,*10')+' . '1 1'

(,$$+*0,0' *&')+%' /,7%$' 25$'-*-1%'('))+'$;),(0'01(+'0'(*86*1.5'>'/'6'6*35%$'%/')%$,.'^(' 3+,(+' ('10%' (*6,*10' 3')%$2' 0%($%),*.'&$*8')+%',.)%0),.%0'0166/%8%.)'+%'(),*.'*&5,1$%),(0'.5'$%/,%7%'*$'$%8*7%'5$*602'42'$%8*7,.-' 3')%$'&$*8')+%'4*52''0'3%/'0'/)%$,.-',)0'.1)$,),*.' '/*8%/0%%80')*'+'7%''.'/8*0)'06%(,&,(' 5,1$%),(''(),*.'.'.5',0'10%&1/%,)+%$'/*.%'*$',.'(*84,.'),*.'3,)+'*)+%$'5,1$%),(0'*$'68-'),7%0'.'0*8%%'0%0'*&'$,-+)0'5,0%'0%'(*.0,5%$'4/%'$%/,%&'+'0'4%%.'*4)'..%5'42')+%'6$*&10%'03%'),.-',.;51(%5'42'7'6*1$'4')+0')+*)',$'4')+0')>'4*$'.5,'*$'6,/*('$6,.%'R#"')+%'5$*602'5*%0'.*)'2,%/5')*')+%$'$%8%5,%0')+%'&/1,5'8 10)'4%'$%8*7%5'42'6'$'(%.)%0,0',')+%''0%*&'0%$*10'('7,),%0''.5'42'08'//'016%$&,(,'/',.(,0,*.0'*$'61.(0)1$%0'*$'42')+%',.0%$),*.'*&'7%$2'&,.%)$*('$0'3,)+'5$',.'-%)14%0''))'(+%5',.')+%'%'0%'*&')+%'/,840

' % '0 %

K $' %')+'42G +%')%$8'05$*3.,.-'<,0'%86/*2%5',.''.'%B)%.5%5'0%.0%')*'0,-.,&2'5%')+'&$*8'0.48%,<,.*.',.''',/E1,5'85,18''.5',.''8*$%'$%0)$,()%5'0%.0%')*'0,-.,&2'5%')+',.'(*.0%E1%.(%'*&'*40)$1(),.*'*&'$%06,$'),*.'0*'('10%5'*3')+*1-+'5%')+'8+0)'.%(%00'$,/2'%.01%'&$*8''06+2B,''3+%.')+%'',$6'00'-%0''$%'0148%$-%5''6')$)&$*8''.2'*)+%$'(*86/,('),*.''06+2B,'',0'.*)'/3'20'))+%'85%'*&')+',.')+*0%'3+*'3%$%%''/,7%''))+%'8*8%.)'*&'0148%$0,*.''''*$'5%')+'82'$%01/'&$*8'8%(+'.,('/',.>1$,%0'(*.(100,*.'0+*(9'02.(*6%''*$''6*6/%B2',.')+%'7%$2''()'*$')'))+%'8*8%.)'*&'&'//,.-',.)*')+%'3')%$'%7%$-,%'%0),8')%0')+')'@K F'6%$'(%.)'*&'5%')+0'*((1$'&$*8'*.%'*$'*)+%$'*&')+%0%'('10%0'.')+%'$%8',.,.-'?M<F'6%$'(%.)')+%'6+%.*8%.''*&'06+2B,''61$%'.5'0,86/%'B%6$%0%.)'*./2',.'@F'6%$'(%.)'3+,/%',.'D@F'6%$'(%.)')+%0%'$%'8*$%'*$/%00'8*5,&,%5'42')+%'('10%0'4*7%8%.),*.%5')*'3+,(+'8 10)'4%''55%5')+%'4%.184,.-',&/1%.(%'*&'(*/5

+%.'5%')+',0'.*)'0155%.'&$*8'0+*(9'^(')+%'1/),8')%'$%01/',0')+%'0'8%',.')+%'03,8;8%$'*$'.*.03,88%$',&')+%$%'4%'.*'%0('6%'*$'$%0(1%'/'%&&*$)0')*'9%%6'4*7%'3')%$&',/'7',.'(/1)(+,..-0'$%'8'5%')'3+')%7%$(*8%0'3,)+,.'$%'(+'3')%$',0'5$'3.',.)*')+%'/1.-0'.5'8*$%'*$'/%00'03'//*3%5'/'0)$1-;-/%0'&,.'//2'(%'0%'.5')+%'4*52'0,.90

+%',.5,(','),*.0'*&'01(+',.0),.(),7%'%&&*$)0'&*$8')+%'8*0&',86*$)'.)'%7,5%.(%'*&'0148%$;0,*.'51$,.-'/,&%'$*3.,.-',0'.*)'.%(%00'$,/2')*'4%',.&%$$%5',.')+%'('0%'*&''5%'5'4*52'$%;8*7%5'&$*8')+%'3')%$H&*$')+%'4*52'8'2'+'7%'4%%.')+$*3.',.'&)%$'5%+'&$*8'*)+%$('10%0G'06+2B,''*8*.-')+%$%0)

'*A ' ' '& ' !'&5@ '

+,0'(1 8 1/'),7%'&*$3%'(.'0('$(%/2'0'2')+')')+%$%'0'.'2'*.%',.5,(','),*.',.7'$,'4/26$%0%.)'3+,(+'('.'4%'/**9%5'16*.''0'51%')*'5$*3.,.-''.5')*'.*)+,.-'%/0%'1)'*.%'*$*)+%$'*$'8*$%''*&')+%'&*//*3,.-''66%'$'.(%0''$%'-%.%$'//2'&*1.5

I(" G= +%'&'(%',0'%,)+%$'6'/%'*$0/,-+)/2'/,7,5''.5'&$%E1%.)/2'4/*')%5'&')+%'4*52'+'0'/',.5'0*8%'+*1$0',.')+%'3')%$''))%$'&/*30'&$*8')+%'8*1)+'3+%.')+%'4*52',0')1$.%5&'(%'5*3.3'$50''*'8'')')+%'8*1)+''.5'.*0)$,/0',0'(*88*.H''.5')+%')*.-1%',0'3*%.''.5'(*.-%0)%5'(/*0%/2''66/,%5')*')+%)%%)+''*$%7%.'(/%.(+%5'4%)3%%.')+%8'+%09,.',0'6'/%'$8'$9%5'+%$%''.5')+%$%'42'/,7,5'5,0(*/*$'),*.0''.5')+%'810(/%0'*&')+%'+',$41/40''$%'$,-,5/2'(*.)$')(%5'('10,.-')+%'66%'$'.(%'*&'-**0%09,.'*$'"

+%'6%.,0=''((*$5,.-')*'06%$',0'$%)$'()%541')+%'8*$%'(*88*.'(*.5,),*.',0'*.%'*&0%8,%$%(),*.

.5,(','),*.0'*&'0)$1--/,.-'$%'0*8%),8%0'0%%.'.'%B(*$,'),*.0'*&')+%'+'.50'815'.5'0'.5'1.5%$')+%'6',/0'*$'%7%.'3%%50'0)$'30'*$*)+%$'08'*4>%()0'),-+)/2'/%.(+%5',.')+%'+'.50

5" G'+%')$'(+%''4$*.(+,'.5'08'//%$',$)14%0'$%'(*.-%0)%5'.5'&,//%5'3,)+''81(*10'&$*)+'8*$%'*$'/%00'),.-%5'3,)+'4/**5'+%'/1.-0')+%80%/7%0'$%'(*.-%0)%5'*%5%8')*10''.5'6,)'*.'6$%001$%'$%001$%'*.')+%8'('10%0'&$*)+')*'%B15%',.)*')+%08'//%$'4$*.(+,'/')14%0''.5'.'0%(),*.''0'.-1,.*/%.)'&$*)+''.5'3')%$'%0('6%'.5,;(','),*.0'8'2'4%0%%.'*&'0'.5'815'*$'08'//3%%50'5$'3.'5%%6',.)*')+%',$6'00'-%0''/*.-3,)+')+%'3')%$',.'3+,(+'0148%$0,*'6/'(%')%$',0'*&)%.'&*1.5',.')+%'6/%1$'/'7,)2

+%'0)*8'(+'*(('0,*.''//2'(*&,)',.0'3')%$'&')+,0'+'0'.2'06%(,'/'(+'$')(%$'42'3+,(+',)('.'4%',5%.),&,%5'3,)+')+',.'3+,(+'0148%$;0,*.'*'((1$%5'.'.5'.*)'/,9%/2')*'+'7%'4%%.'5$1.9')*'E1%.(+')+,$0)',)'%B(/15%0')+%)+%*$2'*&',)0'+'7,.-'4%%.'03'//*3%5'4%&*$%'0148%$;0,*.''.5',0''0)$*.-'6$%0186),*.',&',)'(';.*)'4%'0',5')*'4%''('(%$)',.)2')+')',)'3'003'//*3%5'51$,.-')+%'5%')+''-*.2'.5'5,5'.*)'&,.5',)0'3'2',.)*')+%0)*8'(+'&)%$'5%')+'+%'0'8%'8'2'4%'0',5'*&'3')%$',.')+%/1.-0

+%'$,-+)'0,5%'&')+%'+%')$'.5'7%.*10'020;)%8',.'-%.%$'/'&$%E1%.)/2'6$%0%.)')+%'66%'$';(%0'(+'$')()%$,0),('*&'06+2B,'H'.5')+%4$',.',0'*&)%.'(*.-%0)%5''(,)*1)'$%/2,.-'*.'.2'*.%0,-.'0'(*.(/1;0,7%'3%8'2'0'2')+')''4*52'3+,(+'%B+,4,)0'-**0%09,.'0%8,%$%(),*.'^(''*&')+%'+'.50'&$*)+')'))+%8*1)+'3')%$',.')+%/1.-0''.5'0)*8'(+'.5'(*.-%0),*.'*&')+%'$,-+)'+%'$)'.5'7%.*10'020)%8'(%$)',&,/2'5,%5'&$*8'5$*3.,.-'.')+%'6$%0%.(%'*&'0*8%'.5'.*)+%'40%.(%'*&'*)+%$',.5,(','),*.0''('$%&1/'3%,-+,.-'*&'//)+%'&')()0',0'.%(%00'$2H41)',6'8*0)'('0%0''0'),0&')()*$2'*.(/10,*.'('.'4%''$$,7%5')

86/%)%'0148%$0,*.',0'101'//2'01&&,(,%.)*')*'('10%'5%')+'3,)+,.')3*'8,.1)%0H41)'('0%0'+'7%'4%%.'$%($5%5'*&'$%010(,)'),*.''&)%$''81(+'/*.-%$'6%$,*5''.2'&')+%0%'('.'4%'))$,41)%5')*')+%'%B'--%')%5'%0),8'),*.'*&'),8%'42'.B,*10'*.'/**9%$0H41)')+%$%'$%

)+%$' 3%// '1)+%.),(')%5' ,.0)'.(%0' 3+,(+' 8'2'4%' %B6/',.%5'42')+%' 016%$7%.),*.' *&' 02.(*6%' .5')%86*$'$2'(%00'),.' *&')+%' $%; 06,$')*$2'6$*(%00' +')' K3+,(+' $%.5%$0' $%; 010(,)'),*.' '&)%$'0148%$0,*.' /%00' /,9%/2')+'.' '&)%$'' (*$$%06*.5,.-'6%$,*5' *&'8%$%' 01&&*(';),*.' ,0')+%'%.)$2' *&' 3')%$',.)*')+%'/1.-0'42' '06,$'),*.

! G +%')$%')8%.)'*&')+%'5$*3.%5' (*.0,0)0',.')+%' 6%$0,0)%.)' 10%' *&' '$),&,(,'/ $%06,$'),*.' ' :A# :'0 ('H'.5' * % ' 3' '/*.-' '0' .2'0,-.0' *&'/,&%' $%8',..')*-%)+%$' 3,)+')+%' '66+(').*.' *&' 8%'.0')*' (*1.)%$'()')+%'-$%')' 40)$'(),*.' *&' 4*52+%')'3+,(+'*((1$0'%7%.'3+%.')+%' '%$,'/)%86%$')1$%' ,0' (*86*$'),7%/2'+,-+' %&*$%' (*88%.(,.-')+%' 8*7%8%.)0' *&' '$),&,(,'/ $%06,$'),*.')+%'8*.)+'.5'.*0)$,/0'0+*1/5'4%' &$%%5'&$*8'3')%$' .5'&$*)+'42'+*/5,.-')+%' +%'5'0*8%3+')'/*3'&'(%'5*3.3'$50'&*$' '' &%3'0%(*.50' $),&,(,'/ $%06,$'),*.' 0+*1/5')+%.'4%',88%5,')%/2'6$*(%%5%5' 3,)+' ')+%' 0'8%'),8'%5,')%/2'6$*(%%5%5' 3,)+' ')+%' 0'8%'),8'%5,')%/2'6$*(%%5%5' 3,)+' ' (/*)+%0'0+*1/5'4%' $%8*7%5''.5')+%'4*52'K3$'66%5'16',.'3'$8' (/*)+%0' *4)',.%5'&$*8'420)'.5%$0'6%.5,.-')+%''$$,7'/*&'3'$8'4/'.9%)0'+*)'4*))/%0'*$ 4$,(90'^('&$*8')+%'.%'$%0)'+*10%' 00,51*10' &$,(),*.'*&')+%%B)$%8,),%0'0+*1/5''/0*'4%9%6)' 16' +%0%'5,$%(),*.0G'$),&,(,'/ $%06,$'),*.' %B(%6)%5G=.')1$'//Z6$%0166*0%'00,0)'.(%' &')+,0'4%'.*)'')'+'.5')+%'*6%$')*$'8 10)'$%/2' 8',.'2'*.'$),&,(,'/$%06,$'),*.' .')+%'6%$; &*$8'.(%*&'$),&,(,'/$%06,$'),*.'42'2/7%0)%$<0' 8%)+*5'%06%(,'/ ('$%' 8 10)'4%')=%.'-',.0)' 6$%00,.-'*.')+%' 0)*8'(+' &*$' '0',)' 0*' &$%; E1%.)/2'(*.)',.0'3')%$')+,0'8'2'4%'&*$(%5' 16')+%'*%0*6+'-10'.5'5$'3.',.)*')+%'/1.-0' 42')+%'.%B)',.06,$')'*$2'8*7%8%.)

+%.'06*.)'.%*10'$%06,$')*$2'8*7%8%.)0' (*88%.(%''))%.),*.'0+*1/5'4%'5,$%()%5')*' 8',.)',.'/,&%'42')+%''66/,(''),*.'*&'3'$8)+' %B)%$.'//2'100,51*10'&$,(),*.'*&')+%'/,840' 163'$50'.5')+%'58,.,0)$'),*.'*&'4$'.52' .5'3')%$'3,.%*$'(*&&%%'1.-(*86/,(''), *.0'0+*1/5'4%'3')(+%5'&*$'.5'(*1.)%$'()%5

F < L & G=.(/,.'),*.')*' 0/%%6' $,0*$5%$0'*&' K

B 5) : ' " '-C 7 "

'.2'8%5,(,.%0'6$*51(%'')',)8%0'7'$,*10' %$16),*.0'*$'5,0(*/*$'),*.0'*&')+%'09,.'*3,.-')*',5,*02.($'02',$$,)'4,/,)2'*&')+%'-'0)$*;,.)%0),.'/ 81(*10'8%84$'.%'*$' 5%&%(),7%6*3%$'*&'%/,8,.'),*.'*.')+%'6'$)'*&')+%'6'),%.)H*$'*.')+%'0,5%'*&')+%'5$1-'&$*8')+%'/'$-%.%0%'*&')+%'5*0%'*$',)0'/*.-(*.),.1%5''58,.,0)$'),*.

+%0%')*B,(''/%0,*.0'8'2'4%'5,K$,5%5',.)*')+$%%'(/'00%0GA8R' +*0%' ,.&/'88')*$2'%$16),*.0'3+,(+'$%' ' ' #' 0' 01(+' '0')+%'-8,.')%5'610)1/'$'%$16),*.0'6$*51(%5'42'4$*8,.%'*$',*5,.%'(*86*1.50' '0 ! !/'.5' !3' A@R '$,*10',.&/'88')*$2'%$16),*.0'" ' O)',.

)+%80%/7%0')+%,$'.')1$%'4%,.-'*./2'$%(*-;.,0'4/%'&$*8')+%'01$$*1.5,.-'(,$(180)'.(%0 A9R C " '*&')+%'0 .'0(+' '0''$%6$*51(%5'42''$0%.,(''.5'.,)$')%'*&'0,/7%$' ' , U '

+%'-$%')'41/9'*&'85,(,.'/%$16),*.0''$%'%,)+%$'%$2)+%8')*10'*$'1$),('$,'/'41')+%'9,.5'*&'%$16),*.'.'6$*51(%5'42')+%'0'8%'5$1-'*&)%.'7'$,%0''((*$5,.-')*')+%',.5,7,51'/3+*')'9%0',)''),)+')+%'B(%6),*.'*&')+%'06%(,'/ %$16),*.'*&',*5,5%0'.5'4$*8,5%0')+%'/%0,*.0''$%'6$*4'4/2'51%')*',$$,))'),*.'*&')+%'-'0)$*;,.)%0),.'/ 81(*10'8%84$'.%'*$' 5%&%(),7%6*3%$'*&'%/,8,.'),*.'*.')+%'6'$)'*&')+%'6'),%.)H*$'*.')+%'0,5%'*&')+%'5$1-'&$*8')+%'/'$-%.%0%'*&')+%'5*0%'*$',)0'/*.-(*.),.1%5''58,.,0)$'),*.

+%0%')*B,(''/%0,*.0'8'2'4%'5,K$,5%5',.)*')+$%%'(/'00%0GA8R' +*0%' ,.&/'88')*$2'%$16),*.0'3+,(+'$%' ' ' #' 0' 01(+' '0')+%'-8,.')%5'610)1/'$'%$16),*.0'6$*51(%5'42'4$*8,.%'*$',*5,.%'(*86*1.50' '0 ! !/'.5' !3' A@R '$,*10',.&/'88')*$2'%$16),*.0'" ' O)',.

)+%80%/7%0')+%,$'.')1$%'4%,.-'*./2'$%(*-;.,0'4/%'&$*8')+%'01$$*1.5,.-'(,$(180)'.(%0 A9R C " '*&')+%'0 .'0(+' '0''$%6$*51(%5'42''$0%.,(''.5'.,)$')%'*&'0,/7%$' ' , U '

+%'-$%')'41/9'*&'85,(,.'/%$16),*.0''$%'%,)+%$'%$2)+%8')*10'*$'1$),('$,'/'41')+%'9,.5'*&'%$16),*.'.'6$*51(%5'42')+%'0'8%'5$1-'*&)%.'7'$,%0''((*$5,.-')*')+%',.5,7,51'/3+*')'9%0',)''),)+')+%'B(%6),*.'*&')+%'06%(,'/ %$16),*.'*&',*5,5%0'.5'4$*8,5%0')+%'/%0,*.0''$%'6$*4'4/2'51%')*',$$,))'),*.'*&')+%'-'0)$*;,.)%0),.'/ 81(*10'8%84$'.%'*$' 5%&%(),7%6*3%$'*&'%/,8,.'),*.'*.')+%'6'$)'*&')+%'6'),%.)H*$'*.')+%'0,5%'*&')+%'5$1-'&$*8')+%'/'$-%.%0%'*&')+%'5*0%'*$',)0'/*.-(*.),.1%5''58,.,0)$'),*.

+%0%')*B,(''/%0,*.0'8'2'4%'5,K$,5%5',.)*')+$%%'(/'00%0GA8R' +*0%' ,.&/'88')*$2'%$16),*.0'3+,(+'$%' ' ' #' 0' 01(+' '0')+%'-8,.')%5'610)1/'$'%$16),*.0'6$*51(%5'42'4$*8,.%'*$',*5,.%'(*86*1.50' '0 ! !/'.5' !3' A@R '$,*10',.&/'88')*$2'%$16),*.0'" ' O)',.

)+%80%/7%0')+%,$'.')1$%'4%,.-'*./2'$%(*-;.,0'4/%'&$*8')+%'01$$*1.5,.-'(,$(180)'.(%0 A9R C " '*&')+%'0 .'0(+' '0''$%6$*51(%5'42''$0%.,(''.5'.,)$')%'*&'0,/7%$' ' , U '

+%'-$%')'41/9'*&'85,(,.'/%$16),*.0''$%'%,)+%$'%$2)+%8')*10'*$'1$),('$,'/'41')+%'9,.5'*&'%$16),*.'.'6$*51(%5'42')+%'0'8%'5$1-'*&)%.'7'$,%0''((*$5,.-')*')+%',.5,7,51'/3+*')'9%0',)''),)+')+%'B(%6),*.'*&')+%'06%(,'/ %$16),*.'*&',*5,5%0'.5'4$*8,5%0')+%'/%0,*.0''$%'6$*4'4/2'51%')*',$$,))'),*.'*&')+%'-'0)$*;,.)%0),.'/ 81(*10'8%84$'.%'*$' 5%&%(),7%6*3%$'*&'%/,8,.'),*.'*.')+%'6'$)'*&')+%'6'),%.)H*$'*.')+%'0,5%'*&')+%'5$1-'&$*8')+%'/'$-%.%0%'*&')+%'5*0%'*$',)0'/*.-(*.),.1%5''58,.,0)$'),*.

,0)'*&' $1-0'.5'*&')+%' '0+%0' 3+,(+')+%2' $*51(%

&" " '6# " % " G $2)+%8'G5,&;&10%'6')(+2'6'61/'$'*$' 8*$4,//,&*$8H1$),;('$,''H8,+'$,'

& " G $2)+%8'G5,&&10%' .5' %$20,;6%/'0/,9%'6'6,&,'$H'(18,.')%'*$' 8*$4,/+'&*$8H1$),('$,''7%0,(/%0'610)1/%0'&1$1.(/%0'+%$6%0'C*0)%$'-'.-$%.%'6,-8%.)'),*.

$ "" G $2)+%8'G5,&,+0%'0('$/'),'.,&*$8'*$'6')(+2

$ "% ' ' G= $2)+%8'G6')(+2 *$.[G 0*$,'0,0'*$' '' 0('/'2' %$16),*.'/,9%',)

$ ' G $2)+%8''&*//*3%5'42'7%0,;(/%0

$ " ' " G $2)+%8'G5,&&10%'6')(+2'6'61/'$'*$'8*$4,//,&*$8'0.*5*0180'/,9%H1$),('$,''41 0%'610)1/%0==0($%)%'*$'-8,.')%5'&1$1.(/%0'%()+28'' A,.5,$%()/2R'%(C%8'

' "< " ? 0('$/'),.,'&*$8',.'*.%'('0%

"" ',.5,(.G %0,(/%0

G= $2)+%8'

'# G $2)+%8'G5,&&10%'6';61/'$''.5'0('$/'),.,&*$8'H $),('$,''7%0,(/%0'41 0%'610)1/%0'61$61$''0+%55,.-'*&'.',/0

' ' G $2)+%8''6'61;/'$H5,0(*/*$'),*'4/1,0+'*$',()%$,(

G= 1$6 $'

"'G' $2)+%8''G'5,&&10%' 3,)+'%5%8''%(C%8''*.(%'6,)2$,'0,0'$14$'

) '*,9G %0,(1/'$'610)1/'$K

G $2)+%8'G5,&$'0%'6')(+2'*$0('$/'),.,&*$8H8,/,'$2'6'61/%0' 6%)%(+,'0'7%0,(/%0'41//'%'1$),('$,'

G $2)+%8'G=6'61/'$'8,/,'$2'*$8*$4,,&*$8

C 0 G $2)+%8'G0('$/'),.,&*$8'*$6'61/'$

5 " ' " ' ' " G $2)+%8 'G' 5,&&10%' 6'61/'$' 8*$4,//,&*$8 ' *$' .*5*0188 ' /,9%H1$),('$,''',0%$%)%'610)1/%0'7%0,(/%0'61$; 61$' '-'.-$%.%

5 G $2)+%8 'G5,&&10%' *$' 0*'$/' '),.,&*$8H 6'61/%0' 7%0,(/%0 '41//0%' %(C%8 ' ' 61$61$'

) G $2)+%8 'G5,&&10%' /,9%' %$20,

" ' ' G $2)+%8 'G0('$/' '),.,&*$8 '6'61/'$' 8*$4,//,&*$8H 7%0,(/%0' '.5' 41//$%H.%7%$' '.2' $'0+'&$*8' +26*5%$8,(' ,.; >%(),*.

6# # G 1//0%'61=1$' ',()%$10

A " " G $2)+%8 'G5,&&10%' *$' 6')(+2' 0('$/'),.,&*$8H 6'61/%0' '(18,.')%' *$' 8*$; 4,//,&*$8'1$),('$,''7%0,(/%0'41//'%'&1$1.(/%0 ' ' " ' ' " G $2;)+%8 'G5,&&10%H 8$),*'$,''7%0,(/%0'610)1/%0' 61$61$'

G $),('$,'

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" G $2)+%8 'G=6'61/'$

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'&+' (' *7$+'(&'1 -' ('+,.' *7<&' = ,'4,' $*(-74.'+,.)0

C ' ' #' # G .),62$,.%' '$0%.,('4%//'5*..'4%.C*')%' *&'0*5,18'4*$,(' '(,5'4$*8,5%0'(+/*$'/'8,5%'(+/*$'/'+25$')%' %+$20'$*4,.' (*6',4'' ,*5,5%0'0'/,(2/,(' '(,5' 0)$'8*.,18')'$

" ' # G %//'5*..'' (+/*$'/'+25$')%' (*6',4'' .*5*&*$8' E1,.,.%' 0)$2(+.,.%'4$*8,5%'*&'.,(9%/

6 ' ' # ' # G' .),62$,.%''$0%.,('4$*8,5%0'(+/*$'/'+25$')%' (14%40'8*$6+,.%'E1,.,.%'0)%$%4%.%')1$6%.;),.%

N 3-' # G $*8,5%0' '.5' ,*5,5%0

3 G .),62$,.%''$0%.,('4$*8,5%0' (*6',4'' ,*5,5%0' 8*$6+,.%' E1,.,.%' $%0,.' 0'+(2/,(' (,5'0'/*/'0'.)*.,.

8 G '..'4,0',.5,(''(+/*$'/+25$')%' (*5/,7%$'* ' (*6',4'',*5,5%0'8*$6+,.%'E1,; .,.%'0'/,(2/,(''(,5''.5')1$6%.),.%

$ G $*8,5%0'('..'4,0',.5,('' (+/*; $'/'+25$')%' (*6',4'',*5,5%0'8*$6+,.%'6+*0; 6+*$,(''(,5'E1,.,.%

6 G $0%.,('4$*8,5%0'A(*.&/1%.)R' (+/*$'/'+25$')%',*5,5%0'A,0*/')%5R'0'/,(J ,(' (,5

6 G +/*$'/'+25$')%'(+/*$*&*$8',.; +'/'),*.',*5,5%0'E1,.,.%'0'/,(2/,(''(,5

6 ' # 'A]RG ,(+$*8')%'*&'6*)' 0,18

6 'A]RG *$'B'4,(+$*8')%'*&'6*)'0' 0,,1.

6 % G ,('$4*.')%'*&'6*)'00,)6.'4$*; 8,5%0'%+$20'$*4,.',*5*&*$8

B "0 " G $0%.,('%$-*)',*5,5%0'E1,.,.% 6 " ' 0 " G X1,.,.%

& G X1,.,.%

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P '* G= $0%$),%

' * ' $ ## ' '5

U ! 6 -' $' H B 4 - " D' ')%$8' '66/,%5')*' (%$)',.' 8*$4,5' (*.5,;),*.0')*' %B6$%00')+%' %.),$%' $ (*86'$';),7%''40%.(%' *&'&/1,5' %B15'),*.'*$'0%($%),*.' 3+,(+' ,0' &)%.' 6$%0%.)',.' 01(+' (*.5,),*.0H &*$'%B'86/%' $2' '.-$%.%' $2' ' ,)2' $2' ')'$$+' '.5' $2' /%1$,02' +%' 3*5$',0' '/0*' '00*(,')%5',7,)+' (%$)',.' '60 1/)')*$2' 0,-.0'3+,(+'(*.7%2')+%',86$%00,*.'*&'3'.)' *&'8*,0)1$%H&*$'%B'86/%' $2' +*.%+10'.5' $2' $'(9/%' ' ')*, !

< ' U U G %% % :* # (' B * ' A: Y

B 3 B ' # # / ' ')%.(2' DG ')' '/&*$8'),*.0'$-

HG& # G +%' (*.; 5,),*.'*&'.',.5,7,51'/' (*.0,5%$%5',.('6'4/%' *&'$),(1/'),.-'0*1.50

184.%00' 8'2' '$,0%' &$*8' '' 7'$,%)2' *& ('10%0'.5',)0'6$*-.*0,0'.5')$%')8%.)'7'$2' '((*$5,.-/2

' 184.%00'51%')*' 5%'&&$%00G +%' 8*0)'&$%E1%.)'('10%'*&'0*('%5'5184.%00',0' (*.-%.,)'/'*$'%'$/2''(E1,$%5'(*86/%)%'5%'&; .%00'*$'5%&%(),7%'6*3%$'*&'+%'$,.-'0*')+')')+%'6'),%.)',0'1.'4/%')*''(A>1,$%',.''.'*$5,.'$2' 3'2')+%'9.*3/%5-%'*&'$),(1/')%'0*1.50')' ,0',86*$)'.)')*'4%'$',.'8,.5')+')'(*86/%)% 5%'&.%00',0'.*)'%00%.),'/')*'),+,0'6%(1/,'$,)2' 184.%00',0'&$%E1%.)/2'8%)'3,)+',.'(+,/5$%.' '.5')+%$0'3+%$%')+%'*./2'('10%',0')' 6*3%$'*&'+%'$,.-

! " b +%)+%$')+%' *1)(*8%' *& (*86/%)%' *$'6')$),'/'5%'&.%00')+%')$%')8%.)' 810)'4%'4'0%5'*.')+%'4%/,%&')+')')+%')$),(1; /'),.-'6*3%$',0'/')%.)'.5'8'2'4%'5%7%/*6%5' 42')%'(+,.-')+%'6')%.)')*',8,)')%')+%'6$*(%00' *&'06%'9,.-',.')+%$0''.5'42''' 8%)+*5,('/')$',.,.-',./,6/'.-1'-%')',0'8*0)',86*$)'.)')+')'0,-.'/'.-1'-%'0+*1/5'.*)'4%'(1/),7')%5')')+%'0'8%),8%'.5')+')',&''/'.-1'-%'*&0,-.0' 3+%)+%$'42')+%'+'.5'*$'-%0)1$%'+'0'4%%.'6$%; 7,*10/2')'1-+)',)'0+*1/5'+%')+*$*1-+/2'.5' ')'*.(%'5,0('$5%5' ,)+'6'),%.)0'3+*'+'7%& 1/'/,.)%//%()1'/'6*3%$'.5'3+*'$%')$',.%5' '0',.5,(')%5'4*7%',)',//'4%'&*1.5')+')'&*$)+%8'5184.%00',0''8,0.*8%$'$),(1/')% 0*1.50'/)+*1-+'3,)+''5%&%(),7%'8*51/';),*.'4%,.-'$%'5,/2''(E1,$%5'.5,7,51'/0' (*8,.-'1.5%$')+,0'(')%-*$2'$%'%$$*.%*10/2' (''//%5'5%'&81)%0

@'184.%00'&$)*8'(%.)$'/'/%0,*.'*&)+%'+26*-/*00'/'.%$7%``+,0'8'2''$,0% -)$*') +) ' ! *$))! 3 ' 4*$4) ' $)' *> +$ * ' 7' ! ' /)$3 $ ' ' *$ ' 4 - .$4)

)' ,0' ,01'//2' '00*(,')%5' 3,)+' L)+%$ 6'$'/2),(' (*.5,),*.0' +1)' ,0' *&' '/F')+%' 8*0)' 6%$0,0)%.)

"' 184.%00'&/$*8'6%$,6+%$'/'/%0,*.' *&')+%'+26*-/*00'/'.%$7% G = +,0',0'81(+' /%00'&$%E1%.)' '0' '' ('10%' *&' 5184.%00')+' .' (%.)$'/'/%0,*.0H .%7%$)+%/%00' ('0%0' '$%' 8%)' 3,)+' 3+%$%' +25'),5' *$' *)+%$')18*1$0' $%01/)' ,.' 5184.%00')+$*1-+' 6$%001$%' *.')+%' .%$7%' ,)0%/&

' 184.%00'&$*8'/%'5 6*,0*.,.- G 8*.-')+%' 6'$'/20%0' '$,0,.-'&$*8')+%' 0/*3' %&&%()0' *&',84,4,),*.'*&'/%'5',0'6'$'/20,0'*&')+%')*.-1%' 3,)+' (*.0%E1%.)'/*00' *&' '$),(1/'),.' 6*3%$' +,0'5%&%()',0'101''//2''00*(,')%5'3,)+' -$'7%',86',$8%.)' *&'*)+%$'6'$)0

! G = +%)$%')8%.)' *&'5184.%00' 51%')*'/%'56*,0*.,.-' 3,//4%'4%0)' %&&%()%5'42' %/,8,.'),*.'*&')+%'6*,0*.'42')+%'58,.,0)$';),*.'*&',*5,5%'*&'6*)'00,18''.5')+%'>15,(,*10' %86/*$8%.)' *&' -'/7'.,08')*')+%' .%$7*10' 020)%8

F' B1.4.%00^*8'(*.-%.,)'/'5%&%()0' *&')+%')*.-1%'*$'*&')+%'6'/')% G '$,*10' (*.-%.,)'/'/*('/'/%0,*.0' '$%' 8%)' 3,)+'-,7,.-' $,0%')*'5184.%00

! " '.2'*&')+%0%' *'0%0' '$%' $%; 8%5,'4/%' 42'01$-,('/' *$'0.$-,(*5%.)'/'+%/6' &*//*3%5'42'8%)+*5,('/')%'(+,.-

L' 184.%00'&$*8'%8*),*.'/'/%0,*.0' 184.%00' *(('0,*.''//2' '$,0%0' &$*8' -$%')' %8*),*.'/'5,0)1$4'.(%' 01(+' '0' -$%')' '.-%$' *$'0155%.'&$,-+)' *$%*7%$',)',0' *&)%.'8%)' 3,)+' 3,)+*1)' 01(+' 8'$9%5' ('10%' ,.',.5,; 7,51'/0'%06%(,'//2'*&')+%'&%8'/%'0%B'+'7,.-'*' +,-+/2'5%7%/*6%5'%8*),*.'/',&%

! G '0%0'*&')+,0'9,.5''$%'101'//2' 01(*%00&1 2')$%')%5'42'&'$'5,0')*.''4*1)')+%' 810(/%0'*&')+%'.%(9H)+%'6')%.)'')')+%'0'8%'),8%'4%,.-'%.(*1$'-%5')*'('/'+,0''$),(1/'),.-' 6*3%$',.)*''(),*.''.5',.'6$*6*$),*.')*'+,0' 01((%00')+%' &$,$'5,(' (1$$%.)'4%,.-`5,0(*.;),.1%5' +%'8*$'/')$%')8%.)'+%$%',.5,(')%5' 8'2'+%' -$%')/2' '00,0)%5'42'6$*8*),.-')+%' -%.%$'/+%'/)+''.5'6/'(,.-')+%'6'),%.)'1.5%$')+%'4%0)'6*00,4/%'(,$(180)'.(%0''0')*'+2-,%.%' '.5'8*$'/5,0(,6/,.%

M', 184.%0'&%*8' .)%//%()1'/'5,0; *$5%$0 G +,0',0'42'&'$')+%'8*0)'(*88*.' ('10%'*&')$1%'5184.%00')'8'2''$,0%'&$*8' ,5,*(2'*$',84%(,/,)2'*&''(*.-%.,)'/'.')1$%H &$*8')+')'3+,(+'+'0'4%%.''(E1,$%5'%'$/2',.' /,&%H'*$'&$*8'5%8%.),'' '0')+%'*1)(*8%'*&' '(1)%'*$'(+$*.,('4$',. 5,0%'0%',.'8,55/%'*$ '57'.(%5' /,&%' 8*.-')+%'(*.-%.,)'//2' &%%4/%8,.5%5'5184.%00',0''7%$2'&$%E1%.)' 6+%.*8%.*.' +,0'$,0%0'&$*8')+%'00*(,';),*.')+%$%3,)+' *&' 5%&*8%5' 8*1)+0' '.5' +,-+/2'$(+%5'6'/')%0H &$*8'5%&%(),7%'6*3%$' &(*.*$5,.'),*.'*&')+%'810(/%0'*&')+%'.-1%H '.5'&$*8'.',.'4,/,)2'*')$'.0&*8',5%'0',.)*' 3*$5 0,-.0' .')+%' 8*0)'6$*&*1.5' ('0%0')+%$%',0'01(+'.'.'40%.(%'*&',5%'0')+'/'.-1'-%' *&'.2'9,.5',0'.*)'$%E1,$%5

! G +%')$%')8*.)'*&')+,0'9,.5' *&'5184.%00',0'*.%'3+,(+'$%E,,,$%0'-$%')')'()

6'),%.(%'.5'%.%$-2H '.5')+%'01((%00'3,//4%' (*88%.01$')%' 3,)+')+%0%',50

+%' 6+20,('/'+%'*&')+%' ,.5,7,51'/' 0+*1/5'4%' ('$%&1//2' '))%.5%5')*'0*' '0')*' ,.51(%'42'>15,(,*10'&**5'&$%E1%.)'4')+,.-' '.5'3'$8')%86%$')1$%')+%'+,-+%0)'8*1.)' *&'.%$7*10'%.%$-2' +%'6*3%$'*&'(**$5,.';),*.'0+*1/5'4%' 0%51/*10/2' (1/),7')%5'42' 8%)+*5,('/'%B%$(,0%0'%06%(,'//2'*&')+%'+'.50' /%'5,.-'16')*'3% 5%7,0%5')*.-1% -28.'0),(0' %'0+*1/5')+%.'4%')'1-+)' 8*.*02//'4,(' 0*1.50'42'4%,.-'0+*3.')+%'*4>%*)'=6$%0%.)%5' 42')+%'0*1.5'3+,/%'+%',8,)'')%0')+%'0*1.5' 3+%.'3')(+,.-')+%')%'(+%$<0'/,60' '7,.-')+10' '(E1,$%5')+%'6*3%$'*&'6$*51%,1-')+%' 3*$5 0,-.'42',8,)'),*.'61$%/2'+%',0'.%B)')'1-+)')*'$%6%')',)'&$*8'8%8*$2'3+%.'0+*3.')+%'*4>%()'*82' &)%$'.*1.0'+'7%')+10'4%%.')'1-+)')+%'.'8%0'*&'E1'/,),%0'.5'57%$4,'/ %B6$%00,*.0'0+*1/5'4%'55%5''.5',.')+,0' 8'..%$'$),(1/')%06%%(+'41,/)'16

+%$%')+%' &%%4/%8,.5%5.%00'+'0')%%.' '(E1,$%5'&)%$'4,$)+')+%'5184.%00'$%01/),.-')+%$%&$*8'0+*1/5'4%')$%')%5',.'')*0*8%3+')' 0,8,/'$'8'..%$')*')')+'7,.-''(*.-%.,)'/' *$,-,.'41)')+%'6$*-.*0,0',0'.*)'0*-***5

),//8*$%'1=*7*1$'4/%',0')+%'&*$%('0)'*&' 5184.%00'3+%.')+%'$%01/)'*&'5%8%.),' ;' (' .+ '

I 5" ' M +%0% 8'2'4%'(*.0,5%$%5'1.5%$')+%'+%'50'*&G' A R " 3 ' '.5'A@R'0" '

8'.) " ' G ,0*$5%$'*&')+% 51*5%.18',0'0',5')*'6$*51(%''&*$8'*&'5206%6; 0,''(+'$'()%$,0%5'42'6',.',.')+%'%6,-'0)$,18' '.5'$,-+)'+26*(+*.5$,18')3*'*$')+$%%'+*$.0' '&)%$'8%'/0 7*8,).-''.5')+%'5,0)'.)'%&&%()0'*&' *$5,.'$2'5206%60,'G=7%$),-*'+%'5'(+%'5$*3; 0,.%00'41$.,.-'0%.0'),*.',.')+%'0*/%0'*&')+% &%%)'.5'6'/8 0'*&')+%'+'.50'4!' 86%$&%()' *+28,&,*'),*.'3+,(+'))%.50'*$5,.'$2'520; 6%60,''8'2',.51(%')+%0%'0286)*80'42'-%.%; $'),.-'6$*51()0'3+,(+',$$,)')%')+%'51*5%.18 ! G = +%)$%')8%.)',0'8',./2')+')' *&'5,0*$5%$%5'5,-%0),*.' +%'4*3%/0'.5')+% 5,%)''$%')*'4%'('$%&1//2'$%-1/')%5H '.5'01(+' $%8%5,%0''0''/9',/0'4,081)+''*B,5%'*&'8'.; -'.%0%'6$100,(''(,5'*$'+25$*(+/*$,('(,5'%B; +,4,)%5'((*$5,.-')*')+%'6%(,'/'$%E1,$%8%.)0' *&%'(+'('0% I@'' 0" ' ? # ''$%' '" ' " '' AFR "g' .5'A(R" ' 0 2 # A'R G . '' 1*5%.,),0H $'C " ? & ',.&/'88'),*.'*&')+% 51*5%.18',0'101'//2'*&''8,/5'()''$$+'/'(+'; $'()%$')'%,)+%$'&*$80'6')$'*&''.%.)%$,),0'*$' ,0''.'%B)%.0,*.'5*3.3'$50'*&''0,8,/'$'&&%(;),*.'*&')+%'0)*8'(+' +%'*$5,.'$2'%0,.-' ('10%0''$%%B6*01$%')*'(*/5''.5',$$,)'),.-',.' -%0)''*$'($,5'4,/%' 01''//2')4%02 86)*80'*&' 0/,-+)'-'0)$,(''()'$$+G''/*'5%5')*.-1%''.*; $%B,''.'10%''7*8,),.-'*&')%'.)(,*10' 81(10' G'$%' &*//*3%5'42'>'1.5,(%' +%.')+%

51*5%.18',0',.7'5%5')+%$%',0'0',5')*'4%&1/.%00'.5')%.5%$.%00'*&)+%'$,-+)'+26*(+*.5$,18'0'"$1/%'+*3%7%$'.%3'02886)*80'%'$%'.*)'0%)'16'1./%00')+%'+,/%51()0'4%(*8%*40)$1()%5'42'81(10'&$*8'%B)%.0,*.'*&')+%'()''$$+',.)*')+%8'3+%.'>'1.5,(%'016%$7%.%0'3,)+*1)'6',.'+%'))'(9'101'+2'/'0)0'"'3%%9'*$"'&*$);.,-+)''.5'3,)+'01,))'4/%'+2-,%.,('.'5'5,%)%),('))$%')8%.)',)'6'00%0'0'&%/2'*&&'')',0'+*3%7%$'0*8%),8%0'&*//*3%5'42'>'1.5,(%'1.101''//26$*/*.-%5''.5'%7%.'3+%.')+%'4,/%51()0'$%&$%%'42'6$*0$')',*.'.5'3'0),.-'*1)'*&'6$*;6*$),*.')*'+%'8,/5.%00'*&)+%'5,0%'0%',.',)0%/&'+%'8+(')'$$+'/'51*5%.,)0'5*%0'.*)'&&*$5'(+'$')(%$,0),('02886)*80',)0'6$%0%.(%',0'+*3;%7%$'101'//2'01--%0)%5'42'6',./%00'>'1.5,(%&*//*3,.-'%B6*01$%')*'(*/5'(')'$$+'*&')+%'0)*8'(+''.5'%.)%$,),0

!G+,0'(*.0,0)0',.'$%0)',.'4%5'3'$8)+'/,E1,5'5,%)'(*1.)%$,$$,)'),*.'42'4/,0)0%$0'810)'$5'*$'+*)'6*1/),(%0''.5'%&&%$;7%0(,.-'0'(,.%0

#"',.&/'88'),*.'$%01/),.-',.')+,(9%.;,.-'*&')+%'81(*10'.5'01481(*10'),001%''.5'%7%.'5+%0,*.'*&')+%'51*5%.18'*'5>'(%.)'*$-'.0',0'101//2''00*(,')%5'3,)+'(+$*.,('1/(%$'),*.''*$'3,)+'('.(%$'&')+%'51*5%.18'6'.($%'0'/,7%$'*$'*)+%$'0)$1()1$%0'*.;)$'(),*.'*&')+%'51*5%.18'6$*51(%'02886)*80'W*& *40)$1(),*.'0,8,/'$')*')+*0%'$,0,.-'&$*80)$,()1$%'*&')+%'62/*$10

ALR'/(%$'),*.?6"0'',0,8,;/'$')*')+')'*&')+%')*8'(+',0'0',5')*'4%8*$%&$%E1%.)',.'8%.')+'.',.'3*8%.'A'4*1)'8H')*'8R''.5'$'%/2')*'*((1$51$,.-'(+,/5+**5H3+,/%',)'0*8%),8%0'&*//*30'0%7%$%''.5'%B)%.;0,7%'4188'.5'0('/50l'')'/1/(%$'),*.'+'0'.*)',..&$%E1%.)/2'4%%.'$%6*$)%5',.'6$%7,*10/2'+%'/)+2'014>%()0'')*8'2')+%.'6*00,4/2''$,0%'&$*8''.''((,5%.)'/'4$'0,*.'*&')+%'51*5%.'/81(*10'8%84$'.%'A42'0*8%',.5,-%0),4/%'0140)'(%R'4%(*8,.-'0140%E1%.)/2'014>%()%5')*')+%'5%/%)%$,*10'(),*.''*&')+%'-')$,(')1,(%I['+%'1/(%$'101''//2'0,.-/%''.5'&*1.5',.')+%'166%$'+*$,C*.)'/6*$),*.'3+%.'$%(%.)'+'0'(/%'.(1)'%5-%0'&$%%'&$*803%//,..-'+%'3'//*&')+%'51*5%.18'8'2'4%'6%$&*$')%5'%,)+%$*3,)+*1)'6$%7,*10'5+%0,*.'4%,.-'&*//*3%5'42

2'=/$'$-'!'$='$'+5'.)'+'7'74$7'7 3'/)-$).'4#)$'F)'L*'04)'*-)'-)$*'!'=/)*'5!'!'4+#4$4'/Ł#$/'$-$4"7*'65!#!'!'-$4 7'$'16'-4*'$'$-'!'74$7 4*'!'!')'*"'+'7)..7'-)$*'!'+4)'4'7'=#)7'!)$43!'!'+'))"'!+4)'4'7'74$7'4#)$%'5!'$!)'6L'7'B#)!"'!.'!$5'!')"'$-'F$4+'!'$#$'!'*#!'-)>94'!'!'!')$'+'!7%-$)'=*/'"*$7':$!$'-$4 7'!')#$)7'$-'.)>"'$3'0$/'$"'5$'$-4#)$'$4'$-'"'6#'G'S"'21"'6#'*"'21

)+%'0,-.0'*&'-%.%$'/6%$,)*.,),0Ħ*$'3,)+'5;+%0,*.')*'5>'(%.)'6'$)0'01(+'0')+%'/,7%$')+%'-'// 4/'55%$')+%'6'.($%'0')+%'(*/*.')+%+%6'),(''$)%$2'*$')+%'6*0)%$,*$'3'//*&')+%'45*8%.G,.)*'3+,(+'1/(%$'),*.'%B)%.50')*''7'$,'4/%'%B)%.)''(,')$,0'),*.'8'2')'9%'6/'(%3,)+'$%(*7%$2'*$',)'8'2',.51(%'0)$,()1$%'*&')+%'51*5%.18'*$'*&4+)%$'),*.'*&')+%'4,/%51()'0''$1/%')+%'0286)*80'-$%')/2'$%0%84/%)+*0%''6%$&*$'),.-'1/(%$'*&')+%'0)*8'(+H8*$%'&$%E1%.)/2''+*3%7%$')+%'5,0%'0%',0'/')%.)''.5',.51(%07%$2'*40(1$%'5206%),(02886)*80'6$,*$')*)+%'8,/$'!&&%(;),*.'*&')+%'0)*8'(+'.'41$.0''.5'0('/50'6%$;&*$'),*.'0%/5*8'*((1$0'4%&*$%')+%')%.)+'5'2'+%')%')8%.)'0+*1/5'4%')+%'0'8%'0')+')'/,5'5*3.'&*$'-'0)$,('1/(%$''!''}

,0%'0%0'*&

+%'51*5%.18'8'2'4%1/(%$')%5'42')+%''(),*.''*&''-'// 0)*.%'6'00,.-',.)*',)'5,$%()/2'&$*8')+%'-'4/'55%$

A(R&%3$*3)+0G+%'8*0)',86*$)'.)'*&')+%0%',0'0(,$$+*10'('.(%$'3+,(+'8'2',.;7*/7%')+%'3'//0'*&')+%'51*5%.18'101''//2'42'%B)%.0,4.')*)%.50')*'6$*51(%*40)$1(),*.'*$',)'8'2'0%)'16'(+$*.,('51*5%.,)0'*$4/*(916')+%'4,/%51()'.5')+10'-,7%'$,0%')*'>'1.;5,(%'C$A)

'KT',0%'0%0'*&?

)',0%'0%0'*&

U'&)F4)$'$-

U'A17'=3'6*3%$H'.5'

)''8%'01$%R

&'(""+%'52.'8*8%)%$',0''.',.;0)$18%.)'*$,-,.''//2',.7%.)%5'42''1(+%..%'*&'*1/*-.%'&*$'8%'01$,.-''.5''((1$')%/2'$%(*$5,..')+%'.5-$'06''.5''/0*'&*$'8%'01$,.-')+%')$'(),*.'6*3%$'('6'4/%'*&'4%,.-'%B%$)%5'42'*)+%$'-$*160'*&810(/%0'+%'$%01/)',0'0+*3.'42''.',.5%B'3+,(+'$'7%$0%0''0%8,(,$(1/'$'5,'/'4%'$,.-''0('/%'8'51')%5'0*'0')*'%.'4/%)+%'*40%$7%$)*'$%(*$5')+%'.184%$'*&'9,/*-$'88%0'3+,(+)+%''66/,%5'6$%001$%'*$')$'(),*.'$%6$%0%.)0'.'6$'(),(%')+,0',.0)$18%.)'+'0'4%%.'6$,.;(,6'//2'%86/*2%5'&*$%0),8'),.-')+%'40*/1)%'*$'(*86')%$',7%&*$(%'&*')+%'+'.5-$'06H'.5',.'7,%3'*&')+,0'$%0)$,(),*.'1(+%..%0',.;0)$18%.)',0'.%%5/%00/2'(*86/%B')'+'0'8*$%*7%$')+%'40*/1)%'5,0'57'.)'-%'*&4%,.-''/,))/%'*'4$*'5'.5'*&'$%E1,$,.-')**81(+'0)$%.-)+'*.')+%'6')$'*&')+%'6'),%.)*'8*7%')+%',.5%B'*7%$')+%'/*3%$'&,-1$%0'*&)+%'5,'/'6'),%.)'3,)+'08'//'8*1.)'*&8*)*$'6*3%$'%06%(,'//2',&')+%'.5',0'08'//',0'&)%.',8'4/%)*'0%)')+%',.5%B'*&')+,0'52.';8*8%)%$',.'8*),*.'(+%'6%$'0,86/%$'.5'.'$$*3%$',.0)$18%.)'+'0'+%%&*$%4%%.5%7,0%5'42'.-/,0+'8'9%$0')+%',.5%B'*&3+,(+'(.'4%8*7%5'42')+%''66+(''),*.'*&''81(+'08'//%$'8*1.)'*&6*3%$'+,0'(*.;0,0)0'*&''0,86/%'%//,6),('/'$,.-'*&0)%%/')*

F"?'

)+%' ,..%$' '.5' '.)%$,*$' &'(%' *&' 3+,(+' ,0' '))'(+%5' '' 4$'00' 0%,..,*,$*1/'$' 5,'/' -$'51')%5' 3,)+')3*' $*'20$*&,-1$%0' $%6$%0%.),..-'6*1.50' ,.0)%'5' *&' 9,/*-$' 8 8%0' +%' (*86$%00,*.' *&')+%' 0)%%/' $,..-' 42' /%00%..,6-' ,)0' 0+*$)%$' 5,'8%)%$' 8*7%0' '' 8%)'/' 4'$'6$*>%(),..-'&,$*8' '.5'0/,5,..-',..' '' -$**7%' 4%+,..5')+%' 5,'/' '.5')+,0' 42' $'(9b'3*$9' (*881.,(')%0' ,)0' 8*7%; 8%.)')*')+%' ,.5%B

6 G +%' 52.'8*8%)%$',0' '' 10%&1/',.; 0)$18%.)' ,.'081(+' '0' ,)' %.'4/%0' 10' '(; (1$')%/2')*' '0(%$)',.')+%' $%/')',7%' (*86$%00,..' 6*3%$0' *&')+%')3*' +'.50',.' ('0%0' *&',.(,6,%.)' *$' '()1'//2'5%7%/*6%5'+%8,6/%-,'' '.5' '0/*')*' /%'$.',.' '' 6*0,),7%' '.5'5%&,..,)% 8'..%$'&,*8'),8%')*'),8%')+%' '8*1.)' *&',86$*7%8%.)' *$')+%' $%7%$0%' 3+,(+' 8'2' +'7%')'9%.' 6/'(%' ,.(%')+%' 6*3%$' *&')+*' 810(/%0' *&')+%' &*$%; '$8' '.5' +'.5'/,9%')+')' <-' *)+%$' -$*160' *&' 810(/%0'7'$,%0' '' -**5'5%'/3,)+')+%' -%.%$'/0)')%' *&' +%'/)+' *&')+%' 6'),%.)')+%' 52.'8*; 8%)%$',0' '/0*' ('6'4/%' *&'2,%/5,..-' 7'/1'4/%' ,.&*$8'),*.' (*.(%$.,..-')+%' 0)$%.-)+' *&')+%' 6'),%.)' %7%.' 3+%$%' 3%' +'7%')*' 5*' 3,)+' -%.%$'/5%4,/,)2'&$*8' '.2'('10%' $')+%$')+' .' 3,)+' '' ('0%' *&'6'$'/20,0' .2',.0)$18%.)' 3+,(+',.')+%'6/'(%'*&/%%),..-'.5'8*$%'*$/%00'7'-1%',86$%00,*.0'8'5%'16*.')+%'8,.5'*&')+%'6$'(),),*.%$' ')')+%'),8%'%.'4/%0'+,8')*' 8'9%' '' 8*$%' '((1$')%' $%(*$5',.'&,-1$%0',.' +,0'.*)% 4**9',0' '' (/%'$'-',.')*' 6$'(),('/ 8%5,(,.%G=8*$% 06%(,'//2'3+%.',)0' 10%',..; 7*/7%0'.*' '66$%(,'4/%/*00'*&'),8%

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! ! ! % ! 3'A 7* '3,)+'5,&&,(1/)2H '.5'5),$=58&)')' '&%%/R G ')%$8'66/,%5')*' ,86',$8%.)'*&' .2'*&')+%' 0%.0%0'41)' %06%; (,'//2'$')+')'*&')*1(+' ,%%),0; *$5%$0'*&

!&'3! 3'A 7'H 3,)+'5,&&,(1/)2'*$ 4'5/2H '.5'6'',0' '' 8,B)1$%R G '8*$4,5' (*.5,),*.'*&'4/**5

+,0')%$8'0,-.,&,%0'8*$%')+'.' ''5,06*0,),*.')*'5,0%'0%H ,)' ,86/,%0')+%' 6$%0%.(%' *&'0*8%' -%.%$'/5,0%'0%' %B%$),..-',)0'6%$.,(,*10'%&&%()0' 16*.')+%' 4/**5' %(),(' &%7%$'0%6),('%8,' '.5'8%)'0'),(',.&/'88'),*.0' '$%' 5,0%'0%5' (*.5,),*.0'$%&%$'4/%')*' 520($'0,'%' '6%$0*.' 0,(9%.,.-'&*$' '' &%7%$',0')+%' 014>%()'*&' '' 06%; (,&,(' 520($'0,' ' %%' 0$:&

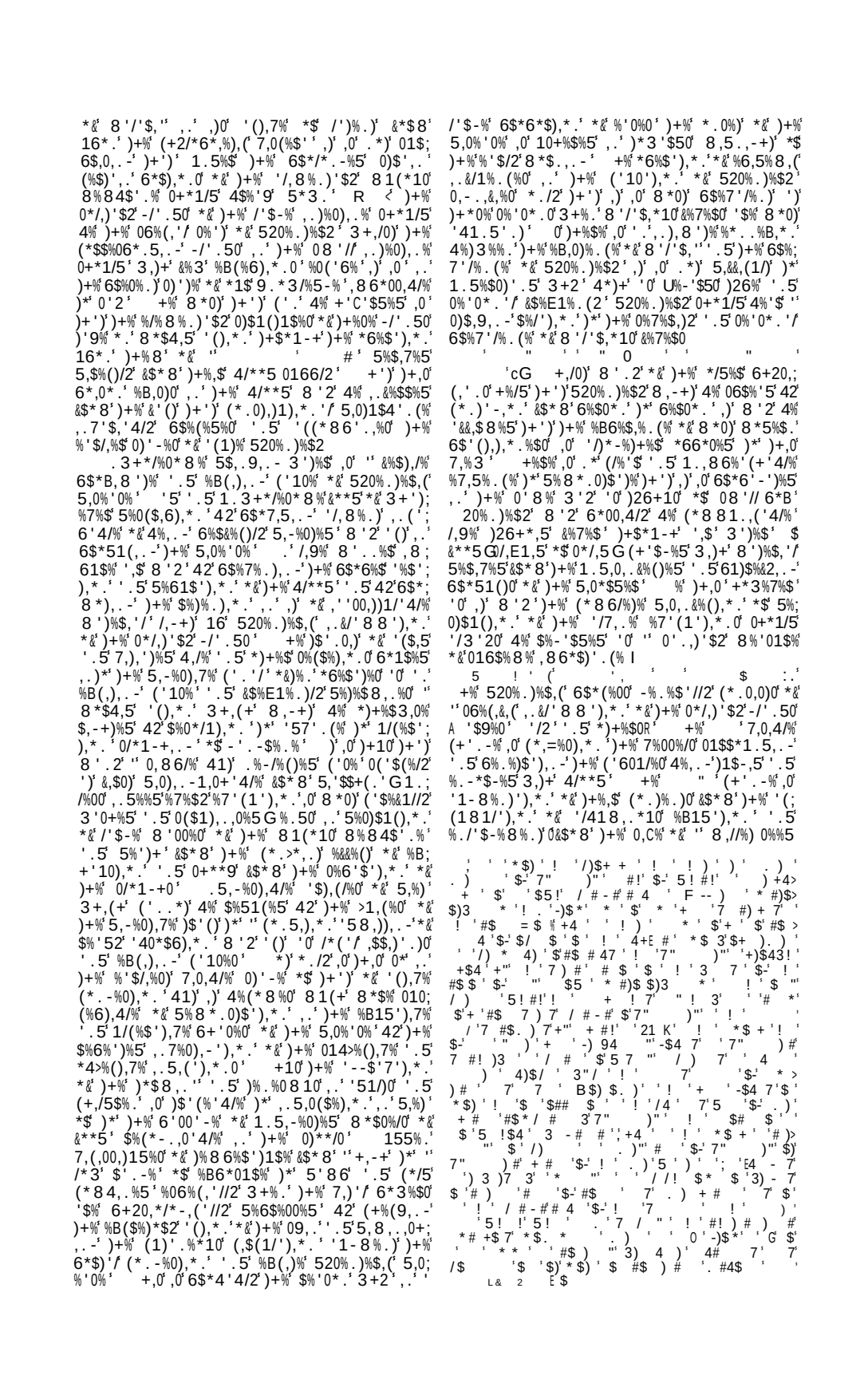
'& % $ ' @ $$

! 5 ' '6 '5 !'7 -- #4 "% 7')) ' ' ' $' C " ' H %$'C "

F &*$& ' ' / # - #' - +) '7 ' #> #$*/ 7' +"' #$ 7) + ').$4 '/)$) > $ ' 7' #!) #) 7' +"' - * * $ ' $-' ! ' $)"' 7' 4+4)'3 7 '$-' ! ')3 ' % $* * ' 7 3' ') $ 4 $ '+4 ' -) 94 "')* 3' ' 4 #) $ ' $## > $ "' ' *$) ' $)' ' $43! 3' $)' 3 > 3) '% 5 " ' ' ! ' #4 ' 3 ' ##$*> / 7' +"' $)* ' 7' * 4 ' ! ')' + 3' *$ ' *) 7'5! ' ! ' 7 ' ' 4

')%5',.')+%' $%()18' *$' /*3%$' %.5' *&')+%' 0,-8*,5' &/%B1$%H 0)**/0' ')' &,$0)' 8*$%' *$' /%00' &0%(1/%.)'/')%$'*.'2,%/5,.-'520%.)%$,('6$*51()0' 3,)+*1)'81(+',&' .2'&0%(1/%.*%'01(+'0'4/**5' 81(10'0/,8%'.5'-%/'),.*,5' %B15'),*.'*$G' '0',')+%'0/*1-+,..'*$-'.-$%.*10'&*$80G/,9%')+%'3'0+,.-0'*&'8%')'.5'6*00%00,..-'' 61)$,5' *$-'.-$%.*10'*5*1$# 9L=0* (''//%5'%6,)+%/,''/' '0+ (*/*1$%5' 4/'(9' -'.-$%.*10' 610 ,.&,/;)$')%5'*$')141/'$'0/*1-+0'(+,%&/2'(*.0,0),..-'*&')*1-+',86%$&%()/2'*$-'.,0%5'%B15'),*.

* $ ' $; G=.'/8*0)'//' ,&'.*)',.'' '0,)1'),*.0'3+%$%'8'/'$,*10'&%7%$0' '4*1.5'' '0',.')+%'7,(,6,)2'*&')+%'03'860'.5' 0/1--,0+' $,7%$0' *&')$*6,('/' .5'014)$*6,('/ (*1.)$,%0'520%.)%$2'6$%7',/0',.'6$*6*$),*.')*')+%',..)%.0,)2'.5'&$%E1%.(2'*&')+%0%'&%7%$0' +%$%'*.')+%'*)+%$'+'.5',.)%$8,))%.)0'.5' $%8,))%.)0'+'7%' 4%%.' %B),..-1,0+%5'42',8; 6$*7%5'5$',.'-%'.5')+%'(*.7%$0,*.'*&'8'$0+' ,.)*' (,5),7')%5'/'.5',)' 4%(*8%0' %E1'//2'1.; 9.*3.' .'*$.%'$')+%')$*6,(0' $%')' $,)','.' '.'5')+%' .,)%5')')%0''$,5',.'8'.2'*)+%$' 6$)0'*&')+%' 3*$/5',)0'5,8,.1),*.'+')' 6$*:(%%5%5'6*0$&' 3,)+')+%' 5%($%8%.)'*&' 8'/'$,*10'&%7%$0' +%$%' 3*1/5')+%$%&*$%'0%8')*' 4%'0*8%',.)8()*.0'*&')+%'5,-%0),7%'*$-'.0'.5'3,)+')+%'6$*6%$'.*1$,0+8%.)'.'.5'(*.0),)1),*.'*&')+%'4/**5' ,*/%.)'(*.-%0),*.'*&')+%'45*8,..'/7,0(%$''0'*.%'*&')+%'06(,'/(*.5,),*.0'*&')+%'5,&&%$%.)'&*$80'*&'-1%' *)+')+%'/,7%$'.5'06/%%.'$%'/,'4/%')*')%8;6*$'$2'.5'$%6%')%5'%.-*$-%8%.)'.'.5'0*',.'&'()'$%' ')+%'*$-'.0'3+,(+' 8,.,0)%$')*' -'0)$,(''.5',.)%0),.'/5,-%0),*.' 7%.'3+%$%8'/'$,*10'6*,0*.,.-'8'2'.%7%$'+'7%'$%01/)%5',.'.2'*&')+%'7'$,*10'&*$80'*&'6%$,*5,(' &%7%$',)'8'2',86',$')+%'6*3%$'*&')+%'*$-',(.%$7%'(%.)$%0'.5')+%'810(1/'$')*.%'*&')+%'4/**5;7%00%/0')+10'5,0)1$4,.-')+%'4'/.(%'*&')+%6*$)'/(,$(1/'),*.''.5'/%'5,.-')*'8*$%'*$/%00'6%$8'.%.)'$%6/%),*.'*$'(*.-%0),*.'0'))+%'(*.-%0),*.',0'8*0)'%84'$$'00,.-'51$,.-'5,-%0;),*.',.)%$&%$,.-'3,)+')+%'166%),)%'.5')+%'6'(,)2'&*$5,-%0),.-'.5'00,8,/'),.-'&**5',)0'$%6%')%5'.5'6$*/*.-%5'%B,0)%.(%'810)5%)%$,*$')%')+%'E1'/,)2'.5'8*5,&2')+%'E1'1'),)>-'*&'01(+',86*$)'.)'0%($%),*.0'0')+%-'0)$,(>1,(%')+%'4%')+%'6'.($%'),(')1,(%''.5')+*0%'&1$.,0+%5'42')+%'&*//,(/%0'*&',%4%$9,,+.''.5'42'$1..%$0'.5')+%'0*/,)'$2'-/'.50'$15%'/,8%.)'$2'6$,.(,6/%0''$%')+10'00,8,/')%5'&$*8')+%',.)%0),.'/)$')'()' +%'7%$',0'%06%(,;''//2'/,'4/%')*'&1.(),*.'/5%$'.)&$*8')+%'0)'-.'),*.'.'.5'0/*3,.-'*&')+%'6*$)'/(,$(1/';),*.''.5')+10',)'+'66%.0')+')',.'520%.)%$2'+%'6'),(',86',$8%.)',0''/8*0)'.1(+'4%,-'0%8%'*&')+%''4;.*$8'/(*.5,),*.0'6$*51(%5'42')+%'*6%$'),*.



9# '' 0 8 '//0+*)< A '/2R +% - '(+' . -% ' 6$*7,5%5') +%' , . &/' 8 8 '), * . ' '57',)(%0' ,0' $16;)1$%' *&'0* 8 %' *&') +%' ('6,//'$,%0' , . ')+%' , .)%$,*$ *&') +%0%/,))/%' 7'0(1/)=$' -/' . 50' %B)$'7'0'), * . ' *&' 4/**5' 3 ,)+') +%' '$%'' *&')+%' *$5, . '$2'5'$9 6*, .)' * . ')+%' ^ %%' '06%()' , . ($%'0%5' +% #'0)' -%' ,0' . *3' 8 '$9%5'42'')$*6+2' . 5' 8*/%(1/'$ 5,0, .)%-$'), * . '*&') +%' &$%%' '06%()' *&') +%' ('601/'$ 3 '//' . 5' %0('6%' *&' ,)0' 8*$4,5' -%/'), . *,5' 4/**5), . -%5' (*.)%.)0' , .)*')+%' ('. '/*&')+%', .)%0), . %' +,0',0')+%'$1/%H 41)' , . ' 7%$2' %B(%6), *. '/ ('0%0')+%' ('601/%' 8 '2' 41$0)')+$*1-+')+%' '))'(+%5'6*$), *. '/, -+), . -' 16', . &/' 8 8 '), * . ', 6')+%' . %, -+4*1$, . -' (*. ; . %(), 7%'), 001%' '. 5' 8 10(1/'$' (*') ' . '*'/'$-% . 1 8 4%$*&', . 0)' . (%0')+%' 8 *$4,5'6$*(%00' 8 '2' 0)*6' 0+*$)' 1.5%$' 6$*6%$')$%')8 %.)' ')' . 2' *&')+%' &,$0)')+$%%' 0)' -%0' '. 5' $%6', $', 0')+%. ' %&&%()%5' 42' $%0*/1), *. ' +' 8 ' . 2' ('0%0')+%' 8 *$4,5' (), *. ', 0' *1)' 0+*$)' &)%$' 8 %' (*86%;), * . ' *&')+%' &*1$)+'0)' -%' 3 ,)+*1)' &1$)+%$' %B;)%. 0, * . ' *&')+%' 5,0%'0%' +%' '5>*. . . -'&*//, ; (/%0' *&' ,%4%$9), +1' 5*' . *)' , . ')+%0%' ('0%0' . %(%00'$,/2'6'$), (,6')%')>*' '. 2' -$%')' %B)%.)' , . ')+%' 5,0%'0%5'6$*(%00' . 5%$')+%0%' (*. 5, ;), * . 0' 3+%. ')+%' 3+*/%' *&')+%' %B15'), * . '+'0' 4%%. ' %B6%//%5')+%' -/' . 50' $%-'. ')+%, $')*. %' '. 5' &1. (), *. 0' '. 5' $%(*7%$2G$'6,5' '. 5' (*8 ; 6/%)%G%. 01%0')', 0' . *)' *&)%. ' 6*00, 4/%')*' ,//10)$')%')+%0%' (*. 5,), *. 0', . ' $**, . H 4%('10%'3+%. '5%')+'016%$7%. %0' &$*8' 520%.)%$2' /*. %')+%' $'7'-%0' (*88,))%5'16*. ' %7%$2'0)$1()1$%*&')+%' 81(*10' 8%84$'. %' '$%0*' %B)%. 0, 7%' '0')*' 5%0)$*2')+%' %'$/, %$6+20, ('/6+'0%0' *&')+%' 5,0%'0%' . '0*8%' ('0%0'+*3 ; %7%$' 3+, (+' +'7%' 5, %5' &$*8', .)%$%1$$%.)' '&&%(), *. 0')+%' 3$,)%$' +'0' 4%%. ' '4/%')*' 5%; 8*. 0)$')%')+%' %'$+%0)' 0)' -%0' 01((%00&1//2')*' +, 0' 0)15%.)0' ')' ' '6%$, *5' 6$, *$')*%)+%' , 86+' (')*. ' *&' Y, , %4%$9), +. <0' &*//, (/%0' *&' 3+, (+')+%' 81(*10' 8%84$'. %', 0', . ' -$%')'6'$)'(*86*0%5' '. 5')*' %B+, 4,)')*')+%8')+%' -%/'), . *, 5' %B15';), * . ')%$8%5' 42' *)+%$0' 0-%/'), . *10' 81 10< &$%%' &$*8' *$'), . -%5' 3,)+' 4/**5')'9%. ' &$*8' %./'$-%5' . 5'5, 0%'0%5'0*')'$2'-/' . 50', 5" ' &"" ' ' ' " ' P!' *'BB, , ' ?D?R

3+%. ' *3, . -')*' . %-/%()')*' (*. 0),)1), *. '/5%&%()' , . ' 0H=)%' *&')+%' 8*0)' ('$%&), /)+%$'6%1;), (' . 5'+2-, %. , ('8 ' . '-%8%.)'*$')*', .)%. 0,)2' *$'E1'.), &2' *&')+%' 06%(, &, ('6*, 0*. ' . ')+%' 5, 0%'0%' , 0' . *)' (1$%'42'$%0*/1), *. ')+%' 5, 0, .)%-$'), . -' *$' /(%$'), 7%'6$*(%00', 0'5%7%/*6%5' +%' 3+*/%' *&')+%' 0* ')'$2'-/' . 50' %. -' -%5'6%$, 0+' +%' 1/(%$'), *. ', . 7*/7%0')+%' . %, -+4*1$, . -')141/'$' -/' . 50' /%'5, . -')*' 1/(%$0' 7'$2, . -' &$*8')+%' 0, C%'*&' '' 8 10)'$5 0%%5')*')+')' *&' '&/*$, . '*$ 8*$%' , . ' 5%6)+' -%. %$'//2' %B)%. 5, . -')*')+%' 014 8 1(*10' (*. . %(), 7%'), 001%' '. 5' . *)' , . &$%; E1%.)/2' /'2, . -' 4'$%')+%' (, $(1/'$' /'8, . ''*&')+%' 8 10(1/'$' (*')'0*8%), 8 %0' , . 7*/7, . -')+%' 6%$,)*. ,), 0' 3+, (+' , &' -%. %$'/' , 0' , . 7'$, '4/2 &')'/'41)' 3+, (+', &'/*('/' . 5' (*. &, . %5')*')+%' 7, (, . ,)2'*&')+%' 6%$&*$'), . -' 1/(%$', 0' . *)' . %(%00'$, /2'0* +%' 1/(%$0' 7'$2', . ' '66%'$' . (%' 0, C%' . 5' 0+'6%' +%2' 8 '2'4%' 8 %$%' '4$'0, *. 0' 3,)+*1)' 8 1(+'/*00'*&0)$1()1$%H ')+*1-+'6%. %;)$'), . -' $')+%$' 5%%6/2', .)')+%' 014 8 1(*10' (*. . %(), 7%'), 001%H 0 # ' " " ' *$' " '3,)+' +%$%' . 5')+%$%' 6*$), *. 0' *&')+%' 01$$*1. 5, . -' 8 1(*10' 8%84$'. %' $85%$8, . %5' '. 5'6')1/*10H " ') '%84$'(, . -'6')$), '//2' *$' (*86/%)%/2')+%' %.), $%' (, $(1/'$' *1)/, . %' *&')+%' 8 1(*10' 8%84$'. %H 2 / ' *$') O' 3,)+' $%-1/'$' '. 5' %7%. ' 8 '$-, . 0H' *$' " ', . 7*/7, . -')+%' 3+*/%' 0140)'. (%' *&')+%' 8 1(*10' 8%84$'. %' /**9, . -' '0', &')+%2' +'5' 4%%. ' 61. (+%5' *1)' *&',)' +%0%' 1/(%$0' '0' -%. %$'//2' *40%$7%5', . ')+%' ' $**8' '$%' &$%%' -)$*' 0/*1=0' '. 5' 6$%0%.)' '' 6'/%' 0+2' '66%'$'. (%' *8%), 8%0')+%2' '$%' *&' ' 7%$8, /, *. ' *$' 61$6/% (*/*1$' &$*8' '(), 7%' *$ 6'00, 7%' (*. -%0), *. ' +%2' '$%' *&)%. ' (*7%$%5' 3,)+' &/'9%0' *&')%. '(, *10' /2 8 6+' *$' %B15'), *. ' '. 5')+, 0' 8 '2'0*8%), 8%0'4%0%%. ' 06$%'5' *7%$')+%' . %, -+4*1$, . -' 81(*10' 8%84$'. %' +% &/**$0' *&')+%0%' 1/(%$0' '$%' 101'//2' &*$8%5' 42' , . &/' 8 %5' '. 5')+, (9%. %5' '. 5', . &, /)$')%5' 42' , . &/' 8 8 ')*$2' 6$*51()0H' . 5' 3+%. ')+%' 8 10; (1/'$' 0)$1()1$%*'0',)0%/&' J. %/5%5')*')+%' 1/(%$; '), 7%' 6$*(%00')+%2' '$%' 8 '5%' 16' *&' (*. -%0)%5' '. 5' 03*//%. ' 6%$,)*. %18' 3+, (+' '0' '+%' 52' 0)')%5' *((' 0, *. '//2' 4%(*8%' 6%$&*$')%5 +%. ')+%' 1/(%$')*. ' 6$*(%%50' 0*/%/2' 42' 8*/%(1/'$' 5,0, .)%-$'), *. ' 8 '00, 7%' 0/*$=+0' '$%' . *)' *40%$7%5' 1)' 3+%. ' '0' . *)' 1. (*88*. /2' +'66%. 0' , . ' '0)+%. , (' 8 '/'$, ' 0)$, (9%. ')14%$; (1/'$' . 5' 3*$. *1)' (*. 0),)1), *. 0'), 001%5%')+' *((1$0' "' Q ' ')' . '%'$/2' 6%$, *5' *&')+%' '))'(9' 0/*1-+, . -' *&')+%' 8 1(*10' 8%84$'. %' , 0')*' 4%0%%. ')*-%)+%$' 3,)+' 6*$), *. 0' *&')+%' 8 10(1/'$'(*')0'*$-'. -$%. %' +%0%'0/*1-+0'*$' -'. -$%. *10'6*$), *. 0' *&'), 001%' 8 '2'4%'+8,)%5' , . ' %B)%.)' *8%' *$' /' *&')+%' 8 '2'4%'01(; (%00&1//2'5%)' (+%5'51$, . -'/, &%' '. 5' (' . '4%, 5%. ;), &, %5' '0')+%2' '$%' %B' 8, . %5' &$*8'), 8%')*'), 8%' , . ')+%' 0)**/0' . ')+%' '$**8')+%2' 8 '2'4%'&*1. 5'6'$)/2'5%)' (+%5'. 5'/2, . -'/**0%' 8, B%5' 3,)+')+%' &/1, 5' (*.)%.)0' *&')+%' 4*3%/' *$'))' (+%5' 8*$%' *$' /%00' &, $. 52H 0*8%, 8%0' (*86' ()' . *51/'$' %((+28*0%5' -$%2' *$' +7%' 4*/*1$%5' -$%%. /*$' 2%//*3' . 5'610, . &, /)$')%5' 4/'(9' &/'92' 0+$%552' 0+' --2' &/*((1/%.)' /, 9%' 6, %(%0' *&')%' 0%5' (*))*. 3**/' *$' $' --%5' . 5' 0)$, . -2' . ')+%')$1/2' -' . -$%. *10' 520%.)%$2')+%' 81(*10' . 5' 810(1/'$' (*')0' '$%' %. *$; 8*10/2')+, (9%. %5' '. 5' /'$-%' 6*$), *. 0' '$%' &*1. 5' -' . -$%. *10' 7' $2, . -', . ' (*/*1$' &$*8' '' 6'/%' *+7%')*' 61$6/%' *$' 4/'(9' +%0%' 66%'$; '. (%0' . 5' (*. 5,), *. 0' 8 '2'4%' $%0)$, (0%5')*')+%' (0(8 . ' . 5' '0(%. 5, . -' (*/*. ' *$')*')+%' 0, -8*, 5' &/%B1$%' 41)' 0*8%), 8%0')+%2' '$%' (*%B)%. 0, 7%' 3,)+')+%', .)%$. '/0)$1()1$%*&')+%/'$-%', .)%0;), . %' &$*8')+%' %*(*/, (' 7'/7%')*')+%' . 10

+%.')+%',/%* **/,*'7'/7%4%(*8%0 5%0)$*2%5' ,.7'-,.'),*.'*&')+%/*3%$'%.5'*&')+%',/%18' ,.)*')+%('0(8.' 0*8%),8%0 +'66%.0'('10,.-' ,.)%0),.'/ *40)$1(),*.' (('0,*.'//2 8'.2' ,.(+%0 *&')+%-'.-$%.*10 81(*10 8%84$'.%' 3,)+'*$3,)+*1)')+%8 10(1/'$'(*')''$%&*1.5' %,)+%$'+'.-,.-'/**0%',.')+%/*3%$'6'$)'*&')+%' -1)'*$,.'6$*(%00'*&4%,.-'5%)$15%5'&$*8')+%' '.10

.'*$5,.'$2''(1)%5 20%.)%$2''57'.(,.-')*' ,5(%$'),*.'*$ 0/*1-+,.-'$%6',$',0 5*14)/%00 '((*86/,0+%5''0''-%.%$'/$1/%'42'-$'.1/';),*.'.5'(,(')$),*.' +,0 6$*(%00'(.'4%$%'5,/2*40%$7%5',.'520%.)%$,(/%0,*.0'*&')+%' 81(*10 8%84$'.%*&')+%/*3%$'%.5'*&')+%' $%()18''.5',.'+%'/,.-'*&')+%0$1-,('/1/(%$' 3,)+,.')+%7%$-%*&')+%''.10' +%$%'0*.' 3+2'$%6',$',0 &$%E1%./)/2'((*86/,0+%5'0*' 0/*3/2',0'4%('10%'*3,.-')*')+%',$$,)'),*.' ('10%5'42')+%'%B'/)%5'7%$8,(1/'$'(*.)$'(),*.' *&')+%'-1)''.5')+%'6'00'-%'*&'&/')10'&%(%0' '.5'*)+%$'6$*51(0)0',)',0',86*00,4/%')*'(*8; 8'.5')+%'6+20,*/*-,('/$%0)'.%(%00'$2'&*$ 06%%52''.5'0140)'.),'/-$'.1/'),*.'.5'(,(';)$,0'),*.' ./%00')+%'5%0)$1(),*.'*&'),001%',0'7%$2'-$%')')+%'(*.)$'(),*.'51%')*'(,('0'),*.'5*%0'.*)'*(('0,*.'81(+'&1)1$%',.(*.;7%.,%.(%' 1)',&',)'%84$'(%0''/'$-%'6*$),*.'*$')+%'3+*/%'(,$(18&%$%.(%'*&')+%81(*10 8%84$'.%')+%'0140%E1%.)'(*.)$'(),*.'8'2'6$*51(%'5'.-%$*10'.'$$*3,.-'*&')+%'('/,4$%*&')+%'-1)''*$0)$,()1$%'*&')+%0,-8*,5'&/%B1$%*$'$%()18' +%')+,(9%.,.-''.5'(*.)$'(),*.'%06%(,'//2',.')+%'))%.1')%5'7,(),80'*&'(+$*.,('520%.)%$2'('.'4%',5%.),&,%5'42'6+20,('/%B;'8,.'),*.' +%0%'(*.0)$,(),*.0''$%'&$%;E1%./2')+%'8%(+'.,('/('10%'*&'(*.0),6'),*.'.5'&%('/''((181/'),*.0

+%$%',0'.*'7'/,5'$%'0*.'&*$'4%/,%7,.-')')+%')+%'/*0)'),001%',0'%7%$''()1'//2'$%6$*51(%5',.')$1%'520%.)%$,('1/(%$')',.' $%.')+%'1/(%$0'+'7%'4%%.'08''//')+%'(*.)$'(),*.'&*//*3,.-'$%6',$',0'01&&,(,%.)')*%4$'.-')+%'&*//,(/%0'*&' ,%4%$9,,+.'*.''//'0,5%0',.)*' (/*0%'>1B)';6*0,),*.' .5')+,0',)',0'3+,(+'+'0'-,7%.'$,0%')*')+%',86$%00,*.''8*.-'0*8%'6')+*/*-,0)0')+')+%'/*0)'),001%0'+'7%'4%%.'$%.%3%5'42''' 6$*(%00'*&'5%7%/*68%.)'.5'-$*3)+'1)'3+%.%7%$')+%'1/(%$0'+'7%'4%%.')*'/'$-%')*'58,)'*&'*4/,)%$')',.'8,($*0(*6,('/%B'8,.';),*.'0+*30')+')')+%2'+'7%'4%%.'4$,5%-%5'*7%$'42',(,')$,(,'/),001%'5%7*,5'*&'0*/,)'$2'.5')141/'$'-/'.50'6'$,.-/20166/,%5'3,)+'4/**5 7%00%/0'.5'*40*$4%.)0

.'*55,),*.')*')+%'*4*7%'.')*8,('/(+';$')(0)$0')+%'8%0%.)%$,(' -/'.50'$%'-%.%$'//2'&*,85')*'4%%./'$-%5H'.5'0''.''((*86'.,;8%.)'*$'0%E1%/'*$-'.,(' 5,0%'0%'*&')+%'/,7%$'*$'40(%00',0'.*)',.&$%E1%.)/2'5,0(*7%$%5')*'(*86/,(')%')+%'5,0%'0%

!(! G 7%$2')'))'(9'*&'(1)%5 20%.;)%$2',0'6$%(%5%5'42'5,0*$5%$%5'5,-%0),*.''.5'(*.0),1),*.'/5,0)1$4'.(%',.5,(')%5'42'/*00'*$('6$,%,*10.%00'*&''66%),)%''.5'&1$$%5')*.-1%'(*.0),6'),*.''/*.%'*$''/)%$.')%5'3,)+'/**0%;.%00'5$2.%00'*&'09,.'*((0,*.'/(+,//,.%00'.5'-%.%$'/8'/',0%'3,)+'0/,-+)'$,0%'*&')+%%7%.,.-')%86%$')1$%'+%0%'0,-.0'8'2'4%7,%3%5''0'(*.)%86*$'.%*10'3,)+')+%'6$*-$%00'*&')+%'8*$4,5''(),*.'-*,.-'*.','.')+%'0*/,)'$2'-/'.50'0')+%'5,0%'0%''57'.(%0')+%$%',0'8*$%'8'$9%5'(+,//,.%00'01((%%5%5'42'5,0),.()'&%7%$,0+.%00'&')+%'4*3%/0'+'7%'4%%.'(*.;&,.%5')+%2'.*3''()'06*.)'.%*10/2G%B6%//,.-')'*.%'*$'8*$%''()0'*&'5%&%(')*.''/8*0)')+%3+*/%'*&')+%'(*.)%.)0'*&')+%'/'$-%',.)%0),.%'&')+%2'+'7%'4%%.'/**0%'3,)+'*$'3,)+*1)'6%$,%.)'8%5,(,.%0')+%'&%(1/%.(%',0'.*)'0*'-$%')',.'E1'.),)2'1)',.'%,)+%$'(*0%'4%2*.5''/,))%'81(10')+%$%',0'.*)'^0 2%)'.2'5,0;(*7%$'4/%'520%.)%$,('6$*51()'.'')+%'0)**/0'$,*$')*')+,0'(*.0%$7'),7%'%7'(1'),*.'*&')+%4*3%/0')+%'&%4$,/%'%B(,)%8%.)'0*8%),8%0'$1.0'+,-+H')+%$%',0')+,$0)'4'5')'0)%',.')+%8*1)+'&/')1/%.(2''7'$,'4/%'8*1.)'*&'.%$;7*10'.5'810(,&/'$'5%4,/,)2'-$,6,.-''.'';(%/%$')%5''.5',$$,)'4/%'61/0%'$%0)/%00.%00'5,0)1$4%5'0/%%6'*$'()1'/,.0*8..''.5',88%5,')%/2'&)%$'%'(+'%7'(1'),*.')+%$%',0').%.%0810'*$'6',1 '0)$',.,.-G8*0)',.;)%.0%',.')+*0%'('0%0'3+%$%')+%'5,0%'0%',0'0,)1')%5',.')+%'5%0(%.5,.-'(*/*.'0,-8*,5'&/%B1$%''.5'$%()18' +%'0)**/0''$%'*&&%.0,7%'41)')+%$%',0'.*)%,.-''')+,0'0)''-%'6')+*-.*;8*.,(',.')+%,$'*5*1$K'&''0'&$%E1%.)/2'+'6;6%.0',.'6$,7')%'6$'(),(%')+%'6'),%.)'(*8%01.5%$')$%')8%.)''')+,0'6%$,*5''08'//'5*0%*&'('0)*$'*''-1'$5%5'42'/'15'.18''*$''&1//5*0%'*&',6%('1'.+''3,)+'40*/1)%'$%0)',.'4%5''.5'4/'.5/,E1,5'.*1$,0+8%.)',0'01&/&,(,%.)',.'''(%$)',.'6$*6*$),*.''*&'%'0%0')*'61)''')0)*6')*')+%8*$4,5''(),*.''.5')*'6$*8*)%('(1$%'42'$%0*/1),*.',.'&$*8')3%.)2&*1$')*'&*$)2%,-+)'+*1$0

+%.'+*3%7%$')+%'5,0%'0%'6%$0,0)0')+%'0286)*80'(*.),.1%',.''.''--$'7')%5'&*88'+%')*$8,.''.5')%.%0810'4%(*8%',.)%.0,;&,%5H)+%'5%0,$%')*'-*')*'0)**/'0*8*$%'&$%;E1%.)''.5')*'$%8','.*.')+%'0)**/*$4%5 6'.'8*$%',$$%0,0),4/%'.5'%.51$,.-'%06%(,'//2',&')+%'5,0%'0%'4%(*.(%.)$')%5',.')+%'0,-8*,5'&/%B1$%'*$'$%()18' .'$%()'/'520%.)%$2'))+%$%',0'5201$,''&$%E1%.)'8,()$1,),*.''.5'0*8%),8%0'$%0).),*.'&$*8'06'08'51%')*'$%&/%B'(),*.'.%(%00,)'),.-'('')+%)%$,08'+%'*.0186),*.'*&'0*/,5'&**5G%7%.'*&')+%'8*0)'5,-%0),4/%'9,.5G6$*7*9%0'.5''--$'7')%0')*$8,.''+%'-$,6,.-'.5')%.%0810'$%'.*3'0*',.)%.0,&,%5',.'5%-$%%'.5',.(:%'0%5',.(1$$%.(%'&')+%'$%0)/%00.%00'5,0)1$4%5'0/%%6'*$''()1'/,.0*8..''.5',88%5,')%/2'&)%$'%'(+'%7'(1'),*.')+%$%',0').%.%0810'*$'6',1 '0)$',.,.-G8*0)',.;)%.0%',.')+*0%'('0%0'3+%$%')+%'5,0%'0%',0'0,)1')%5',.')+%'5%0(%.5,.-'(*/*.'0,-8*,5'&/%B1$%''.5'$%()18' +%'0)**/0''$%'*&&%.0,7%'41)')+%$%',0'.*)%,.-''')+,0'0)''-%'6')+*-.*;8*.,(',.')+%,$'*5*1$K'&''0'&$%E1%.)/2'+'6;6%.0',.'6$,7')%'6$'(),(%')+%'6'),%.)'(*8%01.5%$')$%')8%.)''')+,0'6%$,*5''08'//'5*0%*&'('0)*$'*''-1'$5%5'42'/'15'.18''*$''&1//5*0%'*&',6%('1'.+''3,)+'40*/1)%'$%0)',.'4%5''.5'4/'.5/,E1,5'.*1$,0+8%.)',0'01&/&,(,%.)',.'''(%$)',.'6$*6*$),*.''*&'%'0%0')*'61)''')0)*6')*')+%8*$4,5''(),*.''.5')*'6$*8*)%('(1$%'42'$%0*/1),*.',.'&$*8')3%.)2&*1$')*'&*$)2%,-+)'+*1$0

+%.'+*3%7%$')+%'5,0%'0%'6%$0,0)0')+%'0286)*80'(*.),.1%',.''.''--$'7')%5'&*88'+%')*$8,.''.5')%.%0810'4%(*8%',.)%.0,;&,%5H)+%'5%0,$%')*'-*')*'0)**/'0*8*$%'&$%;E1%.)''.5')*'$%8','.*.')+%'0)**/*$4%5 6'.'8*$%',$$%0,0),4/%'.5'%.51$,.-'%06%(,'//2',&')+%'5,0%'0%'4%(*.(%.)$')%5',.')+%'0,-8*,5'&/%B1$%'*$'$%()18' .'$%()'/'520%.)%$2'))+%$%',0'5201$,''&$%E1%.)'8,()$1,),*.''.5'0*8%),8%0'$%0).),*.'&$*8'06'08'51%')*'$%&/%B'(),*.'.%(%00,)'),.-'('')+%)%$,08'+%'*.0186),*.'*&'0*/,5'&**5G%7%.'*&')+%'8*0)'5,-%0),4/%'9,.5G6$*7*9%0'.5''--$'7')%0')*$8,.''+%'-$,6,.-'.5')%.%0810'$%'.*3'0*',.)%.0,&,%5',.'5%-$%%'.5',.(:%'0%5',.(1$$%.(%'&')+%'$%0)/%00.%00'5,0)1$4%5'0/%%6'*$''()1'/,.0*8..''.5',88%5,')%/2'&)%$'%'(+'%7'(1'),*.')+%$%',0').%.%0810'*$'6',1 '0)$',.,.-G8*0)',.;)%.0%',.')+*0%'('0%0'3+%$%')+%'5,0%'0%',0'0,)1')%5',.')+%'5%0(%.5,.-'(*/*.'0,-8*,5'&/%B1$%''.5'$%()18' +%'0)**/0''$%'*&&%.0,7%'41)')+%$%',0'.*)%,.-''')+,0'0)''-%'6')+*-.*;8*.,(',.')+%,$'*5*1$K'&''0'&$%E1%.)/2'+'6;6%.0',.'6$,7')%'6$'(),(%')+%'6'),%.)'(*8%01.5%$')$%')8%.)''')+,0'6%$,*5''08'//'5*0%*&'('0)*$'*''-1'$5%5'42'/'15'.18''*$''&1//5*0%'*&',6%('1'.+''3,)+'40*/1)%'$%0)',.'4%5''.5'4/'.5/,E1,5'.*1$,0+8%.)',0'01&/&,(,%.)',.'''(%$)',.'6$*6*$),*.''*&'%'0%0')*'61)''')0)*6')*')+%8*$4,5''(),*.''.5')*'6$*8*)%('(1$%'42'$%0*/1),*.',.'&$*8')3%.)2&*1$')*'&*$)2%,-+)'+*1$0

'&%*7%')+%$%() . . /'3+,(+' '$%' '&&%()%5'42'520%.;)%$,('1$5' 3 . '),* . ')')+,0'0)' -%')+%')* 8%&'% '),* .' *&')+% 3 '//0' *&')+%' -1)' ,0' 0%/5* 8' -$%')' %. *7=+')*' 4% 5,0),. -1,0+%5')+$*1-+')+%' '4; 5* 8,. '/6'$,%)%0' +%' 0(' .)2' 0)**/0' '$%' . * 3' (+'$'()%$,0),('(* . 0,0),. -'*&'8 1(*,5'%B15'),*. '), . -%5' 3,)+'4/**5' $4/**52' 8 1(10' *$ 0/,8 %' ^* 8')+%' . &/' 8 %5')141/'$'-/' . 50'3,)+',0*/')%5' 6*$),* .0' *&' -%/'),1*,5'%B15'),* . ' 8 *$%' *$'/%00' (*/*1$%5' 3,)+' 4/**5' &&* 8' , &/' 8 %5' '. 5' $16;)1$%5' 0*/,)'$2' -/' . 50' ' . 5' 3,)+' +))/%' *$. *' &/0(1/%. (%' +%0%' (* . 5,),* . 0' '$%' (* .)% 8 6*; $' . %*10' 3,)+')+%' $16)1$%' *&')+%' '&&%()%5' 0*/,)'$2' -/' . 50' ' . 5' '' +,-+/2' , . &/' 8 %5' 0')'%' *&')+%' '5>'(%.)' &*//,(/%0' *&' ,%4%$9),+ . ' '0' 3%/' '0' *&')+% 014>'(%.)' . 5', .)%$7%. , . -' (* . ; .%(),7%'),001%' +%' 8 10(1/'$'),001%')+*1-+' .*)' 2%)' . %(%00'$,/2', . &/' 8 %5' ,0' . %7%$)+%/%00' +26%$dL0)+%),(')',0')+,0'+26%$0%0)+%0,'' +,(+' '0' 8 *$%')*' 5*' 3,)+')+%' 6$*51(),* .' *&')+%' '-* . ,0,. -')*$ 8 , . '')+' . ')+%'5,0%'0%5'-/' . 51/'$ *$-' . 0' , 8 6/' .)%5' , . ' ' . 5' &*$ 8 , . -' '' (* . 0),;)1%.)' 6*$),* . ' *&')+%' 02 8 6)* 8 0' 6$%0%.)%5' , . ' '' -**5/2' . 1 8 4%$' *&' *'0%0' 8 %)' 3,)+' . '6$,7')%' 6$' (),(%' ' . 5', . ''08 '//%$'6$*6*$),* . ' ')*,))%5' , .)*' +*06,)'/' +%' 5,0%'0%' ,0' 0',5')*' +'7%' /'0)%5' &$*),*' *&')+%' 02 8 6)* 8 0' 6$%0%.)%5' , . ' ' -**5/2' . 1 8 4%$' *&' *'0%0' 8 %)' 3,)+' . '6$,7')%' (* 8 6+(')%5' '0%0'*((1$$, . -', . ')*/%$'4/2'-**5' *.0),)1),*. 0')+%2' -%. %$' . 2' 2,%/5' 3,)+*1)' %B)%. 0,*. '*&')+%' 8 ,0(+,%&')*' $%0)'4/' . 5'/,E1,5' &**5' ' . 5'&1/'5*0%0'*&',6%'(1' . +' .' *'0%0' 3+,(+' +0 7L' 4%%. ' . %-/%()%5' *$ '--$'7')%5'42', . 5,0($%),*. 0', . '5,%)' . 5'5$,. 9' *$ 42'5,')+%),(' *$*)+%$'5%&%()' *&'(* . 0),)1),*. ')+%'520%.)%$,('6$*(%00'6'00%0'*. ')*1/(%$'),*. ' &')+%' 6'),%.)'+'7%' . *)' 4%%. ' 4$*1-+)'1. 5%$ 6$*6%$')+%$'6%1),('. 5'+2-,%. ,('8 '. '-%8%.)')+%')*$ 8 , . '')%. %0 8 10'/*('/') %. 5%$. %00' ' . 5' +'$5%. , . -' *&')+%' 016%$,8 6*0%5' 0 45*8,. '/ 8 10(/%0' '$%' '1=. %.)%5' +%' ('//0')*' 0)**/' '$%' 8 *$%' &$%E1%.)' . 5' 6', . &1/' +%'1$,. %',0' 0('.)2' . 5' /1-+ **/*1$%5' ' . 5',0' 01$(+'$-%5' 3,)+' .)+')%0' . 5'4,/,'$2'6,-8%.)' +%' 0)**/0' 8 ', . /2'(* . 0,0)'*&')+%'&*$%,-. '6$*51()0'/$%'52' 5%0($,4%5'41)', . '-$%')%$'E1' .),)2H '$%' . *3' 6*00%00%5'*&''6%(1/,'$'0,(9/2'0 8 %//H' . 5'2,%/5' 6*$),*. 0'*&'%B15'),*. ', . ' 8 '00%0'*&'-$%')%$'*$ 0 8 '//%$' 0,C%' 0,8 1/'), . -' 0/*1-+0' 41)' 3+,(+' *. ' 8 ,($*0(*6,('/ %B' 8 , . '),*. ' '$%' 0%/5* 8' &*$85')*' &&*$5' 6*0,),7%' %7,5%. (%' *&' 5%' 5'),001% %/% 8 %1)0

. /%0'0')+%'5,0%'0%'4%. 5')*')$%') 8 %.)',)' 8 '2')%$ 8 , . ')%' , . ' 0/*1-+, . - ' +,0' 8 '2' 4%' %,)+%$' $%0)$,()%5' *$ %B)%. 0,7%' %')+' *&'6*$),*. 0' *&')+%' 8 1(*10' 8 %8 4$' . %' 0 14 8 1(*10' 8 %8 4$' . %' 0 14 8 1(1/'$' 0,9/2'0 8 %//H' . 5'2 8 10(1/'$' . 5' . %$7*10' 6$*0)$')',*. ' ('$5,'(' %. %$7'),*. ' ' . 5' ' . ' ' ((%/%$')%5' ' . 5'&%%4/%'61/0%' . '0* 8 %' ('0%0'),001% 5%')+' "' ' +'66%. 0' ')' ' . ' %'$+%$'6%$,*5' %7%. ' 4%&*$%')+%'$16)1$%' *&')+%' 0*/,)'$2' -/' . 59H ' . 5')+%' 0/*1-+0' (' . ' 4% 5,0; (*7%$%5', . ')+%' 0)**/0' *. ' &$*8')+%' %,-+)+')*')+,$)%%.)+' 5'2' +%' '(8%' *&' 7,)'/6$*; 0)$'),*. ', 0' 8 ' . ,&%0)%5'51$,. -')+%'5%)'(+8%.)' *&')+%' 0/*1-+0' 3+%. ')+%' %='10),*. ', 0' *&)%.

8 1(+', . ($%'0%5' 42' +'%8*$$+'-%' 8 6$*7%; 8 %.)', . ')+%' 0)$%. =+' 7*/1 8 %' ' . 5' 0/*3, . -'*&)+%' 61/0%' ' . 5', . ')+%' %B6$%00,*. ' *&')+%' (*1. ;)%. ' . (%')+%'(*8 6*$'),7%'$%/,%&'&$*8')*$ 8 , . '' . 5')%. %0 8 10'(/%' . , . -' *&')+%')*. -1%' ' . 5')+%' 0140),)1),*. ' *&' &'%%1/%. (%' &*$' 520%.)%$,('6$*51()0', ')+%' 0)**/0' 0, - . ,&2', . ')+%0%' ('0%0')+%' 6$*4'4/%(%00'),*. ' *$)1$. , . - 6*, .)' *&')+% 5,0%'0%' +%(*. 7%$0%, 8 6+%0')+')'+%'0/*1-+; , . -', 0' %B)%. 5, . -' ' . 5' '' 01((%00,*. ' *&'0/*1-+0' *&'7'$,*10'9, . 50'3,)+' *$' 3,)+*1)' 8 10*8 '$ 0)$1()1$%' (*.), . 1%0')*' 4%' 6'00%5'3+,(+', . ')+%' 6$*(%00' *&'0=' $ '),*. ', 0' ((*8 6' . ,%5' 42' 8 1(+'4/%%5, . -'%06%(,''//2', . '6'), .)0'6*. 0*. %5' 42' 8 '/' $,'' *$' &&/,()%5' 3,)+')+%' 0(*$41),(' *$ +0%8 *$$+'-,('5,')+%0,0' +%' '45*8,. '/')%. ; 5%$. %00' . 5'+'$5%. , . -'*&')+%'6'$,%)'/' 8 10(/%0' '$%' 8 '$9%5' 51$, . -')+%' 0%6'$'),*. ' *&')+%' 0/*1-+0' +%' '&&%()%5' 6*$),*. 0' *&')+%' (*/*. ' (' . '4%' &%/)' ' 4%' 03*//%. '5*1-+2' ' . 5'0615' 5, . -2'< A +%7%$0R' +%09, . ', . '1 . &'7*1$'4/%' %'0%0' 4%(*8%0'(/' 8 8 2' &%')1$%0' ' . 5' %2%0' 0+$1 . 9%. '4*52'%8'(, ')%5' 66%),)%' , . ' '4%2; ' . (%')+,$0)' -$%')' . 5'5,0)$%00, . -')*. -1%' 5$2' ' . 5' 4$*3 . ' 61/0%' &%%4/%' ' . 5' $1. . , . -H)+%' 0)**/0' %B)$%8%/2' *&&%. 0,7%' 4/**52' 0+ 8 2' *$ 3')%$2' 3,)+'7'$,%),%0' *&' 0/*1-+0' 1. 5' %B15';),*. ' +%' 0%. 0,4,/,)2' 4%(*8%0' 0*' 4/$8)%5')+')')+%' 0)**/0' $%' 6'00%5'3,)+*1)' 8 1(+'6', . ' G *&)%. ' . . 7*/1.)'$,/2H ' . 5')+%' 6'),%.)' %7%. ;)1'//2'5,%0' &$*8' 0+%%$' %B+'10),*. ' &$*8')+% %B)%. 0,*. ' *&' -' *$)+%' 0/*1-+. -' *$)+%' %. 5' 8 '2' 4%' ((%/%$')%5'42'6%$&*$'),*. ' *&')+%' 4*3%/', . ' *. %' *$ 8 *$%' 6/'(%0'/%'5, . -')*' %B)$'7'0'),*. ' *&' 0*8%' *&')+%' (*.)%.)0' *&')+%', .)%0), . %', .)*')+%' 6%$,)*. %1 8 ' ' . 5' -%. %$'/6%$,)*. ,)0 *8%),8%0' &$*8')+%' (*8 8%. (%8%.)' *&' ' . ' '))'(+' *$' 51$, . -')+%' (*1$0%' *&' '(1)%' 520%.)%$2' $'6,5' 0/*1-+, . -' &*$) 0')+%' (+,%& 6')+*/*-, . ('/(*. 5,),*. '6'00, . -', .)*' -' . -$%. %' *&'/'$-%' 6')(+%0' *&' 8 1(*10' 8 %8 4$' . %' ');)%. 5%5' 42', . (%'0, . -' 6$*0)$', . ' . 5' 0**. ' 8 %$-, . -', .)*'(*//'60%' 0')+,0'%B)%. 50'1.),/', . ' 8 ' . 2', . 0)' . (%')', . 7*/7%0K'/8*0)')+%' 3+*/%' *&')+%' 8 1(*10' 8 %8 4$' . %' 014 8 1(*10'),001%' ' . 5' 8 10(1/'$'0)$1()1$%',)', 0'(+'$')(%$,0%5'42' , .)%. 0,&,%5'(*//'60%' +%')*$ 8 , . '' . 5')+%)%. %0 8 10' ')' &,$0)'%B($1(,')', . -' 0155%./2'5,0; '66%'$')*')+%' 5%/10,7%'$%/,%&' *&')+%' 01&&%$%$' .),/')+%' - ' . -$%. %'+'0' 06$%'5')*' ' -$%')' %B;)%.)')+%' 0)**/0' (*.)' . ' ' /'$-%' E1' .),)2' *& /,8%'4/**5'6%(1/,'$ /**9, . -' %B15'),*. ' ' . 5' 8 1(+'-%/'),1*,5'%B15'),*. H 41)' '0')+%' /,7, . -' 8 1(*10' 8 %8 4$' . %'4%(*8%0'5, 8, . ,0+%5')+%0%' 6$*51()0' '/0*'5%($%'0%' ' . 5', . ')+%,$'$**8'3%' . *),(%' '' 3')%$2'6$*51()' *&' '' 5'$9' 61$6/%' *$ 4/'(9' (*/*,1' $%0%84/, . -')+%' 3'0+, . -0' *& 8 %')' -,7, . -' *&&' . ', . (*8 6'$'4/2' *&&%. 0,7% ' . 5' -' . -$%. *10' *5*1$' *')+%' . '9%5' %2%' . 5'*. '3'0+, . -')+%0%*0)**/0' 0%8')*' 4%' 4; 0*/1)%/2'5%7*,5' *&' &0%%1/%. (%' +%2'2,%/5' '-$' . 1/'$0%5, 8%.)'*&''4/'(9'(*/*1$G-' . -$%; . *10' ;# '4/'(9%. %5'42')+%'(*84, . '),*. ' *&' 0$56+1$'3,)+')+%', (*. '*&'5,0*$-' . ,0%5'($1*$, . ' +%' '45*8%. ' ')' &,$0)' 5*1-+2' 4%(*8%0')J1. 6' . ,), (' ' . 5' &$%%' &$*8' 6', . ' *. '6$%00,&$%

' . 5')+%' 01$&'(%' (*/5' ' . 5' (/' 8 8 2H)+%' (*1 . ;)% . ' . (%' $%0% 8 4/%0')+%' +'--'$5' ' . 5' 01 . 9% . ' '66%'$' . (%' 6$%0% .)%5' 51$, . -') +%' '/-,5'0)' -%' *&' (+*/%$'H')+%')*. -1%' ,0' 5$2' 4$*3 . ' ' . 5' &,001$%5' ')+%' 61/0%' ,0')+$%' 52' . 5'$'6,5H &*+5' ' . 5' 8 %5,(, . %0' '$%' $%>%()%5H)+%' 5%>%()'' '$%' 6'00%5', . 7*/1 .)'$,/2H 6%$(%6),*. ',0' 4/$ 8)%5H 5%/,$,18'016%$7%. %0'H ' . 5')+%' 6'), %.)' ')' / '0)' 01((18 40' 3*$.' *1)' ' . 5' %B+'10)%5' *. ' &$*8')+%' 0,B)+')*')+%')+,$)%%.)+' 5'2' ''((*$5,. -')*')+%' $' . -%' . 5'0%7%$,)2' *&')+%' 5,0%'0%' ' . 5')+%' (*. 0),)1),*. ' /' 6*3%$' 3+,(+' +%' 6*00%00%0

+$*. ,(' 20%.)%$2 G +,0',0'0*8%),8%0')+%' $%01/)' *&' (1)%' 520%.)%$2', . ' 06,)%' *&')+%' 8*0)' '66$*6$,')%' 8' . '-%8%.)' ,. ' 6%$0*. 0' 6*,0*. %5' 42' 8 ' /'$,'' ' . 5' 3%'9%. %5' 42' &'))2' *$' 3 'B2' 5%-%. %$'), *. ' *&')+%' 06/%%. ' *$' 7%$' *$' 4*)+' ' . 5', . '0)$1 8 *10' *$' 0(*$41),(' (*. 0),;)1),*. 0' +%' 520*$'0,'' 8 '2' 4%' 0*' 6$*. *1. (%5')+')')+%' 8 ')%$, '/ %B15%5', 0', . ('6'4/%' *&'+%'/; , . -' 16')+%' 1/(%$0' 42' -$' . 1/'), *. ' . 5'(. (')$, ; 0'), *. ' +%' 1/(%$0' '$%' $%6%')%5/2'5,0)1$4%5'42' 6%$,0)'/0,0' . 5')+%'6'00'-%*&'&/')10'&'%(%0'1. ; 5, -%0)%5' 8 *$0%/0' *&' 0*/,5'&'*5' ' . 5')+%' ($,5' 1. 1),/,0%5'0%($%), *. 0' *&')+%'/,7%$'0)*8'(+' ' . 5' 6' . ($%'0' +10')+%2' $%' /,'4/%')*' 4%(*8%' ,$$,)'4/%'&$*8'$%. %3%5'(*. -%0),*. ' ' . 5', . &/' 8 ; 8 '), *. ' +%' 810(1/'$' (*')' 6'$), (,6')%0' , . ')+%' %B(,)%8%.)' ' . 5' 4%(*8%0', . &,/)$')%5' 3,)+' %B15'), *. ' 3+,(+' %7%.)1'//2' 4%(*8%0' *$-' . ; ,0%5' ' . 5'/%' 50')*')+,(9%. , - ' +%' &/**$0' 1. 5' 0,5%0' *&')+%' 1/(%$0' $%' (*. 0),)1)%5' *&'1. +%'/)+2' 0)$1()1$%' +%' 5,&/ *1/)2')+10' %B6%$,%. (%5', ' %&&%(), . -' $%6', $', 0' 1-8%.)%5' .'*)+%$' ('0%0')+%', .)%0), . %' 4%(*8%0')$*6+,%5' '))%. 1')%5' ' . 5')$' . 06'$%.)' +%' 0)**/0' '$%' 8 '5%' 16' *&' 0%$*10' %B15'), *. '0/,8%'4/**5' ' . 5'0*8%),8%0' *&'61$,&*$8'8')%$, '/'3,)+&'0(1/%. (%'-%. %$'//2' 1. &*$8%5' /8*0)'%7%$2'0)**f 7,// 4%' &*1. 5' *. ' 3'0+,. -')*' (*.)', . ' 520%.)%$,(' 6$*51()0' %$2' &$%E1%.)/2' %06%(,'//2', . ' ('0%0' 3+,(+' +'7%' 4%%. ' ('$%&1//2'5,%)%5'&*$' '), 8%'. %,)+%$' 4/**5' . *$' 81(10' (' . ' 4%' 5%)%()%5' 8')+%' 0)**/0' 3+,(+' '66%'$')*' 4%' *&' ' 61$%/2'5,'$' $+%%,(' . ')1$%' +%' '66%),)%', 0' 1. (%$)', . H)+%')*. -1%' *&)%. ' (/%' . ' 0+, . , . -' . ' 5'5%7*,5' *&' %6,)+%/,18H)+%' 61/0%' 3%' 9' . 5', $$,)' 4/%H' . 5')+%' '45*8, . 'f)%. 5%$. %00' %'0,/2' /*('+0%5' +,(9%. , . -' ('. ' *&)%. ' 4%' 5%)%()%5' *$8, . '' '$%' '/3'20' 6$%0%.)H' . 5'1. /%0')+%' 5,0%'0%' 4%' (*. &, . %5')*')+%' (0%(18' *$' 0(%. 5, . -' . ' . 5')$' . 07%$0%' (*/*. ')+%$%', 0')%. %0810' 1/),6/%' '40(%00%0' *&')+%' /,7%$' &$%E1%.)/2' 016%$7%. %' . 5' ('$$2' *&&')+%' 6'), %.)H *$' &)%$' 8 *.)+0' *$ 2%'$0' *&' 01&&%$, . -' +%' 8 '2' 6%$,0+' &$*8', . ; ' . ,), *. ' ' . 5' %B+'10), *. ' *$' &$*. ', .)%$(1$%%.)' 5,0%'0%

! ($' G= (1)%' 520%.)%$2', 0' &$%; E1%.)/2' (*86/,(')%5' 42')+%' 7'$,*10' &*$80' *&' 8'/'$,*10' &%7%$')26+*,5' &%7%$')+%')14%$; (1/'$' *$')+%' +0%8*$$+'-,*' 5,')+%0,0'61$61$' ' 0(1$72' +%6'), (' . 5' 06/%. ,(' %./'$-%8%.)' 8'/'$,*10' ('(+%B,' ' *$' '40(%00' *&')+%' /,7%$H' . 5', . ' (+,/5$%. ' 42' 5%.),), *. ' . ' %7%$2' ('0%' *&' 520%.)%$2')+%' 0)$,()%0)' '))%.), *. ' 0+*1/5' 4% 6', 5')*' %B,0), . -' (*86/,('), *. 0' . ' 6'), %.)0

, . +' 4,), . -' 8 '$0+2' 5,0)$,()0' ' . 5')+*0%' &*/; /*3, . -' '' 0%' &'$, . -' /,&%')+%' -180' 0+*1/5' 4% ('$%&1//2'0($1), . ,0%5' ' . 5')+%' (1)' . %*10' 01$; &'(%' %B' 8, . %5' 3,)+' '' 7,%3')*' '0(%$)', . ')+% &$%%5*8'*$*)+%$3,0%' &$*8'61$61$,(' *$'0(*$; 41),(')', .)' +%' +,0)*$2' *&')+%' 6'), %.)' 0+*1/5' 4%' -*. %', .)*' ,. ' *$5%$')*' 8'9%' *1)')+%' 6$*4'4/%' 5, ')+%), (' 6$*(/,7,), %0G' (E1,$%5' *$' +%$%5,)'$2

% $7 G +')' '40(%00' *&')+%' 7%$'0, . -/%' *$' 81),6/%' &$%E1%.)/2' &*//*30' '(1)%' '. 5' (+$*. , (' 520%.)%$2', 0' , . 5,061)'4/%H 41)' 3+%)+%$' '0' '$%01/)' *&')+%' -%. %$'/' (*. 5,), *. ' %B,0), . -' *$' *&' /*('/' 620%8, *' 6*,0*. , . -' *$' %84* 08' *$,-, . '), . -', . ')+%' 7%, . 0' 3,)+, . ')+%' '$%'' *&')+%' 1/(%$0', 0' 0), /' . ' *6%. ' E1%0), *. ' 20%.)%$2' 0*8%), 8%0')%$8, . ')%0', . ' 6%$8' ; . %.)')+, (9%. , . -' *&')+%' 6'$,%)%0' *&')+%' -')' 3,)+' %7%.)1'/ (*.)$')(), *. ' *$' 0)$, ()1$%' ('10; , . -' (*. 0), 6'), *. ' &0%*'/ '((181/'), *. ' *$' *4; 0)$1(), *. ' b +%. ')+%' 0%')' *&' 0)$, ()1$%' (' 4%' $%' (+%5' '0', . ')+%' /*3%$'6')' *&')+%' $%()18 81(+' $% %&' (' . ' 4%' '&&*$5%5' 42' 0, 86/%', . ; (,0, *. ' ' . 5'0140%E1%.)'5,/')'), *. ' 42' 8%' . 0' *&' 4*1-,%0' ,001$%' *&')+%' ' . 10' *$' 1/(%$' 3,)+; , . ')+%' 7%$-%' *&')+%' . 10', 0' '' (*). 8*. '0%E1%/' . (%'5, '-. *0%5' 42' %B' 8, . '), *. ' *&')+%' 0)**/0' ' . 5' 42' 8%' . 0' *&')+%' 06%(1/18',)' '58,)0' *& 06%%52' $%/,%&' 42', . (,0, *. ' ' . 5' &)%$ 01$-, ('/ 8 ' . '-%8%.)

& G 20%.)%$2' (' . ' 4%' 5, '-. *0%5' &$*8' 5, '$$+(%'' 42')+%' '45*8, . '/)%. 5%$; . %00')*$8, . '')%. %0810' . 5')+%' %B,0)%. (%' *&' 520%.)%$, (' 6$*51()0', . ')+%' 0)**/0' $' 53'$5' **5%7%'/')%' $*&%00*$'*&' %5, (, . %', . ')+%' '/(1))'' %5, ('/ *//%-%'3'0')+%' &, $0)')*' ('$$2' *1)')+%' 6$'(), (%' *&' 3'0+, . -')+%' 0)**/0', . '520%.)%$2' . 5'5, '$$+(%' ' +%' 0)**/0' '$%' &, $0)' %B' 8, . %5' '0')+%2'/, %', . ')+%' 0)**/' 6' . ' ')%$', 0')+%. ' '55%5' . ' (*. 0,5%$'4/%' E1' .),)2' &)%$' '' 0+*$)' .)%$7'/')*' '//*3')+%' 520%.)%$, (' 6$*51()0')*'0, . 9')*')+%'4*))*8')+%' 016%$. ')' .)' &/1,5', 0' -$'51'//2' 6*1$%5'*&& +%' 3'0+, . -', 0' $%6%')%5', 8), /')+%' &*$%, -. ' 6$*51()0'$%8', . '(/%' . ' . 5'5%0),)1)%' *&'81(+' 08%//' +%. ')+%0%' 6$*51()0' '$%' 61)$%0(%.)' *$' 6%$+'60', . ' '/' *'0%0',)' ,0' (*. 7%. ,%.)')*' 3'0+')+%' 0)**/0' 3,)+' '' 0*/1), *. ' *&' ('$4*/,(' (,5' *$' *)+%$' (*/*1$/%00' 5,0, . &%()' .)' 20%. ;)%$2', 0' 5, '-. *0%5' &$*8') ' ' ' ' # ' 42')+%' &/1,5' *$' /**0%' (+'$')(%$' *&')+% 0)**/0' 3,)+' 520%.)%$, (' 6$*51()0' ' . 5' 42')+% '40%. (%' *&' 1/(%$' '0' 5%)%$8, . %5' 42' %B' 8, . ';), *. ' 42' 8%' . 0' *&')+%' . 'f 06%(1/18

G. M [#' &*//*3, . -' '$%')*' 4%' $%-'$5%5' '0' &'7*1$'4/%' &%')1$%0', . ')+%' 6$*-. *0, 0' *&' . 2' -, 7%. ' %' 0%' +%' *$5, ; . '$2' 1. (*86/,(')%5' &*$8' *&' (1)%' 520%.)%, 2H %'$/2'0140, 5%. (%' *&')+%' (*. 0),)1), *. =' 5, 0)1$4; ' . (%H '' 0)%' 52' &, $8' ' . 5' 0)$*. -' 61/0%' 3,)+' 5, 8, . , 0+, . -' &$%E1%. (2' . 5', . ($%'0, . -' 6*3%$H 8*5%$')%' '45*8, . ' /')%. 5%$. %00H' '40%. (%' *&')286', .)%0H '' 6/'(, 5' . 5' . *$8' f %B6$%00, *. ' *&' (*1.)%. ' . (%H '40%. (%' *&' 0/*1-+0' *$' 61)$%0(%.)' 8 '))%$0', . ')+%' 0)**/0H %'$/2' 014; 0, 5%. (%' *&')*$8, . '' ' . 5')%. %0810' 3,)+')+%

'66%'$'.(%*&00*1/%.(%'.5')+%(*.)%86*;$'.%*10 5%($%'0% *& 520%.)%$,(' 6$*51()0 $%)1$.'*&'66%),)%'.5'6*3%$'*&5,-%0),.-'.5'00,8,/'),..-'&**5 '.5')+% '40%.(%'*&,.&/'83')*$2'*$0,661'),7% 8,0(+,%&'8')+% /,7%$

3") G= .&'7*1$'4/% &%')1$%0'*.')+% (*.)$'$2' '$% +% 6%$0,0)%.(% &'.'%/%7')%5)%86%$')1$% E1,%)'61/0%'3,)+',.;($%'0,.-'&%%4/%.%00 0155%.'&,$%%5*8 &$*8')*$8,.''.)%.%0810'.5'45*8,.'/)%.5%$;.%00'3,)+'-$%')'7,)'/ 5%6$%00,*.'*$(*///'60% 5*1-+2')+,(9%.,.-'*&')+% (*/*.'3,)+'51/.%00'*.'6%$(100,*.' 3+%$%)+%$% 0+*1/5' 4% $%;0*..(% 0155%.',.($%'0% *&'45*8,.'/)%.;5%$.%00'3,)+',((*1-+'.'10%''7*8,),..-''.5'-$%')'.%$7*10 6$*0)$'),*.')286'.,)%0'.5'6%$,)*.,),(' 6',.'3,)+' (*.0)'.)'+'$5.%00'.5'%.0,*.'*&')+% '45*8,.'/ 810(/%0 ,.($%'0% *& 61)$%0(%.)'.5'-'.-$%.*10 6$*51()0',.'+% 0)**/0'/,9%')+% 3'0+,.-0'*& 5%(*86*0,.-&/%0+ %B(%00,7% +'%8*$$+'-%&)*8')+% 4*3%/ 4/%%5,.-' &$*8'(+'66%5' '.5' &,001$%5'/,60'-180'.5' 8*1)+ +'$0+' 5$2'4/'(9' $-/'C%5')*.-1% 5%/,$,18 6,(9,.-''')+% 4%5;(/*)+%0 '.5'0(').,.%00' *$ 0166$%00,*.'*& 1$,.%

! G +*1/5' '.' '6%$,%.)' 4% $%;E1,$%5',.')+% (*.-%0),7%'%B15'),7%'*$ 1/*%$'=,7%'0)'-%0'*&'(1)% 520%.)%$2'*$,.'0155%.'$%/'60%0' 016%$7%.,.-'16*.,*' &*$80'*&')+% 5,0% '0%')+% $%'5,%0)'0,86/%0)'.5'8*0)'6'..//%0',0''>)%6,5'3')%$'%.%8''*& &$*8')3*')*' &*1$ 6,.)0' &)%$')+% *6%$'),*.'*&')+% %.%8''*$,8 8%5,')%/2')+%'6'),%.)'6$%0%.)0'+,80%/& 01&&%$,..'&$*8'.2'*&')+%0 520%.;)%$,('(*.5,),*.0',.')+*0%'%'0%0'3+%$%'.*'6$%;/,8,.'$2' '6%$,%.)',0',.5,(')%5''')1$6%.),.%'%6,)+%8'*$ 810)'$5'6/'0)%$' 0+*1/5'4% '6'6+%5')*')+% %6,-'0)$,18'&*$)3%.)2'8.1)%0'')+% 0'8%),8%'&)*8')2$%.)2'-$',.0')*''' 5$'(+8'*&',6%('(1'.+''0106%.5%5',.')3*' 5$'(+80'*&' 02$16'*&'*$ '-% 6%%/'.5'&*1$ 5$'(+80'*&'3')%$'*$',.'+'/&'.''*$8(%*&',.&10,*.'*&'(+'8*8./%'3,)+')%.'-$',.0'*&('$4*.')%'*&'0*5,18'*$ 4,0 81)+'*$ 0,86/28'5%'16',.)*'(*.7%.,%.)/2'0,C%5'6,//0'0+*1/5'4%'58,.,0)%%5' +% $%(184%.)'6*0)1$%'3,)+')+% +%'5'/*3%$')+'.'101'/'0+*1/5'4%%.&*$(%5' ,E1,50'0+*1/5'4$ $%0,0)%5' '0 81(+'0'6*00,4/%&*$'.'+*1$*$)3*' **5'0+*1/5'.*)'4%'-,7%.'&*$')'/%')*0')+$%%'+*1$0'4%&*$%'.'.5'0,B'+*1$0'&)%$')+%'58,.,0)$'),*.'*&')+% 5$1-' *7%8%.)'*&%7%$2'9,.5'810)'4%'7*,5%5H'.5')+%0'/,7''0+*1/5'.*)'4%03'/;/*3%5'41)'3,6%5''3'2'3,)+''(/*)+' +,$0)'8'2'4% E1%.(+%5'42'01(9,.-'6,%(%0'*&',(%'*$'3+%.')+,0'('..*)'4% 6$*(1$%5'42'(*/5'3')%$',.')%'06**.0&1/')''),8%' '10%''3,//6$*4'4/2'*((1$H 6%$+'60',.'0'8%'('0%0'$%)(+,..'.'5'7*8,),..-' 5*%0'*((1$',)' 0%/5*8'+'66%.0'4%&*$%')+%'/'60%'*&'.'+*1$'&)%$')+%%B+,4,),*.'*&')+% 5$1-'.5')+%%>%()%5'8')))%$'101'//2'(*.0,0)0'*&08'//E1'.),;),%0'*&'-'0)$,('0%($%),*.' +*1/5')+%',6%('(1;'.+''4% $%>%()%5')+%'5*0%'0+*1/5'4%$%6%')%5'0'0**.'0K)+%'0)*8'(+'+'0'4%%.')$'.E1,//,0%5'),'3,// 4%&*1.5'4%.%&,(,'/)*')+%'/'$-%5*0%0'0*''(0')*''//*3'*&*.%4%,..-'.,7%.'.,-+)'.;'8*$.,.-'0'/*.-'0')+%,$'10%',0'(*.;0,5%$%5'.%(%00'$2' +% 0,-.'/&*$')+%'$%;/,.E1,0+8%.)'*&')+%0%5*0%0',0'&$%%5*8'&$*8')*$8,.''.5')%.%0810'.5'45*8,.'/)%.5,0*$-'..0),8,')+'*(((1$$%.(%'*&'$%&$%0+,.-'0/%%6'&%(1/%.)'4,+*10'*$',6;('(1'.+''0)**/0''.5'$%0)*$'),*.'*&')+%'6$,8'$2'6$*(%00%0'*&''00,8,/'),*.'&'.*'-$%')'8*)8)'*&5,0*$-'..0),8,')+'81(*10'8%84$'.%+'7%')'9%.'6/'(%')+%0%&'7*1$'4/%(+'.-%0'$%&$%E1%.)/2'.*),(%5''&)%$')+%'58,.,0)$'),*.'*&)+%'&,$0)'*$0%(*.55*0%H'.5'%7%.',&'1.5*14)%5'1/(%$'),*.'+'7%0%)',.')+%2'$%-%.%$'//2'5,0(%$.%5'*.')+%0%(*.5'*$')+,$5'52'*$%'$+%$'.%')+%$('0%')+%'5$1-'0+*1/5'4% '4'.5*.%5')+%5,0'66%'$'.(%'*&')+%')*$8,.''.5')%.%0810''.5')+% '40%.(%'*&81(10'4/**5''.5'0/,8%&$*8')+%)0**/0',.5,(')%')+%(%00')*.'*52;0%.)%$,(',.&/'88')*,.''.5')+')'+%''&&%()%56*$),*.0'*&')+% 4*3%/'+'7% 4%%.'6/'(%5,.')+%8*0)'&'7*1$'4/%(*.5,),*.')*' .5%$-*(1$%42'0$%0*/1),*.<,&')+%'(0%'+'7%.*)'6$*;(%%5%5')*'1/(%$'),*.''*$42'0-$*.1/'),*.''65',(,(')$,0'),*.<,&'1/(%$'),*.''*$%7%.'0/*1-+,..-+'7%''/$%'52')'9%.'6/'(%' +'/9 8,B)16%W3,)+2*0(2'810'.5'0)$,.-%.)0',0'.*3'E1,)%01&&,(,%.)')*'(*86/%)+% (1$%'.0*8%('0%0'&%$$1-..*10'.5'4,))%$')*.,(0'$%5%8'.5%5')*'-,7%')*.')*')+% 5,-%0),7%*$-'.0'.5')*',86$*7%')+%(*.5,),*.''*$)+%4/**5' *1.)%$,$$,)','),*.'42'8%'.0'*&')1$;6%.),.%'%6,)+%8'*$810)'$5'6/'0)%$'0+*1/5'4% '6'6+%5')*')+% %6,-'0)$,18'&*$)3%.)2'8.1)%0'')+% 0'8%),8%'&)*8')2$%.)2'-$',.0')*''' 5$'(+8'*&',6%('(1'.+''0106%.5%5',.')3*' 5$'(+80'*&' 02$16'*&'*$ '-% 6%%/'.5'&*1$ 5$'(+80'*&'3')%$'*$',.'+'/&'.''*$8(%*&',.&10,*.'*&'(+'8*8./%'3,)+')%.'-$',.0'*&('$4*.')%'*&'0*5,18'*$ 4,0 81)+'*$ 0,86/28'5%'16',.)*'(*.7%.,%.)/2'0,C%5'6,//0'0+*1/5'4%'58,.,0)%%5' +% $%(184%.)'6*0)1$%'3,)+')+% +%'5'/*3%$')+'.'101'/'0+*1/5'4%%.&*$(%5' ,E1,50'0+*1/5'4$ $%0,0)%5' '0 81(+'0'6*00,4/%&*$'.'+*1$*$)3*' **5'0+*1/5'.*)'4%'-,7%.'&*$')'/%')*0')+$%%'+*1$0'4%&*$%'.'.5'0,B'+*1$0'&)%$')+%'58,.,0)$'),*.'*&')+% 5$1-' *7%8%.)'*&%7%$2'9,.5'810)'4%'7*,5%5H'.5')+%0'/,7''0+*1/5'.*)'4%03'/;/*3%5'41)'3,6%5''3'2'3,)+''(/*)+' +,$0)'8'2'4% E1%.(+%5'42'01(9,.-'6,%(%0'*&',(%'*$'3+%.')+,0'('..*)'4% 6$*(1$%5'42'(*/5'3')%$',.')%'06**.0&1/')''),8%' '10%''3,//6$*4'4/2'*((1$H 6%$+'60',.'0'8%'('0%0'$%)(+,..'.'5'7*8,),..-' 5*%0'*((1$',)' 0%/5*8'+'66%.0'4%&*$%')+%'/'60%'*&'.'+*1$'&)%$')+%%B+,4,),*.'*&')+% 5$1-'.5')+%%>%()%5'8')))%$'101'//2'(*.0,0)0'*&08'//E1'.),;),%0'*&'-'0)$,('0%($%),*.' +*1/5')+%',6%('(1;'.+''4% $%>%()%5')+%'5*0%'0+*1/5'4%$%6%')%5'0'0**.'0K)+%'0)*8'(+'+'0'4%%.')$'.E1,//,0%5'),'3,// 4%&*1.5'4%.%&,(,'/)*')+%'/'$-%5*0%0'0*''(0')*''//*3'*&*.%4%,..-'.,7%.'.,-+)'.;'8*$.,.-'0'/*.-'0')+%,$'10%',0'(*.;0,5%$%5'.%(%00'$2' +% 0,-.'/&*$')+%'$%;/,.E1,0+8%.)'*&')+%0%5*0%0',0'&$%%5*8'&$*8')*$8,.''.5')%.%0810'.5'45*8,.'/)%.5,0*$-'..0),8,')+'*(((1$$%.(%'*&'$%&$%0+,.-'0/%%6'&%(1/%.)'4,+*10'*$',6;('(1'.+''0)**/0''.5'$%0)*$'),*.'*&')+%'6$,8'$2'6$*(%00%0'*&''00,8,/'),*.'&'.*'-$%')'8*)8)'*&

F D

' 8 ,),,,0 ? * ' *&' 1/2' ? ' &).5' 1-10)'
' "F?R' ,.')+%' (* . -%0),7%' %B15'),7%' ' .5'
1/(%$'),7%')'-%0' *&' '/8 *0)' %7%$2' &*$8' ' .5'
)26%*&' '(1)%' 520% .)%$2 ' '0' 3 %//' '0',.')+%' '(1)%'
'))'(90' 016%$7% . , . -' 16 * . ' (+$* . ,(' 520% .)%$2 '
8 '2' 4%' 4$,%&/2' 0')'%5 ' +%2' (* . 0,0)' , . ' A R' ,)0'
0, 8 6/,(,)2 ' A@R' ,)0' 0 '&%)2 ' A"R' ,)0' (%$)' . .)2' (* 8 ;
6 '$%5' 3 ,)+' ' . 2' *)+%$' 8 %)+* 5 ' A R')+%' 6$* 8 6;
),)15%' 3 ,)+' 3 +,(+')+%', . &/' 8 8 '),* . ' ,0' 0)*66%5 '
AFR')+%' $ ' 6,5,)2' 3 ,)+' 3 +,(+' $%6 ',$')' 9%0' 6/' (%
G ' 42' $%0*/1),* . ' *$' ADR' 42' -$ * . 1/'),* . ' . ' . 5'
(,(')$,0'),* . ' ADR' (* . 0%$7'),* . ' *&')+%' (* . 0),)1;
),* . ' / 6* 3 %$0 ' AMR' '44$%7,'),* . ' *&')+%' 6%$,*5'
$%E1,$%5' &*$' (* . 7 ' /%0(%. (%' A?R' 5%($%' 0%',.')+%'
&$%E1%. (2' *&' (+$* . ,(' 520% .)%$2 ' APR' 5%($%' 0%'
, . ')+%' &$%E1%. (2' *&' '40(%0 0' *&')+%' /,7%$ ' A !R
5, 8 , . 1),* . ' *&' 8 *$)'/,)2')*' %' 0%0')$%')%5 G '//
&' 3 +,(+' $%' ((8 6/,0+%5' A' R' 3,)+*1)' /*(' /'
*$' -%. %$' / 4/**5 /%)),. - ' ADR' 3,)+*1)' 0'/,7 ' ;
),* . ' A(R' 3,)+*1)' ('/* 8 %/' . 5' ,$$,)'),. -' 61$;
- '),7%0' ' . 5' A5R' 35)+*1)' *6,1 8' 42')+%' 8 *1)+
6%(' (1' . +'', . '/' $-%' 5*0%0' 8 '2' 4%' 0',5')*'
&1/&,/ 8 ' . 2' ,8 6*$)' .)' , . 5,('),* . 0')' 6$*;
51(%0' A R' '//)+%' 4%. %&,)0')+')' +' 7%' 4%%. '
'0($,4%5')6' 4/**5 /%)),. -' ,&,,*1)' $*44,. -')+%'
020)%8' *&' * . %' 5$*6' *&' 4/**5' A@R' '//)+%' '57' . ;
)' -%0' *&' 8 %$(1$,'/ ' . 5' *)+%$' 6B1$- '),7%0' 3 ,)+;
1)')+%,$' ,$2,)'),. . -' '(), . ' A?R' ' ')+%' -**5'
$%01/)0' *&' ' .),8 * . ,'/0' ' . 5' 015*$,&,(0' 3,)+*1)'
' . 2' *&')+%,$' 1 . (%$)' , .)2' A R' ')+%*1)+' . '0,''
'0($,4%5')*' *6,1 8' 3,)+*1)' 8 '09,. - ' ,&' . *)'
'--$ ' 7 '), . -')+%' 5,0%' 0%' 3 +,/0)')+%' 8 ,0(+,%&',0'
0 %.)/2' ((1 8 1/'),. -' 3,)+, . ' +10' 3%' 6*0;
0%00' , . ' ,6%(' (1' . +'' '' . * . 06*/, '),7%' ' .),;
6+/*-,0),(' ' (%$)' , . ' (+*/'-*-1%' . 5' 1 . ,$$, '
)'),. -' 61$-'),7%' '' 6*3%$&1/ 015*$,&,(' ' . 5'
'' +' $ 8/%00' 0%5')7%')*')+%' +%')$)' ' . 5')+%'
8 10(1/'$' &,4$%0' *&')+%' , .)%0), . %0
+%' < " ' 3+,(+' +' 7%' 4%%. ' 1$-%5'
'-' , . 0)' /'$-%' 5*0%0' *&' ,6%(' (1' . +'' , . ' 52;
0%.)%$2' '$%' &,$0)' ,)0' 0 5%6$%00, . -' , . &/1%. (%' 9%6)'
16' 42' . '10%'' ' . 5' 7*8 ,),. -H ' . 5'
0%(*. 5/2')+')' ,)' ,0' /, '4/%')*' 0%)' 16' 01. (*. ;
)$*//'4/%' 7*8 ,),. - <
,$0)')+%' 5%6$%00, . -' 6*3%$' . '10%' ' ' . 5'
7*8 ,),. -' +'7%' '// 4%%. ' *7%$ %0), 8 ')%5'
'10%'' ,0' *. /2' '')%8 6*$'$2' ' . 5' %7' . %0;
(%.)' %&&%()' *8 ,),. -=' ,0' ' . ' %B(%6),*. '/
*((1$$%. (%H ' . 5' %7%. ' 3+%. ' ,)' 5*%0' 016%$;
7%. %',)' 0%/5*8'/'0)0'/*. - ' 0' 8 1(+' . *1$,0+;
8%.)')+%$%&*$%' '0' 8 '2' 4%' $%E1,$%5')*'
0166*$)')+%' 0)$%. -)+' ('. ' 4%' -,7%. ' . ')+%'
, .)%$7'/0' 4%)3%%. ')+%' /'$-%' 5*0%0' *&',6%;
('(1' . +' ' 1)' 3+')' (*.)$,41)%0' 8*$%')*'
)+%' (*. 0%$7'),*. ' *&')+%' 6'),%.)0' 0)' 8, . ' '
. 5')*')+%' 6$%7%.),*. ' *&' 5%6$%00,*. ' *$' '0;
)+%. , ' ,0')+%' 06%%52' (%00'),*. ' *&')+%' 520%. ;
)%$,('6$*(%00' '((* 8 6/,0+%5' 42')+%' 5$1-' &*/;
/*3%5' 42' $%&$%0+, . -' 0/%%6' . 5')+%' 6*3%$' *&'
5, -%0), . -' . 5' '00, 8 ,/'), . -' . *1$,0+, . -' &**5'
1(+' $%8 '$9'4/%' $%01/)0' '0')+%0%' 0**. ' $%(*. ;
(,/%' ' . 2' 6')%.)' 01&&%$, . -' &$*8' 520%.)%$2')*'
' . ')+)+%$3,0%' 5,0' -$%%' 4/%' $%8%52
%(*. 5/2' +%. ')8(*.)$* '4/%' 0,(9. %00'
' . 5' 7*8 ,),. -' 01((%%5')+%' %86/*28%.)' *&'
)+,0' 5$1-' , . ')+%' 8 ' . . %$' '/$%'52' $%(*8;
8%. 5%5')+%' %B,0)%. (%' *&' *. %' *$' *)+%$' *&'
)+%'0%$,*10' (*. 5,), *. 0'6$% 7,*10/2' %. 18%$')%5'
8 '2' 4%' 8*$%')+' . ' 0106%()%5' . ')+%' '4;
0%. (%' *&')+%0%' (*86/,(')*. 0' 1. 8' . '-%'4/%'
7*8 ,),. -',0' 0%/5*8',&'%7%$' 3,). %00%5' %. (%'
, . ' '6$%6*. 5%$'), . -' 8 '>*$,)2' *&')+%' ('0%0' *&'
520%.)%$2' 8 %)' 3,)+')+,(' *4>%(),*. ' ,0' E1,)%'
1.)%. '4/%' +%)8)+',0')+')' %7%$2' 6+20,(, . '
3+*' +'0' 10%5',6%('(1' . +'' . ' +%$*,(' 5*0%0'
0**. ' /%' $. 0')+')' 5%6$%00,*. ' *&')+%' 7,)'/
6*3%$0' &$*8' ,)' ,0' . *)' *' 4%' &%' $%5' ' . 5' ,0'
01$6$,0%5' ')+%' 08 '/' 8*1.)' *&' 7*8 ,),. -'
)+')' &*//*30' ,)0' '58, . ,0)$'),*. ' ' . 5' ')')+%'
1. %B6%()%5' %'0%' 3,)+' 3+,(+')+%' 0)*8'(+'
)*/%$')%0' ,)0' 6$%0%. (%
+%. ' 520%.)%$2' 4%(*8%0' # " ' . *',)8%'
0+*1/5' 4%' /*0)' , . ' (*1. 0%//, . -' $%8*7' /&$*8' ''
8 '/'$,*10')*' '. *. 8 '/'$,*10' ' . 5' 8,/5' B'
8 ')%' '0%''7*2' -%G6$*7,5%5' %'0,/2' 5,-%0;
),4/%' &**5' (' . ' 4%' 0%(1$%5G0,0' *&)%. ' '))%. 5%5'
42')+%' +'66,%0)' $%01/)0' *' 8%. '0**' &/,()%5'
0)+%' 0'/)' $')*. ' 0' $%8 '$9%5' 42' $' '(
/%' . ' 0,0' 0, 8 6/2' 5%0)$1(),*. ' +%' (/*)+,. -'
0+*1/5' 4%' 3'$8' ' . 5' &/' . . %/0' '/3'20' 3*$.'
$*1. 5')+%' '45*8%. /' $' '(/%' . ' '/0*' $%;
(*8 8%. 50' 0)+%' 10%' *&' '' 3')%$' 4%)/' *7%$')+%'
'45*8%. '&*$' 0*8%' +*1$0' 5',/2' +,0' ()0' 0'
''&*8%.)'),*. ' ' . 5')+%' 0)%' 52' 1. ,&*$8' 6$%0;
01$%' ,)' 8 ',.)' , . 0' 0%%8 0')*' &' 7*1$')+%' '40*$6;
),*. ' *&')+%' &,4$, . ' %&&10%5' 4%)3%%. ')+%' , .)%0;
),. '/ (*')0' &')+%$%' 4%' 8 1(+' 1. %'0, . %00'
'4*1)')+%' &1. 5' 8%.)' ''3')%$' (*86$%00' *7%$'
)+%' . 10' '&&*$50' 8*$%' $%/,%&')+' . ' *6, ')%' %. %'
8 ')' (+%' &**5' 0+*1/5' 4%' (+,%&/2' (*. (%. ;
)$')%5' 0*160' 8 ,/9' . 5' /, 8 % 3')%$' ' . 5' 0' -*'
(*$. &/*1$' '$$*3$**)' ^(' %-- &/,6' 3,)+' 6*$)'
0+%$$2' *$' 4$' . 52H *$' ,&' 0*/,5' &**5' (' . ' 4%'
5, -%0)%5')+%')%. 5%$%0)' (+,(9%. '/' 8 4' *$ 8 1);
)*. ' 3,)+' 4$%'5' . 5' 4,0(1,)' 8 '2' 4%' '//*3%5'
%2*. 5' ,$, . -', . ' '' ('$$,'-%' *$' (+',$' . *' %B;
%$(,0%' 0+*1/5' 4%'))%8 6)%5' +%' 6*0,),*. '
0+*1/5' -%. %$' //2' 4%$%(1 8 4%.)' *$' 0% 8, $%(1 8 ;
4%.)' +%' %$%()' 6*0,),*. ' %B(,)%0' 6%$,0)' /),('
' (),*. ' ' . 5')+10' 5,0)1$40')+%' 6+20,*/*-,('/
$%0)' $%E1,$%5')*' &' (,/,)')%')+%' $%6',$' *&')+%'
1/(%$0' .),0(*$41),('>1,(%0' 0+*$55' 4%' -,7%. '
3+%$%')+%$%' ,0')+%' /%' 0)')', .)' *&' 0(1$72' *$'
61$61$' ' $%E1%.)' 4/,0)%$,. -' 5*%0' 81(+'
-**5H ' . 5' '// &*$8 0' *&' (*1.)%$,$$,)'),*. ' '$%'
4%. %&,(,'/' . ' '// *40),. ')%' ('0%0' ' 5,%)' (*. ;
0,0),. -' *&' 8 ,/9' *. /2' *1-+)')*' 4%')$,%5H ' . 5'
'/0*' %. %8 ')'' *&' '' 0*/1),*. ' *&' . ,)$')%' *&' 0,/7%$'
A '-$', . ')*' ' &,' *C' *&' 5,0),//%5' 3 ')%$R')3*' *$'
)+$%%' 6,.)0' 4%,. -' 6 '00%5' 16' 3+,/0)')+%' 6'),%.)'
,0' . ')+%' 9. %%0+*1/5%$' 6*0,),*. ' ' . 5')+%'
6%/7,0' 3%//*$',0%5
' ,(' '(,5' '(%)'%' *&' /%'5' 01/6+')%' *&'
(*66%$' ' . 5' . ,)$')%' *&' 0,/7%$' '$%$%61)%5')*' '()'
4%. %&,(,'//2' $' '(/%' . 0' &' 7*1$,)%' $%8%52
0 6'$),(1/'$/2' , . ' 8%. ' $%)1$. , . -' &$*8')%*6,('/
$%-,*. 0' ' . %%8,(' &$*8' /*00' *&' 4/**5' ' . 5')+%
5%6$' 7,. -' , . &/1%. (%' *&' 8 '/'$,' ' ,0')+%' 0*/1;
),*. ' *&')+%' 6%8,)$')%' *&' ,$*. ' . 5%$')+,0'
$%8%52')+%' 3+*/%' 020)%8' *&)%. ' $'//,%0' 3*. ;
5%$&1//2')+%' (*. 5,), *. ' *&)+%' 4/**5' ,86$*7%0'
(*/*1$' $%)1$. 0')*')+%' 4/' . (+%5' (+%%9')+%
' ' @

)+%' 0%')' *&' *40)$1(),*.',0')+')' 8%)' 3,)+',.'
(+,/5$%.'*$ 2*1.-'6%$0*.0' +%' 014>%()0'*&'
)+,0' '&%(),*.' 6$%0%.)' '' 7%$2' (+'$')()%$,0),('
'06%()' +%2'4$%')+%' '/8*0)' %.),$%/2')+$*1-+'
)+%' 8*1)+' 3+,(+' 0/%%6,..-' *$' 3'9,.-' ,0'
9%6)' 6'$),'//2' *6%.H)+%,$')*.0,/0' '$%' *&)%.'
%./'$-%5''.5')+%2'0.*$%'/*15/2'51$,.-'0/%%6'
+%' 81(*10' 8%84$'.%' *&')+%' .'$%0' '.5'
6+'$2.B',0' 03*//%.'.'.5' 0%($%)%0',.'%B(%00'
3,..')*')+,0')18,5'0)')%' *&')+%'&'1(%0')+%'
6'00'-%0')*')+%' 10)'(+,'.')14%0',.')+,0'
0,)1'),*.'5*.*)'58,)'*&')+%'(*.0)'.)'.%(%0;
0'$2'0166/2'*&''$')*')+%')>1.6'.''' 4%'.'$'
,.')+%0%' ('7,),%0'1.5%$-*%0'6'$),'/'40*$6;
),*.''.5')+10'4%(*8%0'8*$%'$%')+'.')+')'
%B)%$.'/')*')+%')286'.,(' 8%84$'.%H)+%'
5%.0,)2'*&')+%'*1)%$''$'$%8',.,.-')+%'0'8%'
)+%'%E1 ,4$,18'&$*8'6$%001$%',0'5%0)$*2%5H
)+%' 8%84$'.%'(*.0%E1%.)/2',0'$%)$'()%5'
)+%' (+','.' *&' *00,(/%0',0'6$%00%5' ,.3'$50'
'.5')+10')+%'(*.51(),*.'*&'0*1.5'4%(*8%0'
,.)%$&%$%5'3,)+G=,'0+*$)')+%'6'),%.)',0'8*$%
$'/%00'5%'&' .')+%0%''0%0(),*.'*&'
)+%')286',(' 8%84$'.%')'*.(%'$%7%'/0')+%'
0)')%'*&''&&',$0' 0')+%'('7,)2'*&')+%')28;
6'.18',0' .*)' ,.7*/7%5' ,.')+%'()'$$+'/
(+'.-%',)0')$'.0/1(%.(2'.5' 60)$%'$%'.*)'
,86',$%5H)+%'+'.5/%'*&')+%'8'//%10',0'),/)%5'
,.3'$50')+%'+%'5'*&')+,0'4*.%',0'1.101'//2'
6$*8,.%.)''.5')+%$%',0''5,0),.()'&*/5'($*00;
,.-')+%'166%$'6'$)'*&')+%'6*0)%$,*$'0%(),*.'*&'
)+%'8%84$'.%' +%$%')+%'*40)$1(),*.'+'0'
/'0)%5'&*$''/*.-'6%$,*5')+%'8%84$'.%'3,//
'66%'$)*'4%'/8*0)'&'//%.',.'16*.')+%'3'//0'
*&')+%')286'.18''.5')+%'6$*8*.)*$2'.5'
,.(10'8'2'4%'5,0),.-1,0+%5' &'1.5%$')+%0%'
(*.5),*.0')+%')286'.18'4%',.&/')%5' .'
+)C%$<0'6/'.I''.',.0)'.)'$%)1$.')' -**5'
+%'$,.-'&* *30'41)',.')+%'(*80%'*&''&%3'
5'20')+%',86$*7%5' +%'$,.-'6')$),'//2'5,%0'
'3'2'/%'7,.-')+%'6'),%.)'+*3%7%$',.'0*8%'
5%-$%%'4%))%$')+'.'4%&*$%')+%'*6%$),*.
.''/')+%0%'*'0%0'')+*$*1-+'%B'8,.'),*.'
*&')+%'6+'$2.B'0+*1/5'4%'8'5%',.'081(+'0'
,)'3,//4%&$%E1%.)/2'&*1.5')+')')+%'0286)*80'
'4*7%'8%.),*.%5''$%'51%)*'8'00%0'*&'5%.;
*,5'-$*3)+0',.')+%'7'1/)'*&')+%'6+'$2.B'
+,0'(*.5),*.',0'%06%(,'//2',.5,(')%5'3+%.'
,.''55,),*.')*')+%'66'$%.)'.'0'/*40)$1(),*.'
)+%',.)*.'),*.'*&')+%'7*,(%',0'*&')+')'6%(1/,'$'
9,.5''0'*&''6%$0*.'06%'9,.-'3,)+''4'5'(*/5'
)+10GL'5,.%)2 5,.%<<,.0)%'5'*&L'..%)2 .,.%j'
+%'*./2'%&&%()1'/'3'2')*'%B6/*$%')+%'6+'$2.B'
,0')*' 6/'(%')+%'&*$%&,.-%$' 4%+,.5')+%' 0*&)'
6'/')%' '0'&'$' 16' '0')+%' 6*0)0$,*$' .'$%0'
+%.'5%.*,5'7%-%)'),*.0'$%' 6$%0%.)')+%2'
('.',.')+,0'3'2'4%'$%'5,/2'&%/)''.5')+%,$'0,C%'
.5'6*0,),*.'%),8')%5' +%'6*0)0$,*$'.'%'(/*01$%'*&')+%'*)+%$'3,)+')+%'+184' +%'8*1)+'
8 10)'4%'9%6)'&,$8/2'0+1)

'.5',.'0%7%$%'('0%0')+%'6+'$2.B')+$*1-+*1)'
,0'40*/1)%/2'&,//%5'3,)+')+%8'' $+,.*'
0(*6,('%B'8,.'),*.'-,7%0'41)'' 7%$2',.'5%;
E1')%',5%''*&')+%'(*.5,),*.

G +%.'5%.*,5'-$*3)+0' '$%'
6$%0%.)')+%2'0+*1/5'4%'$%8*7%5''.5',&')+,0'
,0'5*.%')+*$*1-+/2')+%'6'),%.)0'$%(*7%$')+%,$'
+%'$,.-' +,0'8'2'4%'5*&)%' %,)+%$'1.5%$'
%)+%$'*$'3,)+*1)' .'%'(+'('0%')+%'6'),%.)<0'
4*52'0+*1/5'4%'3%/'4%E)'&*$3'$5'.'*$5%$'
)+')')+%'4/**5'0+*1/5'6'00'*1)')+$*1-+')+%'
.*0)$,/0' ./%00')+,0'6*0,),*.',0' ('$%&1//2'
'))%.5%5')*' ,.')+%'('0%'*&''6'),%.)'E.5%$'
%)+%$')+%$%' ,0'-$%')'$,09 *&'4/**5'5$,44/,.-'
,.)*')+%'/'$2.B''.5'4%,..-',.+'/%5H &*$')+%0%'
-$*3)+0' 4%,..-'7%$2'7'0(1/'$')+%$%' ,0''
-**5'5%'/'*&'4/%%5,.-' ,)+')+,0'6$%('1),*.'
+*3%7%$')+%' 6+'$2.B'('.'4%' (/%'$%5'*&'
'5%.*,5'-$*3)+0'42')+%'.'/'*&')+%'&*$%&,.-%$'
,.'('0%0'3+%$%')+%2''$%'7%$2'0*&)''.5'&$,'4/%H
$',.')+%$'('0%0'A)+%/'$-%$'6$*6*$),.R'3+%.'
)+%2''$%'*&'&,$8%$'(*.0,0)%.(%'42')+%' 10%'
*&''' 0)%%/'.','/'A,.)$*51(%5')*'.*),(%' 42')+%'
3$,)%$R'A+<10)%5')*')+%'&*$%&,.-%$' +%.'
,)',0'&*1.5'16*.'%B'8,.'),*.')+')'5%.*,5'
-$*3)+0'$%'.*)'6$%0%.)')+%')$%')8%.)'*&'
40)$1(),.'*&')+%' 10)'(+,'.')14%0'3,/'4%'
&''8$%'0,86/%'(+'$')0%$')'0+*1/5',.;
(/15%')+%'-%.)/%'02$,.=-'*&')+%',.&%$,*$'
.'$%0'3,)+'3'$8''/9'/,.%'0*/1),*.0' +%'
8*0)'10%&1/'*&')+%0%'(*.)','.4,('$4*.')%'*&'
0*5,18''.5'4*$'B' .'10,.-')+%8')+%'+%'5'
0+*1/5'4%'4%.)'&*$3'$5'.5''' 08'/'.'0'/
02$,.-%'%86/*2%5H)+,0',0'6$%&%$'4/%')*')+%'
.'0'/ 5*1(+%'0,.(%')+%' 0)$%'8'&$*8')+%'
5*1(+%',0'0*'6*3%$&1/'0'0*8%),8%0')*' $10+'
,.)*')+%' 10)'(+,'.')14%0'.'5'0*' %B(,)%'
,.&/'88'),*.'*&')+%)286'.18' */,)C%$<0'
,.&/'),*.'0+*1/5'4%'%86/*2%5'41)'.*)'8*$%'
&$%E1%.)/2')+'.')3*'*$')+$%%')8%0',.''3%%9

&')+%')*.0,/0'$%'0*'81(+'%./'$-%5'0')*'
,.)%$&%$%' 3,)+' $%06,$'),*.',.'),)'3,//4%'
.%(%00'$2')*' $%8*7%')+%8H 41)')+%' $%'0*.'
&*$')+,0'6$*(%%5,.-',0'.*)')+')')+%2'6$%00'
16*.')+%'*6%,.-0'&')+%' 10)'(+,'.')14%0'
41)'4%('10%')+%,$'6$%0%.(%'9%%60'16')+%'
1.+%'/)+2'(*.5,),*.'*&')+%'6+'$2.B

.5%$')+,0'$*1),.%'&')$%')8%.)')+%' 6';
),%.)0'(*86/%)%/2'$%(*7%$')+%,$'+%'$,.-H)+%
06'(%'&'),8%'51$,.-'3+,6+',)',0'.%(%00'$2')*'
(*.),.1%)$%')8%.)'7'$2,.-''((*$5,.-')*')+%'
*40),.'(2'3+,(+'%'&')+%')14%0'*40)$1()%5''.5'8*$%
&)%.')+'.'.)')+%')286'.,(''(7,)2',0',.;
7*/7%5',.')+%'(')'$$+' +%$%'+,0',0'.*)'
)+%'('0%G'.5',)'3,//4%'%7,5%.)'&$*8'K)+%

$%)', .%5'/10)$%' . 5')$' . 06' $% . (2'*&')+%' 8 % 8 ; 4$' .%G)+%' 0' 8 % 6$, . *,H=%0' *&')$%')8 %.)' '0' '$%' 61$01%5' "')+%' %' 0%' *&' (+,/5$%.' 3 ,// +*/5' -**5' %B(%6)' , .' 0*' &'$')+')')+%' '&&%(),*. ' , .' -$*3 . 16' 6%$0*. 0' ,0' /%00' 6%$0,0)%.)' '&)%$')+%')14% +'0' 4%%.' * . (%' '$),&,(,'//2' *6% . %5H ' . 5')+')')*' %&&%()')+,0' *+)C%$<0' 8 %)+*5',0'0* 8 %;), 8 %0' . *)' 01&&,(,%.)' *$' %7% . ' ,&' 0*' . *)' '0' %&&,('(,*10' '0')+%' 10)'(+,' .' (')+%)%$')' 810)' '/0*' +%' 4*$. %' , .' 8 , . 5')+')' , .')+%')$%')8 %.)' *&' ('0%0' , .' 3+,(+' *. %' %'$' ,0' +%'/)+2' 42' 8 %' . 0' *&')+%' (')+%)%$')+%' '&; &%()%5'%'$' %B(/10,7%/2' 8 '2'4% 014>%()%5')*')+%' %&&10,*.' *)' 0' ',$ 5*1(+%' 3+,/0)' 3,)+' */,)C%$0' 8 %)+*5',)' ,0', 8 6*00,4/%')*' '7*,5' &*$(, . -' '')0$%' 8' *&' ,$' ,.)*')+%' +%'/)+2')286' . 18\ &=.5)+,0', 0' . *)' '/3' 20' . ' '57,0'4/% 6$*(%%5, . -

' I # "' D? # '&*//*3, . -' ,0')+%' 8 *5% *&' 10, . -')+%' 10)'(+,' .' (')+%;)%$' 0 /'(%')+%' 6')%.)' , .' '' (+',$' . 5'/%)' +,8'/%' .' 4'(+' ' . 5'0)%'52'+,0'+%' 5' 3,)+')+%' /%&)' +' . 5'&,$ 8/2'&,B%5'*.')+%')*6'*&',)H+*/5')+%' (')+%)%$' /,-+)/2',.')+%' $,-+)' . 5' 3,)+')+%' (1$7%' 5*3 . 3'$50' ' . 5'6'00',)' E1,(9/2',.')+,0' 6*0,), *.')+$*1-+')+%',.&%$,*$' 8 %')10' *&')+%' . *0%')*')+%' 6*0)%$,*$' 3'//*&')+%' 6+'$2. B' +%.')+,0',0' &%/)' 3,)+5$'3')+%' (')+%)%$' '4*1)' +'/&' .',. (+' ' . 5')/)')+%' 6*,.)' *&')+%' (8$7%5' %. 5' $')+%$' 163'$50' ' . 5')*')+%' /%&)' *$ $,-+)' '((*$5,. -')*')+%' 0,5% 3+,(+',0' 4%,. -' *6%$')%5' 16*. ' *3' +*/5')+%' (')+%)%$' ' . 5' %. 5' *&')+%' 6')%.)<0' . *0% 0)%'5,/2' 4%)3 %%. ')+%')+18 4' . 5')+%' &,$0)')3*' &,. -%$0' *&')+%' /%&)' +' . 5' ')+,0'),8 %')+%' %'$' *&')+%' 6'),%.)' . 5')+')'*&')+%'01$-%*. ' '$%(*. . %()%5' 3,)+')+%' *)*0(*6%' +%'6*,.)' *&')+%' (')+%)%$' ,0' . *3' 0166*0%5')*' 4%' ,.')+%' 6+'$2. -%'/ *$,&,(%' *&')+%' 10)'(+,' .')14%H 41)')+%' *. /2' (%$)' ,.' 0,-. ' *&')+,0' 4%,. -')+%' ('0%' ,0')+')' 3+%. ' ',$',0' &*$(%5',.)*')+%' (')+%)%$' ,)' 3 /4%' +%'$5')+$*1-+')+%' *)*0(*6%')*' ,86,. -%'16*.)+%')286' . ,(' 8 %8 4$' . %' 3+%. ' '' 0)$%' 8' *&' ,$',0' 6'00%5' 5*3 . ')+%' (')+%)%$ <

+%' (')+%)%$' 8 '2'4%' 8 '5%' *&' 0,/7%$' *$' *&' 71/(' . ,)%' 41)' *&' 3+')%7%$' 8 ')%$,'/',)' 810)' +%', &/%B,4/%' 3+,/0)' 4%,. -' 10%5' %2*. 5')+,0' 01&&,(%',)')*' 0'2'+%$%')+')' ,.' 6$'(),0%5'+' . 50' ,)0' %86/*28%.)' ,0', . 7'/1'4/%' ' . 5', . 5,06% . 0; '4/%' ,.')+%')$%')8 %.)' *&' 8 *0)' '&&%(),*. 0' *&')+%' 8 ,55/%' %'$' . *)' */2', . ' *7%$(*8, . -' *4; 0)$1(),*. ' *&' +%' 10)'(+,' . ')14%'41)' /0*' '0' '' 8 %' . 0' 42' 3+,(+', . >%(),*. ' *&' &/1,50' 8 '2'+%' '66/,%5')*')+%' (' 7,)2' *&')+*')286',,,, 8 ' . ' 8 '9, . -'10%' *&')+%' ,$ 5*1(+%' . 85,' $1+4%$' 4' -'&,))%5')*')+%' (')+%)%$'0+*1/5'4%%86/*25' ' . 5', . ' 10, . -' , .>%(),*. 0')*')+%')286' . 18' ' 0,8 ,/' $' $$' . -%8 %.)', 0' . %(%00'$2

@ ' ')' $$+'/' . &/' 8 8 '), * . ' *&')+%' 286' . 18 G= +%.')+%')286' . ,(' ('7,)2' +'0'4%(*8%' , . 7*/7%5' , . ')+%' (')' $$+'/0)'%' *$' 3+%. ')+%' '&&%(),*. ', . 0)%' 5' *&' 6$*(%%5, . -' 16')+%' 10)'(+,' . ')14%0'4%-, . 0' , . ')+%')28 ; 6' . 18' '0' ,)' &$%E1%.)/2'5*%0')+*0%' (+' . -%0' +'7%(*88%. (%5'3+,(+' *&' ' ')+%$0' &*$8')+%' 8*0)'&$%E1%.)', 86%5, 8%.)0')*')+%'(*. 51(;),*. '*&' 0*1. 5G, . ' *)+%$' 3*$50' 3+,(+' 8 '9%)+%' 014>%()0', . ' 3+*8')+%2' '$%' &*1. 5' 8*$%' *$' /%00' 5%' &H ' . 5',)' 8 '2' 4%' 4$*'5/2' 0)')%5')+')')+%' %B)%.)')*' 3+,(+')+,0' '&&%()*. ' ,0' $%; 8 %5, '4/%' 5%6%. 50' 5,$%()/2'16*. ')+%'), 8 %')3+,(+')+%' 6')%.)0' 01&&$, . -' &$*8',)' '66/2'&*$')$%')8 %.)' . ')+%' %'$/2' 0)' -%0')+%' *40)$1(;),*. ')*')+%'6'00'-%'*&' 0*1. 5')+$*1-+')+%')28 ; 6' . 18', 0' 0*/%/2' 51%')*')+%' %&&10,*. ' *' 6'$(+8%.)R' ' . 5' , . ')+,0' 0,)1'),*. ' ' . 5')+,0', 0' %'0,/2' 5%8*. ; 0)$'))%5' 42')+%' 8*,0)' -1$-/, . -' 0*1. 5' 3+,(+', . &/'),*. ' *&')+%')286' . 18' 6$*51(%0' '0' 8 '2' 4%' +%' $5' 16*. ' (*. . %(), . -')+%' %' $0' *&)+%' 6'),%.)' . 5' 01$-%*. ' 42' 8 %' . 0' *&' ' 6,%(%' *&' , .5, ' $144%$')14, . -=' &)%$3' $50'(*8%0'3+')' 8 '2'4%')%$8%5')+%' 5$2'0)'-%' ' 3+%. ')+%' &/1,5'6*$),*. ' *&')+%' 81(10' +'0' 01&&%$%5' '4; 0*$6),*. ' ' . 5' 3+%. ' ' . 2' *&')+%' 6$*51()0' *&' , . &/' 88 '),*. ' 8 '2'+'7%'4%(*8%' 8*$%' *$' /%00' *$-' . ,0%5' *$' ')' /%')0)', . ' '' (*. 5,),*. ' 3+,(+', &' . *)' , .)%$&%$%5' 3,)+' 01&&%$0' . *' &1$)+%$' (+' . -%' +%' 8*$4,5' (*. 5,),*. 0' 3+,(+' $%; 01/)' &$*8' . *. 618/%.)' (')' $$+' *&')+%')28 ; 6' . 18' '$%')3*&*/5' ,$50')+*0%' 3+,(+' '&&%()')+%')286' . ,(' 8 %84$' . %' ' . 5' '$%')+%$%&*$%' 5%8*. 0)$'4/%' 51$, . -' /,&%H 0%(*. 5/2')+*0% 3+,(+' '$%' 8 %)' 3,)+' &)%$' 5%')+' . ')+%')28 ; 6' . ,(' 7,)2' +%' &,$0)' *&')+%0%' , . (/15% (+' . -%0' , . ' (1$7')1$%' , . ' (*/*1$' ' . 5', . ' (*. ; 0,0)%. (%

+%' 0/,-+)%$' (+' . -%0' , . ' (1$7')1$%' +'7%' 4%%. ' . *), (%5' , . ' 06%'9, . -' *&' *40)$1(),*. ' *&')+%' 10)'(+,' . ')14%0'3+,(+' (*. 5,),*. ' . 0' . %; (%00'$,/2' 8 *$%' *$' /%00' 6$%0%.)' , . ' '/' ('0%0' 3+%$%')+%')286' . 18' +'0' 4%%. ')+%'0%')' *&' (')' $$+' ' . 5')+%0%' (+' . -%0' '$%' 8 %)' 3,)+' , . 5%&, . ,)%/2', . ($%'0%5'1.), /')+%' 0)')%' *&' (*8; 6/%)%' (*'60%' !' $%'(+%5

. ')+,0' (*. 5,),*. ')+%' 8 %84$' . %' 3')+%' '66%'$' . (%'*&' 4%, . -', . ' (/*0%' '66*0,),*. ')*')+%' 3' 0' *&')+%')286' . 18' ' . 5' /'66%5' $*1. 5')+%' *00,(/%0'0*')+')+%' &*$80' *&')+%' 8 '//%10' , . (10' ' . 5'0*8%), 8%0')+%'0)'6%0' '$%' 5,0), . ()/2')$' (%'4/%

. '0*' %B)$%8%' . ' %B' 86/%')+%' 8 %84$' . %' ,0' -%. %$' 2' 4*1. 5' 5*3 . ')*')+%')286' . ,(' 3'//' 42' 5+%0, *. 0' +%' &,$0)' (+' . -%' 3+,(+')+%' 8 %84$' . %' %B+,4,)0' ,0' ''/*00' *&' ,)0' /10)$%' . 5')$' . 06' $%. (2',)' 4%(*8%0' *6' E1%' 1$;)+%$' /)%$')*' ,0' , . ' (*/*1$' , . ' ('0%0' *&' /* . -' 0)' . 5, . -' (*. 0,0)' , . ')+%' &*$8'), *. ' *&' 6')(+%0' *&' 4$*3 . ' 2%//*3' A(*/*1$' *&' 6' $(+8%.)R' ' . 5' 3+,)%' '$,'), *+0', . ' (*. 0,0)%. (2' 3, ' , . (/15%)+,(9%. . . -')+$*1-+*1)')+%' 8 %84$' . %' *$' , . ' 6')$)0' *&', ' %06%(, '//2', . ')+%' ('0%0' *&' 5%. 0%(+' /9' 5%6*0,)0' A6+*06+')%' *&'/, 8 %RH ' . 5')+, . ; . , . -', . ' 6/' (%0' 0*' *40$7' 4/%' 0* 8 %), 8 %0')+')', &/'), *. ' 3, /', . 51(%' 4/' 55%$ +9%' 6$*)$10, *. 0' 3+,(+' 0' , . &/'), *. ' , 0' 0106%. 5%5' &' ' 4'(9' - ', . ' (+' . -%0', . ' ' ')+%0%' $%06%()0' (*8; 6/%)%/2' 8 %)' 8 *$6+*0, . -')+%' '66%'$' . (%' *&')+%' 8 %84$' . %' &)%$' 5%')+' 3,)+, . ')+%

H +,0')14, . -'0+*1/5' '/3' 20' 4%' 10%5' 3+%)+%$', $' *$&/1,50' $%' 4%, . -', . >%()%5')+$*1-+')+%' 10)'(+,' . ')14%'&*$16*. ')+%' *1. 50')+10'+%' $5' '0' 3%/' '0' *. ')+%' 6'), %.)<0' *3. ' 6%$(%6), *. '5%6%. 50')+%' '. 03%$')*')+%' E1%0), *. ' 3+=+%$')+%', . &/'), *. ', 0' (*86/%%

)286'.18'8'24%&*1.5'(*//%(),*.0'*&'5$,%5'81(10'$*1.5')+%'*00,(/%0H)+,(9%.,.-'*&')+%'/,.,.-'8%84$'.%H4'.50'*&'5+%0,*.',.'//'5,$%(),*.0H''.5''.92/*0,0'*&')+%'*00,(/%0')*'%'(+'*)+%$'0'3%//'0'4%)3%%.')+%'0)'6%0'.5'&%.%0)$''*7'/,0

0'55),*.'/'%7,5%.(%'51$,.-'/,&%'*&'*4;0)$1(),*.',.')+%')286'.18',)'8'24%8%.;),*.%5')+')'0*1.50'&$*8''7,4$'),.-')1.,.-.'&*$9'6/'(%5'*.')+%'7%$)%B'$%',.)%.0,&,%5'3+%.'01(+'*40)$1(),*.'%B,0)0''.5')+%'.%$7%'$%;8',.0',8,86',$%5'+,0')%0)',0'%06%(,'//2'7'/1'4/%'3+%$%'*.%'%'$',0'+%')/)+2',.'081(+''0')+%'0*1.5'3,/'4%'+%'$5'%B(/10,7%/2'*.')+%'5%'&0,5%')+,0'4%,.-'51%')*')+%'&')('))+')'7,;4$'),*.0'*&'0*,85')+10'(*.7%2%5')*')+%''15,;)*$2'.%$7%'*.')+%,$'6'00'-%'*1)3'$50')+$*1-+')+%')286'.18'8%%)'3,)+')+%'*40)$1(),*.',.'.)+,0'6*0,),*.''.5''$%'$%&/%()%5'*.')*')+%'/'42;$,.)+'+%'66%'$'.(%0'4*7%'5%0($,4%5')*-%)+%$'3,)+')+%'+,0)*$2'*&')+%'('0%'0%$7%01&&,(,%.)/2')*'5,0),.-1,0+'&&%(),*.0'*&')+%(*.51(),..-'&,*8')+*0%'*&')+%'.%$7*10'66';$')10H''.5')+%'0*1.50'3+,(+''$%'6$*51(%5'16*.',.&/'),*.'*&')+%')286'.18'3+%)+%$'*&''8*,0)'*$5$2'(+'$')(%$'-,7%'%7,5%.(%''0')*3+%)+%$')+%'81(10',.')+%'('7,)2'*&')+%')28;6'.18',0',.''8*$%'*$/%00'&/1,5'0)')%''*$'+'0'$%'('+%5')+%'5$2'0)'-%'3+%$%')+%'&/1,5'6'$)'*&')+%'0%($%),*.'+'0'4%(*8%''40*$4%5')+%'8*$%0*/,5'6*$),*.'$%8',.,.-

!G.')+%'&,$0)'*&')+%0%(*.5,;),*.0')+%',./')',*.')'*.(%',.($%'0%0')+%'+%'$;,.-'6*3%$H0,.')+%'0%(*.5',)'6$*51(%0'.*'(+'.-%',.')+%'+%'$,.-'.',.5,(',),*.',.')+,0'5,$%(),*.',0''8*0)'10%&1/'-1,5%',.'$%06%()'*&)$%')8%.)'3+,(+'8'2'4%0',5')*',.(/15%',.;>%(),*.0'*&'&/1,5'*$'7'6*1$0',.)*')+%'('7),,%0'*&')+%')286'.''.')+%'8')))%$'*&')+%'0%/%(;),*.'*&')+%0%$%8%5,%0')+%'-$%')%0)'5,7%$0,)2'*&'6$'(),(%'%B,0)0',.')+%'+'.50'*&'('6'4/%'1)+*$,),%0'0),.-%.)'0*/1),*.0'*&'01/6+')%'*&'C,.('/9'/,.%',.>%(),*.0'*&'4,('$4*.')%'*&'0*5,18',*5,5%'*&'6*)'00,18'(+/*$,5%'*&''8;8*.,18''.5')+%'7'6*1$0'*&',*5,.%'(+/*$,5%'*&''88*.,18'%'(+''.5''&,.5'&'7*1$'&'&/1,50'$%',.>%()%5''&%3'5$*60'.-/2'$%')*'4%',.)$*51(%5')+$*1-+')+%'10)'(+,'.'(')+%)%$''08'//'41/4'*&',.5,'$144%$'4%,.-'10%5')*'&*$(%')+%'&/1,5')+$*1-+')+%'(')+%)%$''6*1$0'$%'%86/*2%5'42'8%'.0'*&')+%'8'.2''66';$')10',.'.)+%',.0)'.(%'*&'(')'$$+'/'&&%(),*.'*&')+%'8,55/%'%'$'42')+%'%B)$%8%=')',0&'(;)*$2'%$8,.'),*.'*&'('0%0')$%')%5'%'$/2',.')+%'5,0%'0%''.5')+%'0/,-+')'$%/,%&'3+,(+'41)*)**'*&)%.'&*'30'3+%.')+%''&&%(),*.'+'0'4%%.''//*3%5')*'6$*(%%5'&*$'2%'$0'1.(+%(9%5'.01(+'*'0%0''0')+%'/'))%$')+%'&')()')+')'(*.'0,5%$'4/%'E1'.),),%0'*&',.06,00')%5'81(10'+'7%'4%%.'&*1.5',.')+%')286'.,('('7,),%0'&,$0)'01--%0)%5')+%'*6%$'),*.'*&'8'9,.-''.',.(,0,*.',.)*')+%')J.6'.,*'8%84$'.%''.5'''))%86),.-')+%'$%8*7'/'*&'81(10')+$*1-+')+%',.(,0,*.'42'6'00,..-''0)$%'8'*&',$')+$*1-+')+%')286'.18'+,0'6$*(%%5,.-'3,)+'(%$)',.'8*5,&,(',)*.0'&)%$3'$50',.)$*;51(%5',0'.*'5*14)7%$2'10%&1/',.'('0%0'&'7*1$;'4/%'&*$',)0'%86/*28%.)'41)',)'0+*1/5'4%'$%0%$7%5'&*$)+*0%'3+,(+'+'7%'5%&,%5')+%'/%0'0%7%$%'8%'.0''.5'3+%$%')+%$%',0'1.8,0)'9;'4/%'%7,5%.(%'*&''.'*40)$1(),*.')*')+%'6'00'-%'*&'0*1.5')+$*1-+')+%')286'.18'B6%$,;8%.)0'3,)+')+%')1.,.-&*$9''/$%'52'$%&%$$%5')*'-,7%'7'/1'4/%'%7,5%.(%',.')+,0'5,$%(),*.H41)'&*$''5%)','/%5''((*1.)'*&')+,0'8%)+*5'*&)$%')8%.)',.)*$*51(%5'0*8%2%'$0'-*'42')+%'/')%'$',.)*.')+%'$%'5%$',0'$%&%$%5')*'X3%0'"'&'0'1&&,(%,)')*'0'2'+%$%)+')'.',.(,0,*.''4*1)'.%%,-+)+'*&'.',.(+',/%.-)+',0'8'5%',.')+%'6*0)%$,*$'0%(),*.'*&')+%'8%84$'.%'3,)+''(')'$'()..%%5/%''.5')+$*1-+',0'*6%.,.-'.'))%86)',0'8'5%')*'%B6%/&$*8')+%')286'.18')+%'8*$4,5'0%($%),*.')',0'.*)'3,)+,.')+%'(*86'00'*&')+,0'$),(/%')*'$%&%$')*')+%'8'.2'*6%$'),*.0'3+,(+''+7%51$,.-')+%'6'0)'&,&)%%.'2%'$0'4%%.'01--%0)%5'&*$')+%'$%/,%&'*&')286'.,('&&%(),*.0'41)''0',.'8*0)'*&')+%0%'*'0%0')+%$%',0'.*'5*14)')+')+%'81(10'8%84$'.%'+,(+'/,.%0')+%')286'.,('7'),)2',0')+%'6$,8'$2'0%')'*&')+%'5,0*$5%$'.*)01&&,(,%.)'01((%00'+'0')%.5%5')+%0%'%&&*$)0')*'0)'.5')+%')%0)'*&'),8%'*$'6$*4'4/2'0*8%'*&'+%8'3*1/5'4%'6$'(),0%5'+'4,)1'//2'42'1$'/01$-%*.0',.')+,0'(*1.)$2'.')+%'*.),..%.)'.5',.'8%$,(''1(+'+*3%7%$',0'.*)')+%'%'0%'.%'*&')+%'('10%0'*&'&'./1$%',.''//*6%$'),7%'8%'01$%0'*.')+%')286'.,('8%8;4$'.%',0')*'4%'&*1.5',.')+%'&'()')+')',)',0',86*00,4/%')*'9%%6'.2'*6%..-',.')+,0'0)$1(;)1$%'&$*8'+%'/,.-'+')'01(+'))%86)0''))$%/,%&'0+*1/5'+'7%'4%%.'8'5%',0'.*)'01$6$,0,.-'3+%.',)',0'$%8%84%$%5'+*3',.)$'()'4/%'0*8%*&')+%0%'('0%0''$%'+*3'*.%*&')+%'&*$8'0'*&(')'$$+'3+,(+'&&%()'0')+%')286'.18',0'0/*3'.5',.0,5,*10',.',)0'6$*-$%00'.5'01&&,(,%.)/2'5,0),.(),7%',.',)0'(+'$'()%$')*'+'7%''66/,%5')*',)'42'-%.%$'/'(*.0%.)'))+%')%$8'0)'/#?'1$1/%.)'')'$$+'*&')+%'28;6'.18``%$&*$'),*.G+%&*$8'*&)28;6'.,),0',.'3+,(+')+%'%&&10%5'6$*51()0'4%(*8%61$1/%.)',0''.'(1)%''.5'-%.%$'//2''.'%B;)$%8%/2'6',.&1/'&&%(),*.'01''//2')+%'610'$'6,5/2'8'9%0',)0'%0('6%&$*8')+%)'42')+%&$%%'66/,(''),*.'*&'/%%(+%0',.'&$*.)'*&')+%)$'-10'&*//*3%5'42'&*8%.)'),*.0'41)'8*$%%*&%.')+'.'.*)')+%8%84$'.%'+'0'-,7%.'3'2'4%&*$%')+%6'),%.)'(*8%0'1.5%$*40%$7'),*.'7%.')+%.

,&')+%')286'.,(''(7,)2'4%'%86),%5'*&')+%'6.0'42')+%'&$%%'10%'*&'*/,)C%$<0'',.&/'),*.''.5'$%6%')%5'02$,.-,.-''+%'*6%.,.-'3,//'*&)%.'(/*0%'''.5'/%'7%'7%$2'/,))/%',.5%%5'0*8%),8%0'+'$5/2'.2''66$%(,'4/%'5%'&.%00'&'+*3;%7%$''61$1/%.)'5,0(+'$-%')+$*1-+')+%'*6%.;,.-'4%'//*3%5')*'-*'*.'1.+%%5%5'&*$'.2'/%.-)+'*&'),8%',)'+0')+%'%B(%6),*.'&*$')+%'6%$&*$'),*.')*'+%'/'+,0'(*.5,),*.',0'(*.;0)'.)/2'0%%.''&)%$'0('$/%)'&%7%$'8%'0/%0'*$''.2'*&')+%'%B'.)+%8')''''6%$&*$'),*.'*&')+%')286'.,(''8%84$'.%'6$%0%.)0'.',.&,.,)%'7'$,%)2'*&'06%()0'&$*8''08''//6.+*/%')*'.%'$/2'(*86/%)%'/*00'*&')+%'8%84$'.%'41)'+%$%'3,//''/3'20'4%''0/,-+)'$%8',.,.-'%B)%$.'/'$,8'*&'8%84$'.%'+,0'/'))%$'0'6%$+'60')+%'8*0)'&$%E1%.)'*&''//'&*$80'*&'6%$&*$'),*.''.5'%06%(,'//2'3+%.')+%'1/(%$';),*.'5')%0'&$*8''.')''(9'*&0('$/%)'&%7%$'/)+*1-+')+%'+'.5/%'*&')+%'8''//%10'*((0,*.;''//2'$%8',.0',)'8*$%'101''//2'(*8%0''3'2',.')+%0%''.5'+%)+%$'('0%0'3+%$%')+%'/*00'*&'),001%',0'7%$2'%B)%.0,7%'+%'+%'5''*&')+,0'4*.%'+*3%7%$'8'2''/3'20'4%'5,0),.-1,0+%5'1./%00'+%$%'+'0'4%%.'(*86/%)%'5,0*$-'.,0'),*.''*&')+%')286'.,(''(7,)2'8*.-'*)+%$&*$80'*&6%$&*$'),*.'('8*./2'8%')+'8'2'4%8%.),*.%5')*0%',.'3+,(+')+%''.)%$,*$'*$6*0)%$,*$'+'/&'*&')+%'8%84$'.%',0'/%&)''.5',0'4*1.5%5',.)%$.'//2'42')+%'+'.5/%'*&')+%'8''//%10H)+%'0*('//%5''6%$&*$'),*.'3+%$%')+%'/*3%$'6')'*&')+%'8%84$'.%',0'/*0)''.5')+%'184*'*&')+%'8''//%10',.5,(')%0'+%)+%'6*0,),*.'*&')+%'+,/10'*&')+%'9,5.%2H'.5')+%'08''//'08**)+%5-%5'(,$(1/'$'6%$&*$'),*.'3+,(+',0'(*88*.'=,9%')*''6')$)0'*&')+%'8%84$'.%'((''0,*.''//2')+*1-+'.*)'7%$2'*&)%.')+%')286'.,(''8%84$'.%',0')+%'0%')'*&''5*14/%'6%$&*$'),*.',8,/'$'7'$,')*.0',.'+%'$,.-''((*86'.2')+,0'(*.5,),*.'4%)3%%.'0+-+)'5%'&.%00''.5')*)'/'/*00''*&'+%'$,.-''(*86'.2')+,0'(*.5,),*.'4%)3%%.'6*3%$'+%'0,C%'*&')+%'6%$&*$'),*.''&&*$50'.*'-1,5%',.')+,0'$%06%()'%B)$%8%'/*00'*&+%'$,.-'4%,.-'8%)'3,)+'3+%.')+%'6%$&*$'),*.',0'7%$2'08''/''.5'7%$2'0/,-+)'5%'&$,%00'+%$%)+%'/*00'*&',001%'+'0'4%%.'8*0)'%B)%.0,7%'0*')+')',)'8'2'4%',8+%0,)'),.-/2'0)')%5')+')+%'/*00'*&')+%'8%84$'.%',0'41)',.''7%$2'08''/'5%-$%%')+%'('10%'*&')+%'5%'&.%00',.')+%0%'('0%0')+%'5,0*$-',&,0'),*.',.')+%')286'.,('7,)2'8',./2''((*1.),.-'&*$)+,0'1(+'5,0;*$-'.,0'),*.',0''),8%0'0*'(*86/%)%'A%0;6%(,''//2''&)%$'0('$/%)'&%7%$R''0')*',.(/15%')+%'/*00'*&''//')+%'*00,(/%0')*)'/'5%'&$,%00'.5'6'$'/20,0'*&')+%'810(/%0'0166/,%5'42')+%'6*$),*'51$''7%$2'08''//'6%$&*$'),*.',.')+%'.)%$,*$'.5'016%$,*$'6')$)'*&')+%'8%84$'.%'8'2'&$*8',)0'6*0,),*.'%0('6%'.*),(%'41)')+%'5,'-.*0,0'('.'4%''/3'20'7%$,&,%5'42')+%'&'(,/,)2'3,)+'3+,(+''.$'8'2'4%'8'5%')*'6'00'+)+$*1-+')+%'*6%..,-'*$')+%'$%7%$0%'6$*7,5%5')+')+%'(*881.,(',)*.'4%)3%%.')+%'10)';(+,'.')14%''.5')+%')286'.18',0'.*)'(/*0%5'42',(,(')$,(,'/'),001%G''7%$2'$'$%'(*.5,),*.'3+%.'0*'))/%'*&')+%'8%84$'.%'+'0'01&&%$%5'),/(%$'),*.

.%'*)+%$'&*$8'*&'6%$&*$'),*.'5%0%$7%0'8%.),*.''$')+%$'*.''((*1.)''*&',)0'&$%E1%.(2')+'.',)0',86*$)'.(%'.'8%/2'6%$&*$')*.''*&'+$'6.%//<0'8%84$'.%'3+,(+',0')+')'6')$)'*&')+%'8%84$'.%6$*6%$/2,..-'>10)''4*7%')+%'0+*$)'6$*(%00'*&')+%'8''//%10'/(%$'),*.''*&')+,00 8''/'$%''3+,(+',0'8%$%/2''6$*)%(),7%'8%84$'.%8'2'%B,0)',)+*1)'.2',86*$);,.)'*'+%'$%8',.5%$'*&')+%')286'.,(''8%84$'.%',0'%),)+%'$%8',.5%$'*&'3*1/5'66%'$)*'6%$&*$8'.*'&,8(),*.'0*'&'$''0''(*.51(),.-'8%5,18',0'(*.(%$.%5'41)',)',0',86*$)'.)'*'4%'$',6'8,.5')+')'3+%.''.)',0'6%$&*$')%5')+%'/%0,*.'',0''))',8%0'(*..%()%5'3,)+'%B6*0%5'4*.%

! G +%')$%')8%.)'*&'61$1/%.)')286'.,),0'.5'6%$&*$'),*.'3,//,.(/15%'0;0,51*10'(/%'./,.%00H9%%6,.-')+%')'10)'(+,'.')14%'&$%%'&$*8'*40)$1(),*.H'.5')+%'10%'*&'/*('/'$%8%5,%0'8*.-0)')+%'8*0)'10%&1/'*&')+%0%''$%'3%'9'0*/1),*.0'*&''/(*+*/''.5',.'01&/&'),*.'*&'-'//,('(,5'*$'4*$,('(,5'0')+%'(*.5,),*.'*&')+%'%'$',86$*7%0'1.5%$'7'0)/2',.($%'0%'3+%.',)'+'0'.*)'4%%.'(*8;6/%)%/2'/*0)H41)')+%$%'0),//$%8',.0')+%'6&)',8%0',.7'/1'4/%''66/,('),*'*&'3+')'/06*9%.'*&''0')+%'8%84$'.%''&'//9,.50')+%'4%0)'1.5*14)%5/2',0')+%'&/')))%.%5'6'5'*&'8*,0)%.%5'(*))*.3**/''66/,%5'42')+%'6'),%.)'%7%$2'8*$.,-'3,)+''6',$'*&'&*$(%60'(*.;0)$1()%5'&*$)+%'61$6*0%'.),/')+,0'4%')$,%5',.'%'(+'(''0%',)',0',86*00,4/%')*'0'2'3+%)+%$',)'3,//5*-**5H41)'3+%.',)',0'10%&1/G'0',)',0',.''''/'$-%.184%$'*&'('0%0G42',)0'+%/6')+%'6'),%.)'3,//$%(*7%$'7%$2'-**5'+%'$,.-''.5'+,0'%7%.'3+%.')+%'6%$&*$'),*.'+'0'%B,0)%5'&*$''6%$,*5'*&'8'.2'2%'$0'+')',)0'%&&%()0'5%6%.5'16*.')+%'0166*$)'3+,(+',/-,7%0')*')+%'*00,(/%0')+10'$%%0)''+/,0+,.-')+%'.*$8'/6$%0;01$%'*&')+%'0)'6%0'16*.')+%'&%.%0)$'')%5''*7'/,0'+'0'4%%.'1.E1%0),*.'4/2'5%8*.0)$')%5;'*/2610G.%'*&')+%'8*0)'&$%E1%.)'(*86(',*.0',.'('0%0'*&'6%$&*$'),*.'*&')+%')286'.,(''8%84$'.%',0'6*/J610''')%$8'%86/*2%5')*'5%0,-.')%''&/%0+2')18*1$',.')+%'%'$'/)+*1-+'6*/26,'Z$%*((0,*.''//2'6$%0%.)'.')+%'8%')10',.5%6%.5%.)/2'*&6%$&*$'),*.'+%'8*0)'101'/0,)1'),*.'&$*8'3+,(+')+%2''$,0%',0')+%'/,.,.-'8%84$'.%'*&')+%')286';.18''8%),8%0')+%'%B'()'6*,.)'*&'*$,-,.',0')+%'%5-%'*&''6%$&*$'),*.'''0$*(2')+%'0,5%0'*&')+%'8%')10'.'0,C%')+%0%'-$*3)+0'7'$2'&$*8''08''//6$*)$10,*.')+$*1-+''6%$&*$'),*.')*''18*1$'3+,(+'%.),$%/2'&,//0')+%'8%')10'.5'6$*>%()0'%B)%$.'//2'&$*8')+%'%'$'.')+,0'/'))%$',.0)'.(%')+%'-$*3)+'6$%;0%.)0''7%$2'5,0),.(),7%''66%'$'.(%'.*)1./,9%''$'064%$$2'%(),*.0'*&'1$'/6*/26,'+'$5%.%5',.'(+$*8,('(,5'3,)+'&%3'B(%6),*.0+*3')+%'0)$1()1$%')*'4%'&,4$*(%1/'$')+%'&,4$*10'%/%8%.)'6$%6*.5%$'),.-'*7%$')+%'%%/')5'$',.'6$*6*$),*.')*')+%'-%'*&')+%')18*1$61$6*0%''$%')+%'$%()'.-1/'$'$,.-'6*/2610

&*$(%60' *$',.')+%' ('0%' *&' '' /'$-%' -$*3)+' '' ./5%<0' 0.'$%' 3,..-')*')+%,$' $%8'$9'4/%)%.5%.(2')*' $%(1$'$%8*7'/',0' *./2')+%' 6$%;/,8,..'$2'0)%6',.')$%')8%.)' +%' 6$,.(,6'/6'$)' *&')+,0'(*.0,0)0',.')+%,$'(*86/%)%' %$'5,;(')',*.'42'('10),(0' &')+%0%')+%'8*0)'%&&,(';(,*10'.5'(*.7%.,%.)',0'(+/*$* '(%),*' (,5'' .5'/')%$',.')+%')$%')8%.)'.,)$')%' *&'0,/7%$' +%'(,5'0+*1/5'4%' '66/,%5'3,)+' -$%')' ('$%' ,2'10,..-',)' *.')+%'6*,.)' *&' '' 6$*4%' 5%&%.5%5'42' ''08'/'')3,0)'*&'(*))*.'.5'' (*.7%.,%.)'&*$8' *&' .,)$')%' *&' 0,/7%$',0' '' 41/4' *&')+%'8%/)%5'0'/)' &10%5' *.')*' '' 6$*4%' *$' 6/'),;.18' 3,$%' +%' ('10),(' 0+*1/5'4%' '66/,%5'5',/2' &*$' 0*8%'),8%' '&)%$')+%' 6*/2610' +'0'4%%.'$%8*7%5''.5')+%./%00'&(%E1%.)/2' +%')$%')8%.)' 0+*1/5' '/0*' ,.(/15%')+%' 0'8%0($161/*10' (/%'./,.%00' .5'66/,(',*.'*&'0;)$,.-%.)0'0*' 5%0,$'4/%',.')+%'%'0%'*&'6%$&*$';),*.0')',0'0,8 6/2')*')+%'3'.)' *&' '))%.),.*.')*'5%)',/0')+')'&',/1$%',.')+%')$%')8%.)'*&''1$'/6*/2610'8'2'4%' '0($,4%5

!($' ' #' !('' "'

' . '6 G +,0'0'51%')*',.&/'8;8'),*.''$*1.5')+%'6*$),*'51$''.')0'6'00'-%')+$*1-+')+%' 'E1%51()' *&' //*6,10' +%.'01661$'),*.' .')+%')286'.,(' (7,)2' 3,)+'('$,%0'*&')+%'4*.2'('/'6$%(%5%0'*$' '((*8;6'..,%0')+%' /*00'*&'&1.(),*.',.')+%' .%$7%'$%;(*7%$2',0'+*6%/%0 H 41)' 3+%.')+%'6'$'/20,0'&*//*30'''014'(1)%'(')'$$+'*&')+%')286'.18'.*)'%.5,.-',.''6%$&*$'),*.'.'0',0'0*8%),8%0'+%'('0%')+%'6'$'/20,0',.'),8%'5,0'66%'$0'.*'/%00'(%$)',./2')+'.'3+%.',)',0'5%6%.5%.)'16*.''.''&&%(),*.'*&')+%' .%$7%'')''6*,.)''&)%$',)0'%B,)'&$*8')+%')%86*$'/4*.%

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"0 G +%.')+%'8'0)*,5'(%//0'4%(*8%')+%'0%')' *&',.&/'88'),*.')+%'6',.')%.5%$.%00''.5'6,)),.-'*.'6$%001$%'*7%$')+%' .'0)*,5'6$*;(%00'3,//')'*.(%'01--%0)' '.'%'$/2',.(,0,*.'5*3.')*')+%'4*.%''.5',)'8'2'4%)$1/2'0',5')+')'+,0',0'*&)%.'5%/'2%5')*'/*.-'' '.5'6%$+'60',0'.%7%$' 5*.%')*'' 0**.' -',.'3+%.')+%'0286)*80'6*,.)'5%&,.,)%/2')*' 610'3,)+,.')+%'8'0)*,5'(% 0')+%'4*.%'0+*1/5'4%'6,%$(%5'0*'0')*' 8'9%')+%'%B)%$.'/*%.,.-'(*881.;'()%'&$%%/2'3,)+')+%'(%//0' %/,%&'-,7%.',.')+,0'3'2'3,//*((')0,*.'//2'4%')+%'8%'.0'*&'0'7,.-' &%'42'6$%7%.),.-')+%'40*$6),*.'*&'6*,0*.%5'8')%$,'/',.)*')+%'/')%$'/0,.10' %;0,5%0'620%8,'')+10',.51(5''*)+%$'&')'/,001%0'3+,(+'01661$'),*.',.')+%'8,55/%''%'$'&$%;E1%.)/2'%.)',/0'+'7%')+%,$'0)'$),.-6*,.)',.')+%')286'.,('('7,)2''.5',.'01(+',.0)'.(%0'(%$%4$'/'40(%00'*$'8%.,.-,),0'8'24%')+%',8;8%5,')%'('10%'*2'5%')+' .')+%'/'))%$'('0%''' '%B'8,.'),*.'$%7%'/0'610',.')+%'$'(+.*,5'('7,)2'*$'4%)3%%.')+%'$***&'*&')+%')286'.18' '.5')+%' 51$''8')%$H ,.')+%'&*$8%$'('0%')+%'0%')'*&')+%' '40(%00'8'2'4%%,)+%$',.')+%'(%$%4$18'*$ (%$%4%//18H)+,0'6*$),*.'*&')+%'4$',.'A)+%'(%$%4%//18H 4%,.-'8*$%'-%.%$'//2')+'1-+'.*)'/3'20')+%'6'$)''&&%()%5'3+%.')+%' 8'0)*,5'(%//0'$%',.7*/7%5''0'3%//')+%')286'.18

+%' %B6%$,%.(%'*&')+%'6'0)'&%3'2%'$0'+'0'86/2'5%8*.0)$')%5')+%'01((%00'3+,(+'+'0'))%.5%5')+%'*6%$'),%.'*&')$%6+,.,.-',.')+*0%'('0%0'3+%$%'0286)*80'6*,.)')*' (%$%4$'/'40(%00'$')+%$')+'.')*' -%.%$'/' 8%...-,),0' +%'*6%$'),*.'0+*1/5'4%'5*.%'1.5%$'0)$,()/2'.),0%6),(' (*.5,),*.0H)+%' 6*,.)' 0%/%()%5'0+*1/5'4%'*7%$')+%')%86*$*06+%.*,5'/'/*4%H'.5'3+%.'610',0'&*1.5''&)%$'.'%B6/*$'),*.')+$*1-+')+10'*6%.,.-')+%' 3*1.5'0+*1/5'4%'9%6)'('$%&1//2'5$',.%5

')'/')%$8.,.')',*.0'*&')+,0'.')1$%'8*0)'&$%E1%.)/2'*((1$'3+%.'(/%'./,.%00'.5'/*('/')%')8%.)'*&')+%'%'$'+'7%'4%%.'.%-/%()%5'&,%.(%')+%'.%(%00,)2'&*$'01(+'('$%1)')+%'&%%)')+')'%7%.',.85%$')+%'8*0)'&%7*1$'4/%'(*.5,),*.0'01(+'%7%.)0'$%'6*0;0,4/%'3+%.')+%$%',0''&,0)1/*10'*6%..-',.')+%)286'.,('(7,)2'0+*1/5',.51(%'('1),*.'3,)+',.01$'.(%'*&&,(%0',.''((%6),.-')+%'/,7%0'*&'6%$'0*.0'3,)+')+,0'/%0,*.''')'+$*5,.'$2'6$%;8,180'')'/'('0%0'*&')+,0'9,.5'8,-+)'0%%8'',.'6$'(),(%')*'4%''/8*0)'5,7,0,4/%',.)*')3*'(/'00%0G.'8%/2')+*0%'.,.'3+,(+'(%$%4$'/'0286)*80'(*8%'*.'0*'.')+%'0%$&*$')+%$%'+%$%'+'0'4%%.('*8%')+%'0%')'*&'('$,%0'*&')+%'8'0)*,5'(%'0')+%'4*.%'0+*1/5'4%'*7%$')+%')%86*$'/'4*.%'+'0'4%(*8%')+%'0%')'*&'('$,%0'*'.5',)'8'2'4%0)'%5'014>%()'*'.'*'%B(%6),*.0')+')'3+%.;%7%$'%B6*0%5'4*.%'('.'4%'5%)%()%5'42'8%'.0'*&'%B'8,.'),*.'3,)+''6$*4%'3,)+,.')+%'('7,)2'*&')+%')286'.18')+%'014>%()0'*&')+,0'(*.;5,),*.'$%'/3'20'8*$%'*$'/%00',.''6%$,/;*10'0)')%'.5')+')'')'.2',8%&')'/'286;)*80'8'2'(*88%.(%'3,)+''0%7%$%$,-*$')+%'%'$/,%0)'*&''//'01((%%5,.-'0286)*80'*$')+,0'$%'0*.'%7%.'3+%.'%B6*0%5'4*.%'(''.*)'4%'40*/1)%/2'5%8*.0)$')%5',.')+%'3'2'8%.;),*.%5')+%'%B,0)%.(%'*&'4*.%-$'.,&/'),*.0'3+%$%')+%$%',0''6%$&*$'),*.'*&')+%')286'.,('8%84$'.%'0+*1/5'4%'$%-'$5%5''0''' 8*0)'0%$,*10'(*86/,(',*.'+%'0'8%5'.-%$')+*1-+',.''7%$2'81(+'/%00'5%-$%%'8'2'4%0',5')*'4%'6$%0%.)'3+%.'5%'5'4*.%''.'4%5%)%()%5',.')+%'8'0)*,5'6$*(%00G,.''/%00'5%-$%%'4%('10%')+%'*1)%$')'4/%'*&')+%'4*.%,0'*&)%.'&&%()%5'3+,/0)')+%',..%$'$%8',.0'+%'/)+2'+%'5'5'4*.%')+%.','+)+%'&*$8%$6*0,),*.'4%(*8%0'%B&*+')%5''.5')+%'%B)%$.'/3*1.5'+%'/0'1(+'$%'4$,%&2')+%'6*,.)0'&*$,86*$)'.(%',.'*.%B,*.'3,)+'('$,%0'*&')+%'8'0)*,5'(%'0')+%'4*.%,0'*&)%.'&&%()%5'3+%'8'0)*,5'(%//0'$%',.7*/7%5''0'3%//')+%')286'.18'.5'')+%'51$''8')%$H,.')+%'&*$8%$'('0%')+%'0%')'*&')+%'40(%00'8'2'4%%,)+%$',.')+%'(%$%4$18'*$(%$%4%//18H)+,0'6*$),*.'*&')+%'4$',.'A)+%'(%$%4%//18H4%,.-'8*$%'-%.%$'//2')+'1-+'.*)'/3'20')+%'6'$)''&&%()%5'3+%.')+%'8'0)*,5'(%//0'$%',.7*/7%5''0'3%//')+%')286'.18

. ' ')' 5,0%'0%' *&')+%' %'$' , ' ' +,(+')+%' ('7,)2' *&')+%')=6 ' . 1 8 ' + ' 7, . -' 4%%. ')+%' 0%')' *& 01663$'); *.' &*$' 0* 8 %')1 . % ' 4%(' 8 %' '&&%()%5' 3,)+' %6,)+%/,'/ -$*3)+' 3+,(+' ('10%5')+% 5%')+' *&')+%' 6 '),%.)' $* 8' '// $%(*$5%5' ('0%0' *&' 8 '/,- . ' .)' 5,0%'0%' *&')+%' %'$' '0' 3%//' '0')+*0%' 3+,(+' +'7%' (* 8 %' 1 . 5%$')+% 3$,)%$*0' . *'),(%',)' 3 *1/5' 0%% 8')+')')+%' 0%')' &*$,-,. ' *&')+%' . %3 -$*3)+' 3 ,// 4%' &*1 . 5')*' 4%')+%' /,. ,. -' 8 %8 4$' . %' &')+%')2 8 6' . ,('('7,)2' ' . 5')+')' '' 61$1/%.)' 5,0(+'$-%' &$* 8')+,0' 01$&'(%' '/3 '20' 6$%(%5%0')+%' '66%'$' . (%' *&')+%' (' . (%$' ' . 5' 8 10)')+%$%&*$%' 4%' $%- '$5%5' '0')+%' %B(,),. -' ('10%'*&')+%' -$*3)+' . ' ,)0' %'$/2' 0)' -%0' ('. (%$' ,. ')+,0' 0,)1 '),*. ' 4%' $0' '' 0)$* . -' $%0% 8 4/' . (%')*')+%' *$5,. '$2' &*$8 0' *&' 6*/2610 ' +%' 0 ' 8 %' ('. 0%')+%. ' 3+,(+' ,. ' 0* 8 %' ('0%0' ('//0' ,.)*' 4%,. -' '6*/2610 ' 8 ' 2' *((' 0,*. '//2' -,7%' $,0%')*' 8 '/,- . ' .)' 5,0%'0%' ' . 5')+,0' 3,)+*1)' . 2'6$%5,06*0,. -' ('10%'A0*' &' $' '0' (' . ' 4%' '0(%$)',. %5R' ,. ') . %' 6 '),%.)')*3 '$50' ('. (%$*10' -$*3)+

$' * G 6'$)' &$* 8' 5%' &,,%00' +%' 8 ,55/%' %' $' 51%)*' /*('/ (+' . -%0', . ')+%' %B)%$. ' /*$' 8 ,55/%' %'$')+%' &1 . (),*. ' *&' +%' $,. -', 0' 14>%()')*', 8 ; 6',$8 %.)' &$* 8' ('10%0' 3+,(+' +'7%')+%,$' 0%')' ,. ')+%' . %$7*10' 0)$1()1$%0' *&')+%' %' $!, . ' *)+%$' 3*$50' ' /)+*1-+')+%' (* . 51(),*. ' *&' 0*1 . 5' 8 ' 2' 4%' -**5')+%' 6%$(%6),*. ' *&' 0*1 . 5' 8 ' 2' 4%' &$,1/)2' +%' ,. ' 4,/,)2')*' +%' $')+%' 7,4$'),*. 0' *&' 0*1 . 5' (* . 7%2%5')+$*1-+')+%' ($' . ,' /*4* . %0' 01(+' '0' &$*6' 7,4$'),. -=')1 . ,. - &*$9' 6'('(%5' 16* . ')+%' 7%$)%B' ,0', . 5,('),7%'*&')+,0' (* . 5,),*. *$')+%' $%0) ')+%' '40%. (%' *&')2 8 6' . ,('5,0%'0%' ' . 5')+%' +,0)*$2' *&')+%' ('0%' 8 10)' 0166/2')+%' %7,5%. (%' $%E1,$%5' &*$' '' 5,' - . *0,0' ' 8 ,/,' $' %B' 8 6/%0' *&')+,0' . ')1$%' '$%')+%' 5%' &,,%00' 3+,(+' *&)%. ' ' ((* 8 6' . ,%0' */5' '-%' *$' 3+,(+',0' /%&)' &)%$' &%7%$0' 3+%. ')+%' 8 ,55/%' %' $' +' 0' . *)' 01&&%$%5H)+%')3*' &*$8 0' *&' 026+,/,),(' . %$7*10' '&&%(),*. ')*' 4%' 6$%0%.)/2' 8 %.),*. %5H)+%' 015; 5%. '' . 5'0* 8 %),8 %0')*)' /'/*00' *&' +%' $,. -' 3+,(+' *((' 0,*. '//2' &*//*3 0' 0%7%$%' 8 %.)' /0+**9H)+%' 5%' &,,%00' &)%$' /*15' %B6/*0,*. 0' . %' $')+%' %' $' 0*' (* 8 8 *. ' ,. ' $),//%$2 8 %. ' . 5' . ' 7' /* 8 %. H ' . 5')+')' 3+,(+',0' ('10%5' 42' 4/*30' *. ')+%' +%' 5' . 5' 4*B%0' *. ')+%' %' $' . '))' (9' *& 8 1 8 60' 3,// 0* 8 %),8 %0' /%' 7%' 4%+,. 5' ' . ',$$%; 8 %5,'4/%' /*00' *&' +%' $,. -', . ' *. %' *$' 4*)+' %' $0' 1 . '))%. 5%5' 3,)+' ' . 2' 5,0(*7%$' 4/%' (+' . -%' ,. ')+%')286' . 18 ' . ' '' 0,8,/' $' 3 ' 2' 3%' 9/2' 3 * 8 %. ' *(('0,*. '//2' 4%(* 8 %' 8 *$%' *$' /%00' 5%' &' 51$,. -')+%,$' (*. &,. % 8 %.)'' . 5')+,0' 02 8 6;)* 8 ' 4%(* 8 %0' '--$' 7')%5' '0' %' (+' 01((%00,7%' (+,/5' ,0' 4*$. ' . ' (* . .%B,*. ' 3,)+')+,0' 014; >%()' 6$*/*. -%5' 01(9/,. -' 8 ' 2' 4%' 8 %.),*. %5' '0' *. %' *&')+%' . 18 %$*10' 5%4,/,)',. -' ('10%0' 3+,(+' 1 . 5*14)%5/2' '--$' 7')%')+%')$*14/%' *&' . ' '/$%' 52', 8 6',$%5' %'$

8 *. -')+%' . %$7*10' '&&%(),*. 0' *&')+%' '15,;)*$2' '66'$')10' 6*00%00,. -' (%$)',. ' (+'$' ()%$; ,0),(0' 3+,(+' 0%$7%')*' 5,0),. -1,0+',)' &$* 8' *)+%$0' ,0')+%' 0*)%$ 8 %5' %. ,%$%<0' 5,0%'0%' ' . '))' (9' *&' 3+,(+')'), 8 %0' -,7%0' $,0%')*' 0286)* 8 0' 3+,(+' 3*1/5' 4%' '/'$ 8 , . -',&')+%,$')1%' *$,-. ' 6'00%5' 1 . $%(*-. ,0%5' '6'),%.)' 3+*' 01&&%$0

, . ')+,0' 3'2',0' 0%,C%5' 3,)+' . '))' (9' *&7%$),-*' 0*' 0%7%$%')+')' +%' . *)' , . &$%E1%.)/2' &'//0' ' . 5' &*$' 0* 8 %' +*1$0' &)%$3 '$50' %E1,$%0' '00,0)' . (%' , . ' 3 '/9, . -H *((' 0,* . '//2' 7* 8 ,), . -' 01((%%50')+%' -,55, . %00H ' . 5' +%' $%(*7%$0')*' &, . 5' +, 8 ; 0%/&' 7%$2' 5%' &' , . ' * . %' %' $' 3 ,)+' 3+,(+' 6$%; 7,*10/2' +%' +'5' +%' $5' 3%//' ,/5%$'))' (90' *&')+%' 0' 8 %' . ')1$%' -%. %$' //2' &*//*3')+%' &,$0)' ' . 5' %' (+' *. %' /%' 7%0')+%' 6'),%.)' 8 *$%' 5%' &' /)+*1-+' 3,)+' 8 ' . 23$,)%$0' ,)' ,0' '' &%7*1$,)%')+%*$2')+')')+%' 0%')' *&' 8 *$4,5' (+' . -%0' ,. ')+,0' 5,0%'0%' ,0' , . ')+%' 0% 8 ,(,$(1/'$' (' 16')*')+%' 6$%0%.)')+%' 6*, .)' +'0' . *)' 4%%. ' 0'),0; &'()*$,/2'5%)%$ 8 , . %5' *')$%')8%.)' '66%'$0')*' %B%$(,0%' ' . 2' , . &/1%. (%' 16*. ')+%' 5,0%'0%'

' $E ?

>)6+,/, G +%' '&&%(),*. 0' *&')+%' D ('51%')*' 026+,/,),(' 5,0%'0%' 5%8 ' . 5' 0%6'$')%' *. ; 0,5%$'),*. ' +%2' *((1$' $85%$')+%' &*//*3, . -' 7'$,%),%0' ,$0)/2' , . ')+%' &*$8' *&' 0*$%0' ' . 5' 3')0' , . ')+%' %B)%$. '/ 8 %')10' 3+,(+' 2,%/5')*' /*(')$%')8%.)' %(*. 5/2' '&&%(),*. 0' *&'), 8 ,55/%' %'$' 51$, . -')+%' 0%(*. 5'$2' 1/(%$';),*. ' *&')+%')+$*')')+%')$%')8%.)' &*, ' 3+,(+' 4%2*. 5' 06%(,&,(' 8 %5,(,. %0', . ' . *' 3 '2' 5,&&%$0' &$*8' 34')' ,0' 10%&1/, . ')+%' *$5, . '$2' (')'$$+' *&')+%' 0' 8 %' 6')0' +,$5/2' &', /1$%' , . ' +%' $; , . -' 6*3%$' 51$, . -')+%' 0%(*. 5'$2' 0)' -%0' . ; '))%. 5%5' 3,)+' . 2' (+' . -%' , . ')+%' 8 ,55/%' %' $' +,0' 5,0'66%'$0' 1. 5%$' (*. 0),)1),*. ' /' $%8 %; 5,%0' *1$)+/2')+%' /*00' *&' &1. (),*. ' , . ')+%' '15,)*$2' . %$7%' 0*' (*8 8 *. /2' 8 %)' 3,)+' , . ')+%' 014>%()0' *&' , . +%$,)%5' 026+ ,0' . ')+%0%' 6'),%.)0')+%' +%' $, . -' 6*3%$' 4%-, . 0')*' &', /' 4%;)3%%. ' &,7%' ' . 5' &,&)%%. ' 2%' $0' *&' ' -%' A7%$2' 0%/; 5*8' /')%$' , . ' +&%R' ' . 5' 6$*(%%50')*' 7%$2' -$%')' ' . 5' *&)%. ')*)' /' 5%' &. %00')+%' 6%$, *5' 4%)3%%. ' -**5' +%' $, . -' ' . 5')+%' %B)$%8 %' 6*, .)' *&' 5%' &; . %00' '$$,7%5' ')' 7' $2, . -' &$*8' '' &%3' 3%%90')*' 0%7%$' /' 2%' $0' $*8')+,0' ('10%' (+,/5$%. ' 0*8 %),8 %0' 4%(*8 %' , . ')+%' (*1$0%' *&' ' 8 *.)+' *$' 0,B' 3%%90')*)' //2' 5%' &' 41)' 01(+' $'6,5,)2' ,0' %B(%6),*. ' /' B6%$,%. (%' +' 0' 0+*3 . ' +*3' 6*3%$/%00')$%')8%.)' ,0')*' '$$%0)')+%' 6$*-$%00' *&')+,0' '&&%(),*. ' 0*')+')'))%.),*. ' 0+*1/5' 4%' (*. &, . %5')*' 6$%7%.),. -',)0' 014>%()0' &$*8' 4%; (*8 , . -' 5184' ,&')+%2' '$%'))' (9%5' '&)%$')+%2' +'7%' '(E1,$%5' 06%%(+' ' . 5' 4%&*$%')+%2' '$%/,9%/2')*' &*$-%)',)' . ' 8 %/2' &$*8' '4*1)' &*1$')*' 0%7%. ' 2%' $0' *&' '-%' +,0', 0' 4%0)' '))', . %5' 42')%' (+,. -')+%8' /,6 $%' 5, . -H ' . 5' ,&')+%2' ('. ' $%' 5' 42' 8 ' 9, . -')+%8' 5*' 0*' ' 0%7%$' /', 8 %0' %' (+' 5' 2' . ')+,0' 3' 2' ''(+,/5' 3,//$%)' 8' ,)0' $%(*//%(),*. ' *&' /' . -1' -%' 3+%. ' *)+%$3,0%%06%%(+' 3*1/5' 6' 00' ' 3' 2'

3 I+ !1 1 !*' (M ! A 0 ' 3')%$0' $' 1

)$Y ' ' (M 1/; 6+1$' 3')%$0' $' 1

" 3 =', #)/ ', 7*$2R G='0)')%' *&' 4* . %),001%' 8' 3+,(+',)' '00,1 . %0')+%' 3+,)%; . %00' 08**)+ . %00' ' . 5' +'$5 . %00' *&', 7*$2', . ' (* . 0%E1%. (%' *&' ' . ', . ($%' 0%5' 5%6*0,)' *&' ('/(' ; $%*10' 8 ')%$')' *((1$0' (+,%&/2', . '$+%18 ,%' '$)+$,),0' ' ? % ! ''

, ' Q &N 9"' '4*$),*.R' G' /,,0' . ' 8 %',0' -,7%.')*')+%' 8 %'01$%0' 3+,(+' 6$*51(%' '4*$),*. ' *$ %B61/0,*.' *&')+%' (*.)%.)0' *&')+%' 1)%$10' .' 8 *5%$')%' 5*0%0' %*4*+(' 5$1-0' 6$' 2' ()' '0' % 8 8 %. ' -*-1%0' ' # #

' F' *1)' *&H' ' .5' >1,(%R G .' %B)$'7'0'),*.' *&' 4/**5' ,.)*')+%' (%//1/'$'),001%' 51%' %,)+%$')*' ,.>1$2' *$')*' 5,0; %'0%')' 6$%0%.)0' ')' &,$0)' '' 8 *$%' *$' /%00' 4/1%' *$' 4/1,0+ 4/' (9' '66%'$'.(%' 3+,(+' (+'.-%0' 3,)+' '-%' 6'00,.-')+$*1-+' -$%%.')*' 2%//*3 ' ' * , A

/ $ ' 6-= L ' '! 73 !$3% 7' 7 772 ' '3) ' $)' 4%$$2 ? ' * +

39 B: ', FF& ' ' &/'0+' ' %B; 6/*5%R G +,0')%$8',0' .*3'10%5'0' '" " "; &*$'(*.71/0,*.0'3+')%7%$'8 '2'4%')+%,$'('10%' ' A%$

' AN ' *1)' *&H' '.5' 5#76*' ' 03%//,.-R G '-$*3)+' &,$*8')+%',.)%-18%.)' +%')%$8'3'0' %86/*2%5' 42' '0*.' **5' '0' '' 5%0,-.'),*.' &*$' 3'$)0' '.5' (*$.0'41)',0' ')' 6$%0%.)' /8*0)' *40*/%)%

' '8'C%R G& # 2 G +%')%$8'0%(0)'02'<+'0' 4%%.' '66/,%5')*' (%$)','.'8*$4,5'0)')%0'*&')+%'.%$7*10'020)%8' ,.' 3+,(+')+%' '))%.),*.' ,0' *((16,%5'%B(/1; 0,7%/2'42' *.%' ,5%' ' '.5')+%' (%$%4$'/' (*.)$*/' ,0',.'6'$)' 3,)+5$'3.'&$*8')+%'/*3%$'(%.)$%0' '.5')+*0%'&*$'(%$)','.'$%&/%B'&1.(),*.0' +%0%' /')))%$'(%.)$%0'8'2'4%',.' ''(*.5,),*.'*&',.%$),' '*$'*&',.014*$5,.')%*'()',7,)2'6$%0%.),.-'7'$,; *10'5,0*$5%$%5'6+%.*8%.''&*$')+%'8*0)'6'$)' 8*)*$

& ' (G= +% 014>%()0'*&' %(0)'),(' 6+%.*8%.'' $%' (*88*./2'*&')+%'&%8'/%'0%B' *$' '$%' 8%.' 3+*' /%'5' (%/,4')%' '.5' '0(%),(' /,7%0' *' 01(+' ,.5,7,51'/0')+%2'*$%' ,.')+%' 6$%0%.)' 5'2' '/8*0)' (*.&,.%5' .')+%' 8,55/%' '-%0' *.' 0%7%$'/' *((''0,*.0' 1.5%$' 06%(,'/' (,$(180)'.(%0''.',..%.0%'5*8,.')'%8*),*.' 3,)+'0*8%'))%.5'.)' %(0)'),(' 8''.,&%0)',*.0' 3'0' 9.*3.')*' 06$%'5'3,5%/2'42' '' 0*$)' *&' 8*$'/(*.)'-,*.

8%.'3+' '$%')+%'014>%()0'*&')+,0' 8*$4,5' 0)')%' '$%' 101'//2'0,.-/%'&,$%E1%.)/2'6$%0%.)' 8%.0)$1'/' ,$$%-1/'$,),%0''.5'*&)%.'5,0),.()' %7,5%.(%0'*&'+20)%$,'''*&'3+,(+')+%'%(0)'),(' (*.5,),*.'8'2'4%'41)'''6')$)' +%',8 8%5,')%' ('10%'*&')+%')'(9',0'101'//2'0*8%'$%6%')%'7,7,5'%8*),*.'(*8 8*./2'$%/,-,*10'0*8%),8%0' *.%'*&'&%'$' +%' 5,$%(),*.')'9%.'42')+%' 8*)*$' *$' *)+%$'6+%.*8%.'' *&')+%'%(0)'),(' 0)')%',0'*&)%.'7%$2'*47,*10/2'5%)%$8,.%5'42' ,8,)','),*.' ,)+')+,0' 5,$%(),*.')+%$%' ,0' '00*(,')%5' ,.' 0*8%' ('0%0')+%' '00%$),*.'*&' 0166*0%5'&')()0' 3+,(+')$'.0(%.5')+%'*$5,.'$2' (*1$0%'*&'.')1$'/6+%.*8%.''.5'3+,(+'+'7%' 4%%.'6$*7%5',.' 8' .2',.0)'.(%0')*' 5%6%.''*.' ,.)%.),*.'/&$'15

0'&*$8 0'*&'%(0)'02'3%'+'7%')+%'(*.5,),*.' *&'0*8%'$%+-,*10'%.)+10,'0)0',.'3+*0%'5*8, .'.)'0)')%''//*)+%$'8%.)'/6$*(%00%0''$% 8%$-%5' $%'80'.'57,0,*.0''$%'5%)%$8,.%5' 42')+%'%(0)'),(' 8*),*.'.'5''55')*',)0',.)%.; 0,)2' *.0(,*10.%00'*&')+%'4*52'8'2'%7%.' 4%'/*0)'0*)+')'.''0%.0'),*.',0'-*.%'&*$'''), 8%H 3+,/%')+%'(*$6*$%'/&1.(),*.0',.(/15; ,.-H,.-%0),*.'.'5'%-%0),*.''$%'$%51(%5')*''' 8,.,818'.'5''' /,))/%'%B'--%$'),*.' 8'2' $%6$%0%.)'+%8'0',.'(*86/%)%'4%2'.(% %.(%')+%'0&'0),.-'-,$/0'<)+')'+'7%'$,0%.' ,.'7'$,*10'(*1.)$,%0'42'3+*8'0 0),-8')''< 8'$90',.')+%'6*0,),*.0'*&')+%'.',/0'%86/*2%5' ,.'($1(,&,B,*.''$%'0*8%),8%0'6$%0%.)%5'6$*4; '4/2'42'$),&,(,'/6$*51(),*.'41)'6*00,4/2' 42')+%,.&/1%.(%'*&')+%'8%.)'/0)')%'*.')+% 6$*(%00%0'*&'.1)$,),*.',.')+%'6')$)0')*'3+,(+' '))%.),*.',0'5,$%()%5' .'0*8%'+2)%$*%6,' /%6),(0''0)')%'*&'%(0)02G*&'$'6)',.)%.0%' %8*),*.G&*$80'6')$'*&')+%' 6'$*B208'/ 0%,C1$%0''.5')+%.'3,/5'810(1/'$'06'080' $%6/'(%')+%')$'.E1,/$%6*0%'*&')+%'86$%'7*/,;),*.'/'%(0)'),(0' ((''0,*.'//2G3+%.'.',.;)%.0%'%8*),*.',0'0+'$%5'42'8'.2'6%$0*.0G' ,.014*$5,.')%'810(1/'$'8*7%8%.)0'*((1$'*& '*$+2)+8,('/'(+'$')(%$'0%%.',.')+% 186%$0' '.5' +'9%$0'*&')+%' 6$%0%.)'5'2''.5'8*$% 0)$,9,.-/2',.'0*8%'*&')+%'5'.(,.-'$%+-,*10' (%$%8*.,%0'*&'+'/& (,7,/,0%5'$'(%0''.5',.')+% 5'.(,.-'%6,5%8,(0'*&')+%'8,55/%''-%0' 1(+' 3'0')+%'*$,-,.'/'5'.(%'*&')' ,)10',.'3+,(+')+%'%B(,),.-'%8*),*.'3'0'$%/,-,*10H '.5'01(+' '/0*')+%'0)'$'.)%//'<,.'3+,(+')+%'%B(,)'.) 3'0')%$$*$' ')+%'0166*0%5'(*.0%E1%.(%0'*&)+%'4,)%'*&')+%')'$'.)1/''3+,(+')+%'5'.(% 3'0',.)%.5%5')*''7%$)' +%'6+%.*8%.''*3' 8'.,&%0)%5',')+%'%6,5%8,(0')+')'+'7%'4%%.' 5%0($,4%5'1.5%$')+%'.'8%*&')+%'0 186%$0< ^(' 8%$,)',.5%%5'8*$%'5%)',/%5'.*),(%'0,.(%)+%2'+'7%'4%%.'*40%$7%5',.'$%8'$9'4/%'5%; -$%%'.5'(*.06,(1*10'&*$8',.'(%$)',.'$'(%0' ,.'3+*8')+%'6$*(%00'*&'4$',.'5%7%/*68%.)' (*.(%$.%5',.'3+')'3%')%$8'0(,7,/,0')*.< ,0',)'9,.-'6/'(%G3,)+''0/*3.%00')+')',0'6$*4; '4/2'/,9%')26,('/'0'$%-'$50')+%'6'0)''.5' ,.0)$1(),7%'0')*')+%'6$*(%00' +%'(*.5,),*.0' %06%(,'//2'&'7*1$'4/%'&*$')+%'5%7%/*68%.)'*&)+%0%'5,0*$5%$0'66%'$')*'4%'-%.%$')%5'42')+% (/*0%'(*.)'()'*&'01(+'$'(%0'3,)+'+%0%',.' 3+*8')+%'6$*(%00'*&'%7*/1),*.'*'&')+%'.%$; 7*10'020)%8'+'0'4%%.'('$$,%5'&')+%$H'.5')+%'/%00'5%7%/*6%5'*$-'.,0'),*.',0')$'.%5'42' '' (*.%B,*.'3+,(+',)'0'.*)'0)$*.-'%.*1-+')*' %.51$%')''5'6%$,*50''6')+*-%.,(',.&/1%.(%'+'0'6$*4'4/2'/0*'4%%.' %B%$)%5'42')+%'%B(%00,7%')%.0,*.'6/'(%5'*.' 0*8%'8%.)'/'&'(1/),%0'42'(%$)',.'$%+-,*10' 020)%80'41)'+%'%&&%()',0'-$%')%$'3+%.')+% 0)$',.'(*8%0'^*8'3,)+*1)''.5')+%'.%$7*10' (*.0),)1),*.',0'3'$6%5'42')+%',.%E1'/,)2'4%;)3%%.',)0'*3.'0)$%.-)+'.5')+')'*&')+%'$'(% 3,)+'3+,(+',)'0'.*)'*./2',.'(*.)'()'41)' '))'(+8%.)'+%'(%$%4$'/&1.(),*.0'8'2'4% 5%&*$8%5'42'%8*),*.0')+')'3*1/5'4%6*3%$; /%00')*'5,0)1$4''4$',.'3+*0%'&1.(),*.0'3%$%' 0)$%.-)+%.%5'42'%E1'/5%7%/*68%.)'.'' ' 6'$)0

= ,*)*0 G (C%8 '' ,0' 42' &'$')4%' 8 *0)' (* 8 8 *.' 5,0%'0%' *&')4%' 09,. ' ' . 5' ,0' 0',5')*' (* .0),)1)%' *4*1)' * .%)4,$5' *&' '//*)+%' ('0%0' *&' 09,. 5,0%'0%')' *((1$0' ')' '// 6%$,*50' *&' /,&%' &$* 8',. &' . (2')*' */5' -%' 41),0' 6$*4'4/2'$')+%$' 8 *$%' (* 8 8 *.' 51$,. -')4%' &,$0)' ' . 5' 0%(* . 5' 5%. .),),* .0 ' . 5',.')4%' /')%$' 6%$,*5' *&'/,&%')+' . ' ,.' 2*1)+' *$ 8 ,55/%' -%'H * .')+,0' 6*,.)' + * 3 ; %7%$')+%$%' ,0' 0* 8 %' 5,&&%$%. (%' *&' *6,. ,* . ' ' . 5' ,. ' ' . 2' ('0%' ' -%' ,0' . *)' '7%$2' (* . 0)' .)' &' ()*$' ,. ',)0' 5%7%/*6 8 %.)')' ,0' -%. %$ ' //2' ' 5 8 ,))%5')*' 4%' 0* 8 %3 + ')' 8 *$%' (* 8 8 *.' ,. ' 8 ' /%0')+' . ' ,. ' &% 8 ' /%0

+%' 6$,. (,6' /' ('10%0' *&' %(C% 8 '' 8 '2' 4%' (* . 7%. ,%.)/2' 5,7,5%5' ,.)*')+$%%' -$* 160H A R')+*0%')+')' '$%'0)$,()/2'/*(' /'01(+' '0'7'$,(*0%' 7%,. 0 ' . 5')+%' 7 '$,*10' &*$ 8 0' *&' /*(' /' ,$$,)' ;),* . 'H A@R' 8 *$%' -%. %$ '/ ('10%0' 01(+' '0')%%)+; ,. -' %$$*$0' *&' 5,%)' *7%$ 3 *$9' ' . 5' ' . B,%),%0' *&' ' ' 9,. 50H' A"R' '' (* . 0),)1),* . '/')%. 5%. (2')*')+%' 5,0%'0%')' 8 10)' 4%' '5 8 ,))%5' +*3%7%$')+')')+%$%' '$%' *'0%0' *&' %(C% 8 '' &*$' 3 +,(+' . *' 5%&, . ,)%' '00,-. '4/%' ('10%' (' . ' 4%' &*1. 5

,)+'$%-' $5')*' 0)$,()/2' '('10%0'7'$,(*0%' 7%,. 0' '$%' 6%$+' 60')+%' 8 *0)' ,8 6*$)' .)' $$,;)' .)0 ' +*3%7%$' 01(+' '0'),. ()1$%' *&' '$. ,(' ' 0),8 1/'),. -'6/'0)%$0' . 5' %8 4$*('),* . 0' *&)%. -',7%' $,0%')*' /*(' /' '))' (90' *&' %(C% 8 '' ,. ')+*0%' 3+*' '$%' 6$%5,06*0%5')*' ,)' B6*01$%')*' %B;)$% 8 %' +%')' *$' (*/5' ,0' ' 8 *. -0)')+%' 3% $%**-' . ,0%5' %B(,),. -' ('10%0' *&')+%' 8 '/'52' 3 +,(+' ,0' *&)%. .''0*1$(%' *&' . .*2' .(%')*' 1$*6%' .0'/,7,. -' ,. ')+%')$*6,(0' ' 1$9,0+'4')+'3 ,/'0*8 %),8 %0' 6$*51(%' '' 6'61/'$' %(C% 8 '' 01(+' '0' 3%' '/0*' 8 %%)' 3 ,)+',. ' 0)*9%$0' +%'+' . 5/,. -'*&',$$,)'); ,. -' 8 ')%$,'/0' 3 +,(+',0' ,. (,5%.)' /')*' (%$)' ,. ')$'5%0' *(('0,*. '//2' -,7%0' $,0%')*' /*(' /' %(C% 8 '' *&')+%' +' . 50' *'*' &$%E1%.)' 3 '0+,. -',. '+'$5' 3 ')%$' 8 '2' 4%' 8 %.),* . %5' '0' '' (* 8 8 *.' %B(,); ,. -' ('10%' ,. ')+*0%' 6$%5,06*0%5')*')+%' 5,0%'0% +%' '5'10%0' *&' %(C% 8 '' $%' *&' 8 *$%' ,8 6*$)' . (%')+' . ')+%' /*(' /' ('10%0' '/)+*1-+')+%2' '$%' /%00' (%$)',. ' ' . 5' 5%&, . ,)%' ,. ')+%,$' '(),* . ' . ' (+,/5$%. ')+%' 6$*(%00' *&')%%)+; ,. - ' . ' ,. >15,(,*10' 5,%)' ' . 5' 3*$8 0' 8 '2' 4%' 8 %.),* . %5' '0' -%. %$'//2' $%(*- . ,0%5' %B(,),. -' ('10%0' *&')+%' 5,0%'0%H *&')+%0%')+$%%' ,. ; >15,(,*10' &%%5, . -',0')+%' 8 *0)' ,8 6*$)' .)' . 5' ,0' 42' . *' 8 %' . 0' (* . &, . %5')*' ,. &' . (2' *$' (+,/5; +**5' * . 0),6'),* . ' ' . 5' '' -%. %$'/ . %-/%()' *&')+%' '()*' *&')+%' 4*3%/0' ,0' ' . *)+%$' (* 8 8 *.' ('10%' *&')+%' 6%$6%)1')*. ' ,&' . *)' *&')+%' 5%; 7%/*6 8 %.)' *&')+%' 8 '/'52

,)+'$%-' $5')*' '' ')%. 5%. (2')*')+%' 5,0%'0%',)' ,0' 3 ,)+*1)' 5*14)' (* 8 8 *. ' . 0* 8 %' ,. 0)' . (%0')+,0')%. 5%. (2',0' 0*' 0)$*. -')+')' %(C% 8 '' 8 '2' 4%' 0',5')*' 4%' '/3 '20' 6$%0%.)')+$*1-+*1)' +&%' *$' 3 ,)+' 41)' 0+*$)',.)%$7'/0' *&' &$%%5* 8 ')',0' -%. %$'//2' 4%/,%7%5')+')' -*1)2' &' 8 ,/,%0' ' . 5' ,. 5,7,51'/0' '$%' 8 *$%' /,'4/%')*' %(C% 8 '' *&')+%0%')+')' +'7%' . *')+%. 5%. (2')*' - *1)H)+%' 3$,)%$' 5*%0' . *)' 5*14)')+,0' &'()' 41)')+')' ,0' 7%$2'5,&&%$%.)' &$* 8')+%' (* 8 8 *. ' 0)')%; 8 %.)')+')' -*1)' * ' ' ' F '&*$' 3 +,(+')+%$%' ,0' . *)' 8 1(+' &*1. 5'),*.

! (! G (C% 8 '' '$% 8 '$9'4/%' &*$')+% 7'$2,. -' '66%'$'. (%' ,)' 001 8 %0' ' ((*$5,. -')*')+%' ' (1)%. %00' *&')+%' ,. &/' 8 8 '),*. ')+%' 0)' -%' *&')+%' 5,0%'0%' ' . 5')+%' 6')$0' '&&%()%5' ' . ' ' %' $/2')' -%' ,)' -%. %$' //2' (* . 0,0)0' *&' ' $%5' ' . 5' 0/,-+)/2' 03*/%. '6')(+H /')%$' * . ')+,0' 8 '2' 4%' (*7%$%5' 3 ,)+' 6'61/%0' ' . 5' 7%0,(/%0' 3 +,(+' '$% 101' //2' *&' 0+*$)' 51$'),*. ')*' 4%' &*//*3%5' 42')+%' 5%7%/*6 8 %.)' *&' ' 8 *,0)' %B(*$,')%5' 01$; &'(%' 5,0(+' $-,. -' ' ' 0%$*10' *$' -1 8 8 2' &/1,5' +%. ')+%' 6$*(%00' *&'+%' /,. -'4%-,. 0')+%' 6')(+' 4%(* 8 %0' 5$2' ' . 5' (*7%$%5' 3 ,)+')+,. ' 0('/2' ($10)0' 3 +,(+' 1/),8 ')%/2' &'/' *&&' ' . 5' /%' 7%')+%' 09,. ' ,. ' ' ' (* 8 6'$'),7%/2' +%'/)+2' (* . ; 5,),* . ' /)+*1-+')+,0' ,0')+%' 5%0($,6),* . ' *&')26,('/'%(C% 8 ' '2%)')+%' 7'$,%),%0',. ')+%' (*1$0%' ' . 5' (+'$'()%$' *&')+%' %$16),* . ' '$%' 0*' -$%')')+')')+%2' $%E1,$%' '4$,%&' . *),(%

+%$%' '$%')+$%%' 6$,. (,6'/' 7'$,'),* . 0',. ')+% 5%7%/*6 8 %.)' *&')+%' %$16),* . ' A R' +%',. &/' 8 ; 8 '),* . ' 8 ' 2' 4%' 7%$2' ' 1)%' ' . 5')+%' %B15')* . ' *&' 0%$*10' &/1,5',.)*')+%' 09,. ' ' . 5' 014(1)' . %*10' 0)$1()1$%0' 0*' $'6,5' . 5' %B(%00,7%' '0')*' 6$*; 51(%' -$%')')' 03%//,. -'*&')+%'),001%0' +,0',0'%06%; (,'//2' 8 %)' 3 ,)+',. ' ' (1)%'%(C% 8 ''*&')+%' &'(%',. ' 3 +,(+')+%$%',0' 0* 8 %),8 %0' (/*01$%' *&')+%' %2%; /,50' ' . 5' ''(* 8 6/%)%' '/)%$')*. ',. ')+%' &%')1$%0' 0*')+')')+%' 6')%.)' ('. '4%' +' $5/2' $%(*- . ,0%5' A@R' ' %$2' (* 8 8 *.' 7'$,')*. ' &$* 8')+%' . *$; 8 '/' (*1$0%' *&')+%' %$16),* . ',0')+%' 5%7%/*6; 8 %.)' &$* 8')+%' &,$0)' *&' 8 2' $%5'0/,-+)/2' 0(' /2' 6')(+%0' 3 +,(+' $%' . %7%$' 8 *,0)' ' . 5' 41)' /,))/%' 03*//%. ' (C% 8 '' *&')+,0' 9,. 5' ,0' '/3 '20' '))%. 5%5' 3 ,)+' 8 1(+',.)(+,. -' 41)' 3 ,)+' . *' 6',. ' *$)%. 5%$. %00' *. ' 6$%00 8 %' A"R' ' -%. %$'/ %$16),* . ' *&' 8 ,. 1)%' $%5' 6'61/%0' *7%$')+%' 4*52' ' . 5' /,8 40',0' ' . *)+%$' %$2' (* 8 8 *. ' &*$ 8' *&')+%' 5,0%'0%' +%' 6'61/%0' 101' //2' 5%7%/*6' $'6,5/2' ' . 5' '$%' 5,0)$,41)%5' 02 8 8 %)$,('//2' *7%$')+%' 4*52' $% 8 ,. 5,. -' . %' ')' '/,))/%' 5,0;)' . (%' *&' '' 0('$/'),. ' $'0+' +%' %$16),* . ' -%. %$'//2' '4*$)0 b'5$,%0' 16' . 5' 5%0E1' 8 ')%0' 3,)+*1)')+%' &*$ 8 ')*. ' *&' 7,0,4/%' 7%0,(/%0')+*1-+' . *3' ' . 5')+%. ' '' &%3' 8 '2' 4%' &*1. 5' ' 8 *. -0)')+%' 4$,-+)' $%5' 6'61/%0

+%' 7'$,*10' &*$ 8 0' *$' 0)' -%0' *&' %(C% 8 '' '$%' 0* 8 %),8 %0',. 5,*')%542'E1'/,&2,. -'. ' 8 %0H)+10')+%'%'$/,%0)'6+'0%'(*. 0,0)0'0,8 6/2'*&'+26%$'%8,*' 6')(+%0' . 5',0' (''//%5'%(C% 8 '' (+%' &*$ 8 '),*. ' *&' ' 6 $,&*$ 8' 5,0(+'$-%',0' ,. 5,(')%5'42')+%' . ' 8%' * g '. 5'/')0)/2' %(C% 8 '' 3

',0' 66/,%5')*')+%' 5,0%'0%',. ',)0' 0('/2' (*. ; 5,),* . ' .%' *$' ' *&')+%0%' 6+'0%0' *&' %(C% 8 '' 8 '2' 0* 8 %),8 %0' 4%' 0%%. ' . ' 5,&&%$%.)' $%-,* . 0' *&')+%' 4*52' ')+%' 0' 8 %),8 %

/)+*1-+')+%' 09,. ' *&' . '2' 6')$' *&')+%' 4*52' ,0'/,'4/%')*' 4%' '))' (9%5'42'%(C% 8 ' '2%)',)' 8 '2' 4%' 0',5')*' +'7%' '' 6$%&%$%. (%' &*$' (%$)',. ' $%; -,* . 0' '0' &*$' %B' 86/%')+%' &/%B*$' 01$&'(%0' *&')+%' /,8 40')+%+' . 50')+%'0'('/6' ' . 5')+%' 6*,.)0' *&' >1. (),*. ' *&')+%' 09,. ' 3,)+')+%' 8 1(*10

8%8)*'.%0' .'0*8%'*&')+%0%'$%-,*.0'01(+'
'0')+%' +'.50')+%' /,60' '.5')+%' '.10'/*('/'
('10%0'6/'2'.','8 6*$)'.)'6'$)',.')+%' 5%7%/*68%.)'*&')+%'
8'/'52' (C%8'' ,0' -%.%$'//2' 5,0)$,41)%5'
02.1.%)$,*'//2')+*1-+')+%$%' '$%' 8'.2' DB'
(%6),*.0')*')+%' $1/%' ,)+'$%-'$5')*' 014>%(;
),7%' 0%.0'),*.0',)' 8'2'4%'0',5')+')'+%2' '$%'
'/3'20' 6$%0%.)'' .5'&*$8'*.%' *&')+%' 8*0)'
)$*14/%0*8%' 02 8 6)*8 0' *&')+%' 5,0%'0%'*' .'
8*0)' ('0%0',)(+,..-',0' '' 7%$2'(+'$'()%$,0),('
&%')1$%H)+%'*.'/2' %B(%6),*.')*')+,0' $1/%' ,0'
8%)' 3,)+','.'' (1)%' %(C%8''.' +,(+')+%' 0%.;
0'),*.0'*&'6',.'41$.,.-'' .5'0 8'$),.-'&*,''
),8%' 8'09'*$')'9%')+%' 6/'(%'*&',)(+,..-H 41)'
3+%.')+%',.&/'8 8'),*.'0140,5%0',)(+,.-',0'
01$%')*' '$,0%' .'.*' *)+%$' '&&%(),*.'%B(%6)'
6$1$,-*',0',)(+,.-'0*'(*.0)'./2'6$%0%.)

& G (C%8'' ,0',/,'4/%')*'4%' 8 ,0;
)'9%.'&*$')+%'&*//*3,.-'5,0%'0%0'%$20,6%/'0'
0('4,%0' 60*$,'0,0'02(*0,0'),/,%'')*.01$'.0'
016%$&/(,=' /1610' '.5'0*8%' 026+,/,),(' %$16;
),*.0

9 I J ' ' 0 " -1 (' %(C%8'' *&')+%' &'(%' 3,)+' 8 1(+' %B15'),*.',.)*')+%'
014(1)'.%*10'),001%' ,0')+%' *./2'&*$8'/,'4/%'
)*'4%' 8,0)'9%.'&*$%$20,6%/'0' +%'&*//*3,.-'
6*,.)0'3,/'' ',5')+%' 5,&&%$%.),'/' 5,'-.*0,0'
A R .'%$20,6%/'0')+%'%$16),*.',0'6$%(%5%5' 2'
$,-*$0' A@R +%' 61/0%')%8 6%$')1$%''.5'&%4;
$,/%' 02 8 6)*8 0' -%.%$'//2' '$%' +,-+%$')+'.',.'
%(C%8'' A"R +%$%',0''/8*0)'+/3'20'+%'5'(+%'
'.5'*&)%.'/41 8,.1$,'' A R $20,6%/'0'+'0' *'
8*$%'0+'$6/2'5%&,.%5'8'$-,.''.5''' 0 8**)+%$'
'.5' 8*$%' -/'C%5' 01$&'(%' AFR $20,6%/'0'
(*8 8*./2'4%-,.0'$*,8 5'*$'4%/*3'*.%'*$4,)'
'.5',0'8*$%'*&)%.')+'.'%(C%8'>',8,/')%$'/')'
&,$0)'')+*1-+',.')+%'%.5'4*)+'0,5%0'8'2'4%'
'&&%()%5

' ' G +%0%')3*'5,0%'0%0'
'$%' *&)%.'(*.&*1.5%5'&*$')+%' 7%$2'*47,*10'
$%'0*.')+')'0('4,%0'/%'50')*''9,.5'*&'$),&,(,'/'
%(C%8'' 6'$)'&$*8')+%' 10%'*&')+%' 8,($*;
0(*6%'3+,(+'('..*)'/3'20'4%' '66/,%5')+%'
&*//*3,.-'(*.0,5%$')*.0'3,/'',5')+%' 5,&&%$;
%.),'/'5,'-.*0,0' ('4,%0'%06%(,'//2'')'(90'
(%$)',.'$%-,*.0''.5'3+%.'' 6,8 6/2'%$16),*.'
,0'8%)'3,)+'4%)3%%.')+%'&,.-%$0''.5'*.')+%'
&/%B*$'01$&'(%'*&')+%'3$,0)0''.5''/0*' ')'+%'
0'8%),8%'*.')+%' *3%$'6'$)'*&')+%'45*8%.'
6%.,0''.5'.')%0''' 7%$2'('$%&1/'%B'8,.'),*.'
0+*1/5'4%' 8'5%'&*$')+%$'0,-.0'*&'0('4,%0'
.'%B'8,.'),*.'*7%$')+%'3$,0)'3,)+''(*8 8*.'
8'-.,/2,..-/'00'3,/'*&)%.'/%'5')*')+%'5%)%(;
),*.'*&')+%' 0('4,%0' %1.,%1/10'/**9,.-'7%$2'
/,9%'' 6,.0($')(+' +%'+,0)*$2'*&')+%' ('0%'
3,/'/0*' ',5')+%'5,'-.*0,0

I % ' " ' 6 G $2'0('/2'&*$8 0'
&'%(C%8'' 8'2'4%' 8,0)'9%.'&$'60*$,'0,0'
)+*1-+')+%' 8*$%'0+'$6/2'5%&,.%5''.5'$',0%5'
8'$-,.'*&')+%'/')%$'3,)+''')%.5%.(2')*'&*$8'
$,.-0'101'//2'8'9%0')+%'5,'-.*0,0'%'02' +%
5%7%/*68%.)'*&')+%'%$16),*.'*.')+%'6*,.)0'*&'
)+%'%/4*30'.'5'>10)'4%/*3')+%'9.%%('60',0'
7%$2'5,0),.(),7%'*&'60*$,'0,0

I % ' " ' G +%'7%$2'(+$*.,(+'$'()%$'*&'02(*0,0''.5')+%' '40%.(%'*&''.2'
$1..,.-'%B15'),*.')*-%)+%$'3,)+',)0'0)$,()'
/,8,)'),*.')*'+%'+'&$2'6')0'*&')+%'&'(%'3,/'
-%.%$'//2'0%$7%')*'5,0),.-1,0+',)'&$*8'%(C%8''
.''$%(%.)')'))'(9')+%'5,&&%$%.),'/'5,'-.*0,0'
,0'5,&&,(1/)'41)'.*)'*&'81(+',86*$)'.(%''0'
)+%')3*'5,0%'0%0'$%'7%$2'(/*0%/2''//,%5

I % ' " ' " ' " ' G)',0'*./2'
$,.-3*$8'*&')+%'4*52')+')'('.'4%'8,0)'9%.'
&*$%(C%8''' 0*/,)'$2'6')(+'*&'5$2'%(C%8';
/,9%'%$16),*.'06$%'5,.-'')'+%' 8'$-,.''')
*.(%'01--%0)0')+%'6$*4'4,/,)2'*&'$,.-3*$8'
+%'5,'-.*0,0'3,/'4%'$%.5%$%5'' /8*0)'(%$;
)','.',&''.'$$*3'8'$-,.'*&')+%'$*1.5'6')(+
,0'0+'$6/2'5%&,.%5'0+-+)/2'$',0%5''.5'*&''
4$,-+)%$'(*/*1$')+'.')+%'*)+%'$'6')0' &'.*
)$%')8%.)'+'0'4%%.''5*6)%5')+%'8,($*0(*6%
3,/'(*86/%)%'+%'5,'-.*0,0H41)',&'.2'()',7%'
$%8%5,%0'+'7%'4%%.''66+%5')+%'8,($*0(*6,('
%B'8,.'),*.',0'10%/%00

I % ' " 'S G ')(+%0'*&016%$&,(,'/
/1610'0*8%),8%0'4%(*8%'(*7%$%5'3,)+'0('/%0'
'.5'%(C%8'/,9%'($10)0'3+,(+'8'09')+%'$%'/
.')1$%'*&')+%5,0%'0%' '($%&1/%B'8,.'),*.'
3,''.''.2'5*14)&1/'(' 0%'/%'5')*'' (*$$%()'
5,'-.*0,0

I % ' 'I # 3 G 10)1/'$'
026+,/,),(' %$16),*.'*&')+%' 0('/6'8'2'4%'8,0;
)'9%.'&*$',86%),-,.*10'%(C%8'' +%'6$%0%.(%'
&016%$&,(,'/1/(%$'),.''.5''6%(1/,'$'*&&%.;
0,7%'08%//''$%'(+'$'()%$,0),(''*&')+%'026+,/,),(
%$16),*.'6'$)'&$*8'*)+%$'0,-.0'*&'026+,/,0'
$2'($'(9%5%(%8''*&')+%'6'+.',0'7%$2'(*$.'
8*8'.'.5',0'0*8%),8%0'(*.&*1.5%5'3,)+''
0,8,/'$'(*.5,),*.'3+,(+',0'5 D')*'026+,/,0'
'.5'*&)%.'8,0('//%5'060*$,'0,0'6'/8'$,0<+,0'
9,.5'*&'%(C%8'',0'-%.%$'//2')))%.5%5'3,)+'
81(+',)(+,..-'3+,(+',0'.*)')+%'('0%'3,)+')+%'
026+,/,),(' %$16),*.' (C%8''' ,0' 8*$%*7%$'
$'$%/2'(*.&,.%5')*''*.%'6'/8'3+,/%')+%'026+,;
/,),(' %$16),*.',0'*&)%.'1.,/')%$'/' +%'+,0)*$2'
&')+%'('0%'3,''/0'',5')+%'5,'-.*0,0

5 ! G +%'7'$,'),*.0',.')+%'(+'$'(;
)%$'*&'%(C%8''' 0*'-$%')+')',)',0',86*00,4/%'
)*'/'2'5*3.'$1/%0'*&')$%')8%.)',,')'3, '8%%)'
' '*'0%0' *8%-%.%$'/5,$%(),*.0'8'2'+*3;
%7%$'4%' -,7%.'3+,(+'3,'0%$7%'0'-1,5%0'
)+*1-+'.*)+,..-'('.'0166/2')+%'6/'(%'*&'6$'(;
),('/'%B6%$,%.(%

& I % G +%')8%.)'*&'(1)%
(C%8''',0'0,86/%' .''/'7%$2'0%7%$%'('0%0'
)+%'6'),%.)'810)'4%'(*.&,.%5')*'4%5'*$')+%
(*1(+' *5%$')%'*$'&$%%'61$-,.-'3,)+'01/;
6+')%'*&'8'-.%0,18'*$'01/6+')%'*&'0*5,18',0'
'/3'20',.5,(')%5'0*8%'('$%'4%,.-'*&'(*,-0%'
$%E1,$%5',.')+%'('0%'*&'3%'9/2'*$'%/5%$/2'
6%*6/%' +%.')+%'))'(9',0'*&'-*1)2'*$,-.'
)+%'61$-'),7%')$%')8%.)'8'2'4%0166/%8%.)%5'
42')+%'10%'*&''/9'/,0'3,)+',*5,5%'*&'6*)'0;
0,18'*$'(*/(+,(18''((*$5,.-')*'(,$(18;
0)'.(%0' .')+%'/*(')%')8%.)'*&''0),8,&/'),.-'9,.5'
0+*1/5'4%'0)$,()/2''7*,5%5' &')+%',.&/'8;
8'),*.',0'(*.&,.%5')*')+%' 840'3')%$ 5$%00;
,.-'*$''3%'9'/%'5'/*),*.',0'*&)%.')+%' 4%0)'
'66/,(',*.'41)',)'810)'.%7%$'4%''//*3%5')*

-%)' 5$2' 1$,.-')+%' 5'2' 3+%.')+%' 5$%00,.-'('.'%'0,/2' 4%' 9%6)' 8*,0)',)' ,0' 4%))%$' .*)'+*'(*7%$',)'3,)+'-0)' 6%$(+'),001%ℍ 41)' ')'.,-+)'+,0'6/'.' 8'2'4%' '5*6)%5',.'*$5%$')*' 6$%7%.)'+%'/,.)'&$*8'-%)),..-'E1,)%' 5$2')',0'5,&&,(1/)'*' '66/2'3')%$' 5$%00,.-')*')+%'+%'5'.5'&'(%''.5'1.5%$')+%0%'(,$(180)'.(%0'&1//%$<0'%')$)+'*$0)'$(+''.5'C,.('6*35%$',0''' 10%&1'66/,(';),*.'&'+*3%7%$')+,0'5*%0'.*)'01,)')+%'/,.,'8%.)18'('/(,0'8'5%'3,)+'03%%)'/8*.5'*,/'8'2'4%' 10%5ℍ,)'0+*1/5'4%'%,)+%$'66+%5'*.'+1)'*$0,8%2'6',.)%5'*.'0%7%$'/),8%0'5',/2'*8%'6'),%.)0'5%$,7%'-$%')'4%.%&,)'&$*8')+,.'/,.0%%5'8%'/'6*1/),(%0'3+,(+'5*'.*)'$%E1,$%'(+'.-,.-'0*'*&)%.''0'3')%5%00,.-0')*)+%$;3,0%')+%'6$,.(,6/%'*&')$%')8%.)',0')+%'0'8%',.'4*)+

' ' # " ' I % G' +%'0 " ' " '*&' 014 '(1)%' *$'(+$*.,('%(C%8''3,'5%6%.5'8*$%'*.')+%'(+'$')()%$'*&')+%'%$16),*.'' .5')+%'-%'*&')+%'6'),%.)')+'.'*.')+%'*)+%$'+'.5'8 10)'4%'8*5,&,%5')*'01,)')+%'$%-,*.0')')'(9%5'+%'-%.%$'/')$%')8%.)'3*1/5',.(/15%'$%0)'(+'.-%'*&',$'5,%)''.5'8%5,(,.%''((*$5,.-')*')+%'0%7%$,)2'*&')+%'('0%''.5')*)+%')%.)'(,$(180)'.(%0'&')+%'6'),%.)',0'01&&%$,.-'&$*8'-*1)2'02 86)*80'5206%60,''*$(*.0),6'),*.')+%'6/''.'*&')$%');8%.)'0+*1/5'4%''5'6)%5')*'8%%)')+%0%'(*.;5,),*.0'3,)+'''(*.0,5%$'4/%'6$*4'4,/,)2')+')',)'3,/ℍ'/0*'4%')+%'8*0)'01,)'4/%')%.)'&*$')+%'%(C%8''3+,(+'8'2'*&'(*1$0%'4%'5%'/)'3,)+''')+%'0'8%'),8%'42'/*('/'8%'.0'+%.'+*3%7%$')+%'6'),%.)',0'2*1.-''.5',.'-**5'+%'/)+'$0%.,(',.'8*5%$')%'5*0%0'3,/ℍ'4%'&*1.5')+%'8*0)'-%.%$'//2'10%&1/'$%8%52'.'(+,/5$%.'4%)3%%.')+%''-%0'*&')3*'.5'&,7%'*.%5$*6'5*0%0'*&')+%' E1*$'$0%.,('/,0'-,7%.''&)%$'8%'/0')+$%%'),8%0'5',/2',0'101''//2'%.*1-+ℍ,)'8'2'4%'(*84,.%5'3,)+''/9'/,0'*$'/'B'),7%0'*$')*.,(0''((*$5,.-')*'(,$(18;0)'.(%0'+%'$*1),.%'6$'(),(%'*&')$%'),.-'*$5,.'$2'%(C%8''',.'2*1.-'(+,/5$%.'3,)+',$*.''.5'(*5+7%$'*,/'-%.%$'//2'%.50',.'&',/1$%'%06%(,'//2'3+%.')+%'%(C%8''',0'*&'.',$$,)'4/%'9,.5'.')+%'610)1/'$&*$80'*&'%(C%8''+*3;%7%$',$*.',0'10%&1/''.5')+%.')+%''$0%.,('8'2'4%'(*84,.%5'3,)+')+%'7,.18'&%$$,'*$'0*8%*)+%$'6$%6'$'),*.'*&',$*.'.'6%*6/%'*&'8,55/%'-%'$0%.,(',0'.*)'0*'-%.%$'//2'10%&1/'0',.'(+,/5$%.'.')+%'014'(1)%',$$,)'4/%'&*$80'*&'%(C%8''7,.18'.),8*.,'/%',.'08'/'5*0%0'3,)+'5,1$%),(0'8'2'*&)%.'4%'-,7%.'3,)+''5;7'.)'-%',.0)%'5'*&'$0%.,('.'//&*$80'*&'%(C%8'')+%'-$%')%0)'))%.;),*.'0+*1/5'4%'6',5')*')+%''(),*.''*&')+%'4*3%/0'+%'8'/'52',0'*&)%.''00*(,')%'3,)+'(*.0),6'),*.''.5'%7%.'3+%.')+,0',0'.*)')+%'('0%'0*8%',.($%'0%',.')+%'.')1$'/'(),*.'*&'+%'4*3%/0',0'+,-+/2'4%.%&,('/'+%'9,.5'*&'61$-'),7%0')*'4%'10%5'3,/ℍ'5%6%.5'*.')+%''-%'*&')+%'6'),%.)'.5')*)+%$'(,$(180)'.(%0'.',.&'.(2'&/1,5'8'-.%0,''.'8,/9',0'*.%'*&')+%'4%0)ℍ,.'(+,/5+**5'01/6+1$'6*35%$0'*$/*C%.-%0'*$'8,/5'0'+.%'61$-'),7%0''$%8*0)'01,)'4/%ℍ&*$'51/)0'01/6+')%'*&'8'-;.%0,18'*$'01/6+')%'*&'0*5,18'-,7%.'%,)+%$'4%&*$%'4$%'9&)0',.'&1//'0*5%0'*$',.'08'//%$'5*0%0'3,)+'0*8%')*'.,(')3*'*$',.'0$%%')8%0'5',/2',0'01,)'4/%ℍ/'0)/2',.'*/5''-%'8,/5''/*%),*'6,//0'8'2'4%'-,7%.

' ' ' 8' I % G *$'8'.2'&*$80'*&'(+$*.,('5$2'%(C%8')+%'7'$,*10'6$%;6'$'),*.0'*&')'$' '$%''8*.-')+%' 8*0)'10%&1/'/*('/'$%8%5,%0' +%2'5*'8*$%')*'$%+%7%')+%',.)*/%$'4/%',)(+,.-')+'.''.2*)+%$'(/'00'*&'$%8%5,%0')+%'(+,%&'5$'34'(90'4%,.-')+%,$'5,0;'-$%%'4/%'(*/*1$'.5'08%//' %&*$%'666/2,.-')'$'6$%6'$'),*.0')*'%(C%8''',)'/'3'20'5;7,0'4/%')*')2')+%'%&&%()',.''' 81(+'5,/1)%5'&*$8''*$'*7%$''7%$2'/,8,)%5''$%''ℍ&*$'3+%.'666/,%5')*'1.01,)'4/%'('0%0')+%2'0*8%;),8%0'6$*51(%''-$%')'--$'7'),*.'*&')+%'5,0%'0%'+%'*$5,.'$2')'$'*,.)8%.)'8'2'4%'&$%%/2'5,/1)%5'3,)+''.2*)+%$'*,.)8%.)'01(+''0'C,.('*,.)8%.)''.5'0140%E1%.)/2')+%'E1'.),)2'*&')'$',.($%'0%5'*$'5,8,..0+%5''(;(*$5,.-')*'(,$(180)'.(%0'+%')'$'/*),*.0''$%/%00'5,0'-$%%'4/%')+'.')'$'*,.)8%.)ℍ)+%2''$%'8'5%'42'(*84,.,.-')+%'/,E1*$'('$4*.,0'5%)%$-%.0'A8'5%'&$*8'(*'/')'$R'*$')+%'/,E1*$'6,(,0'(*86*0,)10'A8'5%'&$*8'7%-%)'4/%')'$R'3,)+'3')%$'*$0*8%'0,86/%'/*),*.'01(+''0')+%'*$5,.'$2'/%'5'/*),*.''.%')*'&*1$'6%$'(%.)'*&')'$'0*/1),*.',0'101''//2'%.*1-+'(41'(*)&'('4P.)10?I%''#'G 6%(,'/'/*('/')8%.)',0'0*8%),8%0'$%E1,$%5'3+%.'%(C%8''')')(90'(%$)',.'$%-,*.0'*&')+%'4*52'.')+%'0('/6'3+%.',)',0'))%.5%5'3,)+'81(+'5,0(+'$-%')+%'+',$'0+*1/5'4%'(1)'.5'9%6)'E1,)%'0+*$)'//)+%'0('40'0+*1/5'4%'0*&)%.%5'42''6*1/),(%''.5')+%.'$%8*7%5'42'4')+,.-'3,)+'3'$8'3')%$'+%'+%'5'0+*1/5')+%.'4%'('$%&1//'25$,%5''.5'5$%00%5'3,)+''.',.)*.,.)8%.)'(*.0,0);,.-'*&'(%)')%'*&'/%'5'-$'B7'C,.('*,.);8%.)'F,>'('/*8%'-$'BB'.,)$')%'*&'8%$(1$2'*,.)8%.)'-$'BB'7'0%+.%'F,>#4%.C*')%5'/'$5'=00'+%.')+%',.&/'88'),*.'+'0'014;0,5%5')+%'3+,)%'6$%(,6,)')%'*,.)8%.)'5,/1)%5'3,)+''.'%E1'/'E1'.),)2'*&'7'0%/,..%'8'2'4%10%5'.'5$2'0(1$&2'%(C%8''*&')+%'0('/6')+%4%0)'0'/7%',0')+%'$%5'*B,5%'*&'8%$(1$2'*,.);8%.)'F,>'3+,)%'7'0%/,.%'ℍ),0'0+*1/5'4%'66/,%5',.'08'//E1'.),),%0'%7%$2'5'2'*8%;),8%0'3+%.')+%$%',0'81(+''(),7%',.&/'88';),*.''*/*),*.'8'2'4%'10%5',.0)%'5'*&'.',.);8%.)'1.),/')+%',.&/'88'),*.'+'0'0140,5%5'+%'8*0)'10%&1/'$%'3%'9'01/6+')%'*&'C,.('*$4*$,('(,5'/*),*.0'*&'(*4*('(,5'/*),*.'*&'0)$%.-)+'*&'*4*1)'*.%'6'$)'.'''+1.5$%5'6'$)0'*&'5,0),//%5'3')%$'+%.%7%$'''/*),*.'',0'10%5',)'0+*1/5'.%7%$'4%'//*3%5')*'-%)'5$2ℍ)+%'5$%00,.-'8'2'4%'(*.7%.,%.)/2'9%6)',.',)0'6/'(%'42''/,-+)')+$%'5'*$(*))*.'.,-+)('6I%'''#'#'0+*1/5'4%')$%')%5'7%$2'81(+'/,9%'(%8''*&')+%'0('/6'&'+*3%7%$')+%$%',0'610&*$8';),*.',.')+%'+',$&*//,(/%0',)',0'4%0)')*'$%8*7%)+%'+',$0')+')'6'00')+$*1-+'610)1/%0''.5''//*3')+%'610')*'3'0+'3,)+

3%'9'0)$',.%5'-$1%/' '.5' '&)%$' ('$%&1//2'5$2;
,.-'),%''09,.')*' '66/2' ''/*),*.'*&'('/' 8,.%' .5'
B,5%&C,.('0*' '0')*' 5$2'16')+%' 5,0(+'$-%' '0'
E1,(9/2' '06*00,4/%' +%' ($10)0' 3+,(+'&*$8'
,&'&,$>./2' '))'(+%5' 0+*1/5' 4%' ''/*3%5')*'
$%8',.' 41)' 3+%.' /**0%' &$*8' %B15'),*.'
1.5%$.%')+')+%2' 0+*1/5' 4%' $%8*7%5' '.5'
)+%+',$'4%,..-'('$%&1//2'(1)')+%'01$&'(%'0+*1/5'
)+%.'4%5'44%5'3,)+'''/,))/%' 8%5,('):%5'3**/'
'.5')+%'/*),*.'.'-',.''66/,%5

I % ' ' #'&" G +,0',0'' 8*0)'
)$*14/%0*8%' 8'/'52')+%',)(+,.-'4%,.-'*&)%.'
1)'&'/'/'6$*6*$),*.')*')+%'8*1.)'*&'7,0,4/%'
%$16),*.H 3+%.')+,0',0')+%'('0%',)',0'(*8;
8*./2'('//%5' 2 ' +%'8*0)',86*$;
)'.)'6*,.)',.')+%'/*('/')$%')8%.)'*&'%(C%8''
,.')+,0'$%-,*.',0''/3'20')*' 3'0+' '
'&)%$')+%'4*3%/0'+'7%''()%5'2 # ' # ' '
' ' *$')+,0'6),$6*0%''>1-'.'5'4'0,.'
'.5''' %$2'0*&)'*/5')43%/'0+*1/5''/3'20'4%'
9%6)',.')+%'3')%$ (/*0%)' &)%$'3'0+8-')+%'
%(C%8''0+*1/5'4%'7%$2'('$%&1//2'
0*8%'01,)'4/%'*,.)8%.)',88%5,')%/2''66/,%5'
8*.-')+%'4%0)''$%')+%'('/*8%/')+k'5,/1)%5'
B,5%'&'8%$(1$2''.5')+%'('/'8,.%'*,.);
8%.)0'H ''7%$2'08'//'E1'.),)2'*&')+%'($%''
0*)%'*,.)8%.)'8'2'4%''57'.)'-%*10/2'(*8;
4,.%5'3,)+''.2'*&')+%0%'3+%.%7%$'6$1$,)10'
,0')+%'(+,%&'&%')1$%'*&')+%'5,0%'0%' .'*(;
('0,*.'/6',.),.-'3,)+''0*/1),*.'*&'.,)$')%'*&'
0,/7%$'A-$'B''5' >R',0'7%$2'10%&1/' /)+*1-+'
,)',0'%00%.),'/'')*' 3'0+'5,$%()/2''&)%$')+%'
4*3%/0'+'7%' '()%5'2%)'),0'0+*1/5'.*)'
-%.%$'//2'4%'$%6%')%5')8),/')+%'4*)7%/0''()'
'-',.')*'&$%E1%.)'3'0+,.-'4%,.-'4'5'&*$
)+%'%(C%8''/,))/%'(*))*. 3**/'6/'(%5'0*'
'0')*' 9%%6')+%'09,.'*.')+%')3*' 0,5%0'&$*8'
)*1(+,.-',0'7%$2'10%&+/

I % ' ' #'& ' G .2'
'((181/'),*.'*&' ($10)0' 0+*1/5'4%'&,$0)'
$%8*7%5'42'02$,.-,.-'3,)+'3'$8'3')%$H'
)+,0'0+*1/5'4%'&*//*3%5'42')+%'10%'*&''')%6,5'
01/6+')%'*&'C,.('/*),*.'A=',,>7>'5'>R'0%7%$'/
),8%0'5',/2H''.'*((')0,*.'/'6',.),.-'3,)+''
0*/1),*.'*&',)$')%'*&'0,/7%$'A-$'/'5'>R',0'
&)%.'10%&1/' +%.')+%'%(C%8'',0'&')+%'5$2'
9,.5'(,)$,.%'*,.)8%.)'5,1)%5'3,)+'0,B'6'$)0'
&',/'*$'7'0%/,.%''.5''66/,%5')*')+%',.0,5%'*&'
)+%'%'$'('$%&1//2'3,)+''('8%/0+',$'4$10+',0'
)+%'4%0)'$%8%52

. ' "' (C%81G ,001$%0'$%'6)')*'
((1$',.'%(C%8''')')+%'(*$.%$0'&')+%'8*1)+'
4%)3%%.')+%')*%0''*4*1)')+%''.10'.5''/*.-'
)+%/,.%0'*&'&%B1$%'.')+%'6'/8'*&')+%'+'.5'
+%'4%0)'$%')8%.)'&*$)+%0%',0')*'('$%&1//2'
6',.)''0*/1),*.'*&'.,)$')%' *&'0,/7%$'A-$'B7'
'5'">R',)*')+%' ' ' -'3,)+''
7%$2'&,.%'('8%/0+',$'4$10+'*.(%''5'2

I % ' ' #'N ',0'*&)%.'5,&&,(1/)')*'
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3,)+''0*/1),*.'*&'.,)$')%' *&'0,/7%$'A-$'B
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" ' I % ' ' # '6 ',0''8*0)'
*40),.')% 8/'52' +,0'$,0%0'&$*8')+%'
.')1$'/')+,(9.%00'*&')+%' (1),(/%'3+,(+'5*%0
.*)'$%'5,/2''//*3')+%'%0('6%'*&'%B15'),*.'
41)'($'(90''.5'/%'7%0')$*14/%0*8%'&,001$%0'
%06%(,'//2''')+%'/,.%0'*&'&/%B1$%'*$%*7%$'
)+%'+'.50''$%'(*.0).)/2'%B6*0%5')*'+k'
1.&'7*1$'4/%'(*.5,),*.0'*&'8*7%8%.)''.5'
&$%E1%.)'3'0+,.-'.')+%0%'('0%0''&')+%'
*1)%$'(1),(/%',0'81(+'+'$5%.%5''.5')+,(9%.%5'
,)',0'.%(%00'$2')*'$%8*7%'),)' +,0'8'2'4%'
5*.%',)+%$'42'8'(%$'),.-',)'3,)+''3%'9'
/*),*.'*&'/,E1*$'6*)'000%''.5'5,0),//%5'3')%$'
AF,'5'=7,>R'66/,%5'*.'/,.)'*$'42'6',.),.-',
)'&*$''&%3'5'20'3,)+''0')1$')%5'0*/1),*.'*&'
0'/,(2/,('(,5'8'&/%B,4/%'(*//*5,*.' +%.')+%'
+'$5'(1),(/%',0'$%8*7%5')+%'+'.5'0+*1/5'4%'
5$%00%5'3,)+')+%'*/%')k'*&'C,.('*$0*8%'*)+%$'
0**)+,..-'*,.)8%.)' /*7%0'0+*1/5'4%'(*.;
0)'.)/2'3*$.'0*' '0')*''7*,5')+%'.%(%00,)2'*&'
3'0+,..-'1.),/')+%'+'.5',0'E1,)%'3%//

6 3 0" ' I % G *8%'&*$80'*&'5$2'
%(C%8''&/%%),.-'/'$-%''$%'0'*&')+%'4*52''$%'
'))%.5%5'3,)+'01(+',.)%.0%',)(+,.-')+')')+%'
6'),%.)'/*0%0'''//'6*3%$')*'$%0,0)')+%')%86)';
),*.')*'0($')(+' 0'' (*.0%E1%.(%')+%'09,.'
,0')*8'.'.5'/'(%$')%5'3,)+')+%'./0'*&')+%'
01&&%$%$'3+,(+'*./2'-,7%0')%86*$'$2'$%/,%&'
.5%$')+%0%'(,$(180)'.(%0' $*&%00*$,8''
$%(*884%.50''9,.5'*&'-%/'),.%'6',.)'85%42'
(*84,.,.-'C,.('*B,5%'.5'-%/'),.%'%'(+'*.%
6'$)'.5'-/2(%$,.%'.5'3')%$'%'(+'&*1$'
6'$)0' +,0'8%/)%5'3+%.'$%E1,$%5'42'
6/'(,.-')+%'>'$',.'+*)'3')%$''.5')+%.'6',.)%5'
.'3,)+''0&)'0+'7,..-'4$10+' +%'$%8%52'
,0'$')+%$''5,0'-$%%'4/%'*.%'41)'0*8%),8%0'
10%&)/')*'6$%7%.)'0($')(+,.-',.'0%7%$%'('0%0
,%)G '('$%&1/'5,%)',0'*&'(*.0,5%$'4/%'
,86*$)'.(%',.')+%')$%')8%.)'*&'%(C%8''
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5206%6),('6%*6/%'+,/5$%.'01&&%$8-'&$*8'
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%06%(,'//2''+))/%'4%%$'*$'3,.%''.5'6/%.)2'
*&'&$%0+'8%')''.5'7%-%)'4/%0' 7%.',.&'.)0'
3,)+'610)1/'$'%$'6),*.0'*&)%.'$%E1,$%'/(*+*/'
,.'08'//'E1'.),),%0')+%'4%0)'&*$8'4%,.-'&$*8'
F')*'@!'5$*60'*&' $%.(+'4$'.52',.'8,/9')3*'
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0)'.*%0')',0')+%'&*$8'),*.'*&'610'3+,(+'
'66%'$0')*',.5,(')+%'10%'*&'08='5*0%0'*&'
'/(*+*/' .')+%'*)+%$'+'.5'5$2',$$,)'4/%'
%(C%8''',.'51/)0',0'*&)%.'4%.%,)%5'42''
$%51(),*.',.')+%' 01'/'8*)8')' &'/(*+*/'
8%'9,.50'&'&**5'01(+''0'+,-+/2'0')/%5'
8%')'.5'&,0+'03%%)0G,.(/15,.-'5$,%5'&$1,)0'
(*&&%'.'.5'*')8%'/''66%'$')*'4%1.01,)'4/%'
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.*'8*$%'(*88*.'8,0)'9%',.')+%')$%')8%.)'
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,.5%%5')+%'8,0)'9%',0''7%$2'.')1$'/'*.%'
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)+,0 ,0 8*0) %00%.),'/ 3+%.))+% %(C% 8 ' ,0 +%'/,.- .5)+% .%3 5%/,(')% (1),(/% ,0 &*$8,.- &*$.%3 5%/,(')% 8'(%$')%0 .5 5%0)$*20 ,) .5)+10)+% 51$'),*. *&)+% 5,0%'0%,0 .%%5/%00/2 6$*/*.-%5 0 ' 8))%$ *&'()0)'$(+ *$ &,//%$<0 %'$)+ 6*35%$ 9%%60)+% 09,. E1,)% (/%'. .5 '/0* &'7*1$0)+% +%'/,.- 6$*(%00 &3 '0+,.- ,0 '40*/1)%/2 .%(%00'$2 '0 ,) ,0 0*8%),8%0 ,. '. %'$/2 0)'-% *&)+% 5,0%'0% 3+%$%)+%$% ,0 81(+ 5,0(+'$-% 3%'9 0)$',.%5 -$1%/ 8'5% 3,)+ 0*&) *$ 5,0),//%5 3')%$,0 '/3'20 6$%&%$'4/%)* 0*'6 .5 3')%$ 41) %7%.)+') 0+*1/5 .*) 4% 10%5 *&%.

$ # " I % G) ,0 5,&&,(1/))* /'2 5*3.' .2 5%&,.,)% $1/% 3,)+ $%-'$5)*)+% 10% *& 4')+0 ,. %(C% 8' .' 0*8% &*$80 *& %(C% 8' %06%(,'//2 ,. 2*$8- (+,/5$%. 4')+0 5* 81(+ +'$8 .-*1)2 6%*6/%* .)+% *)+%$ +'.5 3+* 01&&%$ &$*8 5$2 (+$*.,(%(C% 8' $%0%84/,.- 60*$,'0,0 (*1$0% *& 8,/5 '/9'/,.% 4')+0 ,0 *&)%. 7%$2 4%.%&,(,'/ $%') 5,0($,8,.),*. +*&$%7%$,0 $%E1,$%5 ,.')+% (+*,(% *& 4')+0 +% 188%$,0)+% 8*0) 01,)'4/%),8% *&)+% 2%'$ &*$)+% 4')+)$%')8%.) * 5 A

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A%*1)H ' .5)8 ,,* ' 6*1$R +% %0('6% *& '&,1,5 &$*8 ,)0 .)1$' (+' . .%/ *$ ('7),2 ,.)*)+% 0140)' .(% *& *$-'.0 <)+% (%/1/'$),001% ' *$ &$*8 &$%% 01$&'(%0 0 %B; '86/%0 8'2 4% 8%.),*.%5 5$*602 ,. ,0 7'$,*10 &*$80 ' .5 %&&10,*.0 $%0,,/),.- &$*8 ,.&/'88'),*.

U G 7%$2 5$2)*.,(3,.)%$ (/,8')% %'.3,.)%$)%86%$')1$% D@g %'0*. ()*4%$)* '$(+ ' ! $%')8%.)*& ,0% '0% 42

U G

+% 61$6*0%0 &*$ 3+,(+ %/%()$,(,)2 ,0 %8; 6/*2%5 ,. 8%5,(,.% '$% 7'$,*10) ,0 10%5 '0 ' 0),81/.))* %B(,)% 810(1/'$ .5 .%$; 7*10),001% 3+,(+ ,0)+% 0%') *& 6'$'/20,0 W$ 6',. '.5 '0 ' 0),81/.))*)+%),001%0 -%.%$'//2H ,)0 (+%8,('/ (),*.' 8'2 4% %8; 6/*2%5 &*$ 5,00*/7,.-),001%0 '.5 (*'-1/'); ,.- 4/**5 3,)+,.' .%1$208'/ 0'(0H '.5 ,)0)+%$8'/ %&&%()0 '$% %86/*2%5 ,. 01$-%$2 &*$ +%'),.- ('1)%$,%0 +% ,.(' .5%0(%.) %/%()$,(/,-+) +'0 4%%.' '5'6)%5 &*$)+% ,//1; 8,.'),*.' *&)+%)+$*')' 0 3%/' 0 *&)+% 4/'55%$ '.5 *)+%$ ('7,),%0 *&)+% 4*52 /%()$,(,)2 ,0 10%5 ,. ,)0)+$%% &*$80 *&G A8H . " ' *$ %/%(;)$,(,)2H A@H . %/%()$,(,)2 -%.%; $')%5 42 ,.51(),*.' 3+%)+%$ 7*/)',(*$ 8 -; .%),(H '.5 A9H B) " '*$8 3 '2# #' *3%0 ,)0 %B,0)%.(%')*' (+%8,('/ (),*.

((% 'G' . " " ' 3+,(+ ,0 -%.%$')%5 42),.51(),*.' 3+%)+%$ 7*/)',(*$ 8 -; 7*-1%' 8'2' -',.' 6*00,4/2')9%,)0 6/'(%' 0 '

$%(*-.,0%5)+%$'6%1),(' '-%.) +'$(*)' (*.;)%.50)+')',.'0*8%('0%0 *& 810(1/'$'3'0),.- &$'.9/,.,0 8'3,// 6$*51(%''(*.)$'(),*.' +%$% 4*)+' &'$'5,08'.5' -'/7'.,0 8'&',/)* 5* 0*H '.5',.'0*8% ('0%0 *& 0+20)%$,''<'/0*' &$'.9; /,.,0 8'0%% 80)* 4% *& 1.5*14)%5 0%$7,(% @ . / 0+*1/5 (*.0,0) *& A'R '(*,/ *&',.01/')%5 (*66%$ 3,$%')+%.50 *& 3+,(+'$%',.'(*.%B,*.'3,)+')+%6/')%0 *&''-'/7'.,(' (% + ,0 ('//%5)+% ' .5 (*.)',.0''41.5/% *& 0*&) ,$*.'3,$% ,.',)0 ,.)%$,*$ ' 0%(*.5 (*,/ *&',.01/')%5 (*66%$ 3,$%' 8'5% *&&,.%$ 3,$%' .5 (*.)',., .-'' -$%')%$ .184%$ *& 06,$'/0)+'.)+% 6$,8'$2' *7%$ 3+,(+ ,)* ,0 8'5%)* 0+5% H)+,0 ,0 ('//%5')+% " ' A(R .' "7 '('6'4/% *&',.)%$$16),.-')+% (1$$%.) '1)*8'),('//2 .5 3,)+' -$%')* $'6,5,)2 42 8%.0 *&')+% (*.0)'.)/2 $%(1$$,.- 8'-.%),(' (),*.'*&')+% 41.5/% *&',$*.'3,$%0 ,.')+%,.,)%$,*$ *&')+% 6$,8'$2 (*,/ +%0%4'))%$,%0 0+*1/5 +'7% 8%'.0 *& -('51'),.-')+% ,.,)%.0,)2 *&')+% (1$$%.) *& %,)+%$ (*,/'.5 *& ,.(/15,.-')+% 6'),%.)',')+% (,$(1,)*& %,)+%$ (*,/3,)+*1)'/)%$,.-')+% (*.%B,*.0 *&')+% (*.51(),.-'3,$%0 *8%,8%0')+% -'/7'.,(' %/%8%.) ,0 $%6/'(%5 42''/'$-% 8'-.%)' '0 ,.')+% 3%// 9.*3.'$*)'),.-' 8'-.%)* ,.51(),*.' '66$')10

9 B) " ' '3+%.'10%5 &*$)+%$'; 6%1),(' *$ %/%()$*/2),(' 61$6*0%0' 0+*1/5 4% (*86*0%5 *& A R '' /'$-% .184%$ *& 08'// (%//0 *& /*3 %/%()$*8*),7% &*$(%'.5 '0 (*., 0)'.) ,.')+%,$ '(),*.' '0 6*00,4/% +% (%//0 9.*3.'0)+%0 %(/'.(+5 <'$%)+% 4%0)' ALR %'.0 *&',.(/15,.-',.')+% (,$(1,)'.2 .184%$ *& (%//0 ')3,//0*)+'))+%$%42)+%,.)%.0,)2 *&')+% (1$$%.) 8'2 4% $%-1/')%5 A(R %'.0 *& *6%.,.-'*$ (/*0,.-') +% (,$(1,)')3, '.5 *& $%7%$0,.-')+% 5,$%(),*.'*&')+% (1$$%.) 3,)+; *1) '/)%$,.-')+% 6*0,),*.' *&)+% (1$$%.) ('$$,%$0 A$+%*6+*$%0R *.')+% 6'),%.)<0 4*52 +,0 ,0 %&&%()0 '$% %86/*2%5 ,. 01$-%$2 &*$ +%'),.- ('1)%$,%0 +% ,.(' .5%0(%.) %/%()$,(/,-+) +'0 4%%.' '5'6)%5 &*$)+% ,//1; 8,.'),*.' *&)+%)+$*')' 0 3%/' 0 *&)+% 4/'55%$ '.5 *)+%$ ('7,),%0 *&)+% 4*52 /%()$,(,)2 ,0 10%5 ,. ,)0)+$%% &*$80 *& G A8H . " ' *$ %/%(;)$,(,)2H A@H . %/%()$,(,)2 -%.%; $')%5 42 ,.51(),*.' 3+%)+%$ 7*/)',(*$ 8 -; .%),(H '.5 A9H B) " '*$8 3 '2# #' *3%0 ,)0 %B,0)%.(%')*' (+%8,('/ (),*.

((% 'G' . " " ' 3+,(+ ,0 -%.%$')%5 42),.51(),*.' 3+%)+%$ 7*/)',(*$ 8 -; 7*-1%' 8'2' -',.' 6*00,4/2')9%,)0 6/'(%' 0 '

6/*2%5' ' .5')+%0%' ,. 0)$* 8 %')0' '$%' ('/,4$')%5')*' $%-,0)%$',.)%. 0,)2' ,.' 8 ,//,' 8 6=$%0H ' .5' ,.' $%(*$5,. -' 3%' 0 '2')+ ')' 0)+%' 8 10(/%'(*.)$'()%5' ,)+' '' (1$$%.)' *&' 0*' 8 ' . 2' 8 ,//,' 8 6%$%0 ‹ ^% ')%$,%0' 3+,(+' '$%' $%E1,$%5' &*$' +%'),. -' 3,$%0' ' .5' ('1)%$,%0' 8 10)' +%' (*8 6*0%5' *& (%//0' *&' +,-+' %/%()$* 8 *),7%&*$*%' ' .5' 'Of/'$-%' 'O' ,0' 6$' (),(''//2' 6*00,4/%' +%' .184%$' *& (%//0' *$ %/% 8 %.)0' ,0' *&' /%00' ,8 6*$)' .(%')+' .')+%,$ 0,0%')' ,0' .*)' 1.101'/')*' +' 7%' &*$')+,0' 61$6*0%' $*7%0<0' *$' 1.0%.<0' (%//0' ('6'4/%*&' (*.)' ,. -' '' 6,.)' *&' /,E1,5' %'(+' ((181; /')*$0' *$' 0)*$' -%' 4')))%$,%0' '$%' .*3' 8 1(+' 10%5' &*$')+,0' 61$6*0%

+%' %00%.),'/' .5' 5,0),. (),7%' 5,&&%$%.(%0' *&')+%')3*' &*$8 0' *&' (1$$%.)' A-'/7' .,(' .5' &'$5,*' 3,/' .*3' 4%' 5%0($,4%5

+%' '/7' .,('),$$%.) bL +%' -'/7' .,(' (1$$%.)' ,0' A8' " " ')) ' +%.(%',)' ,0' 06*9%.' *&' &$%E1%.)/2' 0')+%' 0(*.),.1*10' (1$$%.)H‹ A@')' 2 ' 2 ' "' # ' ' & " D ' ')+%' 6*0,),7%' 6*/%' 3+,(+' ,0' ,.' (*,8 %B,*.' 3,)+')+%' (*66%$' *$'$%(%,7,.-' 6/')%' ')+%' .%-'),7%' 6*/%' c3 (+' ,0' ,.' (*.; .%B,*.' 3,)+')+%' C,.(' *$' -%.%$'),.-' 6/')%' +,0' &'()' 8 10)' 4%' (*.0)' .)/2' 4*$.%' ,.' 8 ,.5' 4%('10%')+%' '(),*.' *&')+%')3*' 6*/%0' ,0' 8 '$9%5/2' 5,&&%$%.)' ' .5' ,)' +'0' 4%%.' '00%$)%5' A*.' 7%$2' 5*14)&1/' %7,5%.(%' +*3%7%$R')+')')+%' 5,$%(),*.' *&')+%' (1$$%.)' ,.')+%' 4*52' 3+%)+%$')*3'$50')+%' .%$7%(%.)$%0' *$')*; 3'$50')+%' 6%$,6+%$2'+'0' '.',86*$)' .)' %&&%()' 16*.')+%'6+20,*/*-,('/' .5')+%$'6%1),('/' %; 01/)0' A9R')'+'0' 3%// 8 '$9%5' # ' " ' # ' ' +,0' '(),*.',0' 8 *0)' 8 '$9%5' ')')+%' .%-'),7%' 6*/%' 3,)+' 3+,(+',&' '' 8 *5%; $')%/2',.)%.0%' (1$$%.)' 4%' 10%5'+%')'$%5.%00' ,.&/' 8 8'),*.' '.5'%7%.'0/*1-+,.-'*&')+%' 09,.' 8 '24%'$%'5,/2'6$*51(%5')',0')+%$%&*$%'/3'20' .%(%00'$2')*' &$%E1%.)/2'(+'.-%')+%' 6*0,),*.' *&')+%'.%-'),7%' 6*/%' *.')+' '*' 4*52' A R')'+'0' %&&%()0' +%.' '-'/7' .,(' (1$$%.)' ,0' 6'00%5')+$*1-+' '(*.51(),.-'(*86*1.5' /,E1,5' 5%(*86*0,),*.' *&')+%'+E1,5' $%01/)0' *B2-%.' A,&' 3')%$' *.'/2'4%' 10%5R' 4%,.-'%7*/7%5' ')+%' 6*0,),7%' 6*/%' 3+,/%'+25$*-%.' *$' '/9','/0' '0')+%' ('0%' 8 '2'4%' '$%'%7*/7%5')'+%' .%-'),7%' 6*/%' ,.(%')+%' +18 '.' 4*52' (*.0,0)0' *&' ' 8 '00' *&' (%//0' 3+,(+' (*.)' ,.' .5' '$%'4')+%5' ,.' 0'/,.%' &/1,50' 8 '.2' *&')+%' 6+%.*8%.' *4; 0%$7%5' *.' 6'00,.-'-'/7' .,(' (1$$%.)0')+$*1-+')+%' +18 '.' 4*52' *$ '.2' 6'$)' &.,)' '$%' 6$*4; '4/2' 51%')*')+,0' %/%()$*/2),(''(),*.' '$'5'2' ('//%5')+%' 6*0,),7%' 6*/%')+%' " ' '.5')+%' .%-'),7%' 6*/%')+%' # ' '.5')+%0%')%$80' '$%' &$%E1%.)/2' %86/*2%5

.51(%5' 1$$%.)G +)+'$%-'$5')*')+%' ,.51(%5' (1$$%.)')+%' &*//*3,.-'6*,.)0' 810)' 4%' $%8%84%$%5' A R')',0' " ' ,.' " ' A@R')0' "' ' " " ' # "0"0'0*')+')',.'10,.-',)',0'/%00'.%(%0; 0'$2')*' 5,0),.-1,0+'4%)3%%.')+%' 6*/%0' A"R')0' # ' " ' ' '$%" ' A R')'+'0' 81(+'-$%')%$'0 " "'‹)+'.')+%' -'/7' .,(' (1$$%.)G)+')',0',)*7%$ (*8%0')+%' $%0,0)'.(%' *&')+%' 4*52' 3,)+'&'$ -$%')%$' %'0%' AFR')' # ' " "' ' # ' ' &'$' 8*$%' $%'5,/2')+'.')+%'-'/7'.,(' (1$$%.)' 10(1/'$'(*.)$'(),*.0' *./2' *((1$' ')'+%' 8*8%.)' *&' 8'9,.-' *$ 4$%'9,.-'' (1$$%.)' '.5',)',0' 8',./2')*')+%' $'6,5',.)%$$16),*.0' *&')+%',.51(%5' (1$$%.)')+')',)0'+,-+'0),81/'),..-'6*3%$',0' 5$&%' +%' (1$$%.)' *&')+%' 0%(*.5'$2' (*,/' +'0' -$%')%$')%.0,*.' 8*$%'6%.%)$'),..-'6*3%$''.5'-$%')%$' 0),81/'),..-'6*3%$'+'.')+%' (1$$%.)' *&')+% 6$,8 *$2'(*,/' *$0%B)$' (1$$%.)‹ +,0',0' 51%)*' ,)0' 4%,+-' (*86*0%5' *&',.%$' 7$,$%' ' .5' +'7,..-''=%')%$' .184%$' *&')1$.0

+%' 0),81/'),..-' %&&%()0' *&')+%' -'/7' 8 ('(1$$%.)' 3+,(+' '10%' 810(1/'$' (*.)$'(),*.' *((1$' *./2' ')')+%' 8*8%.)' *&' 8'9,.-' $ 4$%'9,.-')+%'(1$$%.)'' .5'.*)'51$,.-',)0'(*.;),.1'.(%' ' .5')+%' 0),81/'),..-' %&&%()' *&')+%)3*' 6*/%0',0' 5,&&%$%.)' '0' 8 '2'4%' 5%8*.; 0)$')%5' 42')+%' 06*/'$' 8%)+*5' *&',.7%0),.-';),*.‹ ,.0),)1)%5' 42' $%.. %$' *&')' %)%$0,' 41$-' &'*.%' $+%*6+*$%' 4%' 6/'(%5' *.'' ' ,.5,&&%$.)' 6'$)' *&')+%' 4*52' '0')+%' 4'(9'' .5')+%' *)+%$' 4%' 6/'(%5' *7%$' '' .%$7%)$1.9' *$ 810(/%'3%' $%' '4/%' 42' 8%'.0' *&')+%' (*881;)')*$' '.5' 9%2')*' 0)152')+%' '(),*.' *&' %,)+%$ 6*/%' *.' .%$7%0' '.5' 810(/%0' 51$,.-')+% 8 '9,.-'' .5' 4$%'9,.-' *&')+%' (1$$%.)' ,)+' 3%'9' (1$$%.)0',)',0' &*1.5')+')' (*.)$'(),*.' %.01%0' *./2' 3+%.')+%' 0),81/'),..-' $+%*6+*$%' ,0' .%-'),7%' A=)+*5%R' '.5' *./2' *.' (/*0,.-')+%' (,$(1,)' +,0',0' ('//%5' ')+*5'/ /*01$%' *.)$'(),*.'A R' &')+%' 0)$%.-)+' *&')+% (1$$%.)' 4%' 0/,-+)/2',.($%'0%5'3%'-%)'(*.)$'(;),*.'/0*' 3+%.')+%' 0),81/'),..-' $+%*6+*$%',0' 6*0,),7%' A'.*5%R' '.5')+%' (,$(1,)',0' *6%.%5' A R' %B)' &*//*30' .*5'/ /*01$%' *.;)$'(),*.'A R' 41)' ')+*5'/ 6%.,.-' *.;)$'(),*.0' A R' .%7%$' *((1$' ,.' +%')+2' 810(/%0'3,)+' .2' (1$$%.)0' 0+*$)' *&')+*0%' *& 1.4%'$'4/%',.)%.0,)2

+%' -'/7' .,(' (1$$%.)' 1./,9%')+%' ,.51(%5' (1$$%.)' '&&%()0')+%' .%$7%0' *&' 06%(,'/' 0%.0%' &',)' 4%' '66/,%5',.')+%' .%,-+4*1$+**5'*&')+% %2%0'&/'0+%0'*&'/,-+)' '$%' 0%%.''.5'4/,.5.%00' +'0'$%01/)%5',.'*.%' ('0%'&$*8')+%',.('1),*10' '66+*')*.'*&'0)$*.-'(1$$%.)0')*')+%' &'(%' +%'-10)')*$2'.%$7%',0''&&%()%5',.''' 0,8,/'$' 3'2'.5')+%' 0-'/7'.,(')'0)%‹ ,0' 6%$(%,7%5' 3+%.')+%'$+%46+*$%0''$%'6/'(%5'*.')+%'(+%%9' +%')'0)%',0''(,5'3,)+')+%'6*0,),7%'41)'8%)'/; /,(''.5'(*66%$2'3,)+')+%'.%-'),7%'6*/%' &')+%'$+%*6+*$%0''$%'+%/5')*')+%'%'$'.1.4/,.-' .*,0%0''$%'6$*51(%5''.5',)'0'0',5')')0),81; /'),*.'*&')+%'*/&'()*$2'.%$7%'3,//-,7%'$,0%')*' '6%(1/,'$'08%//

.,810'+'0'6*,.)%5'*1)''&1$)+%$'5,0),.(;),*.'4%)3%%.')+%',.51(%5''.5')+%'-'/7',(' (1$$%.)'0'.',.51(%5'(1$$%.)‹ +%'0'20' 0*./2''()0'51$,.-')+%',.&,.,)%/2'0+*$)',)8%' *&',)0'6'00'-%''&)%$'3+,(+'%7%$2)+,.-'$%)1$.0')*' *$5%$' ' ')' (' .' .%7%$'4%' .2)+,.-'%/0%' 41)' ''0%$,%0'*&'0/,-+)'%B(,)%8%.)0' ,)+'(*.; 0)'.)'(1$$%.)0'$%'/'%B(,)%8%.)'0'5%)%$8.,.%5' *./2''')'+)+%' .%-'),8%0'*&'8'9,.-'' .5'4$%'9,.-

H' H' <

; B

)+%' 02 8 6 ')+%),(' + ' 0' 4%% . '% 8 6/*2%5',. ' (+$* . ,(' 5%-%. %$ '),7%(+ ' . -%0' , . ')+%' 4$ ' , . ' *$' (*$5 ' 41)' 3,)+ ') ' 5*14)&1 /' 01((%00 +%' /*(' /,0%5' ' 66/,('),*. ' *& ')+%' %/%()$,(' (1$$%.)')+')+%' 6 ' $ ' /20%5' 8 10(/%0' ,0' *& ' 1 . ; 5*14)%5' 0%$7,(% ' . 5' , . ' % 8 6/*2,. -' ,)' 3 %' 0+*1/5' 4%' $' , . ' 8 , . 5')+%' &*//*3 , . -' $1/%0 ' 0')*')+%' *4>%()' *& ' *1$')$%') 8 %.)' 3 %' 0+*1/5' $% 8 % 8 4%$')+%' 3 *$50' *& ' ,$' +* 8 ' 0' ')0*. ' 0 +')' *1$' , 8 ' ,0')*' 6$%0%$7%')+%' 8 10(1/' $' 6 ' $)' *& ')+%' /*(* 8 *),7%' '66 ' $')10' , . ' ' 0)')%' *& ' +%' /)+' . 5' $% ' 5 , . %00 ' 1 .),/' 6%$ ' 57%.)1$%')+ ') 6*$),* . ' *& ')+%' 4$ ' , . ' &$* 8' 3 +,(+' 7*/,),* . ' 6$*; (%%50' + ' 7, . -$%**7%$%5',)0' &1 . (),* . ' *$')+%' $* ' 5' 42' 3+,(+' ,)0' 8 %00 ' - %0')$ ' 7%/' + ' 7, . -' 4%%. ' $%; 6 ',$%5')+%' , . &/1%. (%' *& ')+%' 3&/' 0+ ' // ' - ' , . ' $%' (+' . 5' $%' . , 8 ')%')+%' 6 ' /0,%5' /, 8 40 < @' /3 ' 20')*' % 8 6/*2')+ ')' &*$8' *& ' (1$$%.)')*' 3+,(+')+%' 8 10(/%0' 8 *0)' $%' 5,/2' $%06*. 5 ' +),0' ,&')+%' 8 10(/%0' ' ()' $%' 5,/2')*' &' $ ' 5,0 8 ')+%. ' &' $ ' 5,0 8 ' ,0')*' +%' 10%5 ' . ' 0* 8 %' ('0%0' *& ' l6$,6+%$' / 6 ' /02' 3%' &, . 5')+ ')' (*.)$ ' (),*. ' &*//*3 0' *. /2' *. ')+%' ' 66/,('),*. ' *& ' ' 7%$2' 0)$*. -' - ' /7 ' . ,(' (1$$%.)' 7%$2' 0/*3/2' , .)%$; $16)%5 ' . 5' '((*$5,. -/2' ' 0/*3/2' , .)%$$16)%5' - ' /7 ' . ,(' (1$$%.)' 8 10)' 4%' 10%5 ' 0')+%' ('0%' , 8 6$*7%0' 0+ ' //' &, . 5')+ ')' ' 3%' 9%$' (1$$%.)' 6$*51(%0' 0, . $, /' $' $%01/)0' ' . 5')+ ')')+%' 8 10(/%' (*.)$ ' ()0' 3,)+' 8 *5%$ ')%/2' $ ' 6,5' , .)%$$16), *. 0 ' . 5' 0*' 3, /' , 8 6$*7%8%.)' -$ ' 51' //2')' 9%' 6/' (%' , . ' &' 7*1$ ' 4/%' ('0%0'),/' &' $ ' 5,*' ,$$,)' ; 4, /,)2' . 5' / 0)/2' 7*/1 .)' $2' 6*3%$' $%$%0)*$%5 " ' /3 ' 20')*' % 8 6/*2')+%' 3%' 9%0)' (1$$%.)0' 3+,(+' 3 /' ('10%' 8 10(1/' $' (*.)$ ' (),*. ' . ' . 5' 0. %7%$')*' $1. ')+%' $,09' *& ' %B+' 10),. -' '' 8 10(/%' 42' (' 10,. -' '')*' ' 6$*/*. -%5' (*.)$ ' (;),*. ' ' (+' 8 10(/%' 0+*1/5' 4%')' 9%. ' , . ')1$. ' ' . 5' 4%' 8 ' 5%')*' (*.)$ ' ()') 3*' *$')+$%%'), 8 %0' , . ' 01((%00,*. ' ' . 5' +' 7, . -' -*. %' *7%$')+%' 3+*/%' *& ')+%' 6 ' $ ' /20%5' 8 10(/%0' 0%$, '), 8 ')+%' 6$*(%00' 8 ' 2' 4%$%6%')%5 ' . ' 66/,('),*. ' *& ')+, 0' 9, . 5' %7%$2' *)+%$' 5 ' 2', 0' 101' //2' 01&&, (. %.) ' &')+%' 6 ' $ ' /20, 0' *')+%' 3, //' $% 8 ' , . ' ' 40*/1)%' ' . 5' , &')+%' (*.)$ ' (),/,)2' *& ')+%' 8 10(/%0' 4%' 6%$&%()' 3%' 5*' . *' -**5' 42' 6%$0%7%$, . -' 3,)+' %/%()$, (' /')$%') 8 %.)' +, 0' (*. 5,), *. ' . 0' *&)%. ' 8 %)' 3,)+' , . ' +% 8, 6/%-, ' ' +%' 6 '), %.)' , 0' '40*/1)%/2' +%/6/%00' *. ' *. %' 0, 5%' ' /)+*1-+')+%' 6 ' $ ' /20%5' 8 10(/%0' '$%' , . ' . *' 5%-$%%' 3 ' 0)%5 ' ' . 5')+%, $' , $$,)' 4, /,)2' $% 8 ' , . 0' . *$ 8 ' /' F' &')+%' 6 ' $ ' /20, 0' *')+%' 3, ' $% 8 ' , . ' ' 40*/1)%' ' . 5' , &)+%' , $$,)' 4, /,)2' *& ')+%' 8 10(/%0' 4%' 5, 8 , . , 0+%5 ')+%. ' %/%()$, (,)2' , 0' 10%&1/' , . ' 0*' &' $ ' 0' ,)' +%/60')*' , 8 6$*7%')+%' . 1)$,), *. ' *& ')+%' 8 10(/%0' ' . 5' $%0)*$%')+%, $' . *$ 8 ' /' 5%-$%%' *& ' , $$,)' 4, /,)2' +%' . *$ 8 ' /' 5%-$%%' *& ' , $$,)' 4, /,)2' ' . 5' . 1)$, ; ,)*. ' 4%, . -' $%0)*$%5' A)+%' 6 ' $ ' /20, 0')*')+%' 3, //' $% 8 ' , . , . -' ' 40*/1)%R' %/%()$, (' /')$%') 8 %.)' 8 ' 2' 4% 5, 0(*.), . 1%5' L' &')+%' , $$,)' 4, /,)2')*' 4*)+' &*$8 0' *& ' (1$$%.)' +' 0' (*8 6/%)%/2' 5, 0; '66%' $%5' 3%' $%' . *)' >10), &, %5' , . ' 6%$0%7%$, . -')**' /*. -' . *$' , . ' +*/5, . -' *1)' 5%/10, 7%' +*6%0')*')+%' 6'), %.)' %7%$)+%/%00')$%') 8 %.)' 0+*1/5' . *)' 4%' '4' . 5*. %5' 3,)+*1)' '' 6'), %.)')$, '/' m *$')+%')$%')8 %.)' *& ' 06%(, ' /' &*$8 0' *& ' 6 ' $ ' /20, 0' 42' %/%()$, (,)2')+%' $%' 5%$' , 0' $%; &%$$%5')*')+%' '66$*6$, ')%' 0%(), *. 0' *& ')+, 0' 3*$9 f

"' 5"' 6 ' & " G +%' 6*3%$' *& %/%()$, (,)2' ') ' 6 ' , . ' , 0' 7%$2' -$%') ' +%' $%/, %& ' , 0' 101' //2')% 8 6*$' $2' 41)' , . ' 8 ' . 2' ('0%0' , 0' 6%$8 ' . %.)' /%()$, (,)2' 8 ' 2' ' ()' 42' 0%$7, . -')*' 5,7%$)')+%' 8, . 5' &$*8')$*14/%0' $%' /*$' &' . (, %5' ' *$' ,)0' (*1.)%$, $$,)'), . -' %&&%()0' 8 ' 2' 0%$7%)+%' 0' 8%' 61$6*0%' '0' *)+%$' (*1.)%$ ' , $$,)' .)0' 3+*0%' 6*3%$')*' $%/, %7%' 6 ' , . ' , 0' 3 %//' $%(*-. , 0%5 ' (('0, *. ' //2' %/%()$, (,)2' 3, //-, 7%' $%/, %& ' 3+%. ' %7%$2' 9. *3. ' $% 8 %52' +' 0' &', /%5' ' . 5' , . ' 01(+' ('0%0' 3%' 8 10)' 0166*0%')+'), ' ' ()0' 42' 4$, . -, . -' ' 4*1)' 0* 8 %' (+' . -%' , . ')+%' . %$7%0')+% 8 0%/7%0' 42' ,)0' 06%(, &, (' ', *. ' * . ' . %$7*10'), 001%' //')+$%%' &*$ 8 0' *& %/%()$, (,)2' '$%' % 8 6/*2%5' &*$')+%' $%/, %& ' *& ' 6 ' , . ' 41)')+%' -' /7 ' . , (' (1$$%.)' 3, //' 4%' &*1. 5')+%' 8 *0)' -%. %$' //2' '66/, ('4/%' *8%' 3$,)%$0' , . 0, 0)')+')')+%' ' . *5%' A6*0,), 7%' 6*/%R' 0+' //' 4%' '66/, %5')*')+%' 6 ' , . &1/' 06*)')$*. -' &' $ ' 5, 0 '), *. ' 0%$7%0' , . ' 0* 8 %' *' 0%0')*' -, 7%' $%/, %& ' +%' %&&%()0' *& ' -' /7 ' . , 08 ' 0+*1/5' 4%')$, %5' , . ' %7%$2' ('0%' *& ' . %1$ ' /-, ' ' 41)' ,)' , 0' . *)' ('6 ' 4/%' *& ' $%/, %7, . -' ' //' ('0%0' ' . 5' 5, 0 ' 66*, .) 8 %.)' , 0' . *)' , . & $%E1%.)' +%$%' 8 10(1/' $' 8 *7%8%.)0' , . ($%' 0%')+%' . %1$ ' /-, (' 6 ' , . 0 ' ' ' $+2)+8, (' /' %B%$(, 0%' *& ')+%' '&&%()%5' 8 10(/%0' 0+*1/5' 4%' (*. >*, . %5' 3,)+')+%' -' /7 ' . , 08 ' %' 5 ' (+%' *& ' ' //' 9, . 50' . *)' , . & $%E1%.)/2' 2, %/50')*' %/%()$, ; (,)2' Ħ /184 ' -*' 0(, '), (' ' . 5')+*0%' 6 ' , . &1/ 8 10(1/' $' (*. 5,), *. 0' 3+, (+' 5')+' 0$+%1; 8 '), (‹ '$%' E1, (9/2' $%/, %7%5' 42' ,)' , . . ,)10' '1$, 18' 3, //0* 8 %), 8 %0' 2, %/5')*')+%' -' /7 ' . , (' (1$$%.)' 3+%. ' ' //' *)+%$' $% 8 %5, %0' +' 7%' & ' , /%5 2' 5" ' C G . ')+%')$%'); 8 %.)' *& ' 06 ' 08 *5, (' 5, 0%' 0%0' %/%()$, (,)2' , 0' *& ' /, 8 ,)%5' 1), /,)2' * 8%' &*$8 0' *& ')$% 8 *$' '$%' $%/, %7%5' 42' ,)' * 8%' '--$ ' 7 ')%5' ('0%0' *& ' 3$,)%$<0' ($' 86' +' 7%' 2, %/5%5')*' ,)' 3+%. ' '//' *)+%$' $% 8 %5, %0' +' 7%' & ' , /%5' ' . 5' '' &%3' ('0%0' *& ' (/*. , (')*$), (*//, 0' +' 7%' $% (%, 7%5' 1. 5*14)%5' 4%. %&,)' 42' ,)0' >15, (, *10' 66/, (',), *. ' * . , (' 06 ' 08 ' *& ' , .)%$. ' /' *$-' . 0' 01(+' 0')+%' 4*3%/' . 5' 4/' 55%$' +' 0' 4%%. ' $%/, %7%5' 42')+%' - ' /7 ' . , (' (1$$%.)

9' 5"' # ' C G . ' ' 55,), *. ')*')+%')$%') 8 %.)' *& ' 5, 0%' 0%0' *& ' '' 61$%/2' . %$7*10' (+' $' (0)%$' %/%()$, (,)2' +' 0' 4%%. ' % 8 6/*2%5' 0' '' $%8%5, '/' -%.)' , . ' 5, 0%' 0%0' 3+*0%' *$, -, . ' , 0' . *)' 0*' *47, *10/2' (*. . %()%5' 3,)+')+%' . %$7*10' 020)%8 ')' +' 0' $%/, %7%5')+%' 6 ' $*B20 8 0' *& ' . -, . ' ' 6%()*$, 0' ' . 5')+%' 41$. , . -' 6 ' , . 0' 3+, (+' '((*86' . 2' +%$6%0' C*0)%$')' +' 0' 4%%. ' % 8 6/*2%5', . ')+%')$%') 8 %.)' *& ' 8 ' . 2' *40), . ')%' 09, . 5, 0%' 0%0' 42' 8%$, (' . ' 6+20, (, ' . 0' ' . 5' $' +%' 5/%' +' 0' $%(*$5%5' ' ' ('0%' , . ' 3+, (+')+%' 5, /')%5' 7%00%/0' , . ' '(. %' $*0' (%' ' 3%$%' 8 ' 5%')*' (*.)$ ' ()' 42' &' $ ' 5, 0'), *. ' +%1 ' 8 '), (' -*1)' , 0' 0' , 5')*' +' 7%' 4%%. ' 4%. %&,)%5' 42' ' ' 0(%.)$ ' /' ‹ '66/, ('), *. ' -' /. 0 8 ' A*. %' 6*/%')*')+%' . 1(+' ' ' . 5')+%' *)+%$')*')+%' %6, -' 0)$, 18 R' +%' &/*3' *& ' 1$, . %' , . ' 5, '4%)%0' +' 0' 4%%. ' 0)')%5')*' 4%' 5, 8, . , 0+%5' 42' ' ' 0, 8, /' $' 6$*(%00' Ħ ' . 5')+%' 0 2 8 6)*8 0' *& ' %B*6+)+' /8, (' -*,)$%' +' 7%' A,)' , 0' 0' , 5R' 4%%. ' 5, 8, . , 0+%5' 42

-'/7'.,0'),*.' *&')+%' (%$7,('/' 02 8 6')+%),('
+%$%' ,0' ,.' &'()' 0('$(%/2' '' 5,0%'0%' &$*8'
%6,/%602')*' (+,/4/',.0',.' 3+,(+',)' +'0' .*)'
4%%.'' %-%5')+')' %/%()$,(,)2'+'0'4%%.'*&' 10%'
.'*40)%)$,(' 8%5,(,.%'&*$')+%' '$$%0)' *&' 7
'+'%8*$$+'-%'&'$'5,0'),*.',0'.*3'*.%'
&)+%$%(-.,0'5'8%'.0')*'4%%8 6/*2%5H''.5'
,)'+'0'4%%.'*&' 8*$%' 5*14)&1/' 0%$7,(%'&*$')+%'
$%(),&,('),*.'*&'5,06/'(%8%.)0'*&')+%' 1)%$10'
7'$,'.' 6',.' '.5')%.5%$.%00' +'7%' 4%%.'
$%/,%7%5'42')+%'-'/7'.,('(1$$%.)''.5''8%.*$'
$+*%'' +'0'*&)%.'J.%/5%5')*'%/%()$,(,)2
N' 8 '! 'A)/" " '
+%'(+%8,('/'.5')+%$8'/'%&&%()0'*&'-'/7'.,08'
'$%'/'$-%/2' %86/*2%5'4*)+',.'0).-%$2''.5'
8%5,(,.%')0')+%$8'/' %&&%()' +'0'4%%.'10%5'
&*$')+%'+%'),..-'*&'('1)%$,%0H''.5'('1)%$,%0'0*'
+%')%5'+'7%'7%$2'*47,*10'57'.)'-%0'*7%$'//
)+%$'&$80' +%' (+%8,('/' %&&%()' *&')+%'
.%-'),7%'6*/%'+'0'4%%.'10%5'0''('10),('&*$'
)+%'5%0)$1(),*.'*&'),001%0''.5')18*1$0'*&'
(*.0,5%$'4/%'0,C%'+'7%',' ,0'0',5'4%%.'05,0;
6%$0%5< 42',+,0'8%'.0' +%')%')8%.)'*&'
1)%$,.%&,4$*,50''0'$%(*88%.5%5'42' 6*0)*/,'
42'6'00,.-''' (1$$%.)'*&'@F!'*$ 8*$%'8,//,'
'864$%0'42'8%'.0'*&''(/'2'$+%*6+*$%'
'66/,%5')*')+%'45*8%.''.5''06%(,'/6/'),.18'
$+%*6+*$%',.0%$)%5',.')+%'1)%$10',0''8*5%*&'
)$%')8%.)'3+,(+',0'*((162,.-')+%'))%.),*.'
*&*40)%)$,(,'.0''.5',0'0), ' #< ' +%'
0'8%'8'2'4%'0',5'*&0,8,/'$'8%'01$%0''66/,%5'
)*'('.(%$*10''.5'*)+%$')18*1$0' '/7'.*'
61+()1$%'+'0'4%%.'10%5',.')+%')$%')8%.)'*&'
+25'),5'(20)0'*&')+%'/,7%$'41)',)'0''('/%'0)'
5*14)&1/'3+%)+%$'0,86/%'61.()1$%,0'.*)'E,,,)%'
'0'0%$7,(%'4/%' '/7'.*61.*)12%'0%%8%5''
.%),8%'/,9%/2')')'9%''$%(*-.,0%5'6*0,),*.'
'8*.-')+%' 8%'.0''*1$'5,06*0'/&*$')+%'
)$%')8%.)'*&'*$),(''.%1$2080' %7%$'/'*'0%0'
3%$%'$%(*$5%5',.'3+,(+',86$*7%8%.)'&*//*3%5'
)+,0'8%)+*5'*&')$%')8%.)'41)')+%' 01((%00'
'))%.5,.-',)'+'0'.*)'*.')+%'3+*/%'4%%.'
%.(*1$'-,.-''.5',)'+'0'&'//%.''/8*0)'%.),$%/2'
,.)*'5,010%'
H0 & 0B'6\M'
<: '.' %/%6+'.)R G '% H)'I3 # '
H %$'I # "
& # G '.*. (*.)'-,*10' 5,0%'0%'
(+'$')0%$,0%5'42' $%(1$$%.(%' *&' &%4$,/%' 6';
$*B2080')'))%.5%5'42',.&/'88'),*.''.5'6$*;
-$%00,7%'+Ю6%$)$*6+2'*&')+%',.)%-18%.)'.5'
'$%*/'$'),001%'(+,%&/2'*&')+%' %B)$%8,),%0' '.5'
-%.,)'/'*$-'.0H''.5'*((0,*.'//2'42'03%//,.-'
*&')+%'/286+'),(' -/'.50''%./'$-%8%.)'.5'
5,/')'),*.'*&')+%'/286+'),(0'.5',.'0*8%'
('0%0'42')+%'(*%B,0)%.(%'*&'(+2/1$,''.5')+%'
6$%0%.(%',.')+%'4/**5'*&'(%$)',.'%8')*5%'
+)%8')*C*'H)*-%)+%$'3,)+'7'$,*10'0286)*80'
,.5,(),7%'*&''8*$4,5'*$'5%6$'7%5'0)')%'*&'
.1)$,),*.
.6 ! /%6+'.),'0,0',0'%.5%8,(',.'
.5,'')+%' '/'2'.'6%.,.01/''+,.''-26)'
$'4,'')+%' %0)'.5,%0''.5'6')0'*&' 8%;
$,('(+,%&/2',.'/*('/),%0'3,)+,.')+%',.&/1%.(%'
&)+%0%''',$'.5',)'((1$0'06*$'5,('//2''//
*7%$')+%'-/*4%'("0'6%$+'60',.')+%'%B;
)$%8%'.*$)',.'(*.5,),*.0'
&'0,/'.5'(/,8')%'01(+''0'+18,5,)2'+%')'
8'/'$,*10',.&/1%.(%0''.5'6$*B,8,)2')*')+%'
0%'(*'0)'0%%8':*'4%'(*.(%$.%5',.'6$*51(,.-'
)+%'5,0%'0%''.5',.&/1%.(,.-',)0'5%7%/*688%.)'
%8*7'/'&$*8')+%'%.5%8,(''$%''&$%E1%.)/2'
(+%(90')+%'5,0%'0%'3+,/0)'$%)1$.')+%$%'$%;
6$*51(%0',)' /%6+'.),'0,0''&&%()0'4*)+'0%B%0'
'.5'6%$0*.0*&'.''-%0'.5'(*.5,),*.0*&'/,&%'
41)'8*$%'8%.'01&&%$'&$*8',)')+'.'3*8%.'
*'$'(%',0'%B%6)'41)',)',0'81(+'8*$%'&$%;
E1%.)',.'5'$9')+'.',.'&','$'$'(%0')'*((1$0'
')'' '-%0'41)',0'8*0)'(*88*.',.''51/)''.5'
8,55/%'+&%'(*86'$'),7%/2'$'$%/2'4%-,...-',.'
2*1.-'(+,/5$%.'*$',.')+%'-%5' /%6+'.),'0,0'
,0'5614)&* 2'+%$%5,)'$2H 41)'U,(+'$50'&*1.5'
)+')'*&'@"D'6%$0*.0'M?'=$'(%.)'+'5'*.%'*$
4*)+'6'$%.)0'&&%()%5'7'$,*10'('10%0''$%'
'00,-.%5'&*$')+%'5,0%'0%' ,$'3')%$'&**5'
'.5''0',)',0'(*88*.'.%'$')+%'0%'(*'0)'%');
,.-'&,0+'+'7%'4%%.'&$%E1%.)/2'($%5,)%5'3,)+'
6$*51(,.-',) %$)',.'&*$80'*&'7%-%)'),*.'
'.5')+%'-%*/*-,('/&*$8'),*.'*&')+%'0*,/'+'7%'
'/0*'4%%.'$%-'$5%5''0'6$%5,06*0,.-''.5'5%;
)%$8,.,-'('/*('/),2'
(*84,.%'3,)+'4'5'/,7,.-''$%'5*14)/%00')+%'
$%'/6$%5,06*0,.-'('10%0H''.5',)',0'6$*4'4/%
)+')''0')+%'/')%' $' '%3,0'01--%0)%5',)'
8'2'4%&*1.5')*'4%,.),8')%/2''00*(,')%5'3,)+'
,&'.*)'%.),$%/2'5%6%.5%)*'.')+%'6$%0%.(%',.'
)+%'4/**5'*&'(%$)',.'6'$'0,)%0' *' $'(%'
%B%86)'&$*8')+%'5,0%'0%'41)'3+')%7%$'8'2'
4%%)+%'%B6/'.'),*.')+%'3+,)%'01&&%$'/%00')+'.'
)+%'5'$9'$'(%0')'5*%0'*((1$'*((0,*.''//2'
)+*1-+'7%$2'$'%/2',.')+%'61$%' 1$*6%'.'
.' .5,''41)'8*$%'&$%E1%.)/2',.')+*0%'*&'
8,B%5'5%0(%.)H,)'3,/'-%.%$'//2'4%'&*1.5'
)+')'3+%$%',)'*((1$0',.'6%$0*.0*&''66'%.)/2'
1$*6%'.'6'%.)'-%')+%$%',0''8,B)*%'+*3;
%7%$'0/,-+)'*&'5'$9'4/**5
! ' $' G +%'+26%$)$*'
6+2'*&'%%6+'.),'0,0',.'8*0)'('0%0''66%'$0'
)*'4%'0,86/2''.',.($%'0%',.')+%'.')1$'/'%/%;
8%.)0'*&')+%'6'$)')+%'4/**5 7%00%/0''.5'/28'
6+'),(0'0+'$,.-',.')+%'-$*3)+'.'*)+%$'
('0%0')+%'/286+'),(0''.5'/286+06'(%0''$%'
8*0)'(*.(%$.%5'-,7,.-'$,0%')*''(*.5,),*.'
)+')'+'0'4%%.'5%0($,4%5''0''') ' # " 7
',.'3+,(+')+%'66%'$'.(%,0'6$%0%.)%5'*&'
''0*&)'.5'&/1()1'),.-'03%//,.-'3+,(+'3+%.'
61.()1$%5'-,7%0',001%')*''3+,)%'*$6,.9,0+'
&/1,5'7%$2'(/*0%/2'$%0%84/,.-'(+2/%' +%'
/286+'),(''-/'.50''/0*'0+'$%',.')+%'.(/'$-%;
8%.)' .*)+%$'$%06%()0')+%'6$*-$%00'*&')+,0'
7'$,%)2',0'/,9%')+')'*&')+%'*$5,''$2'&*$8''*&'
)+%'5,0%'0%
+%' .' '0" ' ,0'0'8%;
),8%0'&*1.5,.'-$%')'.184%$0',.')+%4/**5'*&'
6%$0*.0 01&&%$,..-'&$*8'%/%6+'.),'0,0H'.5')+%
8*0E1,)*',0'(*.0,5%$%5')*'4%)+% 8%5,18'42'
3+,(+')+% +0%8')*C**.'',0')$'.08,))%5')*'
3')%$'.5')+%.(%)*')+% +18'.'4*52H 41)',)0'
('10'/'$%/'),*.0')*')+% 5,0%'0%'$% .*)'40*;
/1)%/2'%0)'4/,0+%5'' '*
#

,.ʼ)+%ʻ 9,5.%2ʻ '$%ʻ .*)ʼ 6$*51(%5ʻ 42ʻ 5%(*/*$ʼ ,0ʼ),*.ʼ *&ʻ +0%8*$$+'-,*ʼ ,.&'$(),*.0ʼ 41)ʼ '$%ʻ 0,86/2ʻ)+%ʻ $%01/)ʼ *&ʻ)+%ʻ .%($*0,0ʻ *&ʻ)+%ʻ %6,)+%/,18Ĥ ' .5ʼ)+%ʼ +'>*ʼ *&ʻ,.>%(),*.ʼ 3+,(+ʼ ,0ʻ *&)%.ʼ0%%.ʼ)*ʼ01$$*1.5ʼ)+%8ʼ,0ʻ 51%ʻ)*ʼ,.; &/'88')*$2ʻ(*.-%0),*.ʼ('10%5ʻ 42ʻ)+%ʻ 6$%; 0%.(%ʻ*&ʻ)+%ʻ.%($*0%5ʻ6')(+ +,0ʻ %B6/'.'),*.ʼ*&ʻ)+%ʻ 8*5%ʻ*&ʻ6$*51(;),*.ʼ*&ʻ)+%ʻ +0%8*$$+'-,%ʻ,.&'$(),*.ʼ,0ʻ 8*$%ʻ (/*0%/2ʻ,.ʼ'((*$5ʻ3,)+ʼ)+%ʻ 7,%3ʼ *$,-,.''//2ʻ 6$*6*1.5%5ʻ 42ʻ ,$(+*3ʼ3+*ʼ $%-'$5%5ʼ)+%ʻ +'%8*$$+'-%ʻ0ʻ51%ʻ)*ʼ(*//')%$'ƒ&/1B,*. @ʼ %ʼ+'7%ʻ.*3ʼ)*ʼ(*.0,5%$ʼ)+%ʻ %&&%()0ʻ*&ʻ %84*/,ʼ3+,(+ʼ6*00%00ʻ,$$,)'),.-ʼ*$ D E1'/,),%0'01(+ʼ'0ʻ)+*0%ʻ5%$,7%5ʻ&$*).')+%ʻ61$, &*$8'0*&)%.,.-ʼ*&ʻ7%.*10ʻ)+$*84,ʼ,.ʼ ('0%0ʻ *&ʻ 0%6),(ʼ ,.&/'88'),*.ʼ +%ʻ 8%(+'.,('/ %&&%()0ʻ3,//ʻ4%ʻ)+%ʻ0'8%ʻ'0ʻ)+*0%ʻ*&ʻ)+%ʻ6$%; 7,*10ʻ(/'00Ĥ 41)ʼ,.ʼ '55,),*.ʼ)+%0Lʻ %84*/,ʼ 0%)ʼ 16ʻ ''01661$'),7%ʻ,.&/'88'),*.ʼ,.ʼ)+%,$ʼ 7,(,.,)2ʼ E1,)%ʻ,.5%6%.5%.)ʼ*&ʻ'.2ʼ*40)$1(;),*.ʼ*&ʻ)+%ʻ(,$(1/'),*.ʼ %.(%ʻ,)ʼ,0ʻ)+'ʼ3%ʻ 8%%)ʼ3,)+ʼ620%8,('40(%00%0ʼ'0ʻ)+%ʻ$%01/)ʼ*&ʻ ,.&%(),.-ʼ%84*/,ʼ,.ʼ'//ʻ6'$)0ʻ*&ʻ)+%ʻ 4*52ʼ 3+,/%ʻ)+%ʻ %&&%()0ʻ*&ʻ*40)$1()%5ʻ(,$(1/'),*.ʼ '$%ʻ &*$ʻ)+%ʻ 8*0)ʼ6'$)ʼ(*.&,.%5ʼ)*ʼ(%$)',. *$-'.0ʼ +10ʻ)+%ʻ/,7%$ʼ,0ʻ7%$2ʻ&$%E1%.)/2ʼ)+%ʻ 0%')ʼ*&ʻ%84*/,('40(%00%0ʼ3+,/%ʻ+'%8*$$+'-,(,.&'$(),*.0ʻ5*ʼ.*)ʼ*((1$ʻ)+%$%ʼ .ʼ)+%ʻ/1.-ʼ 3+%$%ʻ,.ʼ6'$)0ʻ)%88,.'ƒ')%$,%0ʻ'$%ʻ&*1.5ʼ 41)&*$ʻ)+%ʻ8*0)ʻ6'$ʻ)+%$%ʻ,0ʻ&$%%ʻ.'0)*8*0,0ʼ)+%ʻ)3*ʼ6$*(%00%0ʼ'$%ʻ*&)%.ʼ0%%.,0,5%ʻ42ʻ0,5%ʼ +%ʻ5,&&%$%.)ʼ%&&%()0ʻ*&ʻ)+%0%ʻ)3*ʼ(/'00%0ʼ*&ʻ %84*+08ʼ'$%ʻ7%$2ʻ8'.,&%0)ʼ,.ʼ)+%ʻ('6,//'$,%0ʼ ,86/%ʻ%84*+'*&ʻ01(+ʼ08'//ʻ0,C%ʻ'0ʻ)*ʼ4%; (*8%ʻ&,$0)ʼ'$$%0)%5ʼ,.ʼ)+%ʻ('6&//'$,%0ʼ%,)+%$ʻ ('10%.*ʼ6%$8'.%.)ʼ(+'.-%ʻ')ʼ//'*$*')ʼ8*0)ʼ 6$*51(%ʻ''61.*),&*$8ʼ+'%8*$$+'-%ʼ .&%()ʼ 8-ʼ%84*/,ʼ*.ʼ)+%ʻ*)+%$ʻ+'.5ʼ-,7%ʻ$,0%ʻ)*ʼ)+%ʻ8,+'$2ʼ'40(%00%0ʻ0*ʼ*&)%.'0%%.',.ʼ62'%8,' A$

ʼ 6 P#$ʼ ʼ .$* ' ʼ " $ "*ʼ -$)ʼ.$* 3ʼ ʼE !

ʼ6#/ $ʼ ʼ7*8,)R G ʼ ʼA)ʼ I T Ĥ %$ʼ$ # & # G -%.)0ʻ)+')ʼ6$*51()ʼ7*8,); ,.-

* %! G *6,*10ʻ5$'1-+)0ʻ*&ʻ 19%; 3'$8ʼ ')%$ʼ 10)'$5ʼ 1/6+')%ʻ *&ʻ V,.('1/6+')%ʻ*&ʻ *66%$ʼ '$4*.')%ʻ*&ʻ 88*.,18ʼ *88*.ʼ '/)ʼ /18ʼ +'88,/%ʼ '$)'$ 8%),('6%('(1'.+''.5ʼ 6*8*$6+,.% ' " +%ʻ '()ʻ*&ʻ7*8,),.-ʼ(*.0,0)0ʻ,.ʼ)+%ʻ 0,81/)'.%*10ʻ06'08*5,(ʼ(*.)$')(),*.ʼ*&ʻ)+%ʻ 5,'6+$'-8'.5ʼ'45*8,.'ƒ810(/%0ʼ'.5ʼ $%/'B'),*.ʼ*&ʻ)+%ʻ('$5,'(ʼ*$,&,(%ʻ$%8',.0ʻ)*8'(+ʼ0*ʼ)+')ʼ,)0ʻ(*.)%.)0ʻ'$%ʻ%B6%//%5ʼ +%.ʼ)+%ʻ5,'6+$'-8'.5ʼ'45*8,.'ƒ810(/%0ʻ (*.)$')(ʼ41)ʼ)+%ʻ ('$5,'(ʼ*$,&,(%ʻ$%8',.0ʻ (/*0%5ʼ ')+')ʼ)+%ʻ(*.)%.)0ʻ*&ʻ)+%ʻ0)*8'(+ʼ ('..*)ʼ %0('6%')+%ʻ %B61/0,7%ʻ%&&*$)0ʻ'$%ʻ)%$8%5ʼ O T ʼ +%ʻ.%$7*10ʻ(%.)$%ʻ3+,(+ʼ $%-1/')%0ʻ)+%0%ʻ8*7%8%.)0ʻ,0ʻ0,)1')%5ʼ,.')+%ʻ 8%51//'ʼ*4/*.-')'Ĥ '.5ʼ,)ʼ8'2ʼ4%ʻ%B(,)%5ʼ %,)+%$ʻ5,$%()/2ʻ42ʻ)+%ʻ'(),*.ʼ16*.ʼ,)ʼ*&ʻ5$1-0 ('$$,%5ʻ)*ʼ,)ʼ42ʻ)+%ʻ4/**5ʼ*$ʻ $%&/%B/2ʻ42ʻ ,$$,)'),*.ʼ*&ʻ7'$,*10ʻ.%$7%0ʼ +%ʻ5$1-0ʻ)+')ʼ '()ʻ5,$%()/2ʻ16*.ʼ,)ʼ+'7%ʻ)+%ʻ 0'8%ʻ'(),*.ʼ 3+%)+%$ʻ)+%2ʻ'$%ʻ,.)$*51(%5ʻ,8 8%5,')%/2ʼ ,.)*ʼ)+%ʻ(,$(1/'),*.ʼ*$ʻ'40*$4%5ʻ42ʻ)+%ʻ 0)*8'(+ʼ +%2ʻ8'2ʻ)+10ʻ6$*51(%7*8,),.-ʼ '.5ʻ%7'(1'),*.ʼ*&ʻ)+%ʻ0)*8'(+ʼ3,)+*1)ʻ4%,.-ʼ)'9%.ʼ,.)*ʼ)+%ʻ 0)*8'(+ʼ')ʼ//'.5ʼ*.ʼ)+,0ʻ ''((*1.)ʼ)+%2ʻ'$%ʻ)%$8%5ʼ " 2 ʼ%8%),(0ʼ '/)+*1-+ʼ)+%2ʻ'()ʼ5,$%()/2ʻ16*.ʼ)+%ʻ7*8,); ,.-ʼ(%.)$%ʼ 1(+ʼ'$%ʻ,6%('(1'.+''6*8*$ʼ 68.%ʼ.5ʼ)'$)ʼ$ %8%),(ʼ ,8,/'$/2ʻ)+% 5$1-0ʼ)+')ʼ%B(,)%ʻ,)ʼ$%&/%B/2ʻ'$%ʻ0),//)%$8%5ʼ ʼ%8%),(0ʼ4%('10%ʻ)+%2ʻ'$%ʻ'66/,%5ʼ 5,$%()/2ʻ)*ʼ)+%ʻ0)*8'(+ʼ 1(+ʼ'$%ʻ)+%ʻ01/; 6+')%0ʻ*&ʻC,.('(*66%$ʼ'65ʻ'/18,.,18Ĥ ('$; 4*.')%ʻ*&ʻ'88*.,18Ĥ0')/)Ĥ 810)'$5Ĥ ' .5ʼ (+'8*8,/%ʻ3+,(+ʼ,$$,)')%ʻ)+%ʻ .%$7%0ʻ*&ʻ)+%ʻ 0)*8'(+ʼ ,(9/,.-ʼ)+%ʻ&'1(%0ʻ3,)+ʼ'&%')+%$ʼ *$ʻ3,)+ʼ)+%ʻ&,..-%$ʼ'/0*ʼ%B(,)%0ʻ$%&/%B7*8,); ,.-ʼ'.5ʼ8'2ʻ4%ʻ'5*6)%5ʼ%,)+%$ʻ'/*.%Ĥ*$ʻ,.ʼ *$5%$ʻ)*ʼ ,5ʼ)+%ʻ '(),*.ʼ *&ʻ*)+%$ʻ%8%),(0ʼ +%ʻ)%$8 0ʻ ʼ.5ʼ" ʼ)+%$%&*$%'0ʻ '66/,%5ʼ)*ʼ%8%),(0ʼ$%/')%ʻ)*ʼ)+%ʻ0)*8'(+ʼ '.5ʼ.*)ʼ)*ʼ)+%ʻ(%.)$%ʻ&*$ʻ7*8,),.- ,$%()ʼ%8%),(0ʼ'0ʻ)+%2ʻ0),81/')%ʻ)+%ʻ .%$7%0ʻ*&ʻ)+%ʻ0)*8'(+ʼ/.)'7%/,))/%ʻ'(),*.ʼ %B(%6)ʼ)+')ʼ*&ʻ0,86/2ʻ%B(,),.-ʼ7*8,),.-ʼ +%ʻ,.5,$%()ʼ%8%),(0ʼ3+,(+ʼ%B(,)%ʻ7*8,),.-ʼ 42ʻ)+%,$ʼ'(),*.ʼ*.ʼ)+%ʻ 8%51//'ʼ*4/*.-')'ʼ '()ʼ/0*ʼ*.ʼ*)+%$ʻ6$)0ʻ*&ʻ)+%ʻ.%$7*10ʻ020)%8ʼ '.5ʼ('10%ʻ0%($%),*.ʼ*&ʻ0'+7ʼ0%($%),*.ʼ*&ʻ 810(10ʻ&$*8')+%ʻ*%0*6+'-10ʼ0)*8'(+ʼ'.5ʼ 4$*.(+,'/)14%0'.5ʼ6%$06,$'),*.ʼ +%2ʻ/0*ʼ ('10%ʻ810(+ʼ.'10%'5%6$%00,*.ʼ*&ʻ)+%ʻ (,$;(1/'),*.ʼ'.5ʼ/*00ʻ*&ʻ.%$7*10ʻ.5ʼ810(1/'$ 6*3%$ʼ 1$)+%$')+%ʻ7*8,),.-ʼ)+%2ʻ,.51(%ʻ ,0ʻ8*$%ʻ(*.),.1*10ʻ'.5ʼ7,*/%.)ʼ'.5ʼ*&)%.ʼ %B6%/0ʻ)+%ʻ(*.)%.)0ʻ*&ʻ)+%ʻ-'// 4/'55%$Ĥ('10; ,.-ʼ6'$)ʼ*&ʻ)+%ʻ4,/%ʻ)*ʼ&/*)7ʼ,.)*ʼ)+%ʻ0)*8'(+ʼ '.5ʼ4%ʻ)+10ʻ%7'(1')%5

6 G= 8%),(0ʻ E$%ʻ%86/*2%5ʼ)*ʼ $%8*7%ʻ)+%ʻ(*.)%.)0ʻ*&ʻ)+%ʻ0)*8'(+ʼ1.5%$ʼ7'$,*10ʻ (,$(180)'.(%0ʼ ,$0)/2ʼ3+%.')+%ʻ &**5ʼ,0ʼ ('10,.-ʼ,$$,)'),*.ʼ''.5ʼ.*)ʼ1.5%$-*,.-ʼ6$*6%$ 5,-%0),*.ʼ''0ʻ*&ʻ$%B'86/%ʻ,.ʼ5206%60,''*$0,(9ʼ +%'5'*+%Ĥ '.5ʼ+%$%ʻ810)'$5ʼ01/6+')%ʻ*&ʻC,.('.5ʻ01/6+')%ʻ*&ʻ(*66%$ʼ'$%ʻ4%0)ʼ'0ʻ)+%2ʻ86)2ʻ)+%ʻ 0)*8'(+ʼ 8*0)ʼ E1,(9/2ʼ'.5ʼ%&&%()1'//2ʼ +,$5/2')*ʼ('10%ʻ)+%ʻ%B61/0,*.ʼ*&ʻ4,/%ʻ&$*8ʼ)+%ʻ -'// 4/'55%$ʼ*$ʻ $%8*7%ʻ4,/%ʻ&/K*8ʼ)+%ʻ 4*52',.ʼ4,+*10.%00ʼ&%7%$0ʼ'.5ʼ'-1%ʼ +%.ʼ)+%ʻ4,/% 51()ʼ,0ʻ0)*66%5ʻ42ʻ'08'//ʻ-'' 0)*.%ʼ)+%ʻ 6$%001$%ʻ %B%$)%5ʼ*.ʼ)+%ʻ -=4/'55%$ʼ 51$,..-ʼ7*8,),.-ʼ+'0ʻ4%%.ʼ9.*3.')*ʼ('10%ʻ)+%ʻ %B61/0,*.ʼ*&ʻ)+%ʻ('/(1/10ʼ .ʼ4,/,*10; .%00ʼ%B(%00ʼ*&ʻ4,/%ʻ,0ʼ8*$%ʻ$%*5,/2ʼ$%8*7%5ʼ 42ʻ7*8,),.-ʼ)+'ʼ42ʻ61$-,.-ʼ'0ʻ)+%$%ʻ,0ʼ.*ʼ *66*$)1.,)2ʼ&*$ʻ)+%ʻ4,/%ʻ)*ʼ4%ʻ'40*$4%5ʼ*.ʼ ,)0ʻ3'2ʻ&$*8')+%ʻ-'// 4/'55%$ʼ)*ʼ)+%ʻ8*1)+' 3+%$%'0ʻ,)ʼ8'2ʻ1.5%$-*ʼ'40*6),*.ʼ*.ʼ,),)0ʻ6'0; 0'-%ʻ)+$*1-+ʼ)+%ʻ,.)%0),.%0ʼ)ʼ,0ʻ0166*0%5

,.' ,.&/'88'),*.' *&')+%' ,.)%$.'/ *$-'.0' *.) ,(R' .')+%'&*$8' *&'7'6*1$')+%2' '$%' 10%&///' ,.' ,.&/'88'),*.' *&')+%' ,$6'00'-%0' $ $)' +%$'6%1),(' 0%0' *& ' % '0 %

' ' Y G / ' 86+20%8 '' *&

+ * ' , . % '.5' @*> ' 3,.5R' G' ' ' $' I 9' %$' I # R " 0 ' #2

' (" 14(1)'.%*10' ,.6+20%8 '' ,0')+%'5,0)%.0,*.' *&')+%'06'(%0' *&')+%' '$%*/'$),001%' 3,)+' ',$' * ' '.2' *)+%$' -'0' +%$%' ,0')+10' 6$*51(%5' '' 03%//,.-' ,.' 0/,-+)' ('0%0' '&&%(),.-' '' 7%$2' /,8,)%5' '$%' ' ,.' %B)$%8%' ('0%0' %B)%.5,.-')*')+%' 014(1)'.%*10'),001%' *&')+%' 3+*/%' 4*52' ./%00')+%')%.0,*.' ,0' -$%')')+%' 03%//,.-' ,0' 0/,-+)/2' /*41/')%5H ,)' ,0' %/'0),(' '.5' '/)+*1-+')+%' &,.-%$' 0,.90' $%'5,/2' ,.)*' ,)' */'0),.-' ,86$%00,*.' ,0' /%&)' +%.')+%' '$%'' '&&%()%5' ,0' 08''//')+%' -'0' ('.' 4%' 5$,7%.' ,.' '.2' 5,$%(),*.' 42')+%' 6$%001$%' *&')+%'+'.5' .'6'/6'),*.' '' 6%(1; /,'$' &,.%' ($%6,)'),*.' ,0' &%/)' 3+,(+' ,0' '4; 0*/1)%/2' 5,'-.*0),(' .' 6%$(100,*.')+%$%' ,0' 016%$&,(,'/ $%0*.'.(%')+%' .*)%' $%0%84/,.-')+')' *4)',.'4/%' &$*8' '' 4/'55%$' /**0%/2'&,//%5' 3,)+' ',$' ./%00')+%'-'0' ('10,.-')+%' %8; 6+20%8 '' ,0')+%'6$*51()' *&'5%(*86*0,),*.' *&'-'.-$%.*10',001%0''0',.'06$%'5,.-'.-$%.%')+%$%',0'.*'$%5.%00'*&')+%'09,.' +%'03%//,.-'101''//2'&*$80'$'6,5/2''.5'8'2'%B)%.5',.''' &%3'8,.1)%0'*7%$')+%' -$%')%$'6'$)'*&')+%' 4*52' .'01(+' ('0%0',)',0'8*0)' 8'$9%5' 3+%$%')+%' 014(1)'.%*10',001%',0'/'B' .')+%'&'(%')+%'&%')1$%0''$%'*4+)%$')%5''.5')+%' %2%0'(/*0%5'42')+%'03%//,.-'*&')+%'/,50' +%' 0($*)18''.5'6%.,0'4%(*8%'%.*$8*10/2'5,0;)%.5%5

* $ ' ' $ G *1.5'*&')+%' /1.-'&$*8''*4$*9%.'$,4'*$&$*8''0)'4',0')+%' 8*0)'(*88*.' ('10%' *&'014(1)'.%*10'%8; 6+20%8 '' &',*8''0)'4',)'('.'*./2'*((1$' 3+%.')+%'*6%.,.-',.')+%'6%1$'' .5')+')' ..')+%'09,.'.*'/*.-%$'(*$$%06*.5'3,)+'%'(+' *)+%$',.'(*.0%E1%.(%'*&'.')%$')*.',.')+%' 6*0,),*.'*&')+%'6'),%.)' *$'3+%.')+%'3*1.5' +'0'4%%.' '$),&,(,'//2'(/*0%5' +%.'&$*8' 3*1.5'*&')+%'/1.-',)'8'2'*((1$'3,)+'*$'3,)+; *1)'6.%18*)+*$'B' *)+,.-',0'8*$%'(*8; 8*.')+'.')*' &,.5''/,8,)%5'%86+20%8')*10' 03%,.-'$*1.5' '' &,$'()1$%5'$,4'3,)+*1)'.2' 0,-.0'*&',$',.')+%'6/%1$'/('7,)2' +,0''$,0%0' %,)+%$'&,88'5+%0,*.0'%B,0),..-'4%)3%%.')+%' 6'$,%)'/'.'5'7,0(%$'//'2%$0'*$&,$*8)+%'%0('6%' *&',$'4%,.-'7%62'/,8,)%5' .'0%7%$%'*'0%0' 3,)+'6.%18*)+*$'B')+%'8%(+'.,08'*&')+%' 6$*51(),*.'*&'>%86+20%8''',0''0'&*//*30' ' 3*1.5',.')+%'/1.-''/3'20''//*30',$)*'6'00' &$*8',)'$%'5,/2'41)'&$*8')+%'3'2',.'3+,(+')+%'*&)'61+.,*.'2',001%'&'//0')*-%)+%$'.*' '8*1.)'*&'&*R$(%('.'5$,7%',$')/8*1-+')+%' 3*1.5',.')+%'*66*0,)%'5,$%(),*.')')+10''()0 0*8%3+')'/,9%')+%'7'/7%'*&'.',$61867 +%'&,$0)'%&&%()'*&')+%'%0('6%'*&',$',.)*')+%' 6/%1$'/('7,)2',0')*'('10%'(*//'60%'*&')+%'/1.-' 0')+%'(+%0)'%B6'.50'3,)+'%'(+',.06,$'),*.',$'$10+%0'&$*8')+%'3*1.5',.')+%'/1.-',.)*')+%'6/%1$'/('7,)2H '0',)'(*.)$')(0',.'%B6,$';),*.')+%',$'4%,.-'1.'4/%')*'6'00'4('9'42')+%'3*1.5',0'5$,7%.')+$*1-+')+%'*6%,.-',.')+%'6'$,%)'/6/%1$'',.)*')+%'014(1)'.%*10' (%//1/'$'),001%'.'01(+'('0%0')+%$%',0'-$'51; '//2',.($%'0,.-'5206.*%'3,)+'-$%')'5,0)%.; 0,*.'*&')+%'014(1)'.%*10'(%//1/'$'),001%H '.5'1./%00'$%/,%&',0'-,7%.')+%'6'),%.)'5,%0' '06+2B,')%5

86+20%8 '' *(('0,*.'//2'*((1$0'&$*8'$16;)1$%'*&'0*8%'*&')+%''$7%0,(/%0'51$,.-''7,*; /%.)'%B6,$')*$2'%&&*$)' $' '/0+%'0)')%0')+')' ((,(5%.)'+'0'+'66%.%5'&$*8'0)+%' %&&*$)0' ,.'6'$)1$,),*.'5%&[(')*.' $',0,.-'3%,-+)0' (*,)10'7.*/%.)'(*1-+,.-'6'$*B2080'*&'$'-% %B(%00,7%'/'1-+)%$' '.5'+20)%$,('/ (*.71/; 0,*.0 ' +%''$'101''//2'%0('6%0'&,$0)',.)*')+' (%//1/'$'),001%'4%)3%%.')+%'/*41/%0'*&')+%'/1.-' -,7,.-'$,0%')*')+%'(*.5,),*.'9.*3.''0',.&%$' # ' # ')'+%.'&,.50',)0'3'2' ,.)*')+%'8%5,'0),.18''.5')+%.(%')*')+%'$**)' *&')+%'.%(9' .)%$/*41/'$'%86+20%8 '' -,7%0' $,0%')*',.)%.0%'5206.*%'' '.5'+'0'4%%.'9.*3.')*' ('10%'0155%.'5%')+' 86+20%8 '' +'0' '/0*'4%%.'0%%.'' '0'' (*.0%E1%.(%'*&'1/(%$'),*.' *&')+%')$'(+%'' '.5',.'' &%3'7%$2'$'$%' ('0%0' ')+%'$%01/'*&'1/(%$'),*.'.'6$*(%%5,.-'&$*8'' ('7,)2'8')+%'/1.-')+$*1-+')+%' '5+%$%.)' 6/%1$'' '.5'8)%$(*0)'/'8 10(/%0')*')+%' 014(1')'.%*10'(%//1/'$'),001%

('+0%5'%86+20%8 ''&')+%'&'(%',0''02 86;)*8'*&'&$'()1$%0',86/,(')8-')+%'.)$18

86+20%8 '' *&')+%'&/'.90',0''.'*(('0,*.'/ 0286)*8'*&'$16)1$%'*&')+%'),$5'6'$)'*&')+% 51*5%.18'4%+,.5')+%'6%$,)*.%18''.5'*& 6%$&*$'),*.'*&')+%'0%(18')',)0'6*0)%$,*$ 6'$)

86+20%8 '' *&')+%'6%$,.0%18' 7'0($*)18' 8'2''$,0%'&$*8'' 3*1.5'*&')+%'4*3%/.,')+% '58,.,0)$'),*.'*&'.'%.%8'

.'.*.6%.%)$'),.-'3*1.50'*&')+%')+*$'B' .5'45*8%.'' 08'//E1'.),)2'*&',$'8'2' &,.5',)0'3'2'8)*')+%'$%*/'$'),001%',')+%,8; 8%5,')%'.%,-+4*1$+**5'8'(*.0%E1%.(%'*&)+%'8*7%8%.)0'*&'$%06,$'),*.' .'(*86*1.5' &$'()1$%0'%86+20%8 '',0'*&)%.'&*1.5'%B)%.5; ,.-'0*8%5,0)'.(%'4*7%'.5'4%/*3')+%'3*,85' ,&')+%'6'),%.)'+'0'4%%.'('$$,%5'0*8%5,0)'.(% '.5')+%',.>1$%5'/,84'81(+'0+'9%.

86+20%8 '' &$*8')+%'-'0%0'6$*51(%5'42' 5%(*86*0,),*.',0'*./2'0%%.',.'('0%0'*&'$'6,5/2' 06$%'5,.-'8*,0)'-'.-$%.%? # ' 0 "0 "

' ' ! G +%' %&&%()0' *&'%86+20%8 '' 5,&&%$'3,)+')+%'0*1$(%'*&')+%'-'0' +%.')+%''$'(*8%0'&$*8'' 016%$&,(,'/ 3*1.5'*&')+%'/,8-',)'+'0'.*')%.5%.(2')*' ('10%'5%(*86*0,),*.'*&')+%'%&,&10%54/**5'3,)+' 3+,(+',)'8'2'(*8%,.)*' (*.)'()' +10',.' 01$-,('('0%0'.*'%7,/(*.0%E1%.(%0'$%01/)' &$*8'%86+20%8 '' '$*,85''0,86/%'&$'()1$%'*&

.'(00%%/*&',.)%0),.'/*40)$1(),*.')+%',.)$*;
51(),*.'A3' ''/'$-%7*/18%'*&'0*'6' .5'3')%$'
G3,)+' *,/' 6%$+'60' '55%5G42' 8%'.0' *&'
)+%->')3,)'),*.)14%' 8'2' 4%' +'5' $%(*1$0%'
)*' 3,)+I'57'.)'-%' 40)$1(),*.' 51%')*' ,8 '
%%(%0'-%.%$'//2'2,%/50')*')+,0'8%)+*5'
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≒(+(/'-$'51'/',.>%(),*.'*&',$'42'8%'.0'*&''
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&/')*$'' 8)*')+%'/'$-%',.)%0),.%'+'0'6$*7%5''
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*&)+%'8*3%/',.'2*1.-'(+,/5$%.'%06%(,'//2',.'
'0%0J73+%$%')+%',.)10010(%6),.'('.'4%%'0,/2'
&%/)'4='))+%'$%()18''.5'3+%$%%.%8')''$%')'
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+%'&$%E1%.)'10%'*&'7%$2'/'$-%',.>%(),*.0'
89=' .5%0,$'4/%'/%0)'1.51%'5,0)%.0,*.'$%01/)'
$,)+'3%'9.%00'.5'/*00'*&')*.,(,)2',.')+%'
4*3%/' +%'+'4,)1'/10%'*&',.>%(),*.0'3'0+%0'
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1.%')*' %)6)%84%$' *8%6/'(%0'$%'/0*'
*6%.'51$,.-')+%'3,.)%$' ' %!)' $%');
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b' ,.' $'.(%'G' 1/6+1$'
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X G 7%$/*'5,.-' *&'
)+%' %00%/0'*$'*&')+%'+%'$)'3,)+'4/**5' '
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' 8)')+%',.)%0),.%H
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'.5'5%-$%%0'*&'6'$*B2080'/',..)%0),.'/'6',.',.'
%'0%0'3+%$%')+%$%',0'.*' &%4$,/%'5,0)1$4'.(%'
.)%$'/-,''',86/2,.-' 8*$%' %06%(,'//2')+%'
.%1$'/-,('.')1$%'*&')+%'0%.0*$,8*)*$'5,0;
)1$4'.(%',0'0*8%),8%0'6$%&%$$%5''0'42')+*0%'
3+*'+*/5')+')'(*/,('6$*6%$G*&'3+,(+'/%'5'
(*/,%',0''')26,('/'%B'86/%''0'5,0),.-1,0+%5'
&$*8'0286)*8'),('(*/,(92'6',.0G,0''7,0;
(%$'/'.%1$'/-,''')',0'&,/0%3,0%'&$%E1%.)/2'
'66/,%5')*' (*/,('*((1$$,.-',.')+%'.%1$*),('
,.'3+*8')+%$%',0'.*)'1.(*88*./2''$%(*5$'
&')+%$'&*$80'*&'.%1$'/-,'',.')+%'85,7,51'/'
&'&'8,/2'+,0)$2G)+%''0)+%.,(')+%''.0%8,*'
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obtains nourishment from its body. In *commensalism* creatures live within the bodies of larger animals, like parasites, but share its food, or live upon the refuse of its body instead of the juices and tissues of the host. The more important entozoa found in man are:—

I. *Cestoda*, Tapeworms.
II. *Trematoda*, Flukes.
III. *Nematoda*, Round-worms.
IV. *Gregarinidæ*, Psorosperms.
V. *Rhizopoda*, Amœba coli.

I. Cestoda, or Tapeworms (κεστός, a girdle).—Fr. *Cestoïdes*, *Ténia*; Ger. *Bandwurm*.

Varieties:—

a. Tænia solium.
b. Tænia mediocanellata vel *saginata.*
c. Tænia bothriocephalus latus.
d. Tænia cucumerina vel *elliptica.*
e. Tænia nana.
f. Tænia echinococcus.

a. Tænia solium.—This worm when fully developed may attain a length of 2 to 3 feet. The vertex or head, about the size of a small pinhead, is furnished with four suckers, a rostellum, and twenty-six hooklets (fig. 34). A narrow neck succeeds the head, and at a short distance the segments begin to be visible. At first their breadth exceeds their length; but farther from the head they lengthen, until the mature segments are reached. These average 12 mm. in length and 5 mm. in width.

Each mature segment contains male and female generative organs. The genital openings are at the sides of the segments near the middle: the ovary presents seven to ten branches, each ending in a dendritic manner (fig. 36).

T. solium inhabits the small intestine of man, and is acquired by eating pork. Infection takes place in the following manner: The eggs, either free or contained in the segments (proglottides), are evacuated from the host, and are conveyed either by means of food or drinking-water into the body of a pig or other animal. When the eggs reach the stomach of the pig the capsule is dissolved, and the liberated embryo makes its way into the wall of the intestines or is carried by the blood-current into other parts of the body. The young tapeworm, when it emerges from the egg, possesses six hooklets, and is known as the 'six-hooked embryo.' After settling in the tissues it becomes metamorphosed, and is now furnished with a head and becomes enveloped by a membrane. In this condition it is known as a 'measle' or *Cysticercus cellulosæ* (κύστις, a bladder; and κέρκος, a tail) (fig. 32). Pork containing the cysticercus is said to be 'measled.' The cysticerci are destroyed by thorough cooking, either by boiling or the more satisfactory process of roasting. When a cysticercus is introduced into the intestine, the head (scolex) fixes itself into the mucous membrane, the cyst-membrane is dissolved, a chain of segments or proglottides develop, and a tapeworm is the result.

The cysticercus occurs also in man, and is probably due to the introduction of the eggs of *T. solium* into the stomach. Cysticerci have been found in the aqueous and vitreous chambers of the eye, in the subcutaneous tissue, and in muscles. When encysted they retain their vitality for many years. The presence of these small bodies excites local irritation, inducing inflammatory thickening. In muscles and intermuscular tissue they occasionally cause swellings resembling tumours. In the brain, when numerous, they induce fatal results. A few may exist in the cortex of the cerebrum without producing any obvious effect, but in the neighbourhood of the medulla two cysticerci have been known to cause death. In the eye cysticerci have been detected by means of the ophthalmoscope. In this situation they present a striking and characteristic appearance.

FIG. 32.—*Cysticercus* (*telæ*) *cellulosæ*, removed from the human eye by Mackenzie. × 5 diam. After Allen Thomson.

b. Tænia mediocanellata vel *saginata.*—This tapeworm differs from *T. solium* in several important particulars. When fully developed it may attain a length of 4 feet. The segments are thicker and wider than in *T. solium*; it has no rostellum or hooklets, but four suckers or proboscides and a median canal (fig. 33). The mature segments have a larger number of uterine diverticula, and they do not end dendritically (fig. 35). The cysticercus of this tapeworm infests the muscles of oxen. The tapeworm itself is acquired by man in consequence of eating underdone beef. In the accompanying sketches the heads and proglottides of *Tænia solium* and *Tænia mediocanellata* are arranged side by side for comparison.

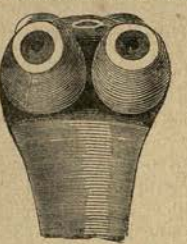

FIG. 33.—Unarmed Head of *Tænia mediocanellata.* × 10 diam. After G. Fritsch.

FIG. 34.—Armed Head of *Tænia solium.* × 10 diam. After G. Fritsch.

c. Tænia bothriocephalus latus.—This is the largest tapeworm infesting man; when mature it attains a length of 5 to 8 feet, and contains two, three, and even four thousand segments. The uterus has the form of a coiled ribbon, and the genital opening is near the middle of the ventral surface.

Fig. 35.—Proglottis of *Tænia mediocanellata.* × 1½ diam. After G. Fritsch.

Fig. 36.—Proglottis of *Tænia solium.* × 1½ diam. After G. Fritsch.

This worm lives in the small intestine, and is met with mainly in Switzerland and north-eastern Europe. It has been reported as occurring in Ireland.

It has long been suspected that fish were the intermediate host of this cestode, and Braun has demonstrated its occurrence in the larval stage in the muscles and viscera of pike, trout, and turbot.

d. Tænia cucumerina vel *elliptica.*—This is a small tapeworm, common in cats and dogs, rarely found in man. It has a rostellum and about sixty hooklets arranged in four irregular rows. The intermediate host is the dog-louse, *Trichodectes canis.* This fact explains the large number of tænia found in dogs not cleanly kept. The lice worry the dog, and it licks the irritated parts, and thus takes the lice with the cysticerci into the alimentary canal. Stroking dogs, or receiving their lingual caresses, is probably the means by which man is infected. It is noteworthy that children have furnished nearly all the specimens of this worm which have been reported in the human subject.

e. Tænia nana.—This is a small tapeworm. The head has four suckers, a rostellum, and circlet of twenty-two to twenty-eight hooklets. Bilharz found it in great numbers in the duodenum of a boy in Egypt. It is very rarely entertained in the alimentary canal of man.

Symptoms.—The presence of tapeworms is indicated by a great variety of symptoms. Among the more important may be mentioned interference with the digestive process, irritability, and restlessness at night. Anæmia, headache, and vertigo are not uncommon. Irritation about the anus is sometimes a source of annoyance. Reflex phenomena, such as chorea, convulsions, or epileptiform seizures, insanity, mania, squint, and other untoward conditions, have been known to coincide with the presence of tapeworms in the alimentary canal, and to disappear when the worms have been expelled. Many other grave phenomena have been attributed to their presence. It is equally true that hundreds of individuals entertain tapeworms and suffer no inconvenience in consequence, nay, even are unaware of their guests until apprised of the fact by the appearance of two or three feet of cestode segments passed *per anum.*

Treatment.—Many drugs have been recommended, such as turpentine, kousso, kamala, areca-nut, and other anthelmintic remedies. The late Dr. Cobbold, after a long experience, came to the conclusion that the liquid extract of male fern is the most reliable drug. The patient, if adult, should take a dose of castor-oil at night, a drachm of extract early next morning on an empty stomach, to be followed in three hours by a small dose of castor-oil. The fragments of worms should be examined in order to ascertain if the head be expelled.

f. Tænia echinococcus and *Hydatids* (ὕδατίς, a drop of water).—Fr. *Hydatide*; Ger. *Blasenwurm.*—Tænia echinococcus is especially interesting because its larval stages occur in man under the name of hydatid cysts.

The mature tænia inhabits the intestine of dogs, jackals, and wolves. It is about 4 mm. in length, and consists of only four segments, of which the terminal one alone is mature. Its head has four suckers, a rostellum, and two rows of hooklets, varying in number from fourteen to twenty-five in each row.

Fig. 37.—*Tænia echinococcus.*

The eggs of this worm are introduced into the alimentary canal with the food, but more commonly with drinking-water. The six-hooked embryo, emerging from the egg, makes its way into surrounding tissues, and is frequently carried along by the blood-current in the veins as an embolus, to find a resting-place in lungs, kidney, liver, omentum, or brain, and becomes gradually transformed into an hydatid cyst.

For the history of the early stages of these cysts we are indebted to the zeal and industry of Leuckart. At first they are small white dots, with thick, homogeneous, transparent capsules, with concentric lamination, enclosing coarsely granular contents (fig. 38). After the cyst has been growing five months, and has attained a diameter of half an inch,

echinococcus-heads begin to bud from its walls. Each of these heads, when fully formed, is about 0·3 mm. in length when fully distended, and represents the head and neck of an adult echinococcus (fig. 39). Each head is furnished with four suckers and an armed rostellum, the hooklets of which are

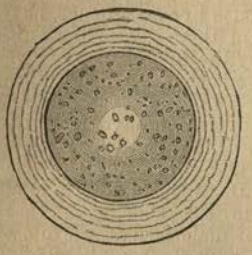

FIG. 38.—Hydatid of four weeks' growth, showing ectocyst and endocyst. × 60. After Leuckart.

FIG. 39.—The so-called *Echinococcus head*, showing hooks, suckers, cilia, and corpuscles. × 250 diam. After Huxley.

very small. Numerous calcareous particles are lodged in its parenchyma. The rostellum with its hooks and suckers can be retracted and extended. In examining such specimens under the microscope it is usual to find them in the inverted or retracted condition shown in fig. 40. The heads or scolices are formed within brood-capsules, and Leuckart emphatically states that they are throughout life

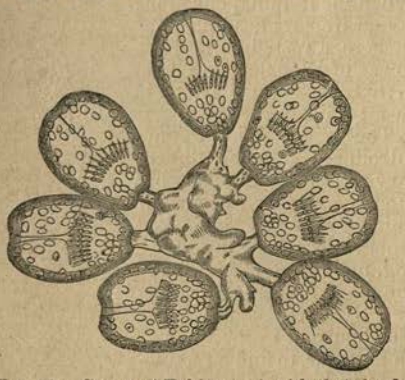

FIG. 40.—Group of Echinococci, with their hook-crowns inverted. × 180 diam. After Busk.

directly continuous with each other by means of the parenchyma of the main cyst, and cannot roam about the cavity and retain their vitality. The walls of hydatids consist of two layers, an outer or cuticular and an inner layer or parenchyma. The cuticular layer is highly elastic and curls up when divided; the parenchyma consists of granular matter, cells, and muscle-fibre. The brood-capsules are developed from the parenchyma; each brood-capsule, like the parent-cyst, has two layers, an *outer* parenchymatous and an *inner* cuticular, thus reversing the conditions of the mother-cyst. Leuckart maintains that the scolices bud from the outer wall of the capsule; but when fully developed invaginate, so that what was formerly the internal cuticular surface of the head now becomes external. This view requires confirmation. The mother-cyst grows larger as fresh brood-capsules are formed. Every echinococcus cyst does not develop brood-capsules, and may attain a large size yet remain sterile. The presence of the cyst irritates the surrounding structures, and leads to the formation of a spurious capsule of fibrous tissue, sometimes of great thickness and usually very vascular. The brood-capsules, with their contained scolices, occur in clusters; each capsule is of the size of a No. 5 shot. Occasionally the capsules become much larger and form internal daughter-cysts attaining in some specimens the size of a Tangerine orange. Such daughter-cysts may develop cysts of their own, or granddaughter-cysts. When endogenous daughter-cysts are present, the mother-cyst is, as a rule, of very large size, and contains as many as two or three thousand daughter-cysts varying in size from a pea to an orange. Occasionally, we find in echinococcus cysts occurring in cattle, that daughter-cysts are formed from the cuticle and protrude beyond the *external* wall of the parent-cyst, and form brood-capsules. A few examples of this condition have been reported in the human subject.

Echinococcus multilocularis is a variety of hydatid, which has been described as affecting the liver. It forms a hard tumour made up of alveoli, separated by fibrous tissue. The alveoli are filled with gelatinous transparent material, stained at times with bile. Such specimens were formerly described as colloid cancer of the liver, until Virchow pointed out that they were composed of echinococcus cysts, and occasionally contained scolices. Nearly all the reported cases have occurred in South Germany and Switzerland. The true nature of this form requires elucidation. The recognition of *E. multilocularis* is rendered more difficult by the circumstance that they sometimes ulcerate. This condition may easily be confounded with actinomycosis of the liver.

ANATOMICAL CHARACTERS IN MAN.—The human body frequently contains echinococcus cysts; there is scarcely an organ in which it has not been found, even in the medullary cavities of bones. Like the *cysticercus cellulosæ*, the embryo of *T. echinococcus* has its favourite situations: the former selects chiefly the intermuscular connective tissue and brain, the latter selects mainly the viscera, especially the liver. The liability of organs to entertain hydatids may be in-

ferred from Neisse[illegible]oles as quoted by Leuckart. They are based upon an analysis of 986 cases: Liver, 451; lungs and pleura, 84; kidney, 80; brain, 68; muscles, dermis, and orbit, 72; spinal cord, 13; pelvis, 36; circulatory organs, 29; spleen and bones, 28, and so on. This table is only useful as showing the greater liability of viscera to harbour this parasite. In the bones, eye, orbit, mamma, thyroid body, and heart it is of extremely rare occurrence.

It is strange that, though the liver is such a favourite viscus for hydatids, it is rare to find more than one cyst present in this organ at the same time in the human subject; yet in swine they are frequently multiple. In man, one large cyst may be lodged in the liver, and twenty, thirty, or even a hundred occupy the omentum, mesentery, &c. This condition is, however, very uncommon.

SYMPTOMS.—The danger caused by these cysts arises mainly from the mechanical pressure they exercise on surrounding parts. Thus, in the brain or heart, a cyst the size of a hazel-nut gives rise to serious disturbance, but one as large as a man's head is often tolerated in the liver or pelvis. These cysts are often found *post mortem* when their presence had never been suspected during life, although they attained goodly proportions. The parasite may die early in its career, and the cyst-wall calcify; hydatid membranes seem very prone to this change, the calcareous matter resembling very old dried mortar. Hydatid cysts cause death in a variety of ways. In the brain they simulate cerebral tumour, and induce death early, especially when growing near the bulb. In the spinal cord they produce paraplegia. In the liver they may be accidentally ruptured, and cause death in a few hours from shock and hæmorrhage combined, or, later, from peritonitis. In some instances, after injury or meddlesome tapping, suppuration takes place with septic troubles, which the formation of pus entails. Liver cysts may perforate the diaphragm, and rupture into the pleura, or communicate with the lung and its bronchi. Occasionally they open into stomach or bowel, the scolices being discharged *per anum*. They have been known to rupture into the bile-passages, the transit of the scolices causing biliary colic. Among the rare sites of rupture may be mentioned the pericardium, vena cava inferior, or through the parietes of abdomen or thorax.

In the lung pressure upon the air-cells or bronchi may cause gangrene and other troubles which follow bronchial obstruction. Hydatid cysts of the thyroid body are very rare; they usually rupture into the trachea and cause death by suffocation.

DIAGNOSIS.—The diagnosis of hydatid cysts, in organs other than the liver, is attended with very great difficulty; and as these cysts frequently appear at *post-mortem* examinations and astonish the physicians, so are they one of the most fertile sources of surprise to enterprising surgeons. In the liver a hydatid cyst may be suspected when a tumour can be made out unaccompanied by pain, cachexia, high temperature, or wasting.

The conditions most likely to be confounded with hydatid cysts in the liver are abscess, distended gall-bladder, effusion in the right pleura, aneurysm of the abdominal aorta or hepatic artery, cancer of the liver, renal cysts, dilated stomach, pancreatic cyst, ovarian tumours, and dropsy due to closure of Winslow's foramen. *See* LIVER, Hydatid Disease of.

It is not wise to rely on the fact that the patient has lived among dogs or in a pastoral country. Individuals who have never kept or lived with dogs often develop hydatids.

When an abdominal or thoracic tumour is suspected to be a hydatid cyst (these are the situations in which physicians are most frequently called upon to diagnose them), the nature of the swelling should be ascertained by puncturing it with a trocar, and drawing off some of the fluid. The characters which determine its echinococcus nature are the following:—

The fluid is limpid, colourless (occasionally bile-stained when growing in the liver), and in specific gravity varies from 1009 to 1015. Free from albumen, it contains chloride of sodium, and is said to furnish traces of succinic acid, leucin and tyrosin. The three last are present in quantities too small to be of any clinical value. The most positive signs are the presence of brood-capsules, scolices, hooklets, or the gelatinous, trembling, laminated membrane which forms the true wall of the cyst, and is in itself absolutely peculiar to hydatids.

It must also be remembered that hydatid cysts are occasionally sterile—that is, they contain no brood-capsules and furnish no hooklets. Such cysts frequently attain a large size, and seem to occur most frequently in the pelvis; they are as a rule mistaken for other forms of cysts.

TREATMENT.—The treatment of hydatid cysts is entirely surgical. In such an organ as the liver the cyst should be freely opened, and its edges stitched to the sides of the incision and drained. The walls collapse, the cyst-membrane comes away during the operation, or is subsequently discharged piecemeal. The cavity then slowly granulates.

When hydatids are lodged in the omentum they are easily removed by abdominal section. When deeply placed in the pelvis they may be situated between the bladder and the rectum in the male, or burrow between the layers of the broad ligament in the female. These are better treated by incision and drainage. Hydatid cysts have many times been recorded in the kidney, but it is very unusual for them to exceed the dimensions of

an orange. They exhibit a marked tendency to discharge into the renal pelvis, the vesicles escaping by way of the urethra. Should the cyst attain such proportions as to give rise to a palpable tumour, it should be explored by a lumbar incision, and treated in the way recommended for the liver. Such cysts arising in the kidney have been known to open into the lung, into the stomach, or communicate with the intestine. Intra-thoracic hydatids are best treated on the same surgical lines as empyema. In the subcutaneous tissues and orbit they are rarely diagnosed—indeed, these cysts in such situations can only be suspected; the suspicion is confirmed when the vesicles or portions of membranes escape during removal of the tumour. Intracranial hydatids have in Sydney, Australia, been successfully submitted to surgical procedure. It is certain that no tumour or cyst connected with the brain offers a more favourable prospect to surgeons than a hydatid cyst connected with the cerebral cortex.

II. Trematoda, or Flukes (τρῆμα, a hole).—Fr. *Trématodes*; Ger. *Trematoden*; *Saugwürmer*.—These forms have only one opening to the digestive cavity.

Varieties:—

a. Distoma hepaticum.
b. Distoma lanceolatum.
c. Distoma hæmatobium vel *Bilharzia hæmatobia.*
d. Distoma Ringeri.—*See* p. 259.

a, *b*. The first two are rarely seen, though they are common enough in the biliary passages of sheep and oxen. They are vulgarly known as flukes, and are the cause of the destructive disease known as 'the rot' of sheep. When flukes, with the exception of the *Bilharzia hæmatobia*, occur in man, they occupy the biliary passages, but are usually present in such limited number as to rarely cause any serious disturbance of health.

c. Bilharzia hæmatobia, or *Distoma hæmatobium*, unlike other forms of flukes, has the sexes distinct. The male is 12–14 mm. long, and has a flattened body, which, at its posterior part, is rolled into a kind of tube, constituting the gynæcophoric canal. The female is almost cylindrical in form, and 16–19 mm. long, being lodged within the gynæcophoric canal (fig. 41). The mature worms live in the inferior vena cava, portal, splenic, mesenteric, vesical, and hæmorrhoidal veins of men and monkeys. The ova pass into the mucous membrane of the bladder and intestine, probably escaping as a consequence of the rupture of small vessels. Occasionally the ova may be found in the ureter and the pelvis of the kidney. The ova, often present in great numbers, are furnished with either a terminal or a lateral spine. Dr. Zancarol says that ova with a lateral spine occur in the intestine; those with the terminal spine in the mucous membrane of the bladder. The use of this appendage has not yet been satisfactorily explained (fig. 42). [illegible]mmon in Egypt, Abyssinia, the Cape, and [illegible]

The *Bilharzia* is c[illegible]atal. The cercaria, as

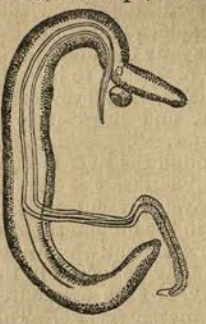

Fig. 41.—*Bilharzia hæmatobia*, male and female sexually combined. Magnified. After Küchenmeister.

Fig. 42.—Ovum of *Bilharzia hæmatobia* with contained embryo and free sarcodeamnules. × 234 diam. Original.

[illegible]und in rivers the larval forms are termed, abc[illegible]mmon in the and canals, and are especially co[illegible]entary canal Nile. When taken into the alim[illegible]way into the the cercaria quickly work their [illegible]ss to blood-mucous membranes, gain acce[illegible]ature flukes. vessels (veins), and develop into m[illegible]he intestines

Symptoms.—When lodged in t[illegible] the bladder they give rise to dysentery; in[illegible]aturia, and and ureters, to cystitis, hæm[illegible]nage caused vesical calculus. The hæmorr[illegible]urinary tract by their presence in the genito-u[illegible]ria.' The is known as 'endemic hæma[illegible]st, may de-eggs, whilst still within their h[illegible]isease may velop ciliated embryos. The d[illegible] occurs in be suspected when hæmaturia[illegible] where the persons coming from countries[illegible]sis is con-*Bilharzia* abounds: the diagn[illegible]roscope the firmed by finding under the mic[illegible] shreds of ova embedded in fragments and[illegible] urine. mucous membrane passed with th[illegible]taken to

Treatment.—Means must be [illegible]remedies allay the vesical irritation by such [illegible]the like. as buchu, uva ursi, hyoscyamus, and[illegible]rasiti-No remedy is known that acts as a p[illegible]move cide to the *Bilharzia*. It is wise to r[illegible]fected the patient, if possible, from an in[illegible], and locality. Cure is likely to be protracted[illegible]f life as yet we are ignorant of the duration [illegible] of the fluke.

III. Nematoda, or Round-w[illegible]orms (νῆμα, a thread).—Fr. *Nématoïdes*; Ger. *Fadenwürmer*.

Varieties:—

[illegible]*oides.*
a. Ascaris lumbr[illegible]nicularis.
b. Oxyuris ver[illegible]halus dispar.
c. Trichoc[illegible]stoma duodenale.
d. Anky[illegible]ia medinensis.
e. Fila[illegible]china spiralis.
f. Tri[illegible]laria sanguinis hominis.
g. Fi[illegible]

Most of these inhabit the alimentary canal, and when restricted to this region rarely give rise to dangerous symptoms, unless they be very numerous; but they are apt to migrate and invade other organs, and thus give rise to dangerous and often disastrous results.

Fig. 43.—*Ascaris lumbricoides*; male, with exserted spicules. Nat. size (Cobbold).

a. Ascaris lumbricoides.—This, the common round or maw-worm, is of cylindrical shape, pointed at each end, and of a light brown colour. The female, as is usual among nematodes, exceeds the male in size. The length of the female varies from 25 to 40 cm. The male is distinguished by the presence of two chitinous spines near the caudal end of the body (fig. 43). This extremity is also bent and hook-like. The spines indicate the male genital orifice. In the female the genital pore is situated near the middle of the body. The ova are very numerous; when mature they possess a double shell surrounded by an albuminous coating, have considerable power of resistance, and are not killed by drying or freezing.

The life-history of the worm is not fully known, and we are ignorant of its intermediate host. Dr. Cobbold was of opinion that it did not require one, but that the eggs develop in water.

This worm lives chiefly in the small intestine, but may wander into the stomach, and even pass up the œsophagus and be discharged through the mouth. An *ascaris* has been known to creep into the bile-duct and cause jaundice. In cases of perforation of the intestine in fatal cases of typhoid fever, these worms have been found lodged in the aperture. We must not conclude from this that the worm caused the perforation; it is more reasonable to believe that when the accident happened the ascaris was passively lodged in the opening during the outward rush of the fluid contents of the bowel. It is possible that worms may occasionally perforate the intestinal wall, and, getting into the subserous tissue, give rise to abscess. Such cases have been recorded. The wandering habit of ascarides is often fatal to them. Any foreign body in the intestine is sure to attract their attention and to form a sort of 'worm-trap.' Thus they have been strangled by metallic buttons, hooks and eyes, open-topped thimbles and the like (Cobbold).

Symptoms.—It is unusual for an individual to harbour more than two or three round worms, and as a rule they rarely give rise to symptoms. When present in large numbers—a condition of things most common in children—diarrhœa, colic, nausea, vomiting, and convulsions may occur. Children have been known to pass in the course of a few years one hundred worms, and in one case 510 worms were voided by a child. Generally the passage of a worm by the anus or mouth is the first and only indication of its presence.

Treatment.—The most reliable drug is santonin, in the form of a powder: for children two to four grains, followed by a saline purge or castor oil; for adults five grains daily; for three days each dose to be followed by castor oil. Among other useful remedies we may mention aloes, scammony, jalap, calomel, kamala, sulphur, and turpentine.

Fig. 44.—*Oxyuris vermicularis*, female. Highly magnified. After Leuckart.

b. Oxyuris vermicularis (*Thread-* or *Seat-worm*).—The thread-worm is an inhabitant of the colon and adjacent parts of the ileum. The female is usually about 10 mm. and the male 4 mm. long. In addition to its greater size the female has a sharp-pointed tail, whereas in the male it is blunt and furnished with a spiculum (fig. 44). Some helminthologists are of opinion that the mature females inhabit the colon, whilst the males and immature females are found in the ileum.

Oxyurides are often present in large numbers, and wander into the rectum. They often cause intense irritation in the neighbourhood of the anus, and in females cause great distress by creeping into the genital passages, especially during the night. The eggs of *oxyuris* are expelled with the fæces

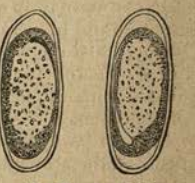

Fig. 45.—Eggs of *Oxyuris vermicularis*, enclosing tadpole-shaped embryos. × 450 diam. Original.

and require to be taken into the stomach before they re-develop (fig. 45). Persons re-infect themselves by scratching the anus, and conveying the ova, by means of the finger-nails, to the mouth.

Symptoms.—Among the local symptoms heat and irritation around the anus and nose are common. In children especially we often find restlessness, nervous irritation, choreic symptoms, and convulsions. Signs suggesting such severe conditions as meningitis are by no means infrequent. The existence of thread-worms is easily verified by administering a mild purgative and examining the fæces. As a rule, they will be found in considerable numbers. In the case of children the attention of the nurse is called by finding the worms on the sheets.

Treatment.—Brisk saline purgatives to expel the worms, and extreme cleanliness to prevent re-infection, are usually all that is required. Fruits and vegetables should be thoroughly cooked. In adults treatment requires to be carried out more vigorously, with such drugs as calomel, scammony, aloes, jalap, santonin, and asafœtida, in conjunction with enemata of infusion of quassia, or salt and water.

c. Trichocephalus dispar, or *Whip-worm.*—The male and female equal each other in

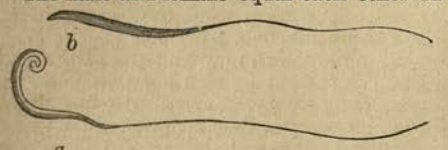

Fig. 46.—*Trichocephalus*; male (*a*), and female (*b*). Enlarged one-fourth.

length; as a rule they average 4 to 5 mm. The anterior part of these worms is fine and thread-like, the posterior is thicker, and contains the genital organs. In the male the caudal end is rolled into a spiral; near the extremity it is furnished with a spine (fig. 46).

The trichocephalus resides mainly in the cæcum. The early stages are passed in water or damp earth. The worm is very common in France: Davaine calculated that half the Parisians are infested by it. In England it is rare. Unless present in great quantities it is not often a source of trouble.

d. Ankylostoma duodenale.—This small worm is also known as *Sclerostoma duodenale*, *Dochmius*, or *Strongylus duodenalis*. Occasionally it is referred to as the *tunnel-worm*, on account of the disasters it caused among the men engaged in the Mount St. Gothard Tunnel. The female averages twelve mm. in length, the male is slightly smaller. The cephalic end is furnished with an oral capsule, which possesses a cleft covered by two chitinous lamellæ. The ventral lip has four curved teeth; the dorsal, two straight ones. The caudal end in the male has a three-lobed bursa and two spines (fig. 47). This worm infests the small intestine and bores its way into the mucous membrane. The effects of ankylostoma on the gut are very characteristic. The damaged spot is indicated by a small ecchymosis, with a central depressed white spot, in which the head of the worm lodged; occasionally it may be found still anchored to the mucous membrane. When present in large numbers these worms produce anæmia, sometimes called Egyptian chlorosis. The ankylostoma is very common in Egypt and Brazil. One stage of the worm is passed in muddy or dirty water; it gains access to the alimentary canal in drinking-water, and there attains its maturity.

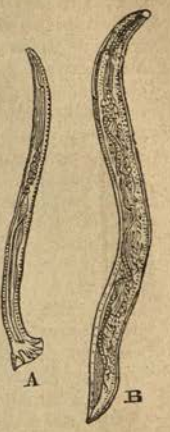

Fig. 47.—*Ankylostoma duodenale*; male (A), and female (B). × 5 diam.

Symptoms.—The presence of this worm is indicated by the usual signs of anæmia, viz. pallor of the mucous membranes, weakness, palpitation, and faintness. Diarrhœa and dropsical effusions sometimes occur. The anæmia is due to the loss of blood consequent on the injuries inflicted by these parasites on the intestinal mucous membrane.

Treatment.—The worms should be evacuated by calomel and santonin combined, given at intervals over a period of a few weeks, for it must not be imagined that one or two doses will destroy the thousands of helminths lodged in the intestines in a severe example of this disease. The liquid extract of male fern is a useful remedy. The patient will require nourishing diet, easily digestible food, and good wine, with the usual tonic remedies.

e. Filaria medinensis, *Dracunculus*, or *Guinea-worm.*—This is a fine thread-like worm from 60 to 100 cm. in length, and about 2 mm. broad. The female only is known. The embryos develop within the uterus. The intermediate host is a minute crustacean (Cyclops), which inhabits drink-

Fig. 48.—*Filaria medinensis*. Reduced to ½.

ing-water. Within the cyclops they are introduced into the human stomach, and then migrate into the subcutaneous tissues, where they become mature. A common situation is the tissue beneath the skin of the legs and feet; the heel is a favourite situation.

The worm is confined to certain districts of Asia, Africa, and Brazil. It is supposed to be identical with the fiery serpents mentioned in the Pentateuch.

When the worm first lodges in the subcutaneous tissue it gives rise to little trouble; as it grows an abscess forms and gradually exposes the worm. Treatment consists in carefully winding the worm with gentle traction around a slender stick of ivory, bone, or wood, an inch or so daily, taking care not to break it. This method seems to have been employed of old by Persian surgeons.

f. Trichina spiralis.—The mature worm inhabits the intestinal canal. The female is 3 mm. long; the male is much smaller, and is further distinguished by presenting on the dorsal side of the tail two mammillary protuberances, which are turned towards the ventral aspect, and include between them four wart-like nodules (fig. 49). The young are developed in the uterus, and are born in a free state. The immature trichina inhabits

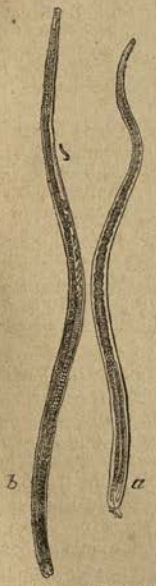

FIG. 49.—*Trichina spiralis* magnified; male (*a*), and female (*b*). After Leuckart.

FIG. 50.—Portion of human muscle, enclosing a single capsuled *trichina*. Highly magnified. After Leuckart.

voluntary muscular fibre, where it is usually coiled into a spiral, embedded in granular tissue and surrounded by a cyst-wall, which frequently contains calcareous particles (fig. 50). These capsules are visible to the naked eye as minute white specks. Each capsule usually contains one trichina, but two, three, and even five may be present.

The relation of the two forms is as follows. When a piece of muscle containing living trichinæ is taken into the stomach, the capsules are digested and the worms set free. In two days and a half they become mature, and pair. The embryos commence to be born on the seventh day; and the female may continue to bring forth worms for many days. The mature worm lives but a few weeks, but during this brief life may bring forth a thousand or thirteen hundred embryos. The young then seek for striated muscle-fibre, and migrate through the wall of the intestine and the subperitoneal tissue. A few may get into vessels and are distributed by the circulation. On gaining access to a muscle they penetrate the fasciculi, becoming in about fourteen days mature muscle-trichinæ. In due course they become encysted; the cyst is said to be in part due to a secretion furnished by the trichina. After a time the cyst-wall calcifies; should the trichina die, the cyst-contents also calcify. The duration of life of the worm in the muscle is very long, and even survives for a time the death of its host. The trichinæ are found most abundantly in the intercostal muscles, diaphragm, and laryngeal muscles. In the limb muscles they are less abundant, and cluster near the union of the muscle with its tendon. The trichinæ so accurately select the voluntary muscles that the pharyngeal constrictors and upper part of the œsophagus will lodge hundreds of them, while the rest of the tube contains none.

SYMPTOMS.—Human beings usually acquire the disease from eating trichinosed pork. The symptoms may be divided into two stages: the first consists of gastro-intestinal disturbance due to the introduction of the parasite; the second corresponds to the migration of the worm, and is characterised by muscular troubles and febrile disturbance.

The gravity of the symptoms depends upon the number of trichinæ taken. The initial gastro-intestinal catarrh lasts usually about a week. The second stage is characterised by high fever and pain in the limbs and muscles, often mistaken for rheumatism. The muscles sometimes swell, become œdematous, and occasionally are partially paralysed. In grave cases delirium ensues, the limbs become flexed and paralysed, there is excessive diarrhœa, terminating in death. The duration of the second stage lasts four or five weeks. In fatal cases, death usually occurs about the third or fourth week.

At the end of five weeks the migration is usually complete, and the trichinæ once encysted give rise to no further trouble. That this is so is clear from the fact that, in dissecting-rooms, subjects occasionally occur with many hundred thousand trichinæ encysted in the voluntary muscles of all parts of the body, from the head to the sole of the foot. The diagnosis may sometimes be established during life by an examination of suspected articles of food, or by the detection of adult trichinæ in the evacuations during the

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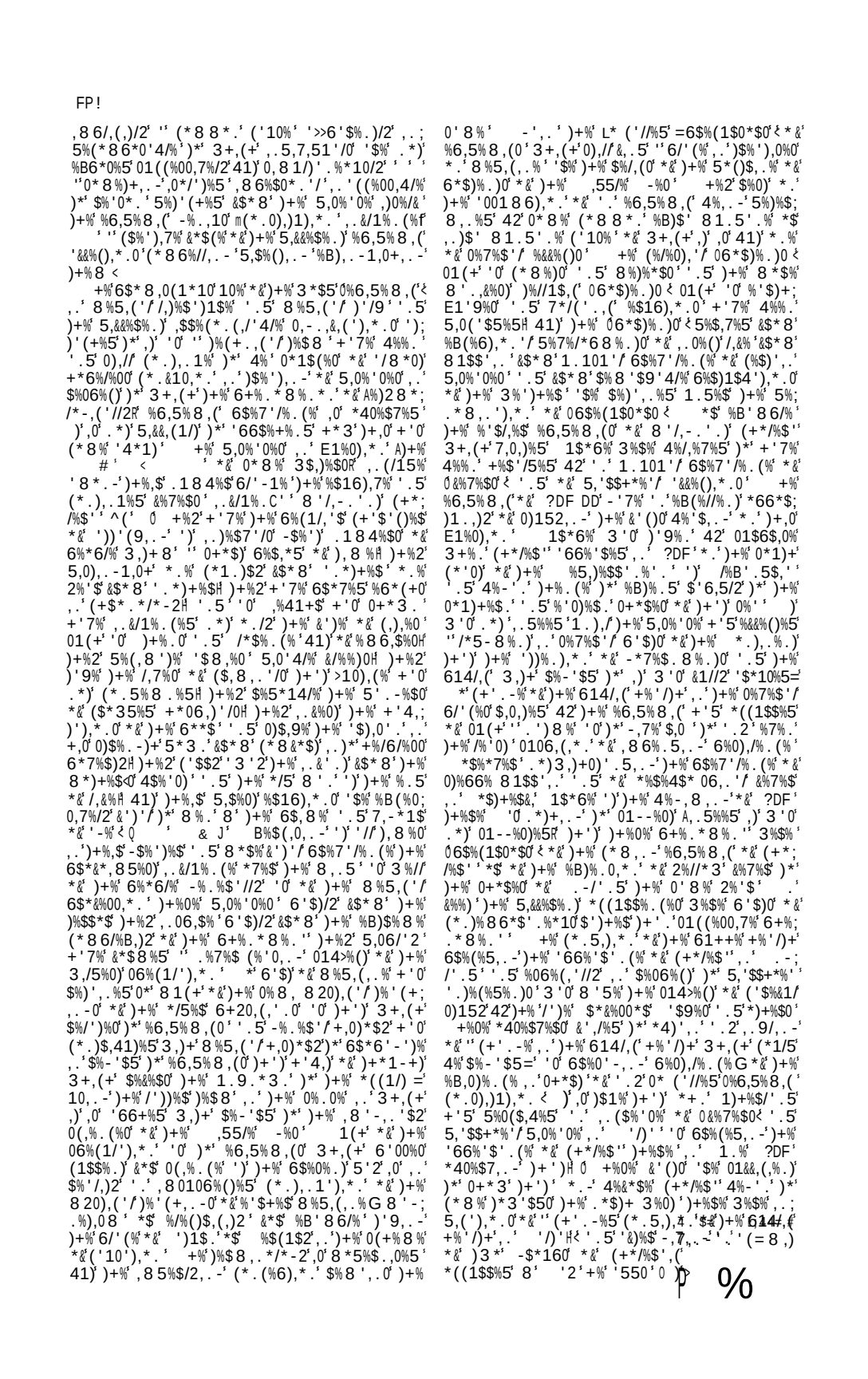

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8 5,(% (+*/5$,E1% .% %7,5%.(%)+%2
57 .(% ,. 0166*$) *&)+%,$ (* .(/10,*.0
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) ,0 01--%0)%5 +%$%)+) +%)%(+.,(/
8%.,.- *&)+% 3*$5 0%6,5%8 ,(0+*1/5 4% 0;
0,8 ,/)%5)*)+% (*88*. 8%.,.- *$ 8*$%
((1$)%/2)+))+%)%(+.,(/ 8%.,.-0.*3
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*& %&5,8 ,(6+%.*8%. 3*1/5 4% & (,/,))%5
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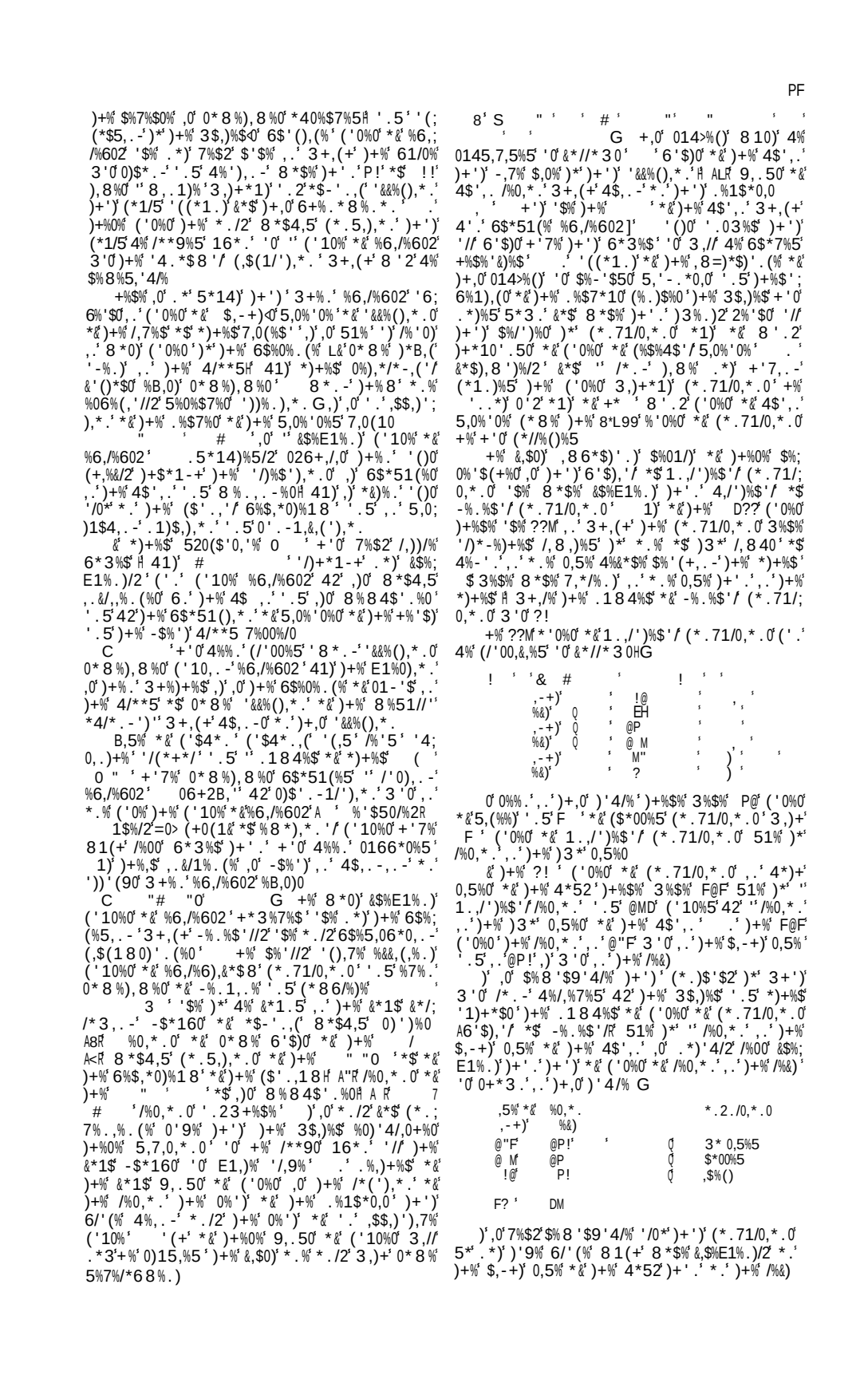
3$,))%.ℍ 0)',0')+%'5,0%'0%' 3+,(+' (*.0),)1)%0')+%' %6,5%8,(' .*)')+%' %6,5%8,(')+%' 5,0%'0%' +%' %7,f '/3'20' $%8',.0')+%' 0'8%')+%' .18; 4%$' *&' '&&%()%5' '/*.%' 4%,.-',.($%'0%5< +%' 8%5,(' f 0)152' *&' %6,5%8,(0' ,0' %00%.),'//2' '' 0)152' *&')+%',.5,7,51'f 5,0%'0%0' 3+,(+' $%' '6)')*'4%(*8%' %6,5%8,(' '.5'.*)''0'+'0'4%%.')*** (*88*./2')+%'('0%'+,)+%$)*'*&'0*8%&,-8%.)' *&')+%',8'-,.'),*.' ' " ' "' *$' 0 " ' '*$' 0 " ' '6')$' &$*8')+%' 5,0; %'0%0')',0' *./2',.'6$*6*$),*.''0'$%0%'$(+%0' +'7%' 4%%.' 5,$%()%5')*' 6')$),(1/'$' 5,0%'0%0' /,'4/%')*'4%(*8%' %6,5%8,(' '.5')*')+%'(*.5,;),*.0'1.5%$'3+,(+')+%2'6$%7',/%5'%6,5%8,('//2')+')' $%(%.)' '57'.(%0',.'*1$'9.*3/%5-%' *& %6,5%8,(0'+'7%'4%%.' 8'5%' .')+,0'(*1.)$2')+%')3*' 8*0)',8 6*$)'.)'%7%.)0'3+,(+'+'7%' *((1$$%5',.')+,0'(*..%B,*.'*&'/')%'2%'$0'3%$%')+%' 5,0($,8,.'),*.'*&' # '&$*8' # ') '42' ' ')%3')$' '.5' ,//,'8' %..%$' '.5')+%'$%0%'$(+%0'*.')+%' # ' # ' A0)%66% 81$$',.' 0 ' 6$*; 8*)%5'42')+%' *2'f *88,00,*.'*.' DF DD' *.' ' '))/% /'-1%' +%' &,,0%$,8,.'),*.'*&)26+10'&$*8')26+*,5'&%7%$'6$*7%5')+')')+%' 7*/18,.*10'06%(1/'),*.0'3+,(+')*')+')'),8%' 3%$%' (1$$%.)'*.')+%' %6,5%8,*/*-2'*&')+%' (*.),.1%5'&%7%$0'*&')+,0'(*1.)$2')+%.'$%; -'$5%5''0'41)'' '5,0%'0%'6$%0%.),.-'0%7%$'f 7'$,%),%0'3%$%'&*$')+%' 8*0)'6')$'8%'.,.-; /%00'7%$4,'-%'42'0+*3,.-')+')'+%')3*'8*0)' (*88*.'&*$80'*&'&%7%$'3%$%5,0),.()'5,0; %'0%0'(/,.,('//2'6')+*/*-,('//2''.5'%%),*/*-,' ('//2' +,0'5,0(*7%$2'6$*7%5')*'4%')+%',.; '1-1$'),*.'*&''$1%8%)+*5'*&',.7%0),-'),*.' (*.(%$.,.-%6,5%8,(0'42'8'9,.-%7,5%.)')+')' %6,5%8,(' 6+%.*8%.''5,5'.*)'58,)'*&'((1; $')%0)152'%B(%6)',.'0*'&'$'0',)'3'0'4'0%5' 16*.''' >10)'5,0($,8,.'),*.'*&')+%'5,0%'0%0' 8'.,&%0),.-')+%8''.5'16*.')+%,$'(/,.('f'.5' 6')+*/*-,(='+,0)*$,%0' +%'0'8%/%00*.'3'0')'1-+)'.*)'%00'(/%'$/2''/)+*1-+',.''.*)+%$' &'0+,*.'42')+%'$%0%'$(+%0'6$*8*)%5'42')+% *2'f *88,00,*.'*.' '))/% /'-1%'3,)+' 3+,(+')+%'.'8%0'*&' ,*.%/f %''/%'.5' 1$5*.' '.5%$0*.''$%' %06%(,'//2'(*..%()%5' +%0%' $%0%'$(+%0'5%8*.0)$')%5')+%'%00%.),'//2',.&%(;),*10'.')1$%'*&')+%'8'/'52''.5')+')',)0'6$%; 7'/%.(%'3'0'5%6%.5%.)'16*.')+%'5,00%8,.';),*.''&')+%',.&%(),*.'5,$%()/2'*$',.5,$%()/2' &,*8''.,8'/0'0,(9'*&)+%'5,0%'0%')*')+%+%'/)+2')'3'0'0+*3.'.'.5%%5',.')+%'6')+*/*-,('/ /'4*$')*$2')+')'6$%(*.(%,7%5'5*(0$,.%0'*& 0*8%'*((1/)'%6,5%8,(',.&/1%.(%'3+,(+'+'5' 4%%.'0148,))%5')*')+%' *88,00,*.''0'5%)%$; 8,..-')+%'6$%7'/%.(%'*&')+%'())/% 6/'-1% +'5'.*'%B,0)%.(%',.'&'()'3+%.')+%'5,0%'0%' 3'0'014>%()%5')*'%B6%$,8%.)'/f 0)152''.5')+')' ,)0'(*.5,),*.0'*&'6$%7'/%.(%'3%$%'&1//2'3,)+,.' +18'.'(*.)$*/' +%0%'$%0%'$(+%0'6$*7%5')+% 0)'$),.-6*,.'*&')+*0%'86*$)'.)'.7%0),-';),*.0'*.')+%',.),8')%'6')+*/*-2'*&'(*.)'-,*.' ('$$,%5'*1)'42' 1$5*.' '.5%$0*.''.5' /%,.' &*$)+%' $,72' *1.(,/'1.5%$')+%'5,$%(),*.'*& *+.' ,8*.''.5')*'3+,(+' ,//,'8' *4%$)0' '.5')+%$0'+'7%',.5%6%.5%.)/2'(*.)$,41)%5'0*

7 . # ' # .

/'$-%/2''.5'3+,(+'+'7%'4%%.'&*//*3%5'42')+% ,.7%0),-'),*.0',.)*')+%',.),8')%'6')+*/*-ℍ=' *& 0('$/'),.''.5'5,6+)+%$,'' 42' /%,.''(),.-' 1.5%$')+%',.0)$1(),*.0'*&' %*$-%' 1(+'.''.' &*$)+%' *('/' *7%$.8%.)' *'$5' '/0*' ' & K'; ' * ' ## ' $ ' * ' % (&' & ' ' +! 3 ' / ! M' " $ "*'-$)'#) +)$> / '-.)' ' &, 06, '4 A &!*' ' G ' ' ' & U ' ' ' 5) ,0%'0%0'*& ' % 'AN A' 16*.ℍ' %6&3$')+%' 09,.ℍ'.5'D))''' 6/'.)R G +% .'8%'*&')+%'%6,6+2)%'*$'6'$'0,),(' &1.-10'*& 6,)2$,'0,0'7%$0,(*/*$ℍ'/0*'('//%5'8,($*06*$*.' '*((

' ," '16*.ℍ'.5' $$)')%0),(/%R G .&/'88'),*.'*&')+%' %6,; 5,5288,0' ') ,0%'0%0'*&

2 3 ! ' &' ' 2 5 M +,0' $%; -,*.',0'0,)1')%5''')+%'166%$' '.5'(%.)$'f 6')$' *&')+%' '45*8%.' >10)'4%/*3')+%' %.0,&*$8' ('$),/'-%'' .5'4%)3%%.')+%'=/*6,.-'8'$-,.0' *&')+%')+*$'B'5*3.')*')+%'/%7%f *&')+%'..)+' ('$),/'-%'(*$$%06*.5,.-')*'3+')'0'6*61/'$/2' 9.*3.'(0')+%'06,)'*&')+%')*8'(+ +% 0)$1()1$%0'3,)+,.')+%'45*8,.'f('7,)2'3+,(+' .5$8'2' ((162')+%'%6,-'0)$,18' '$%')+% -$%')%$'6'$)'*&')+%'0)*8'(+''' 08'/f 6*$),*.' *&')+%'/,7%$''.5'8*$%'5%%6/2''' 6'$)'*&')+% 6'.($%'0')+%''*$)''-,7,.-'*&&')+%'((%/,'('B,0' '.5'016%$,*$ 8%0%.)%$,('4$'.(+')+%' 7%.'' ('7'',.&%$,*$')+%'7%,.0'&*$8,.-')+%'(*8; 8%.(%8%.)'*&')+%'6*$)'f 7%,.')+%' $%(%6')'(1/18'(+2/,''.5')+%'0*/'$'6/%B10 $ ' $' A N G /,.,('//2',)'3,//K 4%'&*1.5')+')'6'),%.)0'&,$%E1%.)/2'(*86/'.''*& '4.*$8'f 0%.0'),*.0'06%(,'//2'$%&%$%5')*')+% %6,-'0)$,18' +%0%'$%'-%.%$'//2''00*(,')%5' 7),)+')+%'0)*8'(+''.5'8'2'8%$%/2''8*1.)')*''0%.0%'*&'5,0(*8&*$)'&1/.%00'*$),-+).%00ℍ *$)*''()1'f 6',.'*&'7'$2,.-'()'$')(%$'8*$%' *$/%00'0%7%$%''((*$5,.-')*')+%'(*.5,),*.'16*.' 3+,(+',5%6%.50''.5'*&%)%.'8 1(+',.&/1%.(%5' 42')+%' ,.-%0),*.'*&'&**5' %.0'),*.0' *&)$%84/,.-')+$*44,.-'*$'0,9,.-'')+%'6,)'*&)+%'0)*8'(+''$%' /0*'*&'(*88*.''((1$$%.(%' %06%(,'//2',.' &%8'/%0' +%0%' '$%' *&)%.' 8%$%/2' *&''' .%$7*10'(+'$'()%$' .'0*8%' ('0%0'+%$%',0'%7,5%.)'%.5%$.%00'%,)+%$'*7%$)+%'%.),$%' %6,-'0)$,18'*$',.'0*8%'/,8,)%5' 06*)''.5',',0',86*$)'.)')*'$%(*.'3+%)+%$)+,0',0'016%$&,(,'f *$'&%)'8*$%'*$'/%00'5%%6/2' &*$',)'8'2'4%'(*..%()%5'3,)+')+%'016%$&,('/ 0)$1()1$%0')+%'6%$,)*.%18'')+%'/,7%$')+% 0)*8'(+'*$')+%'6'.($%'0' +%'0%.0'),*.' %B6%$,%.(%5',.'(*.%B,*.'3,)+'+1.-%$',0' $%&%$%5'8'2'4%'*&''6',.&,,f (+'$'()%$' %$%'8'2



)+%' .184%$0' 4%,. -'&*$)+%' $,-+)' DP' ('0%0 '&*$')+%' /%&)' ?' %'0%0

0' $%-'$50')+%' 6'$)0' *&')+%' 4$',.' 3+%$%' '' /%0,*.' ,0' &*1.5',)' ,0' .*)' 6*00,4/%')*' 8 '9%' 10%' *&' '//)+%' &' ()0' 4%('10%' 3+%.' '' /%0,*.' ,0' ,.')+%')3*' 0,5%0' ,)' 7%$2' $'$%/2' *((16,%0' 0,8 ,/' $'6'$)0' ,.' 4*)+H' .5' '/0*' ,.' '' $')+%$' /'$-%6$*6*$),*.' *&' ('0%0')+%' /%0,*.' *((16,%5')3*' *$ 8*$%' 6')$)0' *&')+%' 4$',.' +4' &*//*3,.-')'4/%' -,7%0')+%' .184%$' *&'*'0%0' &*$' /%0,*.0' ,.' ' ')+%',86*$)'.)' 6')0' *&')+%' %.(%6+'/*. G

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D' 1$&'(%'*$',.)%$.'/'6'$)0'*&'*((,6,)'/
/*4%' ?P' S
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)' 3*1/5'4%' 3$*.-')*',8 '-,.%')+')'4%('10%')+%' .184%$'*&'('0%0'*&'(*.71/0,*.0'3'0'81(+' /'$-%$' 3+%+' 5,0%'0%' %B,0)%5',.')+%' 6'$,%)'/' /*4%' A !' ('0%0R')+')')+')' 6'$)' +'0' 8*$%' 6*3%$')*' *$,-,.')%' %6,/%6),&*$8'(*.)$'(),*.0')+'.')+%' *((,6,)'/'/*4%' A?P' ('0%0R' +%' $%; 7%$0%',0')$1%'4%('10%',.'*66*0,),*.')*' '//)+')' ,0')'1-+)'*.')+,0'6*,.)')+,0'/'0)'/*4%+'0'8*$%' 6*3%$')+'.')+%' 6'$,%)'/',.')+')' $%06%()'A,&'3%' /%'7%'0'0,5+' 3+')' $%/')%0')*')+%' '0(%.5,.-' 6'$,%)'/R' +,0' (' .'%'0,/2'4%' 6$*7%5' +%' .184%$'*&('0%0'*&'*$-'.,('5,0%'0%'A%06%(,''/2' +0 8*$$+'-%''0'*.%'(' .'0%%',.'X ,.)$'(<0'-$%')' 3*$9'(*.)',.,.-' @M' ('0%0'*&'+'%8*$$+'-%',.')+%' 6'$,%)'/'/*4%'.5'*./2'"'"',.')+%'*((,6,)'/R' *&')+%' 6'$,%)'/'/*4%,0' 8*)%')+'.')$%4/%')+')' *&' ('0%0'*&'/%0,*.'*&')+%'*((,6,)'/H 3+,/%')+%' .184%$'*&'('0%0'*&'(*.71/0,*.0'51%')*'5,0%'0%'*&')+%' &,$0)'*&')+%0%' 6'$)0'.*)'*./2',0'.*)')+$%%'),8%0''0'/'$-%''0'+')'*&' ('0%0'*&'(*.; 71/0,*.0'51%')*')+%'*((,6,)'/'/*4%'+1)' ,0' %7%.'&'$'&$*8'4%,.-')+%'5*14/%'+,0'/'0)' 6'$)')+%$%&*$%'/')+*1-+'0166*0%5'.*)')*'4%' 8*)*$'+'0' 8*$%',.&/1%.(%')+'.')+%'6'$,%)'/' /*4%,.'-,7,.-'$,0%)*'%6,/%6),&*$8'(*.71/0,*.0 '9,.-',.)*''((*1.)')+%'&$%E1%.(2'*&'5,0; %'0%',.')+%'&*1$'(%$%4$'/'/*4%0')+%'.184%$' *&'('0%0'*&'/%0,*.0'3+,(+',.'%'(+'*&')+%8' -%.%$')%'(*.71/0,*.0'0+*3 0')+')+%'&$*.)'/' /*4%',0')+%'*.%'3+,(+'+'0')+%'-$%')%0)',.&/1; %.(%'0'$%-'$50')+%'6$*51(),*.'*&%/,%6),&*$8' (*.71/0,*.0',)' 8)*',)' (*8%0')+%'*((,6,)'/' /*4%'.5''&)%$')+%0%')3*/*4%0'3%'+'7%')*' 6/'(%'/8*0)'*.'''0,8,/'$'/%7%/')+%'6'$,%)'/' '.5')+%)%).6*$*06+%.*,5'/'/*4%0

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40(%00%0 *&)+%4$',.'+'7%8*$%,.&/1%.(% .')+% ('10'),*.'*&%6,/%6),&*$8 **.K71/0,*.')+'.',0 -%.%$'//2 '58,))%5 1)*&?M ('0%0 *&1./')%$'/ 40(%00 (*//%()%5 42)+%3$,)%$' (*.71/0,*.0*((1$$%5,.' ' ('0%0 .,/')%$'/)$*6+2*&)+%4$',.'+'*&' 7%$2 */5 5')% '0$%-'$50 ,)0 *$,-,.',0 9.*3.')*'4% '//,%5 .*) $'$%/2)* %6,/%602 A6'$),'/ *$ -%.%$'/R 188,.-16 M? ('0%0 -,7%.'42 *)'$5 *25 1$.%2 '.5 ,.)$'( )+% 3$,)%$&,.50)+'%6 %6),&*$8 (*.71/0,*.0 *$ -%.1,.% %6,/%602 %B,0)%5,.'@! ('0%0)',0 *&-$%')',86*$)'.(%'-',.0)')+%7,%30*&)+*0% 3+*)$2)* /*(')% %6,/%602,.')+% 0*%) /%5 8*)*$(%.)$%0')+')*.*)*./2)+*0%6 $)0 3%$% '40*/1)%/2 5%0)$*2%5,.'8*$%)+'.*.%+'/&*&)+*0%<H ('0%0 41)')+')+% 0*('//%5 8*)*$)$'(9,.')+%4$',.''.5 06,.'/(*$5 3'0 5%%6/2 '/)%$%5,&'.*)5%0)$*2%5 ')'(%$)+%/%0,*.'0)'.(%$) 6'$)0 *&,)0 /%.-)+'.5)+') .%7%$)+%/%00 (*.71/0,*.0 *(((1$$%5 %,)+%$ .23+%$% *$ (+,%&/2 *$ %B(/10,7%/2,.')+%6'$/20%5/,840 *&)%.,.-51%)*84*/,08 ('10%0 (*.71/; 0,*.0 /8*0) 0 *&)%.'0,.&/'88')*$2 0*&)%.,.-' %B(%6)3+%.')+%0%')*&)+%/%0,*.'0)+% (*$)%B (%$%4$, +,)% 0*&)%.,.- *&7%00%/0 *&)+%*((,6,)'/ .5 *&)+%&$*.)'/ /*4%0 6$*; 51(%0 E*.7$50,*.0 8*$% &$%E1%.)/2)+'.')+% 0 8%/%0,*.',.')+%6'$,%)'/ /*4% 84*/,08 3,)+*1) .2 8 $9%5 0*&)%.,.- 7%$2 $'$%/2 6$*51(%0 (*.71/0,*.0 /9,.50 *&%.)*C*'',.')+%4$',.'7%$2 &$%; E1%.)/2 -,7%$,0%)* (*.71/0,*.0 41)*.%0* *&)%.'0 (20),(%$(,',& 1(+%.8%,0)%$,0'$,-+) %0)%0')+')*1)*&?!%'0%0*&(20),(%$(,',1)+%%.(6+'/*.')+%$% 3%$%@ %'0%0 3,)+'(*.; 71/0,*.0 *')+%$%(' 10%*&,$$,)'),*.'3+'); %7%$4%,)0 0%')',.')+%4$',.'*$,-,.')%0 (*.; 71/0,*.0 <*&)%.'0)+') +%'66%)*.'/,-')1%%*.'.%<-)+% ('*),5 '$)%$,%0 +'0 4$*1-+)*.'(*.71/0,*.0 ,.'' .184%$*&,.0)'.(%OH .5 3+')',0 $%; 8'$9'4/%3+%.')+%(=0,*.0 3%$%1.; /')%$'/)+%2 66%'$5 *.')+%(*$%06*.5,. 0,5%,.'8*$%(0%0')+'.'*.')+%*66*0,)%0,5% @'S " # "0 G +%$%'5%$8 '2 $%&%$)*)+%'$),(/%0*.')+% ,0%'0%0*&)+% %.; ,.-%0'.5 ,0%'0%0*&)+% $'.,18 &*$3+') $%/')%0)* (*.71/0,*.0 51%)*)+%0%8*$4,5 0)')%0 *86%%'.5 6%$0,0%.)'%6,/%602 51%)*(+$*.,(8%.,.-),0,0 7%$2$'$%H41) 26+,; /,),(&&%(),*.0%,)+%$*&)+% 51$'8')%$* *&)+%6%$,*0%18 *&)+%($'.,18.*)7%$2 $'$%/2 3,-,7%$,0%)*)+,0 '&&%(),*.) $,0%'0%0*&H'.5 5%%$$,0%'0%0'.5 %&*$8,),%0*& ' S # G .')+%3$,)%$0 3*$9 *.'6,/%602+%+'0 0+*3.')*')+,0 '&&%(),*. (.'$,0%&$*8'5,0%'0% *&)+%06,.'/ *$5 '(%?FM 3+%.')+')*3*$9'66%'$%5'8'.2 &'()0+'7%(*8%)*+,09.*3/%5-%%0)'4/,0+,.-)+') +,0 (*.(/10,*.'3'0 4 % $

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&')+%' ??M' ('0%0'*&'1.,/')%$'/ (*.71/;0,*.0''.'/20%5'42')+%' 3$,)%$')+%' '$8'*$')+%' /%-'/'*.%'*$'*.%'*&')+%0%'/,8 40' ')'),8%0')+%' *)+%$',.'*)+%$'))'(90'3%$%')+%'6'$)0'&&%()%5',.' "?'%'0%0' +%'&*//*3,..-')'4/%' 0+*30'3+')'6')$)0'*&')+%' 4$',.'3%$%')+%' 0%')0'*&')+%' /%0,*.'6$*51(,.-')+%0%'6'$),'/'(*.71/0,*.0

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6%'$%5' ,.(%')+%.' +*3%7%$' +%' +'0' '0(%$;
)',.%5')+')' (*.0(,*10.%00' 3'0' /*0)' ,.')+%'
0%,C1$%'%7%.' '&)%$')+%' %B(,0,*.' *&')+%' 166%$'
(%$7,('/' -./,'' *&')+%')3*' 02866')+%),('
.%$7%0G3+%.' *&' (*1$0%')+%' (%$%4$'/'7%00%/0'
$%8',.%5'5,/')%5'4%&*$%'51$,-'' .5' &)%$')+%'
&, >10)' '0',)' ,0'/*0)' ,.' ',8'/0'+'7,.-' (*.;
)$')(),*.' *&')+%0%' 7%00%/0' $' /%B'.5%$'
+'0' *40%$7%5')+')' ,.' 8'.'/*00' *&' (*.0(,*10;
.%00' ,.' &,)0' *((1$0' &)%$')+%' %B(,0,*.' *&')+%0%'
-'.-/,'')+%' 0'8%' '0' 4%&*$%')+')' *6%$'),*.'
)' ,0' %7,5%.)')+%$%&*$%')+')' '' 06'08' *&')+%'
7%00%/0' *&')+%' 4$',.',0'.*)' .'%00%.),'/'%/%8%.)'
,.')+%'('10'),*.' *&')+%' /*00' *&' 8%.)'/'&'(1/)2'
).,'3+%.')+')' 06'08'%B,0)0' '.5'0*'/*.-' '0'
,)'/'0)0')+%'/'(9'*$'4/**5',.')+%'(%$%4$'/'+%8,;
06+%$%0' 810)'.%(%00'$,/2'(*.)$,41)%')*')+%'
(%00'),*.' *&')+%'8%.)'/'(),7,)2' +%'$%'0*.0'
&*$' '58,)),.-')+')' '.'()' *&',.+,4,),*.'0')+%'
&,$0)' *$' 6$,.(,6'/' ('10%' *&')+%' /*00' *&' (*.;
0(,*10.%00' 3,//' 4%' &*,85',.')+%' $,)%$'0'
614/,0+%5'6'6%$0' *.')+,0'014>%()
10(1/'$'06'08'0' *&' ')*.,('(+'$'()%$'4%-,.'
')')+%'0' 8%' 8%.)')+')' (*.0(,*10.%00' 5,0;
'66%'$0' +%2' 8'2'4%-,.' &,$0)',.' '.2'6'$')
*&')+%' 4*52' 3+%)+%$')+%' '))'(9',0')*' 4%'
-%.%$'/'*$')*'$%8',.',.'*.%+'/&'*&')+%'4*52'
W*$,.'*.%'/,84' ')+%$'&,$%E.%.)/2')+%' 810;
(/%0' *&')+%' &'(%')+%' %2%0''.5')+%'.%(9' '$%
0%,C%5' 4%&*$%')+*0%' *&' *)+%$' 6'$)0' 41)')+%'
),8%',0'0*'7%$2'0+*$)'4%)3%%.')+%''66%'$'.(%*&'
06'08',.')+%0%' 810(/%0''.5')+%'-%.%$'/0),&&;
.%00')+')',)',0'/'8*0)' /'3'20'7%$2'5,&&,(1/)')*'
5%)%()')+')+%'6+%.*8%.''$%'.*)'0,81/)';
.%*10' *-%)+%$'3,)+')+%&,$0)'66%'$'.(%*&''
06'08*5,('(*.5,),*.',.')+%&'('.5'.%%9')+%$%
,0'/0*',.''-$%')'8'.2'('0%0''(*.)$'(),*.'*&'
0*8%'810(/%0'*&')+%'/'$2.B'.5'*&')+%'%B6,;
$')*$2'810(/%0'*&')+%')+*$'B'.5'*45*8%.'
6$*51(,.-')+%'0*('//%5'%6,/%6),(' ')+%'(+';
$'()%$'*&' 3+,(+',0'0*'06%(,'/')')'3+%.'*.(%'
+%'$5',)'(' .''/3'20'4%$%(*-.,0%5'%7%.'3+%.'
)+%'6'),%.)',0'.*)'0%%.' +%.'.'%6,/%6),*'
,0'0)'.5,.-''')')+%'*.0%)'*&''(*86%)%')))'(9'
+%'&'//0' +,0',0'.*)'51%'0*/%/2')*'/*00'*&'
(*.0(,*10.%00''0'3%'9.*3')+')',.'&,)0'*&'
')+,0''((,5%.)'8'2'.*)'*((1$' +%'
&'/'.,0'0*8%),8%0''.') '*.%')+%'6'),%.)'
,0'6$%(,6,)')%5'8*$%'*$/%00'7,*/%.)/2'&*$3'$5'
4'(93'$5' *$/')%$'//2'42'810(1/'$'(*.)$'(;
),*.0' +%.')+%' &'/' 8'2'4%'%,)+%$'' '
' *$'' ") ' *.%
%.%$'//2''6%$,*5'*&' $,-,5,)2'%B,0)0'4%&*$%
)+%'(/*.,(' (*.71/0,*.0' '66%'$' +,0'0)'-%'
&').,(' 6'08' '/8*0)' '/3'20'/'0)0'*./2'
&%3'0%(*.50H 41)',)' 8'2'(*.0),)1)%')+%'3+*/%
'))'(9' '.5')+%.',)' 8'2'/'0)' /*.-%$' .'
)+%'(*.)$'$2'(/*.,(' (*.71/0,*.0' 8'2'66%'$
')')+%' *.0%)' *&')+%' 0%,C1$%' .' '/8*0)' '//'
('0%0' +*3%7%$')+%2' &*//*3'' '-%.%$'/' 0),&,'
.%00' '.5' &*$8' '' 0%(*.5' 0)'-%' *$' 6&%$,*5' *&'
)+%' &,)' *&' 3+,(+'42')+%,$' 7,*/%.(%' '.5' 51$';
),*.')+%2' '$')+%' 6$,.(,6'/' 6'$)' +%' (/*.,('
06'08%5(' (*.)$')(),*.0''0''' $1/%'/'0)' +'$5/2'
8*$%')+'.' &$*8' *.%')*')+$%%' 8,.1)%0' ,.'
,5,*6')+,(' ('0%0
+%.'''&,)'/'0)0'&,7%'0,B'%,-+)'*$')%.'8,.;
1)%0'%7%.',&')+%$%' 4%' .*' 0,-.'*&' .'*$-'.,('
5,0%'0%'*&')+%' ,.')+%$%',0'0*8%' $%'0*.')*'
0106%()')+')+%' ')' (9',0'4$*1-+)*.'42'01(+'
'' ('10%' %.%$'//2',.'(*86%)%' 0%,C1$%0')+%''
/,840'*.')+%')3*'0,5%0'*&')+%'4*52'+'7%'0,8,;
/'$'(*.71/0,*.0'41)',.'('0%0'*&' 4$',. 5,0%'0%'
)+%$%' 8'2'4%' (/*.,(' (*.71/0,*.0'*.')+%'*.%
0,5%' '.5')*.,(',$,-,5,)2'*.')+%'*)+%$' .')+%'
&'(%')+%' %2%0')+%' .%(9'5,&&%$%.(%0'4%)3%%.'
)+%'0,5%0'$%' &$%E1%.)'*$' ')'/%')0'.*)'$'$%'
%7%.'.',5,*6')+,(' %6,/%602' .'8*0)'*'0%0'
)+%'%2%0'$%' 5$'3.'16',85%$')+%'166%$'%2%;
/,5'.5')+%2'$*//&$*8'0,5%')*'0,5%')',0'6*)'
$'$%')+')')+%' %2%0'&'(%'.5'+%'5')1$.'(*.;
71/0,7%/2')*3'$50')+%'/%&)'*$')+%'$,-+)'0,5%'
0*8%),8%0'>%$9,..'+*3%7%$'')/)%$.')%/2'&$*8'
.%')')+%' *)+%$' 0,5%' /=%.')+%'+%'5',0'
'$%,%5'0,5%3'20G)*')+%$,-+)'&*$',.0)'.(%G'
,)',0'(+,%&/2'*3,.-')*''06'08'*&')+%/%&)'0)%8*'
(/%,5*8'0)*,5%10'41)''/0*')*')+%'-$*16'*&'810;
(/%0'*&')+%')*6'*&')+%'.%%9'*.')+%'$,-+)'0,5%
$%')+,.-',0'(*.0,5%$'4/2',.)%$&%$%5'3,)+'
51$,.-')+%'3+*/%')'(9' &)%$')+%'06'08*5,('
'(),*.'*&')+%'%B6,$')*$2'810(/%0'(*.)$,41);
,.-')*')+%' 0+$,%9')+%$%',0''/8*0)'/3'20'
&*$''),8%'A.*)'/*.-%$'101''//2')+'.'*.%'*$)3*'
0%(*.50H'0)_86'-%'*&'$%06,$'),*.'&,.8')+%'
6%$0,0)%.(%'*&')+')',.,),'/'06'08'1$,.-'
)+%'3+*/%&,)'$%06,$'),*.',0'(*.71/0,7%',$$%-1;
/'$'>%$92'*$'-'06,.-''.5'/3'20',.(*86/%)%
'$%'/'06+2B,''-*,.-''0'&'$' 0'(2'.*0,0'
0**.'0+*30',)0%/&' +%'&'(%'3+,(+'30'6'/%'
')')+%'*.0%)'4%(*8%0'&%5''.5'6$*86)/2'0;
018%0''/,7,5'5'$9'61$6/%'*$4/1,0+7,*/%)'
+1%' '&$*)+2' '/,7''&$%E1%.)/2'*&''$%5'
5,0+),.-%'&$*8'%&&10%5'4/**5'(*.,,.-'&$*8'
)+%'4,),.-'*&')+%').*.-1%'*$/,60',001%0'/,))/%'
42'/,))/%'&$*8')+%'8*1)+')',0'%B)$%8%/2'
$'$%')+')')+%' 8*7%8%.)0'*&')+%'+%'$)' $%'
8*5,&,%5'')+%'*.0%)H 41)'6'/6,)'),*.'*$'
5,8,.1),*.'A'.5'%7%.''(*86/%)%',.+,4,),*.R'
*&')+%'('$5,'(' 8*7%8%.)0'+'0'4%%.'.'*),(%5'
42')+%'3$,)%$',.''&%3',.0)'.(%0'**.'+*3;
%7%$')+%'+%')$)'4%(*8%0'7%$2'81(+'%B(,)%5'
'.5'4%')0'E1,(9/2''0',.'*$=.',2''06+2B,''
+%')%86%$')1$%'$,0%0'A g'*$'@g' ''.5'0*8%'W
),8%0''/,))/%'8*$%R%'.5')+%'3+*/%')$1.9'
)+%&'(%'.5'840'$%(*7%$%5'3,)+'6%$06,$';
),*.' +%'616,/0''/3'20'5,/')%'(*.0,5%$'4/2'
0*8%),8%0''&)%$'.'%7,5%.)'(*.)$')(),*.H)+%'
%2%0''$%'4/**50+*)H '.5'+'%8*$$+'-%'8'2'
((1$')+%$%'$',.'*)+%$'6'$)0'01(+''0')+%'
.*0)$,/0')+%'%'$0')+%'4$*.(+,'*$'%7%.')+%'
('6,//'$,%0'*&')+%'09,.'*$'*&')+%'4$',.' $>.%'
8'2'4%'%B6%//%5'&$*8'' 06'08'*&')+%'4/'5;
5%$'')+%'*.0%)'*$'&$*8'6'$'/20,0'*&')+%'
06+,.()%$'')')+%'%.5'*&')+%'&,)

0 ' $1/%' ')')+% %.5 *&)+% (*.71/0,*.0)+% 6'),%.)' 6'00%0' 3,)+*1)' $%(*7%$,.-' (*.; 0(,*10.%00',.)*'+%'72'0/%%6'3,)+'8*$%*$'/%00' 7,*/%.)'0)%$)*$*10'4$%')+,..-' $%'/(*8')*0%$' 0)')% ,0' .*)' $'$%' +%$% ,0' .*' 5*14)')+')')+%0%02 8 6)*8 0' $% 8 *$%' ,.)%.0% ,&' .*' ('$% 4%)'9%.'0'$%-'$50')+%')*.-1%'.5'+%'5' +% 6'),%.)'0+*1/5'.*)'4%/%&)'*.'+,0'4'(9H ' .5')+%')*.-1%'3+,(+'&'//0' .5'(*7%$0')+%' /'$2.-%'/ *6%.,.-'0+*1/5' 4% 5$'3.' &*$3'$5' *8%' //%7,'),*.',0' /8*0)' /3'20' *4)',.%5' 3+%.')+,0' ,0' 5*.% &*$')+%')*.-1%*.'.5'3+%.')+% 4*52' .5'%06%(,'//2')+%'+%'5'$% 6/'(%5'*.' *.% 0,5%' %.%$'//2')+%' 0/%%6' &*//*3,..'' 6'$*B20 8'5*%0'.*)'/'0)' 8 1(+' 8*$%')+'.'.' .'+*1$'0*8%),8%0'.*)'0'/*.-'0')+')H 41)',)' ,0'%B(%%5,.-/2'$'$%')+')')+%$%' ,0' .*' 0/%%6' ')' '//' +%' 8*$%'7,*/%.)')+%' (*.71/0,*.0'+'7% 4%%.')+%' 8*$%')+%$%' ,0' $%/'B'),*.'*&')+%' 8 10(/%0'&)%$')+%2'+'7% (%'0%5' +%.'/,&)%5' 16')+%'+8 40' 8 '2'&'// '0' ,&')+%2'3%$%' (*8; 6/%)%/2'6'$'/20%5 .' 3'9,.-'&$*8')+%' 0/%%6' &*//*3,.-'' 0%,C1$%' 8*0)' 6'),%.)0' '$%' 7%$2'),$%5')+%' /,8 40'.5')$1.9' '(+,..-' '0' 3%/'(' 0')+%'+%'5' 01''//2')+%$%' ,0' 0*.5% 8%.)'/ '/)%$'),*.' *&)%.' (*.0,0,.-' *&' (*.&10,*.' *$' 0)16 $')+% 0*8%),8%0' 5%/,$,18' +%' 8,.5' +*3%7%$' 8'2' 4%' E1,)%' (/%'$' %7%.' '&)%$' ' ,*/%.)' '))'(9' '.5')+%' +%'5' &$%%' &$*8' 6',.')+%' *./2' %&&%()'*&')+%'&,)'4%,.-'-%.%$'/'/'00,)15%' .')+%' (*.)$'(*.)'0%,C1$%')+%$%',0'0*8%),8%0'(*.0,5%$'4/%'8%.;)'/'5,0*$5%$' +%' 5%-$%%' '.5'51$'),*.'*& 0)16*$' &)%$' '.' '))'(9' +'7%' .*' $%/'),*.')*')+%'51$')*.'*'*&')+%(*.71/0,7%'6%$,*5')16*$' ,0'(+,%&/2'.'%&&%()'*&'06+2''' .5',0')+%$%; &*$%' ,.' 5,$%()' $%/'),*.' 3,)+' /'$2.-,0 8 10')$'(+%/,0 8''.5')+%'06'0 8 0'*&')+%')+*$'(,(' 8 10(/%0'*&')+%' 5,'6+$'-8*''.5'6%$+'60'*&)+%'4$*.(+,'/)14%0'/0*')'+'0'4%%.'0)')%5' '.5'5%..%5')+')'+%' 1$,.%'6'00%5'&)%$' '.' '))'(9'*&'%6,/%602'0*8%),8%0'(*.)',.0'/41; 8%.',.'6'),%.)0'&$%%'&$*8'9,5.%2 5,0%'0%' .')'/%'0)'&,7%'*'0%0')+%'3$,)%$'+'0' '0(%$)',.%5')+')')+%$%'3'0''.*)'4/%''8*1.)'*&'/41 8%.' ,.')+% &,$0)',001%'*&'1$,.%'&)%$')'(9' ,.' 3+,(+')+%$%'+'5'4%%.'7,*/%.)'06'0 8*5,(' (*.;)$'(),*.0' *&')+%' '45*8,.'/ '.5')+*$'(,(' 8 10(/%0' +%$%'3'0'.*'5,0%'0%' *&')+%'9,5; .%20'*$'*&')+%'+%')$)',.')+*0%'6')%.)0
  ))'(9 0' *&' %6,/%602' '$%' 0*8%),8%0' 7%$2' 0/,-+)' (*.0,0),.-' *./2' 4%0,5%0')+%' /*00' *&' (*.0(,*10.%00' *&' .' %B)$%8%/2' 0+*$)')*.,(' 06'0 8'*&' 8 10(/%0'*&')+%')$1.9')+%'.%(9')+%'+%'5'.5')+%/,8 40' 1)'%7%.'.')+%'0+*$); %0)' .5'0/,-+)%0)' '))'(9'*&')+')'9,.5')+%' %6,; /%6),(' ($2' 8 '2' 4%' 1))%$%5')+%')*.-1%' 8 '2' 4%' 4,))%.' .5')+%$%' 8 '2' 4%' '0*8%3+')'(*; 8 ')*0%'0/%%6' '&)%$')+%&,)
)',0'.*3'7%$2' 3%//9.*3.')+')'&$%E1%.)/2')+%$%',0' '&)%$' ' &,)' ' $%'/ 6'$'/20,0' 3+,(+' 0*8%),8%0'6%$0,0)0'&*$' '/*.-'),8%' +,0'/*00' *&' 6*3%$',0'0166*0%5')*' 4%')+%' $%01/)'*&'%B; +'10),*.'&$*8'5,0(+'$-%'*&'.%7%&*$(%'3&/%' ,)',0'%7,5%.)/2')+%'%&&%()'*&'.' '()'*&',.+,4,;),*.''00*(,')%5'3,)+')+%'(*.71/0,*.0G=,.+,4,;),*.'0)$,9,..*')+%$'8*)*$'%/%8%.)0')+'.')+% %B(,)',*.'3+,(+'('10%0'(*.71/0,*.0' &',)' 3%$%'.'%B+'10),*.'&$*8'*7%$'(),*.')+%'&*/; /*3,.-'&'()0'(*1/5'.*)'%B,0)'A R')+%'6'$'/20,0' 8'2' '66%'$' '&)%$' '))'(90' 3+,(+' '$%' .*)' 7,*/%.)'' .5'.*)'0+*3',)0%/&'&)%$'8*0)'7,*/%.)' '.5'6$*/*.-%5'(*.71/0,*.0H A<R')+%$%'8'2'4%' '6'$'/20,0',.'*.%'*$')3*'/,8 40' '&)%$' '.' ');)'(9' ' ',.'3+,(+'.*'(*.71/0,*.'+'0')'9%.'6/'(%',.')+*0%'6'$)0H A"R'&)%$'%E1'/(*.; 71/0,*.0'*.')+%')3*'0,5%0'*&')+%'4*52')+%$%' 8'2'4%''6'$'/20,0'*&'*.%0,5%'*. /2H A R'&)%$' 1.,/')%$'/(*.71/0,*.0')+%$%'8'2'4%''6'$'/2; 0,0'*&'*.%',/,8 4'*./2'A%06%(,''//2')+%' '$8R' 3+,/%'4*)+'+'7%'4%%.'(*.71/0%5H AFR')+% 3$,)%$'+'0'0%%.' '('0%' ,.'3+,(+''6'),%.)' '/)%$.')%/2'+'5')'(90'*&'*./2'6'$'/20,0' '(*.71/0,*.0'*$' *&'(*.71/0,*.'&*//*3%5'42' 6'$'/20,0''/3'20',.')+%'0'8%/,8 4G)+%'/%&)' '$8H ALR')+%'3$,)%$'+'0'0%%.')+$%%'('0%0'*&' +%.>,6/%-,''&$*8'4$',. 5,0%'0%',.'3+,(+')+% 6'$'/20,0'0/,-+)/2'41)'%7,5%.)/2' " # '&)%$'%'(+'))'(9'*&'(*.71/0,*.0' %7%$'/ 0,8,/'$'&'()0' '$% *$%(*$5H AMR' %$%'+'0' &*1.5''/*00'*&'6*3%$'&)%$'(*.71/0,*.0',.' <8'6%$'(%.)'*&',0'('0%0',.')+%/%&)''$8''.5' ,.' 6%$'(%.)',.')+%/%&)''$8'3+,/%',.'('0%0',. 3+,(+'3,)+*1)'(*.71/0,*.0')+%$%'3'0'7%$),-*' 3,)+'*$'3,)+*1)'/*00'*&'(*.0(,*10.%00')+% /*00'*&'6*3%$'3'0'?!'6%$'(%.)',.')+%'$,-+)' '$$+'.'@M'6%$'(%.)',.')+%'/%&)H'ALR'$' 1-+,,.-0'(90*.'+'0'0%%.',.')+*0%'('0%0',. 3+,(+'.'*4*$),*.')*&')+%'))'(9'('.'4%'6$*; 51(%5')+')'6'$'/20,0'.*)'*./2'8'2''66%'$' 41)'('.'4%'-$%')%$')+''.&'(*.71/0,*.0'+'5' *((1$$%5',//')+%0%'&'()0''$%',.'+'$8*.2' 3,)+')+%',5%'')+')'6'$'/20,0'*((1$$,.-',. 0%,C1$%0'%,)+%$'&)%$'*$'3,)+*1)'(*.71/0,*.0',0' 51%')*',.+,4,),*.''.5'.*)')*'%B+'10),*. +%$%''$%'8'.2'$%'0*.0'/0*')*'(*.0,5%$',. ;+,4,),*.''.5'.*)'%B+'10),*.''0')+%'('10%*&' '/')+%')+%$'/*00%0'*&'6*3%$'3+,(+'$%'0*8%;),8%0'*40%$7%5'&)%$'.')'))'(9'*&'%6,/%602' 01(+'0'6+'0,''8.%0,''.%%0)+%0,''/*00' *&')+%'8 10(1/'$'0%.0%''8'1$*0,0'5%'&),%0' '.*08,''/*00'*&')'0)%'/*00'*&'9.%%>%$9'+,0' 0*')$1%')+')'(%$)',.'*&')+%0%'9,.5 0'*&'/*00' *&',8(),*.''$%'0*8%),8%0'*$'%7%.'7%$2'&$%; E1%.)/2''0',0')+%'('0%'&*$'9.%%>%$9'A %%7*$R' $%6/'(%5'42'.',.($%'0%'*&'6*3%$ 6' G +%'028 6)*8 0'*&''0%,C1$%'*&' 4' '$%' 7%$2' 5,&&%$%.)'&$*8')+*0%'*&''7,*/%.)/2'(*.71/0,7%' 3 -' %6,/%602' O +%'/*00'*&'(*.0(,*10; .%00'*(1$0'*./2'&*$'.%'*$''&%3'0%(*.50' '.5')+%'06'0 8*5,(' (*.)$'(),*.0')'9%'6/'(%',.' '' &%3' 8 10(/%0'*./2G,.')+%'&'(%')*.-1)+$*')'%2%0''.5'.%(9' &'0%,C%5'3+,/%'0)'.5; ,.-'16')+%'6')%.)'$'$%/2'&'//0''.5'*.')+% (*.)$'$2',&'3'/%.-'+%'8'2' (*.),.1%+,0' 8*7%8%.)'0'$%-1/'$/2''0'4%&*$%')+%'&,)' &' '))'(9%5'3+,/%'06%'9,.-'+%'-%.%$'//2')*60' 3+,/%')+%'(*.0(,*10.%00',0'/*0)'.5'*.'$%; (*7%$,.-',)'+%'8'2'(*86/%)%')+%'1.&,.,0+%5' 0%.)%.(%'0*')+')'+%'420)'.5%$0'8'2'9.*3

.*)+,.-'*&3+')+'0*((1$$%5 *8%),, %0+*3%7%$')+%'6'),%.)<08,.5',0'5%%6/2'/)%$%5'%7%.'3+%.')+%'))'(9'*& ' +'0'4%%.''0'0+*$)''.5'0/,-+)''0'6*00,4/%'0'N 2 " ' -'*&'%6,/%602'8'2'*((1$'3,)+*1)''.2'9.*3/%5-%' ')+%,$'+'7,.-')'9%.'6/'(%' .5%%5')+%'3$,)%$'+'0'0*8%),8%0'4%%.' (*.01/)%5'42'6%$0*.0'3+*'*./2'09%5$&*$'57,(%'*.''((*1.)'*&'+%'5'(+%0''.5'3+*'+'5'.*'6',.',.')+%'+%'5'%B(%6)'&)%$'.*(;)1$.'/')'))'(90'*&'%6,/%602'*((1$$,.-'3,)+;*1)')+%,$'9.*3/%5-%' .'01(+'%'0%0')+%'6'),%.)'&)%$''0%,C1$%'51$,..-'0/%%6'3'9%0"0),$%5'0',&'+%'+'5'3'/9%5'(*.0,5%$;'4/2H+%'+'0(6',..0'.')+%'/,840')+%'4'(9''.5')+%'+%'5' %'&,.50'+,0'8,.5'(*.;&10%5''.5'+,0'8%8*$2''&&%()%5H+%'&%%/0'5,0,.(/,.%5')*'-%)'*1)'*&'4%5'*$')*'%B%$)+,80%/&',.''.2'3'2H'.5'*&)%.'+%',0'%B(,);'4/%'*$'5%6$%00%5' *8%),8%0'+,0')*.-1%'*$'+,0'/,60''$%'0*$%''.5',&')+%'6,//*3',0'%B'8 8%5',)'0+*30'4/**52'06*)0' *$%'$'$%/2',)',0'&*1.5')+')'.',.7*/1.)'$2'%7'(1'),*.'*&1$,.%'+'0'0*,/%5')+%'4%5' .2*.%'0/%%6,.-'3,)+,.'+%'$,.-'5,0)'.(%'*&')+%'6'),%.)'8'2'4%'3'9%.%5'42')+%'6,%$(,.-'%6,/%6),('($2''.5')+%.'+%'$')+%'*.*,0%'*&')+%'0+'9,.-'*&')+%'4%5'('10%5'42')+%'(*.71/0,7%'8*7%8%.)0'1(+'))'(90''/)+*1-+'7%$2'&$%E1%.)'.5''/0*'7%$2'7,*/%.)'8'2'$%8',.''/)*-%)+%$'1.;9.*3.''.5'1.0106%()%5'42')+%'6'),%.)'.5'+,0'&$,%.50

9' .)%$6'$*B208'/'G'+%' -%.%$'/5,0%'0%0'3+,(+'*&)%.'((*86,.2',)''$%'&$%;E1%.)/2',)0''10%0''.5'.*)'(*86/,('),*.0'$,-+)<05,0%'0%0''.5'*)+%$'*$-'.,('&&%(),*.0'*&)+%'9,5.%20'5,0%'0%0'*&')+%'/,7%$')+%'3*84'.5')+%$'7,0(%$''3+%.''//,%5'3,)+'%6,/%602'(,&')+%2'+'7%'.*)'4%%.')+%'&,$0)''.5'*./2'('10%'*&',)''$%'6*3%$&1/'55,),*.'/'('10%'0'$%-'$50'0%E1%/'%')+%',86*$)'.)'$%0%'$(+%0'*&'$'1-++.-0'(90*.'$'1-+%0'%..%))''.5')R$'%$/'+'7%'%0)'4/,0+%5')+')'5,&&,(1/)06%%(+''6+'0,''8.%0,''$)%84/,.-'-%.%$'/6+20,('/'.5'8%.)'/'3%'9%...-'0'3%/'0''.2'8%.)'/'5,0*$5%$'6'$%0,0'*$'6'$'/20,0''.'%0)+%0,''*$'-$%')'5,0)1$4'.(%0',.')+%'7'$,*10'*$-'.,(' &1.(),*.0'8'2'.*)'.2'*2'6;6%'$)%86*$'$,/2''0'6*0)6'$*B208'/'6+%;.*8%.''.,.'%6,/%602'41)'8'2'6%$0,0)''.5',.($%'0%'&)%$'%'(+'&,)'+%'8*0)'(*88*.'*&')+*0%'%&&%()0'*&'0%,C1$%0'*&')+,0'.%1$*0,0''.5'%06%(,'//2'*&''0'8.%0,''3+,(+'8'2'/'0)'%7%.',&')+%'%6,/%6),&*$8''&&%(),*.',0'(1$%5$'.G+%'3$,)%$'5*%0'.*)'6$%)%.)'9.*3'3+')'.)+%'%6,/%602',0''.',.(%'0%5'%B(,)'4,/,)2'*&')+%'$%&/%()*8*)*$'6')0'*&')+%'.%$7*10'020)%8'3+,(+'8'2'%B,0)'.*)'*./2,.'8'.2'6')0'*&')+%'(%.)$%0'41)'/0*',.'0*8%'6%$,6+%$,('6')0

D!

,$$,)'),*.' *&')+%' (*$)%B' (%$%4$,' '()0',.'6$*; 51(,.-' &,$0)')+%' 8*$4,5' 0)')%' (*.0),)1),.-' %6,/%602' '.5' '&)%$3'$50' -%.1,.%' %6,/%6),('')'(90

' +')',0'6$*7%5'&*$' 5*-0',0''')'/%'0)('100%5')+%'3$,)%$'3,//-,7%'0*8%'*)+%$0')+%'-$*1.50'&*$'3+,(+' /'(9'*&' 06'(%'5*%0'.*)'6%$8,)'+,8')*'8%.),*. G

('6$*4'4/%'&*$' 8'.' /,.,('/'&')()0'0+*3')+')'8*0)'&$%E1%./)2''.2'9,.5'*&'/%0,*.' *&')+%'0*('//%5' 8*)*$'(%.)$%0'*$' *&')+%'.%,-+4*1$,.-'&$*.)'/'(*.7*/1),*.0'±+'0'-,7%.'*$,-,.'%,)+%$')*'-%.1,.%''.5'(*86/%)%'%6,/%6;),('&,)0'*$')*')+%'-$%')%0)'7'$,%)2'*&'%6,/%6),,;&*$8' 8'.,$%0')',*.0' +,0'+'0'/%5')*')+%'%$$*.%*10'(*.((/10,*.')+')'%6,/%602'+'0',)0'0%')',.'(%$)',.'(*$),('/'6')0'*&')+%'4$',.'')'('.'4%'0+*3.')+')'//'6')0'*&')+%'(%$%;4$18'*&')+%'(%$%4//18'*&')+%'4'0%'*&')+%4$',.''.5'/0*')+%'(%$%4$'/'8%.,.-%0')+%'06,.'/'(*$5''.5')+%'(%.)$,6%)'/'.%$7%0''(.'6$*51(%'%6,/%602' .')+%'*)+%$'+'.5',$$,;)'),7%'/%0,*.0''$%'9.*3.')*'+'7%'%B,0)%5'..'8'.2'*'0%0',.'*.%'*$'.*)+%$'6'$)'*&')+%&$*.)'/'*$6'$,%)'/'/*4%0'3,)+*1')')+%''66%'$;'.(%'*&'%6,/%602

+%.'.'.2'9,.5'*$'&*$8'*&')+')'&&%(),*.''66%'$0')85%$')+%',.&/1%.(%'*&''5,0%'0%'*$'*&'.'.>1$2')*')+%'(*$)%B'(%$%4$,'.')+%'6'$)0'/**9%5'16*.'0',0'$%'/'(.)*.')+%'/)%$%5'),001%''0')+%'&*//*3,.-'&'()0'3%//0+*3'8'2'4%'*./2')+%'0%')'*&'.'.$$,)'),*.'.'(),.-'*.'*)+%$'6')0'*&')+%'.%$7*10'(%.)$%0'0*'0')*'-,7%'$,0%')*'6%,/%602'.5')*',)0'8'.,&%0)'),*.0'+,0'7,%'3',0'6$*7%5'42')+%'&')0G0)'+')'3+%.')+,0'.%1$*0,0'51%')*''3*8'.')+%'4*3%/0',)'('.'4%'(1$%5'42')+%'%B61/0,*.'*&')+%',$$,)'),.-'('10%H<.5')+')'3+%.',)'5%;6%.50'*.''.%1$*8''*$'.%1$,),0',)'('.'4%'(1$%5'42')+%'0%(),*.'*&''.%$7%'4%)3%%.')+%'5,0%'0%5'6%$,6+%$,('6')'.5')+%'.%$7*10'(%.;)$%0'H"$5')+')'3+%.'('10%5'42'0*8%'6')+*;/*-,('/'/)%$'),*.'*&''(%$%4$'/'(*.7*/1),*.'),)'('.'4%'(1$%5'42')+%'%B(,0,*.'*&')+%'5,0;%'0%5'6')$' .''/'+*0%'('0%0'+%$%',0''''(1$%'.*)'4%('10%')+%'0%')'*&')+,0'(*.71/;0,7%''&&%(),*.',0'0%6'$')%5'&$*8')+%'.%$7*10'(%.)$%0'41)'4%('10%')+%',$$,)'),.-'('10%',0'0166$%00%5*8%),8%0''0',0'3%//9.*3.'%6,/%602'3,//(*.),.1%''&)%$')+%'%B61/0,*.'*&''3*$8')+%'0%(),*.'*&''.%$7%''.5')+%'%B(,0,*.'*&''5,0%'0%5'(*.7*/1),*.'*$')+%'*6%.,.-'*&''(%$%4$'/'40(%00' .')+%'&,$0)'6/'(%')+%',$$,;)'),7%'('10%'8'2'4%'*./2'6'$)/2'0166$%00%5'42')+*0%'8%'.0'H,.')+%'0%(*.5'6/'(%''0'0',5''/$%'52')+%'8*$4,5'0)')%',.'3+,(+'%6,/%602'(*.0,0)0'8'2'%B,0)'.'*)+%$'6'$)0'*&')+%'.%$7*10'020)%8'2'0%')+%',.&/1%.(%'*&')+')'.')+*0%'3+%$'),7%'('10%0'$%/*(')%5'+')',&/*$4,5'(*.;5,),*.'8'2'6%$0,0)'$%8',...-'4/%'1.5%$')+%',.&/1%.(%'*&')+%$',$$,)'),*.0')+'.')+*0%

-F)':'0$3!3':#$'!'')*)>+-',4*'#4)','!'/4'-$)5)7'!'4/>/$$'!'!'!'/)-)$'$+'3 4 N/'/"'''!'!'/)'5)'$"'"'!'!'4//$$'!'!'5)'$"'--#$'!.'=7'5!'!'$+'5)'!)'+$4"'$)*'$)'#$*>/"'7)$"7

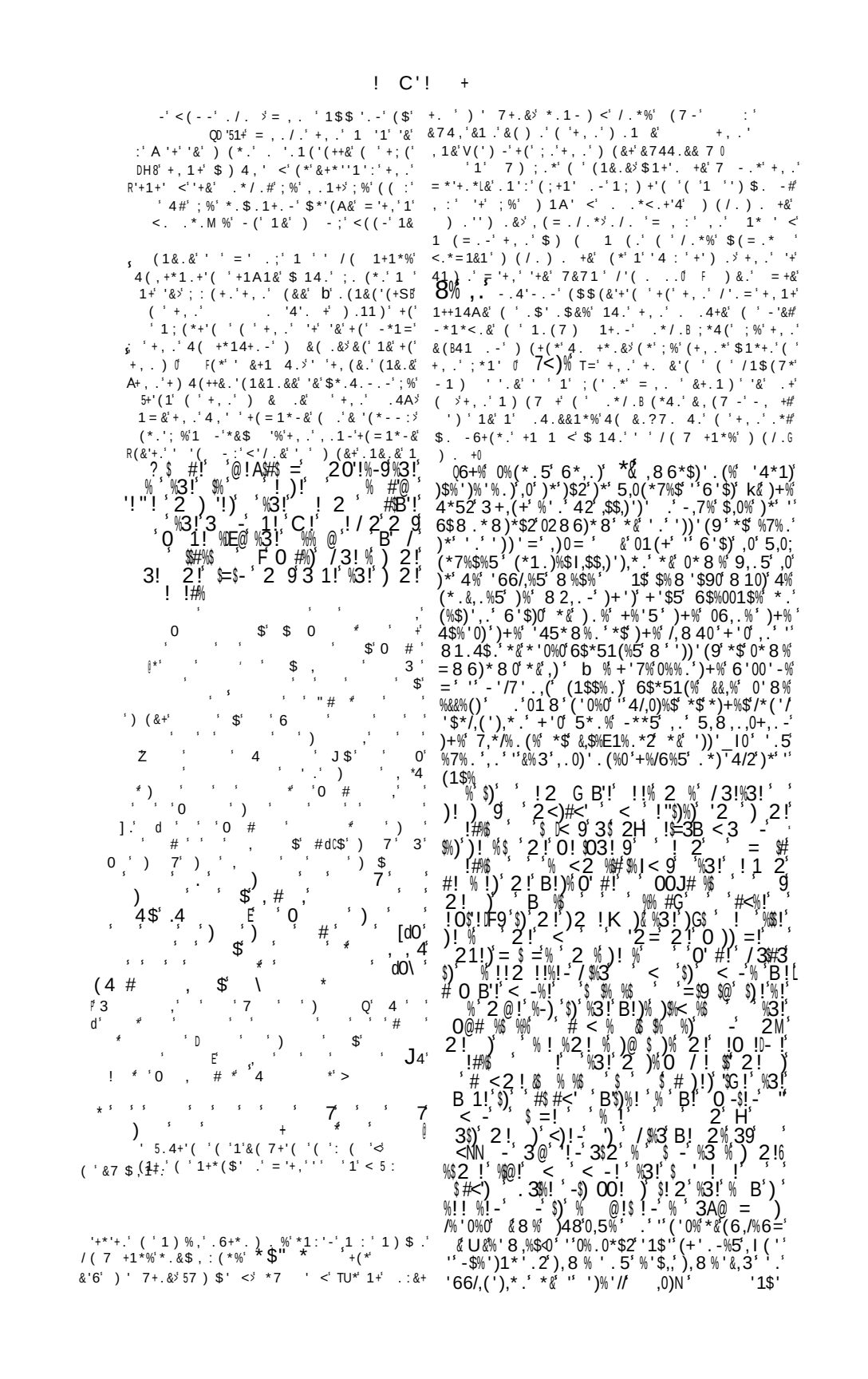
3+,(+'('()%5'6$%7,*10/2')*'-,7%'$,0%')*0%,C1$%0

Y'*-%)+%$'3,)+')+%'(*.(/10,*.0'&/*3,.-'&$*8')+%'&'()0'.5''$-18%.)0'4*7%'5,0;

6*0,),7%/2''//,%5'3,)+'.'*$-'.,(' /%0,*.'*&')+%'4$',.'')0'*./2'(*.0)'.)'&%')1$%'),0''.',.($%'0%*&')+%'$%&/%B'%B(,)'4,/,)2'*&''.184%$'*&'.%$7%(%//0'/*('')%5',.'7'$,*10'6')0'*&')+%'(%$%4$*06,.'/'(%.)$%0'+')'+26%$%B(,)';4,/,)2',0'-%.%$'//2'41)'.*)'.%(%00'$,/2'-$%')%$'')')+%'),8%'*&'.',86%.5,.-'&,)@'*5,0),.(),*.'('.'4%'8'5%'4%)3%%.')+%'9,.50'*&'%6,/%602'3,)+'6$%5*8,.'.(%0'%,)+%$'*&'(*.0,5%$'4/%'5,0)1$4'.(%'*&')+%'8%.)'/&1.(),*.0'*$'*&')+%'+,-+%$'0%.0%0'*$'*&'(*.71/0,7%'8*7%8%.)0'*$'*&'.2'0286)*8'+%'-$%')%0)'7'$,%)2'*&'%6,/%6),&*$8'8'.,&%0;)'),*.0'('.'$,0%'&$*8''0,8,/'$'/%0,*.',.'.2'6')$'*&')+%'4$',.'*$'%/0%3+%$%"'*8%'6')0'*&')+%'.%$7*10'(%.)$%0'('100%'$')85%$')+%',.&/1%.(%'*&''5,0%'0%'*$'*&''.'.2'9,.5'*$'&*$8'*&')+')'&&%(),*.'66%'$0')85%$')+%',.&/1%.(%'*&''5,0%'0%'*$'*&'.'.>1$2')*')+%'(*$)%B'(%$%4$,'.')+%'6'$)0'/**9%5'16*.'0',0'$%'/'(.)*.')+%'/)%$%5'),001%''0')+%'&*//*3,.-'&'()0'3%//0+*3'8'2'4%'*./2')+%'0%')'*&'.'.$$,)'),*.'.'(),.-'*.'*)+%$'6')0'*&')+%'.%$7*10'(%.)$%0'0*'0')*'-,7%'$,0%')*'6%,/%602'.5')*',)0'8'.,&%0)'),*.0'+,0'7,%'3',0'6$*7%5'42')+%'&')0G0)'+')'3+%.')+,0'.%1$*0,0'51%')*''3*8'.')+%'4*3%/0',)'('.'4%'(1$%5'42')+%'%B61/0,*.'*&')+%',$$,)'),.-'('10%H<.5')+')'3+%.',)'5%;6%.50'*.''.%1$*8''*$'.%1$,),0',)'('.'4%'(1$%5'42')+%'0%(),*.'*&''.%$7%'4%)3%%.')+%'5,0%'0%5'6%$,6+%$,('6')'.5')+%'.%$7*10'(%.;)$%0'H"$5')+')'3+%.'('10%5'42'0*8%'6')+*;/*-,('/'/)%$'),*.'*&''(%$%4$'/'(*.7*/1),*.'),)'('.'4%'(1$%5'42')+%'0%(),*.'*&''.%$7%'4%)3%%.')+%'5,0%'0%5'6%$,6+%$,('6')'.5')+%'.%$7*10'(%.;)$%0'H"$5')+')'3+%.'('10%5'42'0*8%'6')+*;/*-,('/'/)%$'),*.'*&''(%$%4$'/'(*.7*/1),*.'),)'('.'4%'(1$%5'42')+%'0%(),*.'*&''.%$7%'4%)3%%.')+%'5,0%'0%5'6%$,6+%$,('6')'.5')+%'.%$7*10'(%.)$%0'('100%5')+%'3$,)%$'3,//-,7%'0*8%'*)+%$0')+%'-$*1.50'&*$'3+,(+'/'(9'*&'06'(%'5*%0'.*)'6%$8,)'+,8')*'8%.),*.G

6,/%602',0''$%&/%B'.%1$*0,0'%7%.'3+%.'6*0,),7%/2''//,%5'3,)+'.'*$-'.,(' /%0,*.'*&')+%'4$',.'')0'*./2'(*.0)'.)'&%')1$%',0''.',.($%'0%*&')+%'$%&/%B'%B(,)'4,/,)2'*&''.184%$'*&'.%$7%(%//0'/*('')%5',.'7'$,*10'6')0'*&')+%'(%$%4$*06,.'/'(%.)$%0'+')'+26%$%B(,)';4,/,)2',0'-%.%$'//2'41)'.*)'.%(%00'$,/2'-$%')%$'')')+%'),8%'*&'.',86%.5,.-'&,)@'*5,0),.(),*.0'*$'*&')+%'+,-+%$'0%.0%0'*$'*&'(*.71/0,7%'8*7%8%.)0'*$'*&'.2'0286)*8'+%'-$%')%0)'7'$,%)2'*&'%6,/%6),&*$8'8'.,&%0;)'),*.0'('.'$,0%'&$*8''0,8,/'$'/%0,*.',.'.2'6')$'*&')+%'4$',.'*$'%/0%3+%$%"'*8%'6')0'*&')+%'.%$7*10'(%.)$%0'('100%'$')85%$')+%',.&/1%.(%'*&''5,0%'0%'*$'*&''.'.2'9,.5'*$'&*$8'*&')+')'&&%(),*.'66%'$0')85%$')+%',.&/1%.(%'*&''5,0%'0%'*$'*&'.'.>1$2')*')+%'(*$)%B'(%$%4$,'.')+%'6'$)0'/**9%5'16*.'0',0'$%'/'(.)*.')+%'/)%$%5'),001%''0')+%'&*//*3,.-'&'()0'3%//0+*3'8'2'4%'*./2')+%'0%')'*&'.'.$$,)'),*.'.'(),.-'*.'*)+%$'6')0'*&')+%'.%$7*10'(%.)$%0'('100%5')+%'3$,)%$'3,//-,7%'0*8%'*)+%$0')+%'-$*1.50'&*$'3+,(+'/'(9'*&'06'(%'5*%0'.*)'6%$8,)'+,8')*'8%.),*.G

6,/%602',0''$%&/%B'.%1$*0,0'%7%.'3+%.'6*0,),7%/2''//,%5'3,)+'.'*$-'.,(' /%0,*.'*&')+%'4$',.'')0'*./2'(*.0)'.)'&%')1$%',0''.',.($%'0%*&')+%'$%&/%B'%B(,)'4,/,)2'*&''.184%$'*&'.%$7%(%//0'/*('')%5',.'7'$,*10'6')0'*&')+%'(%$%4$*06,.'/'(%.)$%0'+')'+26%$%B(,)';4,/,)2',0'-%.%$'//2'41)'.*)'.%(%00'$,/2'-$%')%$'')')+%'),8%'*&'.',86%.5,.-'&,)@'*5,0),.(),*.0'*$'*&')+%'+,-+%$'0%.0%0'*$'*&'(*.71/0,7%'8*7%8%.)0'*$'*&'.2'0286)*8'+%'-$%')%0)'7'$,%)2'*&'%6,/%6),&*$8'8'.,&%0;)'),*.0'('.'$,0%'&$*8''0,8,/'$'/%0,*.',.'.2'6')$'*&')+%'4$',.'*$'%/0%3+%$%"'*8%'6')0'*&')+%'.%$7*10'(%.)$%0'('100%'$')85%$')+%',.&/1%.(%'*&''5,0%'0%'*$'*&''.'.2'9,.5'*$'&*$8'*&')+')'&&%(),*.'66%'$0')85%$')+%',.&/1%.(%'*&''5,0%'0%'*$'*&'.'.>1$2')*')+%'(*$)%B'(%$%4$,'.')+%'6'$)0'/**9%5'16*.'0',0'$%'/'(.)*.')+%'/)%$%5'),001%''0')+%'&*//*3,.-'&'()0'3%//0+*3'8'2'4%'*./2')+%'0%')'*&'.'.$$,)'),*.'.'(),.-'*.'*)+%$'6')0'*&')+%'.%$7*10'(%.)$%0'('100%5')+%'3$,)%$'3,//-,7%'0*8%'*)+%$0')+%'-$*1.50'&*$'3+,(+'/'(9'*&'06'(%'5*%0'.*)'6%$8,)'+,8')*'8%.),*.G



%,&%)%. (%' ,.' %(/' 8 60,'' *&' '' 6%$,6+%$,(' ('10%' *&' ,$$,)'),*. ' 3+,(+' ,0' /,9%/2')*' 5,0'66%'$' 1)')+*0%' 61$%/2'$%&/%B' %6,/%6),&*$8' '))'(90' ,.' 3*8%.' '.5' (+,/5$%.' '$%' 0*,.%),8%0' 01((%%5%5' 42' -%.1,.%' '))'(90' *&' %6&/%602' +'.-%0',.')+%'.%$7*10'(%.)$%0'*((1$' 51$,.-')+%' %(/'86),(' '))'(90' '.5' /'2')+%' &*1.5';),*.'*&'6%$0,0)%.)'%6,/%602''/)+*1-+')+%'6%$,;6+%$,(',$$,)'),*.'3+,(+' 3'0')+%' &,$0)' ('10%' +'0' (%'0%5')*' %B,0)')',0'0*8%),8%0')+%$%;&*$%''/8*0)' ,86*00,4/%''0' $%-'$50' (+,/5$%.'%06%(,'//2')*' 0'2' ,&' 3%' +'7%')*' 5%'/' 3,)+'%(/'860,'' *$' %6,/%602' +%' 0'8%' 8'2' 4%'0',5' *&' '// 9,.50' *&'))'(90' *&' /*00' *&' (*.;0(,*10.%00' .5'(*.71/0,*.0'51%')*' ''6%$,6+%$,(' ('10%' 3+%)+%$' 3%' ('//)+%' %(),*.'%(/'86;0,'' *$' $%&/%B' %6,/%602' , ' A%$ 3' +%'&,$0)' ('10%' ,.')+%0%' ('0%0' 8'2' (%'0%')*' %B,0)'3,)+*1)' *1$'5,0(*7%$,.-'6*0,),7%/2')+')' ,)' +'0' 5,0'66%'$%5' '.5'0)&//))'(90' 8'2' (*.),.1%' ' 8,0)'9%' ,0' .*)'5'.-%$*10' '0')+%')$%)'8%.)' 3,// 4%' 7%$2' 81(+')+%' 0'8%' %B(%6)')+')' ,.' 61$%/2' $%&/%B' %6,/%602' 3%' +'7%')*' &,-+)' '-','.0)')+%' 6%$,6+%$,(' ('10%' 4%0,5%0'8'9,.-'10%'*&'8%' .0''-',.0)'%6,/%602' ,)0%/&R

0'$%-'$50')+%'9.*3.'&'-'()0'(*.(%$.,.-')+%' N),*/*-2'*&'%6,/%602''.5'+20)%$*,5''&&%(),*.0' ,)'8 10)'4%'$%8%8 4%$%5' A R' +')',.0)%'5'*&' %6,/%602'+20)%$,'' 8 '2''66%'$',.')+%' 5%0(%.; 5'.)0'*&'%6,/%6),(0H A<R')+')'.'*$-'.,('5,0%'0%' *&')+%' 4$',)'('.'-,7%' $,0%')*' -%.1,.%'+20)%$,''*$')*' 8 ,B%5'&*$80' *&' +20)%$,'' '.5'%6,/%602H A"R')+')'5,0%'0%0' *&')+%' 3*84'*$'%7%.'*&')+%' *7'$,%0'(' .'-,7%'*$,-,')*'%6,/%602''.5'5,0%'0%0' *&')+%')%0),(/%0')*'+20)%$,'H A R')+')')$'18'),(' ('10%0'' .5'%06%(,'//2',.>1$,%0')*' .%$7%0'(' .' 0*8%),8%0'6$*51(%'+20)%$,'H AFR')+')'026+,/,0' 1$0%8,'' 3*$80',.')+%'4*3%/0'/%'5'6*,0*.,.-' (' .'-,7%'$,0%')*'+20)%$*,5''&&%(),*.0'),*/*-2' '/*.%' (' ..*)'+%$%&*$%'4%' 5%(,0,7%' &*$')+%' 5,'-.*0,0'4%)3%.'%6,/%602' .5'+20)%$,'

+%' '1$'' +20)%$,(' '' .5')+%'%6,/%6),(' '1$'' '$%' -%.%$'//2' 7%$2' 5,&&%$%.)' *.%' &$*8')+%' *)+%$'41)')+%2' 8'2' 4%' E1,)%' 0,8,/'$' +%' 3$,)%$' +'0'0%%.' '' ('0%' *&',5,*6')+,('%6,/%602' ,.'.' '51/)' 8'/%',.' 3+*8')+%' 0 '# 7 ' 3'0')+%'3'$.,.-'*&''/8*0)'%7%$2'))'(9' 0'$%-'$50'*)+%$'8%'.0'*&'5,'-.*0,0'3%'3, ' $%&%$')*')+%' '$),(/%0' & '' .5' 6) @ H

6,/%60,'' 8,),*$' , 3 ' ' 0*8%),8%0' ('..*)'4%' $%(*-.,0%5'%'0,/2' &$*8' 02.(*6%' .' ' +*3%7%$')+%'/*00'*&'(*.0(,*10; .%00',0'*40*/1)%/2'0155%.H')+%'%2%0'*$%'&,B%5H' '/8*0)' '/3'20'0*8%' 810(/%0'*&')+%'&'(%''$%' (*.)$'()%5H0*8%),8%0'+'%$'810(/%0',.')+%' .%(9' .5'%/0%3+%$%' '$%' '/0*' (*.)$'()%5H',&')+%'6'),%.)',0'0)'.5,.-'+%'$'$%/2'&'//0' '.5',&' +%',0'3'/9,.-'+%'8'2'(*.),.1%')*'5*',' +%' '))'(9',0'7%$2'0+*$)'' .5')+%$%' 8'2'4%'.*' '6; 6%'$'.(%'*&',)0'+'7,..-'*((1$$%5'%B(%6)')+')' 0*8%8%.)'/5,0*$5%$'8'2'&*//*3',)H)+%'61/0%' 8'2'4%'5,8,.,0+%5'41)',)' .%7%$'5,0'66%'$0' '/)*-%)+%$' 2.(*6%'5,&&%$0'&$*8' 3 ' ' ,.''//)+*0%'(+'$'()%$,0),(0

)',0' .*)'.%(%00'$2')*'5$'3'+%/' *&'5,'-.*0,0'4%)3%%.'.',5,*6')+,('%6 (%$%4$'/%6,/%602' +%'(+'$'()%$,0:' *&')+,0'/'0)''&&%(),*.'+'7%'4%%.'' /%.-)+',.'0%7%$'/'6')0'*&')+,0''$),5

5 G .+%$,)%5' %6&/%602,' $'$%/2' (1$%5' +%' 3$,)%$' (' .' 0)')%'+*3%7%$')+')',)'8'2'4%'(1$%)=' *)+%$'-**5'('0%0'*&'6%$0,0)%.)' 0%%.')3*'%B)$%8%/2'$%8'$9'4/%' ' 3%$%'&,$0)'(*10,.0'.5'+'5',.+%$,)%/' %'0%'&$*8'''-$'.5'8*)+%$'*.%'*&')' 0'0%'&$*8'''&'//'3+,/%',.)*B,(')%5'&,7%'20' +,0'/'0)' '))'(9'*&'%6,/%602H)+%' &$*8')26+*,5'&%7%$'0%7%.'2%'$0'&)%$f '))'(9' +%2' +'5'4*)+' 4%%.')$%'' '4*1)')3*'2%'$0',.' ?F@'.5' ?F'' +%$%',0''7%$2'-$%')'5,&&%$%.(%'0= 6$*-.*0,0'4%)3%%.'61$%',5,*6')+,(' '.5'*)+%$' &*$8 0'*&')+')' .%1$*0,0\' 6*00,4,/,)2'*&' (1$%',0'-$%')%$' 3+%' (1$'4/%' *$' '8%.5'4/%' *$-'.,(' /E' %B,0)0'0''('10%'*&'%6,/%602' .%')+,0'.%$7*10''&&%(),*.G)+')'3+,(+',0' 0*8%' (*.-%),*.' *$' %7%.' '' 8*$%' '/)%$'),*.'*&')+%' 4$',.' (*.0%(1),7%' 6+*,5'&%7%$'0('$'/'),.''*$'8%'0/%0G,0' 81(+'4%.%&,)%5'42')$%')8%.)',&'.*)' /$%'52' 4%&*$%')+%' -$%')' 6$*-$%00')$%')8%.)'*&'%6,/%602')+$*1-+'01$-,('/'))+%' 3$,)%$'/**9%5'16*.'%6,/%602' *'10: 5,0%'0%' *&')+%' 4$',.G026+,/,),('*$' 81(+'8*$%' (1$'4/%')+'.'' .2'*&')+% *&',0' .%1$*0,0'%B(%6),..-'6%$+'60'f 3+,(+',0'51%')*' .'%'0,/2'$%8*7'4/%'8 6+%$,*' ,$$,)'),*.' 6,/%602' 4%-,. . ,.f (+,/5+**5'&$*8')%%)+,..-'*$'' 4* %/ 6/',.)' .5'+7,.-'/'0)%5'8' .2'2%',' '/8*0)',.(1$'4/% 5 ! ; ? & "' ' # ' & 8*0)',86*$)'.)'&')(' *1-+)' ')'&,$0)'E 6*,.)%5' *1)' .5%$')+,0'+%'5H',)',0')+' %7%$2'))'(9'('10%0',.')+%' .%$7*10'(%./ (+'.-%0'3+,(+'6$%6'$%'*)+%$')'(90',= %00%.),'/')*' 6$*51(%',&'6*00,4/%')+%' '4),*.' *&')'(90'3+%.%7%$'3'$.,.-0' +%')$%')8%.)')*'*4)',.'01(+' .'4*$),/ 7'$,%0'3,)+')+%'9,.5'*&'3'$.,.-' .'('0& ,.'3+,(+' '$%'/'1$'' %B,0)0'8'.2'8%'.0',; 4%'%86/*2%5'3,)+')+%' -$%')%0)'4%.%&,)' ,//f 3$,)%$'/*.-'0,.(%'0+*3%5')+')')+%' &'0+,*.%5' 8*5%' *&' 6$%7%.),*.' *&')'(9=' (*.0,0),..-',.')+%' '66/,(',),*.'*&' '' /,-')1,& $*1.5'' /,84'')()0'.*)' '0')+%' '/%.,(' 5*/f)$,.%'0166*0%5')+')',)'5,5G)+')',0'42'+'$$+/f)+%'3'2')*'0*8%)+,.-'-*,.-'16')*')+%'4$'+: 41)'*.')+%'(.%5'42')2,.-'0155%./2' ' +'.59%$; (+,%&'*$' ' 4'.5' ' .5'$%6%'),.-')+,0')2,..-' 0%7%$'/),8%0',.'01((%00,*.')+' .'42'166/2,.-')+%' /,-')1$%' %7%.' 7%$2'),-+)/2' '.5'/%'7,.-',)'0*' %0,5%0'+%'+'0'&*1.5'A R')+')'+%

+'.5'+*3%7%$')+%2'3%$%'0*8%),8%0''-$%%;'4/2'01$6$,0%5',.'&,.5,.-')+')',.'01(+'(,$(18;0)'.(%0')+%''&&%(),*.'5,0'66%'$%5'.'?FM''&)%$'+'7,.-'-,7%.'//')+%'5%)',/0'*&''('(0%'*&')+%'9,.5'&,.,0+%5')*'+,8'42'$'7'.'1$%.'3$,)%$',.'+,0'3*$9'*.'6,/%602'61)'&*$;3'$5''7,%3'7%$2')%$0%/2'%B6$%00%5''&%3'2%'$0'-*42'$'*3%$0',.')+%'&*//*3,.-0%.)%.(%'0')',0'6*00,4/%')+')')+%'8%'01$%A)$%6+,.,.-,0'0*8%),8%0'4%.%&,(,'/'0''.'%.%$-%),('&*$8'*&'(*1.)%$,$$,)'),*.'41)',)',0'5*14)&1/3+%)+%$'&*$')+,0'*4>%()',)0'6%$&*$8;'.(%',0'>10),&,'4/%<

.*3,.-'+*3'6*3%$&1/'(*$8)%$,$$,)'),*.'8'2'4%'-',.0)'%6,/%602'('10%5'42''4/*3'*.')+%'+%'='*$'//,%5'3,)+'0*8%')%.5%$.%00'*&''6*,..)'*&')+%'0('/6')+%'3$,)%$'/*.-'-*6$*6*0%5')+')'4%&*$%$%0*$),.-')*')$%6+,.,.-'+%'8*0)'%.%$-%),(' 8%'.0'*&'(*1.)%$N,$$,)''),*.'0+*1/5'4%*%86/*2%5'$,'/0'0+*1/5'4%*8'5%*&',(%''66/,%5'*.')+%'0+'7%5'.'5'4'$%09,.'*&')+%'0('/6'.'5')+%'6%$,($'.,18'A)+%'(1)0'4%,.-'*&'*.%',.(+''.5''E1'$)%$R'')',0'6*00,4/%')+')',)'3'0''8*$%'*$/%00'0,8,/'$*6%$'),*.''.5'.*)')+%')$%6+,.,.-'3+,(+'3'0')+%'8%'.0'*&'01((%0'',.')+%'('0%0'*4*7%8%.),*.%5

+%.'3%$%'5'*&'('0%0'*&'(1$%''&)%$')+%'%B),$6'),*.'*&'4*.2'06,%1/['*$'*&''8'00'*&'(,(')$,(,'/'),001%''*&''')18*1$'*$'*&''('%$)',.'8*1.)'*&')+%'(*.7*/1),*.0'*&')+%'4$',.',)',0',86*00,4/%'.*)')*'4%0)$1(9'3,)+')+%'$%0%8;4/'.(%'*&')+%0%'&'()0')*')+%'('0%0'*&'(1$%'*&'%6,/%602'42')+%'%B61/0,*.'*&'3*$80'&$*8')+%'4*3%/0'*$')+%'$%8*7'/'*&''.%1$*8''*$'*)+%$%,-.'4*52'6$%00,..-'*.''.%$7%'*$'*&*)+%$('10%0'*&'6%$,6+%$,('$$,)')',*.'+%''.'/*-2'4%)3%%.')+%'(%$%4$'/'.'5'()+%'6%$,6+%$,('('0%0',0'7%$2'-$%')'4*)+''$%'('0%0'*&'$%&/%B'%6,/%602'.'4*)+'9,.50'*&'('0%0')+%$%'8'2'4%''&',/1$%'*&')+%'8%'.0'10%5'*3,..-'.'*5*14)')*'(+'.-%0'+'7,.-'*((1$$%5'.')+%'.%$7*10'(%.)$%0'3+,(+'$%'4/%')*'-,7%$,0%')*''))'(90'*&'%6,/%602'.'01(+'('0%0')+%'%B(,0,*.'*&')+%'0166*0%5'(%.)$%'*&'(,&)',.'8 10(/%0'8'2'.*)'4%&*//*3%5'42''(%00),*.'*&'(*.71/0,*.0'*&')+*0%'6'$)0'*',)'3'0',.')+%'('0%'*&''4*2'06*9%.'*&'42'$'%$$,%$''.5'3+*'+'5'4%%.'*6%$')%5'16*.'42'$'*$0/%2

)3,)+0)'.5,.-')+%'5,8,.1),.'*&'$,090'51%')*''.),0%6),(0'-$%')',0'0),//')+%'6$*6*$;),*.'*&'5%')+0'&*//*3,.-',&',.*)'('10%5'42'+%'*6%$'),*.'*&')$%6+,.,.-'3,)+')+%''4/';),*.'*&'8*$4,5'6'$)0'*&')+%'4$',.''.5'0*8%;),8%0''/'0'*&'6%$&%()/2'+%'/)+2/**9,.-'6'$)0

+%$%'0',*.'5*14)')+')'01$-%*.0'$%'%.),)/%5',.'(%$)',.'('0%0')*'%86/*2')$%6+,.;,.-''-',.0)'%6,/%602'41)'&*$')+%'$%'0*.0''4*7%4$,%&/2'-,7%.'')+%'3$,)%$')+,.90')+')4%&*$%$0*$),.-')*')+,0'*6%$'),*.'3+%.')+%$%',0'.-$%%;'4/2'01$6$,0%5',.'&,.5,.-')+')',.'01(+'(,$(18;0)'.(%0')+%''&&%(),*.'5,0'66%'$%5'.'?FM''&)%$'+'7,.-'-,7%.'//')+%'5%)',/0'*&''('(0%'*&')+%'9,.5'&,..,0+%5')*'+,8'42'$'7'.'1$%.'3$,)%$',.'+,0'3*$9'*.'6,/%602'61)'&*$;3'$5''7,%3'7%$2')%$0%/2'%B6$%00%5''&%3'2%'$0'-*42'$'*3%$0',.')+%'&*//*3,.-0%.)%.(%'0')',0'6*00,4/%')+')',)'3'0''8*$%'*$/%00'0,8,/'$*6%$'),*.''.5'.*)')+%')$%6+,.,.-'3+,(+'3'0')+%'8%'.0'*&'01((%0'',.')+%'('0%0'*4*7%8%.),*.%5+%.'3%$%'5'*&'('0%0'*&'(1$%''&)%$')+%'%B),$6'),*.'*&'4*.2'06,%1/['*$'*&''8'00'*&'(,(')$,(,'/'),001%''*&''')18*1$'*$'*&''('%$)',.'8*1.)'*&')+%'(*.7*/1),*.0'*&')+%'4$',.',)',0',86*00,4/%'.*)')*'4%0)$1(9'3,)+')+%'$%0%8;4/'.(%'*&')+%0%'&'()0')*')+%'('0%0'*&'(1$%'*&'%6,/%602'42')+%'%B61/0,*.'*&'3*$80'&$*8')+%'4*3%/0'*$')+%'$%8*7'/'*&''.%1$*8''*$'*)+%$%,-.'4*52'6$%00,..-'*.''.%$7%'*$'*&*)+%$('10%0'*&'6%$,6+%$,('$$,)')',*.'+%''.'/*-2'4%)3%%.')+%'(%$%4$'/'.'5'()+%'6%$,6+%$,('('0%0',0'7%$2'-$%')'4*)+''$%'('0%0'*&'$%&/%B'%6,/%602'.'4*)+'9,.50'*&'('0%0')+%$%'8'2'4%''&',/1$%'*&')+%'8%'.0'10%5'*3,..-'.'*5*14)')*'(+'.-%0'+'7,.-'*((1$$%5'.')+%'.%$7*10'(%.)$%0'3+,(+'$%'4/%')*'-,7%$,0%')*''))'(90'*&'%6,/%602'.'01(+'('0%0')+%'%B(,0,*.'*&')+%'0166*0%5'(%.)$%'*&'(,&)',.'8 10(/%0'8'2'.*)'4%&*//*3%5'42''(%00),*.'*&'(*.71/0,*.0'*&')+*0%'6'$)0'*',)'3'0',.')+%'('0%'*&''4*2'06*9%.'*&'42'$'*$0/%2*)3,)+0)'.5,.-')+%'5,8,.1),*.'*&'$,090'51%')*''.),0%6),(0'-$%')',0'0),//')+%'6$*6*$;),*.'*&'5%')+0'&*//*3,.-',&',.*)'('10%5'42'+%'*6%$'),*.'*&')$%6+,.,.-'3,)+')+%''4/';),*.'*&'8*$4,5'6'$)0'*&')+%'4$',.''.5'0*8%;),8%0''/'0'*&'6%$&%()/2'+%'/)+2/**9,.-'6'$)0+%$%',0'.*'5*14)')+')'01$-%*.0'$%'%.),)/%5',.'(%$)',.'('0%0')*'%86/*2')$%6+,.;,.-''-',.0)'%6,/%602'41)'&*$')+%'$%'0*.0''4*7%4$,%&/2'-,7%.''')+%'3$,)%$')+,.90')+')4%&*$%$0*$),.-')*')+,0'*6%$'),*.'3+%.')+%$%',0'.-$%%;'4/2'01$6$,0%5',.'&,.5,.-')+')',.'01(+'(,$(18;0)'.(%0')+%''&&%(),*.'5,0'66%'$%5'.'?FM''&)%$'+'7,.-'-,7%.'//')+%'5%)',/0'*&''('(0%'*&')+%'9,.5'&,..,0+%5')*'+,8'42'$'7'.'1$%.'3$,)%$',.'+,0'3*$9'*.'6,/%602'61)'&*$;3'$5''7,%3'7%$2')%$0%/2'%B6$%00%5''&%3'2%'$0'-*42'$'*3%$0',.')+%'&*//*3,.-0%.)%.(%'0')',0'6*00,4/%')+')',)'3'0''8*$%'*$/%00'0,8,/'$*6%$'),*.''.5'.*)')+%')$%6+,.,.-'3+,(+'3'0')+%'8%'.0'*&'01((%0'',.')+%'('0%0'*4*7%8%.),*.%5

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& ’ (G)’ ,0’ .%(%00’$2’)*’ (*.0,5%$’ 0%6’$’)%/2’)+$%%’ ’06%()0’ *&’)+%’ 1.0*1.5.%00’ *&’ 8,.5’ 3+,(+’ ,0’ ’00*(,’)%5’ 3,)+’ %6,/%602’ ’((*$5,.-’ ’0’,)’ ’66%’$0’A8R’ 0’ ’$$%0)%5’*$’,8 ; 6%5%5’ 8%.)’/’5%7%/*68%.)G ’ ’ ’.5’ ’ # 3 ’Ĥ A<R’ ’0’ 6$*-$%00,7%’ 8%. ’ 5%-%.%$’),*.G # ” ’ ’ ’7 ” ’ .’5’A”R’ ’0’)$’.0,%.)’ 8%.)’’/ 5,0*$5%$’ ? ’ ’ ” ” ’*$’ ’ +%0%’)+$%%’(*.5,),*.0’ ’$%’)*’ 4%’ $%-’$5%5’ ’0’ 5,/&%$%.)’6+’0%0’ ’.5’ .*)’ ’0’5,&&%$%.)’9,.50’*&’ %6,/%6),(’,.0’.,)2’ +%2’ ’$%’,.),8 ’)%/2’(*.; .%()%5’ 3,)+’ *.%’ ’.*)+$’ ’.5’*((’0,*.’//2’)+%2’ 8’2’ ’ ’ 4%’ ,//10)$’)%5’ ,.’)+%’ 6$*-$%00’ *&’ ’’ 0,.-/%’ (’0%’ +10’%6,/%602’016%$7%.,.-’ 51$,.-’,.&’.(2’*$’2*1)+’ 8’2’0*’$%)’$5’8%.)’/’ 5%7%/*68%.)’ ’0’)*’ 6$*51(%’ ,84%(,/,)2H’)+%’ 0140%E1%.)’6%$,*5,(’/’$%(1$$%.(%’*&’%6,/%6),(’ &,)0’ 51$,.-’ ’51)’/,&%’ 8’2’-$’51’//2’6%$7%$)’ ’.5’5%6$’7%’)+%’’/$%’52’,86%$&%()’,.)%/ -%.(%’ (’10,.-’,)’)*’ 6’00’)/))*1=’ ’’ 6+’0%’(+’$’(;)%$,0%5’42’%8*),*.’/’5,0*$5%$’+’//1(,.’),*.0’ ’.5’5%/10,*.0’’.5’%.5,.-’.’)+%’+%4%)15%’*& (*86/%)%’5%8%.),’H’)+,0’6$*-$%00’8’2’*((162’ 8’.2’2%’$0’’.5’,)’ 8’2’4%’,.)%$$16)%5’42’ ,.)%$(1$$%.)’*1)41$0)0’*&’’(1)%’ 8’.,’(’/’%B; (,)%8%.)’ +*1-+’,)’,0’.%(%00’$2’)+%$%&*$%’ &*$’)+%’61$6*0%’*&’5%0($,6),*.’)*’5%’/3,)+’ %’(+’*&’)+%’6+’0%0’0%6’$’)%/2’)+%,$’,.)%$; 5%6%.5%.(%’8 10)’.*)’4%’*7%$/**9%5 ’ 6,/%6),(’5,*(2’’.5’6,/%6),(’8; 4%(,/,)2G +%0%’)%$80’$%’10%5’)*’,.5,(’)% 5,&&%$%.)’5%-$%%0’&’)+%’0’8%’&&%(),*.G’’8*$%’ *$’/%00’(*86/%)%’ ’$$%0)’*&’8%.)’/’5%7%/*6; 8%.)’51%’)*’ %6,/%602’ +*0%’,.5,7,51’/0’ ,.’3+*8’ %6,/%602’016%$7%.%0’,.’,.&’.(2’ 3+%$%’)+%$%’,0’.*’5%7%/*68%.)’*&’8,.5’*$ 7%$2’/,))/%’’$%(’//%5’,5,*)0’ +*0%’,.’3+*8’ %6,/%602’(*88%.(%0’’&)%$’0140)’.),’/’6$*; -$%00’+’0’4%%.’8’5%’,.’8%.)’/’-$*3)+’*$’,.’ 3+*8’)+%’%6,/%6),%’0%,C1$%0’)+*1-+’’66%’$; ,.-’%’$/2’5*’.*)’$%(1$’&$%E1%.)/2’’.5’3+%$%’)+%$%’,0’(*.0,5$’4/%’)+*1-+’5%&%(),7%’8%.)’/ 5%7%/*68%.)’’$%’(’//%5’,84%(,/%0’ +%’%&&%()’ *&’)+%’&,)0’16*.’)+%’ 8%.)’/’(*.5,),*.’*&’(+,/; 5$%.’5,&&%$0’-$%’)/2’,.’5,&&%$%.)’(’00%0’ +%’ &,)0’’$%’101’//2’ &*//*3%5’42’ 8*$%’ *$’/%00’ 8%.)’/’$%)$*-$%00,*.’ .’8’.2’*’0%0’’&)%$’’ &,)’’.5’%06%(,’//2’’&)%$’’’0%$,%0’*&’&,)0’)+%’ 6’),%.)0’&’ ’,.)*’’’0)’)%’*&’6$*0)$’),*.’’.5’ 0)16*$’*&’0*8%’51$’),*.’ +%’%51(’),*.’/’)$’,..-’*&’)+%’%65%6),*’,84%(,/%’,0’0%$,*10/2’ %84’$’00%5’42’)+%’*((1$$%.(%’*&’01(+’’);)’(90’ -$%’)’6’$)’*&’3+’)’+’0’6$%7,*10/2’ 4%%.’/%’$.)’0%%80’)*’4%’3,6%5’*1)’’.5’$%; E1,$%0’)*’4%’/%’$.)’*7%$’’-’,.’ .’(’0%0’ 3+%$%’)+%’&,)0’(%’0%’)+%’%7*/1),*.’*&’)+%’,.;)%//%)’/’$%)$*-$%00,*.’ .’8’.2’*’0%0’&)%$’ *)+%’8%.)’/’ *$-’.,0’),*.’’/3’20’$%8’,.0’5’8’-%5’)’,0’ %0),8’)%5’)+’)’ *4*1)’*.%)+,$5’*&’)+%’ *)’)’/ .184%$’*&’(’0%0’*&’,5,*(2’’$%’51%’)*’%6,/%602 @’ .’$%’.,(’ 6,/%6),%’ .0’.,)2G .’ ’’/’$-%’ .184%$’*&’%6,/%6),(0’%0),8’)%5’42’ 100%’U%2.*/50’)’*4*1)’*.%)+,$5’*&’)+%’ *)’)’/ .184%$’)+%’ 8%.)’/’(*.5,),*.’.’,0’ .*)’ ’&&%()%5’)*’01(+’’5%-$%%’’0’)*’4%’$%(*-.,0%5 ’0’’4.*$8’/Ĥ’.5’,.’’’08*’//’.184%$’*&’%’0%0’)+%’5,0*$5%$’,0’/,8,)%5’)*’’’&%3’4$,%&’))’(90’ 0*8%),8%0’)*’’’0,.-/%’))’(9’*&’8’.,’(’/’%B; (,)%8%.)’ .’’4*1)’)3*)+,$50’*&’)+%’(’0%0’)+%$%’,0’0H.’’66$%(,’4/%’8%.)’/’%.&%%4/%$/.%.)’ 3+,(+’-$’51’//2’,.($%’0%0’0*’/*.-’’0’)+%’&,)0’ (*.),.1%’)*’$%(1$’,.’0*8%’%’0%0’.%7%$’-*,.-’ &’$)+%$’)+’.’ ’’ 6%(1/,’$’%8*),*.’/’8*,)2’ ’.5’3%’9.%00’*&’8%8*$2’’.5’,.’*)+%$0’6’00; ,.-’*.)*’6$*&’1.5’5%8%.),’ +,0’6$*-$%00,7%’ 8%.)’/’5%-%.%$’),*.’)+*1-+’7’J,.-’-$%’)/2’ ,.’5%-$%%’,0’7%$2’)8,&*$8’,.’)26%’’.5’,)’,0’ ,86*$)’.)’)*’4%’4/%’)*’$%(*-.,0%’,)’ .’)+%’ 8,/5%0)’(’00%0’)+%$%’’$%’101’//2’)*’4%’5%)%()%5’ /’60%0’*&’8%8*$2’&,)0’*&’’40%.)8,.5%5.%00’ ’.5’)$’.0,%.)’(*.&10,*.0’*&’)+*1-+)H’’.5’)+%$%’,0’’/3’20’8*$%’*$’/%00’,.0)’4,/,)2’*&’ 8**5’’.5’8*$4,5’,$$,)’4,/,)2’ +%’,.0)’4,/,)2’ ,0’)+%’8*0)’(+’$’()%$,0),(’8%.)’/’&%’)1$%’*&’)+%’%6,/%6),(’)’*.%’),8%’+%’3,/Ĥ’4%’-/**82’ 5%06’,$,.-’(*.0(,*10’*&’+,0’8%.)’/’%.&%%4/%’ 8%.)’’.5’/’8%.),.-’,)0’+*6%/%00’.’)1$%Ĥ’)’ ’.*)+%$’),8%’+%’3,//’%B+,4,)’’01$6$,0,.-’ 0%/& 0’),0&%(),*.’+*+%6%&1/.%00’’.5’(*.&,5%.(%’ .’2’%6,/%6),(0’$%’/,’4/%’)*’&,)0’&’,.)%.0%/2’ 6’00,*.’)%’.-%$’*((1$$,.-’3,)+*1)’’66’$%.)’ (’10%’ +%’(+’.-%0’*&’8**5’*&)%.)’9%’6/’(% 3,)+’ ’)$’),.-’0155%..%00’3+,(+’,0’,8; 6*$)’.)’’0’’5,’-.*0),(’,.5,(’),*.’ .’)+% &1//2’5%7%/*6%5’(+$*.,(’,.0’.,)2’*&’)+%’%6,; /%6),%’)+%’7’$,’4/%.%00’*&)+%’8%.)’/’(*.5,),*. 8’2’0+*3’,)0%/&’,.’)+%’,.)%//%()1’/’0’3%//’0’ ,.’)+%’8*),*.’/’0)’)%’ ’6’),%.)’3+*101’//2’ %B+,4,)0’(*.&10,*.’*’&’)+*1-+)’3%’9’8%8*$2’ ’.5’/,))/%’6*3%$’*&’’))%.),*.’8’2’0155%./2’ ’3’9%’)*’’’0)’)%’*&’-$%’)’8%.)’/’’(),7,)2’ ’.5’0+*3’$%8’$9’4/%’(/%’$.%00’.5’$’6,5,)2’ *&’)+*1-+)’7,7,5’8%8*$2’’.5’-$%’)’6*3%$’*&’ (*.(%.)$’),*.’ ’(*88*.’(*.5,),*.’,0’)*’4%’ +’4,)1’//2’E1’$%%/0*8%’’$-18%.)’),7%’&*.5’ *&’)%’0,.-’,.0*/%.)’,.’5%8%’.*1$’’.5’-,7%.’)*’(’6$,(,*10’($1%/)2H’2%)’01(+’6’),%.)0’3 /’ 0*8%),8%0’4%’&*1.5’8’$7%//*10/2’03%)’,.’ 5,06*0,),*.’4%.%7*/%.)’’&&%(),*.’)%’.5’(*.; 0,5%$’)%’ .’)+%’57’.(%5’0)’-%0’*&’)+%’5,0; *$5%$’)+%’8*$’/.’)1$%’,0’-%.%$’//2’5%%6/2’ 5%-$’5%5’’0’0+*3.’,.’$%61/0,7%’*40%E1,*10; .%00’*&’5%8%’.*1$’/*3’(1...-’)$%’(+%$2’ ’.5’($1%)/2’ +%’,.)% %()1’/’(*.5,),*.’’/0* 6’00%0’)+$*1-+’0)’-%0’*&’5%-$’5’),*.’ %/1; 0,*.0’*&’4%,.-’,.>1$%5’42’*)+%$’6%$0*.0’&,//)+%’8,.5’’.5’7,01’/’.5’’15,)*$2’+’//1(,.’;),*.0’*((1($’ +%.’)+%0%’’$%’6$%0%.)’)+% 6’),%.)’3,)+’,0’)%.5%.(2’)*’,8 61/0,7%’6’0; 0,*.’,0’5’.-%$*10’)*’6%$0*.’’.%’$’+,8’ +%’ /’0)’ 0)’-%’,0’ 8’$9%5’42’(*86/%)%’/*00’*& 8*$’/0%.0%’.5’8%.)’/’(’6’(,)2’ *)+,.-’ $%8’,.0’41)’)+%’/*3%$’,0),.()0’.’)+%,$’8*0)’ 5%-$’5%5’&*$8Ĥ’.5’)+,0’,0’’((*86’.,%5’42’ ’’6+20,(’/5%4’0%8%.)’3+,(+’’((*$50’*./2’)*’ 3%/’3,)+’)+%’8%.)’/’(*.5,),*. ” ’ (1)%’ 6,/%6),%’ .0’.,)2G 6,; /%6),(’ ’.,’G +%’)%$8’0%6,/%6),(’8’.,’ ,0’10%5’)*’5%.*)%’’6%(1/,’$’ 1)*8’),(’&*$8’ *&’’(1)%’8’.,’’3+,(+’0*8%),8%0’&*//*30’ %6,/%6),%’0%,C1$%0’’.5’8*$%’$’$%/2’*((1$0’,.

6%$0*.0 3,)+'+%%6,/%6),(' .%1$*0,0 3+*+'7%' .%7%$ +'5 '' (*.71/0,7%' '))'(9G*$ ')$ /%'0)' 3+*+'7% .*)$ 4%%.' 9.*3.')*+ +'7%* .%' +%$%,0 -%.%$'//2 0*8%)$'.0,%.)$ 8%.)'/ 6%$)1$4'),*.' 6$%(%5,.-' *$ &*//*3,.-' '' (*.; 71/0,7% 0%,C1$%' 3+,(+' 5*%0 .*)'))',.')+%,.)%.0,)2*&8 '.,''41)3+,(+' 8 '2 4%&,)/2 ''//15%5)*+$%' +%'6$% 6'$*B208 '/6+'0%*&)+%0% 6%$)1$4'),*.0 8 '2'/'0)&*$ '' &%3 +*1$0 *$ '' &%3' 5'20' +%2(*.0,0)' ,.' '5%7%/*68%+)' *&(*.5,),*.0 3+,(+'+'7%' 4%%.' '/$%'52 5%0($,4%5' '0 (+'$'()%$,0),(' *&)+%%'$/2 0)'-%' *&(+$*..(' %6 %6),*' ,.0'.,)2'+*1-+)'*$/*00 *&'8%8*$2' 8 8%5,')%/2' 4%&*$%)+%' *((1$$%.(% *&' '' &,)')+%$%' ,0 *&)%.' 0*8%06%(,'/ ,5%'' 3+,(+'$,7%)0')+%' '))%.),*.')+%'$%(*//%(),*.'*&'0*8%'6'$),(1/'$'0(%.%'*$' ' 06%(,'/ +'//1(,.'),*.'01(+' '0' '&,'8*# '#$%5'(*/*8 ' '' 06%()$%' *$' '' 6%(1/,'$*5*1$' K +%+')+%$%',0' ''6'$),(1/'$',5%' ' *$' .'+''//1(,.'),*.' ,)',0'101''//2'+'0'8%' 3+,(+'$(1$0')' %'(+' 0%,C1$%' '+5',)'-%.%$'//2'+'0'0*8%$%/'),*.')*')+%' ,($(1 8 0)'.(%0' ,.'3+,(+')+%' &,$0)' &,)' *(; (1$$%5' &)%$')+%' (*.71/0,7%' &,)' +'0' 6'00%5' *&&')+%$%',0' &$%E1%.)/2'' 0+*$)' 6%$,*5'*&'(*.; &10,*.'*&')+*1-+)'.5'/%)+'$-2' +%'(*.5,;),*.'9.*3.''0%6,/%6),(' 8 '.,'',0' .'*1)41$0)' *&8 '.,'('/ %B(,)%8%.)'/'0),.-'&,*8' '' &%3' +*1$0')*'0%7%$'/5'20' +%'-%.%$'/&%')1$%0' 3+,(+'$%5,0),.(),7%'*&')+%0%'))'(90' $%')+%' 0155%..%00'0'3%//'0')+%'(*8 6%)%.%00'*&')+%'.(%'.5' '4$16)'$'6,5,)2')+%'('()0'*&')+%'6'),%.)0')+%' 6',.&1/''.5''66'//,.-'.')1$%'*&')+%',5%'0'.5' +'//1(,.'),*.0'&$*8' 3+,(+')+%2'01&&%$')+%' 0155%..%00'0'3%//'0')+%'(*8 6%)%.%00'*&')+%' $%),1.')*'0'.,)2''.5')+%%.),$%'*$'.%'$/2'%8'),$%'&*$-%)&1/.%00'*&'3+')'+'0'+'66%.%5'51$,.-')+%'(*1$0%'*&')+%')'(90' 1$,.-''.')'(9')+%',8 61/0,7%''()0''$%'*&)%.'*&''+*8,(,5'/'*$ 01,(,5'/(+'$')%$'.5')+,0'8'9%0'%6,/%6),(' 8 '.,'' *.%'*&')+%'8*0)'5'.-%$*1 0'*&''//9,.50' *&,.0'.,)2' *8%),8%0')+%')'))'(9',0'(+'$'(;)%$,0%5'42'&1$,*1 0 8 '.,'('/%B(,)%8%.)'51$,.-' ,)0'3+*/%'(*1$0%'41)')+%$%' '$%' '/0*' ('0%0'.' 3+,(+')+%$%',0'.''66'$%.)'(''/8.%00'*&'(*.51()' .''')26,('/'('0%'*&')+,0'9,.5')+%'6'),%.)',0',$$,;)'4/%'01&&%$0'&$*8''7'-1%')%$$*$'0%%8 0',8; 6%//%5'42''&*$(%'3+,(+'+%'&%%/0',$$%0,0),4/%')*'(*8 8,)''()0'7$,)+*1)'(*.0(,*10'61$6*0%' .')+,0'0)''%)+*6'),%.)0'3,//3'/9'/*.-'5,0)'.(%0'3,)+*1)'*4>%%)'0)%'/*$5%0)$*2'$),(/%0'.'.'1.'((*1.)'4/%'3'2''.5'3, '(*8 8,)'+*8,(,5%'*$ 01,(,5%'3,)+' '66'$%.)'5%+4%$''), .' +%2'0%%8'.0%.0,4/%')*' %7%$2)+,.-' 3+,(+'5*%0'.*)'&'//.'3,)+')+%,$'5*8,.''.)' ,5%''*$',861/0%' +,0''1)*8'),(''(),*.',0''' 06%(,'/ (+'$'()%$,0),(' *&%6,/%6),(' 8 '.,''4*)+' ,.')+%'('0%0'3+%$%')+%$%',0'7,*/%.)'%B(,)%8%.)'.5'..')+*0%'3+%$%')+%$%',0'.''66%'$'.(%*&$*5%/,4%$')%'(*.*$5,.')*'&')+*1-+)'.5''()' +%'6'),%.)0'$%''0',&',.''3'9,.-'5$%'8 '.5'3+%.')+%2''3'9%0155%./2')*'$'),*.'/(*.; 0(,*10.%00')+%2'&%%/'0',&')+%2'+'5'6'00%5')+$*1-+'''5$%'8'3+,(+')+%2'5,8/2'(*.(%,7%)*'+'7%'4%%.'*&''5,0)$%00,.-'.'5'&,$,-+)&1/'.')1$%'41)'*&3+*0%'5%)',/0')+%2'+'7%'.*$%(*//%(),*.'*$*.2''7%$2'7'-1%'*.% +%'$%/'),*.'*&')+%'8%.)'/5,0*$5%$')*'+%'(*.71/0,7%'0%,C1$%0',0'(*.(,0%/2'-,7%.'.')+%'&*//*3,.-'0%.)%.(%0' +%.')+%'&,)0'$%'&$%;E1%.)''.5'(*.),.1%)+$*1-+''(*1$0%'*&2%'$0')+%2'$%'-%.%$'//2'00*(,')%5'3,)+'(+$*..(' %6 %6),%',0'.,)2')+*1-+'+%$%'B(%6;),*.'/*'0%0',.'3+,(+')+%'8,.5',0'.*)'0%$,*10/2''&&%()%5'L +%$%')+%'&,)0'$%'&$%E1%.)''.5''$%'*&')+%'(+'$'()%$'*&' 3 '>,%'8%.)'/5%;-%.%$'),*.',0'101''//2'8*$%'6,5' .5'(*8;6/%)%'+'.'3+%$%'+%'8*)*$02 8 6)*8 0'$%'8*$%'0%7%$%''0',.')+%0 " +%'(/8%$')26%'*&%6,/%6),(' 8 '.,''('//%5'42''/$%)'D ',0'8*0)'&$%;E1%./2''00*(,')%5'3,)+'&,)0'*&')+%'(+'$'()%$'*& .5'3,)+'.*()1$.'/&,)OHK +,/%)+%'7,*/%.)'%B(,)%8%.)'('//%5'42' +%)'0 " 3 ',0'8*0)'&$%E1%.)/2''00*(,')%5'3,)+')+%'0%7%$%'8*)*$&,)0' 6 %6),%'8'.,''',0'8*0)'&$%E1%.)'&)%$''&,)'*$''0%$,%0'*&'&,)0',0'/%00&$%E1%.)'4%&*$%''&,)''.5'/%'0)'&$%E1%.)'..')+%',.)%$7%.,.-'6%$,*50H ,)',0'06%(,'2'6)'*''*((1$'&)%$''%(($15%0(%.(%'*&&,)0'&* *3,.-''/*.-'6%$,*5'*&&$%5*8'&$*8')+%8'),0'/0*''6)'(*1$')*'(((1$'&)%$''$'6,5'01((%00,*.'*&'4*$),7%&,)0')',0'$'%'.,')+%'&,$0)'0)'-%0'*&%6 %602'8*0)'&$%E1%.)',.')+%'8,55/%'0)'-%'.5'$'%'&)%$'5%8%.),''+'0'4%-1. & ! .')+%')$%')8%.)'*&'%6,/%6),(' ,0'.,)2'%7%$2)+,.-'3+,(+',0'10%&1/',.')+%')$%')8%.)'*&'%6,/%602',0')*'4%,.(/15%5', 7 7 6J' +%'4$*8,5%0'$%')+%'8*0)',8;6*$)'.)'$%8%5,%0'%06%(,'//2'4$*8,5%'*&'6*)'0;0,18')'0+*1/5'4%-,7%.'6%$0,0)%.)/2',.'5*0%0'>10)'0+*$)'*&'6$*51(,.-'4$*8,0 8'(*8;4,.%5'3,)+'08'//'5*0%0'*&'$0%.,(')'8'2'4%=7%.'&*$'2%'$0',&'.%(%00'$2' +%.'026+,;/,0',0'6$%0%.)')+%'4$*8,5%0+*1/5'4%'(*8;4,.%5'3,)+')+%',*5,5%' +%.'6$%6'$*B208'/02 8 6)*8 0'$%'*40%$7%5'<H'-$',.0'*&'(+/*$'/+25$')%'0+*1/5'4%'-,7%.''.5')+*'6'),%.)'61)'*'4%5' +%'0'8%')$%')8%.)',0'10%&1/'&)%$''&,)H''.5',)'8'2''/0*' '$$%0)''&,)''*$0%$,%0'*&'&,)0'*'$'3'$5'*&&''.')'(9'*&'%6 %6),*'8'.,''*.0),6'),*.''.5'*7%$/*'5,.-''*&)+%'0)*8'('+'3,)+'&*+5'0+*,5'4%'('$%&1 2''7*,5%5' +%$%'0+*1/5'4%'(*86/%)%''40),;.%.(%'&$*8''/(*+*/H,)',0'6)'*'4$,.-'*.'&,)0'.5''/0*'8''.,'' :$ $'* $ G +%$%'$%06*.;0,4,/,)2'&*$'()0'(*8 8,))%5',.' +')'0%%8 0')*'+'7%'4%%.'.''.'))'(9'*&'%6 %6),*'8'.,''',0',.'E1%0),*.')+%'3+*/%'(+'$'()%$'*&')+%'8%.)'/02 8 6)*8 0'.5')+%'%7,5%.(%'*&')+%$%'%6 %6),%(*.5,),*.0'810)'4%'9%6)',.'7,%3'+%'5,&&,;(1/)'('0%0''$%')+*0%',.'3+,(+')+%$%'+'0'4%%.'.*'7,*/%.)'%B(,)%8%.)''.5'3+%.')+%'(*.51()'+'0'+'5')+%'(+'$'()%$'*&')+%'(/8%$')26%'*&'%6 %6),%'8'.,''%$%',)',0'86*$)'.)'6*,.)'+%'&,)0'+'7%'.*)'4%%.'$%(*-.,0%5')+*1-+

)+%2 3%$%$%'//2 6$%0%.) *()1$.'/ &,)0 '$%)+% 8*0) /,9%/2)* %0('6% $%(*-.,),*.) 8 10) .*) 4% &*$-*))%.')')+%2 8'2 +'7% *((1$$%5 3,)+*1))+%9.*3/%5-%*&)+%6'),%.) +,8 0%/& '$%&1/ ,.E1,$2 0+*1/5)+%$%&*$% 4% 8'5% &*$ 0,-.0 *&')+%,$ *((1$$%.(%'01(+ '0 4,),.-'*&)+%)*.-1%'*&)+% /,60'*$ *&)+% (+%%9H 06*)0 *&4/**5'*.')+%6,//*3H -')+%$,.- *&&$*)+' '4*1))+% 8*1)+'*.'3'9,.-'H 1.(*.; 0(,*10 %8,00,*.'*&'1$,.%H 6%(1/,'$&,)0 *&0.*$; ,.-H *$)+% *((1$$%.(% *&.18%$*10 08'// %((+28*0%0 1.5%$)+% 09,.'*&)+% .%(9 *$ &*$%+%'5')+%/'0)'4%,.-'"0,-.')+% &,86*$)'.(% *&'3+,(+',0 0)$*.-/2 ,.0,0)%5'*.'42 $*100%'1' +%.'.*' (*.71/0,7%&,)0 ('.'4% '0(%$)',.%5' %7,5%.(%*&7%$),-*'*$ *&4$,%&/*00%0 *&(*.; 0(,*10.%00 *((1$$,.-'6%$,*5,('//2 *$,.'0%$,%0' 0+*1/5'4%/*'9%5'&*$ &',')+% *6,.,*.'*&'' 8%5,('/3,).%00 .''()*&7,*/%.(%+'0 4%%.')+%$%01/ *&%6,/%6),(',.0'.,)2',)0 +,0 51)2)*0+*3')+')'.*) 8%$%/2')+% '()',)0%/&'41) '/0*')+% (*.51()'.5'(*.5,),*.'*&)+%'((10%5 *)+%$3,0%'$% 0286)*8'),(*&')+% %6,/%6),((*.5,),*.' = $

(' T
7 ' '

#!) #)' $-' / / "%)* '3) "' /> / 7' $'#$ .4 $ ' ' A%$

% 3' A% ,' 16*.H '.5' ! :' ' ('$$2R G '&/*3' *&')%'$0' 0*' 6%$0,0)%.)')+')')+%2' $1.' 5*3.')+%' (+%%9' 51% %,)+%$')*' *40)$1(),*.'*&)+%'/'($28'/51()'*$')*'%B(%0; 0,7% 0%($%),*.' ' ! $ ((%) ,0%'0%0'*&

% 3' A&<.,' 16*.H '.5' :))' *' 6/'.)R G +%0%' '$%')+%'6/'.)/,9%'*$-'.,0 8 0' &*,85*.')+%'09,.''.5',)0'66%.5'-%0'*$'*.' 81(*10'01$&'(%0')+%'0*('//%5')0 # ' '*$,-,.'),.-'(%$)',.'5,0%'0%0'01(+' 0')+%'7'$,*10'&*$8 0'*&),.%'''.5')+$10+' +%' 8*$%' ,86*$)'.)'*&')+%8' '$%')+%'(+*$,*.')$,(+*6+2)*.' ,0')+%' 5%$8')*6+2)%'*&),.%''.5'02(*0,0''.5',0&*1.5',.')+%'014; 0)'.(%'*&)+%+',$'0'3%/'0',.')+%%6,5%$8,0' +%' 8,($*06*$*.')%$8%5' %6,5%$8*6+2)*.' 42' 'C,.',0')+%'6'$'0,),('&1.-10'*&6,)2$,'0,0' 7%$0,(*/*$' *)+')+%/')%$' '$%' 8%84%$0'*&)+%' -$*16' *&')*$1/'(%0%' '*((5 :& 'H''.5'(7 * !%'1$

% &' !N %+ ! 3! !CM '' ,1%0%H %$8')* 82(*0%0'*$ %$' 8')* 6+2)*0%0'H ,.-3*$80'H $' # # ' A %0..%$RH 0" g %$'. # & # G .' # ','0''/,7,..-'7%-%;)'4/%'*$-'.,08'3+,(+'-$*30',.')+%'016%$&,(,'/ 6')0'*&')+%'09,.''*$'81(*10'8%84$'.%'*&' '.*)+%$'*$-'.,08''.5',0'6'$'0,),(G '/,7%0' ')')+%'%B6%.0%'*&',)0'+*0)

$ #' G +%'7%-%)'4/%'6'$'0,)%0' '$%' ' '&1.-,'.5'4%/*.-')*')+%'0145,7,; 0,*.0'%+,C*82(%)%0'A4'()%$,'R' /'0)*82(%)%0' A2%'0)0R' '.5' 26+*82(%)%0'A8*1/50R' .' '55,),*.')*')+% 6')+*-%.,(8,($*4%0' *&' '.)+$'B' -/'.5%$0'%$20,6%/'0' /%6$*02')14%$; (1/*0,0' ^('3+,(+'8'2'*((1$',.')+%'09,.' ,.' '00*(,'),*.'3,)+')+%0%'5,0%'0%0')+%$%' %B,0)0'1.5%$'.*$8'/(*.5,),*.0')+,0'05%$8')*/*-,('/ &/*$''<8'2'6*00%00'6')+*-%.,(6$*6%$),%0' +%$%'8'2'/0*'4%'&*1.5'&/$*8'),8%')*'),8% '((,5%.)'/'*$-'.,08'*&'7'$,*10'9,.50''.5')+%0%'$%')+%'62*-%.,(8,($*4%0' '6'$'0,),(' *$,-,.'+'0'4%%.'0($,4%')*' /*6%(,''$%')' 41)'.*)'6$*7%5H'.5')+%'0%),*/*-,('/(*..%B,*.' *&' (%$)',.' *$-'.,08' &*1.5',.' &1$1.(/%0' *$,%.)'/0*$%'.5',86%),-*' (*.)'-,*0'' ^(,0' 0), ' 1.0%))//%5' '0)/2')+%$%' '$%')+% 4'()%$,''*&4$*8,5$*0,0'.5'$%5'03%')''.5')+%' *$-'.,08' '00*(,')%5'3,)+'(%$)',.'+',/ (*.5,),*.0'01(+'0'),.%''.*5*0''6,%5$''.5' &*$80'&02(*0,0 6'$)'&,=*8' '01(+'+*3%7%$')+%$%',0')+%' 5,0),.()'-$*16'*& 26+*82(%)%0''(+/*$*' 6+2//*10')+' *6+2)%0'/,7,.-'*./2'*.'*$-'.,(('$4*.'(*86*1.50'.5.%%58-'*B2-%.3+,(+' (*.0),)1)%0')+%'/*.-%0)'4/,0+%5'(/'00'*&)$1% %6,6+2),(' 5,0%'0%0' +%'-$*16',0'(*86*0%5')+10 G

' " ' / '*$) '('10%5'42')+%' & # " ' 5,0(*7%$%5'42' %+5.,%,.' +%' 6+'0%0'*((1$$,.-',.')+%'0('/6'4%'$5'.*.' +',$2'6'$)0''.5'.','/0'8'2'4%'06%(,'//2'.*)%5 @' " ' # # " ' *$ "02 ('10%5'42')+%' # # "' " " ' *&' $142'.5' '/80)%.' %$%'/0*')+%'6+'0%0' *((1$$,.-',.')+%'0('/6'4%'$5'.*.+',$2'6'$)0' '.5'.','/0'+'7%'06%(,'/(+'$'()%$,0),(0 " ' " ' # '*$ - ' "02 '' 06%(,'/A]R&*$8'&*1.5',. */2.%0,'' '.5')+%' '/'2'.5'.5,'.'$(+,6%/'-*0 ' " ') '*$ # # ' ('10%5'42')+%' "' '*& ,(+'0)%5) F I) '('10%5'42')+%' " ('*&' 1$(9+'$5) *')+,0'/,0)'$%'101''//2'55%5' *$')+%'&1.-10 5,0%'0%'*&'.5,''51%')*')+%' O)- # ' H '.5''.'*40(1$%'5,0%'0% *&' %B,(*'.5'6'$)0'*&' %.)$'/ 8%$,(' ('//%5'68&5 +,0'-$*16'*&')+%' 26+*82(%)%0'3+*0%' .')1$'/+,0)*$2',0'%7%.'2%)'.*)'&1 2'9.*3.' 0)'.50'6'$)'42',)0%/&'41)',)0'8%84%$0'$%' 8*0)'.%'$/2'//,%5')*')+%' 1(*$,.,%' +%' 5,&&,(1/)2'*&'5%)%$8,.,-')+%,$'&&,.),%0''.5' (/'00,&,(')',*.'+'0'-,7%.'$,0%')*'81(+'(*.)$*; 7%$02'.*3'/8*0)'0140,5%5'.($%'0%5' 9.*3/%5-%'*&')+%,$'8*$6+*/*-2'5,$%()'%B; 6%$,8%.)''.5'01((%00&1/61$%'(1/)1$%0'+'7%' %0)'4/,0+%5')+')')+%0%'5%$8')*82(*0%0'$%

. *)51%)*6*/28*$6+,(&*$8 *&0*8%8*1/5 01(+ '0 %.,(,//,18 06%$-,//10 1**$ ^* 41) '$% 5,0), .()6%(,%0 3,)+ 5,&&%$%.)7%-%)';),*.0 -$*3,.-,.'' (*.0) .) ' .5 5%)%$8,.%5 &*$8 3,)+ 5,&&%$%.) 4%+'7,*1$ 1.5%$ ');)%86)%5(1/),7'),*. ' ' .5' '/3'20 -,7,.-' $,0%)*0,8,/'$*4>%(),7%02 86)*80 ,.%'')$,*+* 6+2),.'' &'7*0' ' .5 7%$0,(*/*$(' .*) -,7%$,0%)* . %' .*)+%$ 41) 4$%%5)$1%' +%0% 5%$8')* 82(*0%0 '$% (*.)'-,*10 .5 '$% ,.*(1/')%5 &$*8 6%$0*.')* 6%$0*.' .5 &$*8 '.,8'/0 +%,$ &1.-,+'7%* 06*$'.-,' 41) (*.0,0) &06*$%0 .5 0,86/% 4'.(+%5 >*,.)%5 *$ 1.>*,.)%5 &,/'8%.)0 *$)14%0 3+,(+ '$% %,)+%$ 82(%/,'/ A7%-%)'),7% *$ 06*$% 4%'$,.- +% 06*$%0 4%(*8%,0*/')%5 *$ '$% '$$'.-%5,.'8*./,&*$8')+$%'50 *$,. 8'00%0 '/C%$'0'20'0 7%$2)+,.-',0 5%$,7%5 &$*8')+% 06*$%'3+,(+'42 %/*.-'),*.'&*$80 '')14% *$&,/'8%.)*&82(%/,18 .')+% ..)%$,*$ *&)+,0)14%)+% 0140)'.(% *&)+% .1(/%10 4150'0%.50 *1) /')%$'/ 6$*; (%00%0 '.5'0%-8%.)0'0*' '0')*'&*$8')+% 7 "0 3+%.'/')%$'*.'0%-8%.)'),*. *&)+%'0+%')+'*((1$0'.',)0'1$.'' .5',86$,0*.0)+% 0%-8%.)0 *&)+% (%.)$'/0140)'.(%'.%3 06*$%0 '%)+10 &*$8%5' 1) /'%7*/7%',.)+%,$'1$. ', .'' %,8 ,/'$8 '..%$< # 7 'G' *' %B'8,.%) +% &16-10 0*8%%6,5%$8,(0('/%0 0+*1/5 4%0 0($'6%5'*$ '' +',$ 6/'(%5 .' ' %/,5% ' .5 0*'9%5 &*$ ''),8%',.'@!*' !'6%$(%.)' 0*5' 6*)0+'*$ '8 8*.,'' 0*/1),*.'*$,.'(%),(',(,5 +%.')+%'06%(,8%.'0+*1/5'4% -%.)/2'6$%00%5'*1) 42)+% (*7%$ -/'00)*' %.01$%' 6$*6%$ &**100,1-' .5'%B'8,.%5'42' '' 8,($*0(*6,(' 6*3%$' *&?!!' *$ 8*$%' 5,'8%)%$0' &')+%$%' ,0 81(+' &') 6$%0%.)')+% 8')%$,'/ 810) 4% 6$%7,*10/2 0*'9%5',.' %)+%$' *$ 8*$%' '((1$')%' .5' 5%/,(')% %B'8,.'),*.'(*/*$'),*.'*&')+% 06%(,; 8%.',0 .%(%00'$2' 3,)+' 8%)+2/7,*/%)'%*0,. *$,*5,.%' +% %$2)+$'08'' &1.-10 .%%50 +,-+'6*3%$0'.'50)',.,.-')',0*&)%.',86*0; 0,4/%')*' .'8%3,)+'(%$)',.)2',0*/')%5'06*$%0*$ %7%.'&,/'8%.)0 *&)+%0% %6,6+2)%0'41) 3+%.' 0%%.' .' 41/9' .5',.'(*..%B,*.',3,)+')+% (/,.,(' /02 86)*80')+%$% ,0 $'$%/2' .2'5,&&,; (1/)2' .&*$)1.')%/2')+%$%' '$% .*' %/%(),7% 0)',.0')*'5,&&%$%.),')%)+%8' +%'41.5'.) " ") ' 0*'8,.1)%'.5' 0/%.5%$' ')*'4%'1.8,0)'9'4/%' ' ' 7%$2'(+'$')(%$,0),(' 3,)+',)0'$*% +9%'8'00%0 *&/'$-%8,,&*$8'06*$%0' '.5',)0'0+*$)'81(+' (1$7%5'6,%(%0' *&'82(%/,18' +%'& # "' '.5' # # "'$%'81(+'8*$%'5,&&,(1/)'*' 5,0),.-1,0+' '6'$)' &$*8' (1/)1$%0' '.5') +%2' 5,&&%$'&$*8')+%'*)+%$')3*'%6,6+2)%0',.'))'(9; ,.-')+%'+',$0')+*1-+'(+*$,*.'5*%0' 0*')*' '' 81(+'/%00'%B)%.')+'.')$,(+*6+>$)*.' '6*0,' 0'20' '(+*$,*.' 5,06/'20' '' 6$%5*8,.'.(%'*& (*.,5,'' *&'7%$2'7'$,'4/%' 0,C%' .5'0+'6%' '' (*86$')7%/2'0+*$)' .5'$%8'$9'4/2'>*,.)%5' 82(%/,18' '' 0('$(,)2' *&' 08**)+ 4*$5%$%5')14%0' .' .5' '' &'(,/,)2' &*$ 4$%'9,.-'16' ,.')*' 0,.-/% (%//0)$,(+*6+2)*.' /%00' .18%$*10' 08'//%$' .'5'8*$%'18&&*$8'4*.,5,'' .5'8*$%)%.'(,*10' 4$'.(+%5' '.5' 08**)+ 4*$5%$%5' 82(%/,18' .')+%'+',$' '.5' .',/0'+*3%7%$')$,(+*6+2)*.'&*$80(*.,5,'' 3,)+')+%' -$%')%0)' &$%%5*8 ' G +%0%'5%$8')* 6+2)%0' &/*1$,0+',')+%'%6,5%$8,('),001%G D')+%'%6,; 5%$8,0'+',$0'' .5'.',/0' %'9.*3'/,))/%'*& 8'.2'*&')+%'(*.5,),*.0'*&')+%'0*,'&'8*1$'4/% *$*)+%$3,0%')*')+%,$' -$*3)+' (+*$,*.'' .5')$,(+*6+2)*.'6$%&%$')+%'09,.'*&')+%'2*1.-'' .5' 01(+' '0' -$*30'&,.%'+',$' +%0%'&1.-, '$% 8*$%' /,9%/2')*' '))'(9' .5' &/*1$,0+',.',8' ('$%5&*$ (+,/5$%.' .5'+%.(%')+%'6$%7'/%.)' ,5%'')+')' ,// +%'/)+'*$5,$)' $%'%00%.),'/&'(;)*$0' '(%$)'.,'5%-$%%' .5'(*84,.'),*.'*& 8*,0)1$%' .5')%86$%$')1$%' '$%&'7*1$'4/%' '0 %B%86/,&,%5'42')+%' '&&%(),*.'*&'('/7%0' '&)%$ 4%,.-'0+1)'16',.'3,.)%$' E1'$)%$0' .5'42)$*6,('/$,.-3*$8 22 G +%'%&&%()0'3+,(+'%6,6+2)%0'=$*' ' 51(%' '$%'&,$0)/2')*' 8%(+'.,('//2'5,00*(,')% .5')+10'5%0)$*2')+%'%6,5%$8,(' (%//0'*.')+% .,)$*-%.*10'6$*51()0'*&'3+,(+')+%2'/,7%'.5' 0%(*.5/2')*'('10%'/*('/,.&/'88'),*.'(+,%&/2' ,.'//'6$*4'4,/,)2'42')+%'&*$8'),*.'*&',$$,;)'),.-'(+%8,('/0140)'.(%0' +%'5%-$%%'*& ,.&/'88'),*.'%B(,)%5'7'$,%0'&*$'%'(+'&1.-10 '.5'3,)+'5,&&%$%.)',.5,7,51'/0'.'5',)',0'5,&&,; (1/)*'5%)%$8,.%)+%$%/'),7%'6'$)0'6/'2%5'42 ,.5,7,51'/010(%6),4&,)2''.5')+%'6*3%$0'*& ,$$,)'),*.'6*00%00%5'42')+%'&+.-10 1.5%$')+% 5,&&%$%.)'(*.5,),*.0'*&',)0'0*1$(%'&'$,-.')+% (+'$'()%$'*&')+%.1)$,%.)'8%5,18'^(' +% ,.&/'88'),*.'8'2'4%'7,5%.(%5'*.'/2'42'+2' 6%$0%8,'' .5'5%0E1'8'),*.'*'$'42'%B15'),*. '.5')+%'&*$8'),*.'*&'6'61/%0'7%0,(/%0'610;)1/%0'^(' 0')+%'&1.-10')%.50')*' -$*3' %E1'//2',.''//'5,$%*),*+0''$*,85%5''$%''*& ,.&/'88'),*.,'0'&*$8%5'3+,(+'0140,5%0',.)+% */5%$'(%.)$'/6'$)0'0*')+')' '' /"0 "',0'(*88*./2'6$*51(%5 ! 3) ! !' $' /)# / + "' -- # 7'+"' "' + $)/ $ '$-' ! '/)$74# '$-' -4 34 3)$5 !' $)' !) ' .7 # '$-' "' 4 < . ## $ ' /)). 3'-)$*' ' #$ 7' # +%0%'5%$8')* 82(*0%0'$%',.*(1/'4/%&$*8' +18'.'4%,.-0'.5'0*8%/*3%$'.,8'/0'5,; $%()/2'.'.5'42'8%'.0'*&',.&%()%5'('60')*3%/0' 4$10+%0'$'C*$0'(/*)+%0'^(' +%,$' (*1$0%',0' 101'//2'7%$2'(+$*.,('41)')+%'0*,/8'2'4%(*8% %B+'10)%5'.'5'1.&'7*1$'4/% . G +%'5,'-.*0,0'3+%.')+%'(/,.,; ('/02 86)*80'$%'3%// 8'$9%5',0'(/%'$ 41) 0(,%.),&,('//2'.'.5'%7%.'6$'(),('//2''')'(%$)','.' 0)'-%0',0'.%(%00'$2')*'0%'$(+'8,($*0(*6,(; '//2'&*$')+%'&),.-10 : # . ' +' # ! +%' 0" 7 '5%6%.50'*.')+%'0,)%'&&%()%5''.5')+%'.')1$% W*&')+%'&1.-10 41)')+%'5%$8')* 82(*0%0'$% ' ' '8%.'4/%')* " ' 42'6'$'0,),(,5%0 '.5')+%'8%(+'.,('/'$%8*7'/'*&')+%'&1.-10' $%')',.(*.7%.,%.(%'.5''..*2'.(%'+*3%7%$' '$%*(('0,*.%5''.5'0*8%),8%0'5,0&,-1$%8%.)' ' ' / # ¢ ' , # #¢ '.5' , / ' ' 3 ' *

)/ , ' 2 +)'+%' *8%.)18R' .&/'88*,*.'*&')+%'%6,6/**.'*$-$%')'*8%.;)18' ': / ' ,0%'0%0'*&

' A%)'16*.H' .5' "J ' ')%'$RG '8'/&*$8'),*.'*&')+%'6%.,0,.K3+,(+')+%' 1$%)+$"'*6%.0'*.',)0'166%$'01$^(%' : ' ,0%'0%0'*&

' A(,'16*.H' .5' " ' ' 5$'3RG 140)'.(%0'3+,(+'3+%.' '66/,%5')*')+%'),9,.''$%' ('64/%'*&'6$*51(,.-'' 4/,0)%$' ' < & &

Y ' , " ' 16*.H' .5'*$5&(*' ' 5$*6RG 6 '' $'I (H %$'N "' # "

G= 6,0)'B,0' 0,-.,&,%0' '' 4/%%5; ,.-'&$*8')+%'.*0%

.6 G= 6,0)'B,0',0'%,)+%$' ' *$' #

+%' '&*$8'8'2'4%' (('0,*.%5'42' ''4/*3'42'W7,*/%.)'0.%%C,.-'42'0.1&&,.-'16',$$,;)'),.-'0140)'.(%0''*$'42'd$%()'W7,*/%.(%H 41)' ,.')+%0%'%'0%0')+%$%'&$%E1%.)/2',)66%'$)*'4%' -%.%$'/'*$'/*('/' "0' ('10%0')*'' ('(*,8)'&*$')+%'$%'5,.%00'3,)+'3+,(+',)'*((1$0' 01(+''0''+0%8*$$+'-,%'5,')+%0,0''.',.&/'8; 8')*$2'*$'(*.-%0),7%'+26%$%%8,''*$'0*8%' 1/(%$'),*.'*&')+%'81(*10'8%84$'.%

+%' # '&*$8'*&'%6,0)'B,0'&$%E1%.)/2' *((1$0',.'(+,/5$%.''6')$),(1/'$/2'4*20'>10)'4%; &*$%'*$'4*1)')+%''-%'*&'614%$)2''.5',.-,$/0' '0''*&*$8'*&'7,('$,*10'8%.0)$1'),*.' 6,; 0)'B,0'8'2'4%'*.%'*&')+%'&*$80'*&'4/%%5,.-',.' 6%$0*.0'*&'+'%8*$$+'-,(' 5,')+%0,0',.'3+,(+' ('0%',)',0''0*8(%'*&''.B,%)2''.5'5,&&,(1/)2' ((1$$,.-',.''57'.(%5'/,&%',)'8'2'4%',.; 5,(','),7%'*&'*7%$5,0)%.0,*.'*$'*40)$1(),*.'*&')+%'(%$%4$'/'7%.*10'020)%8'&$*8'(+$*.,(' $,-+)<0'*$'('$5,'(' 5,0%'0%H' .5')+%'4/**5' 3+,(+'&/*30',0')+%.'*&)%.'7%.*10',.''66%'$; '.(%' ((' 0,*.''//2',)'*((1$0''0''06'*.)'.%*10' $%/,%&')*'5%)%$8,.'),*.'*&'4/**5')*')+%'+%'5' ,.'3+,(+'&*$8')+%'4/**5'-%.%$'//2'6$*(%%50' &$*8'*.%'.*0)$,/'*./2' .')+%$',.0)'.(%0' %6,0)'B,0',0'(*..%()%5'3,)+'0%$,*10'5,0*$5%$' *&')+%'4/**5''0',.')+%'06%(,&,(*&%7%$0' +10' ,)',0'*&)%.''00*(,')%5'&$*8')+%'*1)0%)'3,)+' $%8,))%.)'%.)%$,(')26+10'*$'0('$/%)'&%7%$' '.5',0',.5%%5'$%-'$5%5',.'0*8%'5%-$%%'0' 6')+*-.*8*.,(*&'%.)%$,(''&%7%$')'8'2'/0*' '))%.5'0(1$72'61=1$''+ %8*$&+'-,(''06%; .,(' 5,0%'0%'620%6,,'' '.5'%$20,6%/'0'4%,.-'' (*.0%E1%.(%'*&')+%'0%6),(' (*.5,),*. .',)0'6'00,7%'&*$8'%6,0)'B,0'8'2'4%''00*; (,')%5'3,)+''*$-'.,(' 5,0%'0%' *&')+%' +%')$)' 6/%1$,02'%8 6+20%8'H' *$' 3,)+'0(,)%0'*$ *7'$,'.'5$*602'*.''((*1.)'*&'6$%001$%'*.')+%' 5,'6+$'-8',.51(,.-'' 0)'0,0'*&')+%'7%.*10' (,$(1/'),*.')' 8'2'*((1$' 06*.)'.%*10/2' &$*8'%B6*01$%'%,)+%$')*' -$%')' (*/5' *$ -$%')' +%')''$'''0'55%.'(+'.-%'&$*8'(*/5')*'+%')' *$&$*8')+%'5,8,.1),*.'*&'),.*06+%$,*'6$%0; 01$%''0',.'-*,.-'16'+,-+'8*)8)',.0

6 7)G= 0%8*$$+'-% &$*8')+%' .*0%' ,0')*'&'8,/,'$')*'5%8'.5'5%0($,6),*.',.')+,0 6/'(%' +%'&/*3'*&'4/**5'8'2'4%'%,)+%$'(*.'),.1*10'*$'5$*6'42'5$*6' 0' '$1/%')+%' %0('6%'*&'4/**5',0'&$*8'*.%'.*0)$,/'4/%%5,.-' &$*8'4*)+'4%,.-'$'$%')'8'2'/'0)''' 7%$2' 0+*$')',8%'*$'&*$'0*8%+*1$0''.5',.'0%7%$%' ,.0)'.(%0'&*$'5'20'('10,.-'02.(*6%'*&'%7%.' 4%,.-''))%.5%5'W3,)+'&')'/'$%01/)0')',0')'),8%0'8%)'3,)+'0'*((1$$,.-'6%$,*5,('//2 . G 6,0)'B,0'8 10)'.*)'4%'(*.; &*1.5%5'3,)+'+'%8*6)20,0''0'8'2'+'66%.',&')+%'%6,0)'B,0')'9%0'6/'(%'6*0)%$,*$/2''.5')+%' 4/**5'6'00%0',.)*')+%'8*1)+ # G +%.'%6,0)'B,0',0'*47,*10/2' ''0'/1)'$2'6$*(%00''0',)'1.5*14)%5/2',0',.'' -**5'8'.2',.0)'.(%0',)'0140,5%0'06*.)'.%; *10/2H 3+%$%',)''*((1$0'&$%E1%.)/2''.5'0%; 7%$%/2'$%(*1$0%'810)'4%'+'5')*'8%(+'.,('/' (1)'.%*10''*$',.)%$.'/'$%8%5,%0' +%'/*('/' '66/,(','*.''&'(*/5',.')+%'&*$8''&'(*/5 3')%$' *$',(%5'(*86$%00%0')*')+%'.*0%'.%(9''*$'&*$%; +%'5',0'8*0)'10%&1/''(),.-''0')+%0%''-%.)0'5* %,)+%$'5,$%()/2'*$'42',.51(,.-''$%&/%B'%&&%()' *.')+%'7'0*8*)*$'.%$7%0' ,86/%'6$%001$% 16*.')+%'.*0)$,/'*$'16*.')+%'0%6)18'.'0,'42' (*86$%00,.-')+%'4/%%5,.-'.*0)$,/'3,)+')+%' &,.-%$*&')+%'*66*0,)%'+'.5'3+,/%')+%''$8'*&)+%''&&%()%5'0,5%',0'$',0%5''4*7%')+%'+%'5',0')+%'8*0)'$%'5,/2'6$'(),('4/%''.5'%&&%()1'/'*& '//'8%'01$%0' +%''66/,(',*.''*&'810)'$5' *7%$')+%'0)*8'(+'*$'16*.')+%''.9%0',0'0*8%;),8%0'01((%00&1/' +%.'0,86/%'8%'.0'&' '0)$,.-%.)0''%,)+%$',.')+%'&*$8'*&'0*/1),*.'*$ 6*35%$0'8'2'4%',.>%()%5',.)*')+%'(7,),%0'*$ '66/,%5'*.'6/1-0'*&'/,.)'*$'(*))*.3**/H 01(+' '0'/18''(%)')%'*&'/%'5')+%'0'/)0'*&',$*.''*$ -'//,('*$')'..,('(,5 .)%$.''//2')+%'&$%E1%.)'58,.,0)$')*.'*&' 0'/,.%'61$-'),7%0'),.()1$%'*&'6%$(+/*$,5%'*& ,$*.')1$6%.),..%'4$*8,5%'*&'6*)'00,18'4%//'; 5*..''.5'E1,.,.%'%$-*),.'A014(1)'.%*10/2R' 01/6+1$,(' (,5''*$'(%)')%'*&'/%'5'8'2'4% .%(%00'$2',.*'*'0%0'*&'6%$,*5,('))'(90 .'7%$2'0%7%$%'('0%0')+%'*6%$'),*.'*&'6/1-; -,.-')+%'.'$%0''.5')+%$%42'&'7*1$,.-')+% &*$8'),*.'*&''(/*)'810)'4%$%0*$)%5')*H'.5')+%'8*0)'$%'52''.5'%'0,%0)'8%)+*5',0'42')+% %86/*28%.)'*&' %//*(E0'0*1.5'*&'8*$% 6$*6%$/2'('..1/''&'+*3%7%$')+,0',.0)$1; 8%.)'4%'.*)'')'+'.5''('()+%)%$'*$'.'%2%5' 6$*4%'0+*1/5'4%')+$%'5%5'3,)+''0)*1)'0,/9'*$ +%86'/,-')1$%''.5'610+%5''/*.-')+%'&/**$'*&)+%'.*0%'1.),/,)'6$*)$15%0'4%2*.5')+%'7%/18' 6'/'),H*.%%.5'*&')+%')+$%'5'0+*1/5'.*3'4% 61//%5'*1)'*&')+%'8*1)+'42')+%'&,.-%$0'*$ &*$(%60''.5''$*/'*&/,.)'*$''6,%(%'*&06*.-%'),%5')*',)''.5')+%.'610+%5'16'4%+,.5')+% 7%/18'+%'(')+%)%$''.5')+%'))'(+%5')+$%'5 4%,.-'.*3'3,)+5$'3.')+$*1-+')+%'.*0)$,/')+%'6/1-',0'61//%5'&*$(,4/2''-',.0)')+%'6*0;)%$,*$'.'$%0''.5'42')+%'6$%001$%'%B%$)%5')+% +'%8*$$+'-%('.'-%.%$'//2'4%''$$%0)%5' +% ,.)$'.'0'/6/1-',0',.7'/1'4/%'')'(*.0,0)0'*& '')+,.',.5,'$144%$'4'-'(*..%()%5'3,)+'')14%'6$*)$,5%5'3,)+''0)*6(*(9' +%'4'-',0' 6'00%5'%86)2'/*.-')+%'&/**$'*&')+%'.*0%',.)*')+%'.'0'/&*00'%''.5')+%.'4/*3.'16'*$'&,//%5

3,)+' 3')%$' $'. 0&10,*.',0',.5,(')%5',.'7%$2' 0%7%$%'('0%0' 3+%$%')+%$%',0'5'.-%$'*& 5%/'2' +%'0)$,()%0)'.),0%6),('6$%('1),*.0'0+*1/5'4% 10%5',.'06/1--,.-<G01(+' '0' 61&/ .-' 3,)+',*5*&*$8'*$02$,.-,.-' 3,)+')+%'7'$,*10'.),; 0%6),(0''0',)'.*)',.&$%E1%.)/2'+'66%.0')+')')+%'(*.5,),*.',.*3.' '0'*C..'' (*88%.(%0' '/)%$'0%7%$%'('0%0'*&'%6,0)'B,0

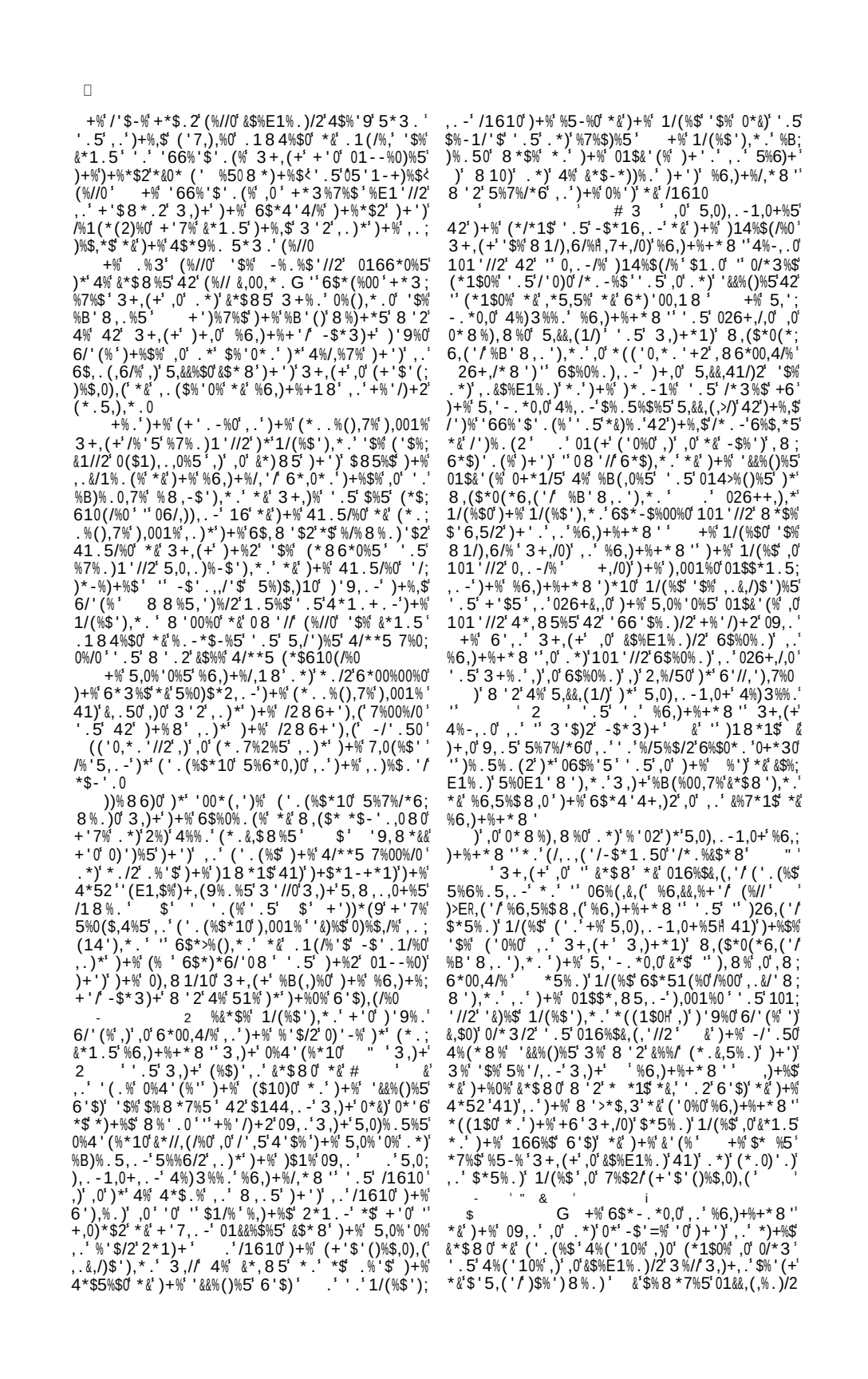
+ #+' 6

! % 5 !' 6$ $ 7 ' -$)5)7 %' 7' -P$''= 7 G ' " $ "*' -$)' */)$' !$ $ $ ' '* !(5

Y, ' A& $/'16*.H '.5'=Y,>')+%'.,66/%'A)+%'3*$5'0%6,)+%/,18'<4%,.-' ')' &,$0)'10%5'&*$')+%'),001%'(*7%$,.-')+%'.,66/%RH '.5' '")%$8,.'),*.',.5,(').-''')18*1$R' " '' 6,)+%/,'/' '.(%$H '.($*,5H $' I # H %$' I # - # & # G' '.(%$*10' 5,0%'0%' *&')+%' 09,.' '.5' 81(*10' 8%84$'.%0' ('10%5'42' -$*3)+' ,.3'$50' *&')+%' %6,)+%/,'/' (%//0' *&')+%'$%)%'81(*018'.5'*&')+%'81(*10'8%8; 4$'.%'/%'5,.-')*' 5%0)$1(),*.'*&'(*..%(),7%),001%'.'.5'6$*-$%00,7%'1/(%$'),*. $ " 6,)+%/,*8''',0' '5,0%'0%' *&' '57'.(%5''-%'*((1$$,.-'8'0')/2''&)%$'&*$)2' '/)+*1-+',')',0'&*1.5'*((' (0,*.''//2',.'2*1..-' '.5'$'$%/2',.'7%$2'2*1.-',.5,7,51'/0')',0' 8*$%'(*88*.',.'8%.')+'.',.'3*8%.''.5',0' 101'//2'(*.0,5%$%5'+%$%5,)'$2 +%'&$%E1%.(2'3,)+'3+,(+',&'4%-,.0',.''' 3')'0+*30')+')'(%$)',.'+,0)*/*-,('/(*.; 5,),*.0'*&')+%'09,.'6$%5,06*0%')*',)0'5%7%/*6; 8%.)' +%'%B(,),.-'('10%',0'*&)%.')*'4%&*1.5' ,.'/*('/',$$,)')',.''*&'3+,(+''0)$,9,.-'%B'86/%' ,0'0%%.',.')+%'&$%E1%.(2'3,)+'3+,(+'('.(%$' *&')+%'/*3%$'/,6',.'8%.',0'('10%5'42')+%')*4'((*6,6%' '.(%$'('10%5'42'0**)'-,7%0' $,0%')*' (+,8.%2 03%%6<0'('.(%$')'8'2' 5%7%/*6',.'(+$*.,('1/(%$0',.'/1610'8'026+,; /,),('0*'$0''.5',.'(,('))$,(%0' +%',$$,)',)*.' *&'4'5')%%)+'8'2'('10%',)'*.')+%'(+%%9' .' '0+8%$%''3+%$%'4$'C,%$0''$%'&$%E1%.)/2''6; 6/,%5')*')+%'45*8%.''.5')+,-+'%6,)+%+*8'' *(('0,*.'//2' $%01/)0' %19*6/'9,''*&')*'&' 8*1)+',' (%$)',' ('0%0' %.50' ,.'(' .(%$' +$%%' ('0%0'+'7%'4%%.'$%6*$)%5',.'3+,(+',) 5%7%/*6%5',.'3'$)0'-$*3,.-'*.')+%'+'.50'*& 6%$0*.0'%86/*2%5',.')'$'.5'6%)$*/%18'3*$90')'8'2'4%'0%)'16'42')+%',$$,)')',*.'*&'*/5 0)'.5; ,.-'%(C%8''.'6*0,0'5,0-'0%''-$%')' .184%$'*&'(.(%$*10'%6,)+%/,*8')*10'1/(%$0' 5%7%/*6',.')+%'09,.'&*//*3,.-')+%'5%6*0,),*.' *&'6')(+%0'*&'6,-8%.)' *1$'*'0%0'+'7%'4%.' $%6*$)%5',.'3+,(+'%6,)+%/,*8''5%7%/*6%5',.' */5 0)'.5,.-'60*$,')(' 6')(+%0')',0'+*3; %7%$''41.5'.)/2'6$*7%5')+')'(+$*.,(',$$,)',;),*.'*&')+%'8*0)'7'$,*10'9,.50'8'2',.'(%$)',.' 6%$0*.0'$%01/',.'6$*51(,.-'%6,)+%/,*8'H'41) ,.'3+')'+%'6$%5,06*0,),*.'(*.0,0)0'*$' .' 3+')'3'2')+%',$$,)',)*.'6$*51(%0')+%'%6,)+%; /,*8'')*10'-$*3)+''$%'E1%0),*.0'16*.'3+,(+' .*/,-+)'+'0'2%)'4%%.')+$*3. & ' (G .')+%'%'$/2'0)'-%'*&'%6,)+%; /,*8''*&')+%'09,.')+%''&&%()%5'01$&'(%',0'&*1.5)*'4%+'$5'8*$%'*$/%00'.*51/'$''.5'(+'$'(;)%$,0%5'42'08'//'(/*0%/20%)',$$%-1/'$/2'5%; &,.%5'6'61/%0'3+,(+'$%'(*7%$%5'3,)+'%6,;)+%/,'/'0('/%0'+%0%'0('/%0'$%'(*.0)'.)/2' 4%,.-'0+%5''.5'$%&*$8%5H''.5',&')+%'5%)'(+%5' %6,5%$8,0'0'$%8*7%5''''$%5'-$''.1/'$'01$&'(% ,0'%B6*0%5' +%')+,(9%.%5' %/%7')%5''$%'' -$'51'//2%./'$-%0'&*$8,.-'5016%$&,(,'/'+'$5')18*1$'3+,(+',0'$',0%5'4*7%')+%'/%7%/'*&')+% 01$$*1.5,.-'09,.'3,)+'.''4$16)'8'$-,.' *$ 0*8%'),8%')+%')18*1$'8*7%0'3,)+')+%'09,.' ,.'3+,(+',)'+'0'-$*3.H41)''0',)'%B)%.50',)' 4%(*8%0'&,B%5')*'+%',85%$/2,.-'),001%0''.5' ''-$*3)+',0'&*$8%5'3+,(+'8'2'%,)+%$'4%*&' 7%$2'/,8,)%5'%B)%.)'*$'8'2',.7*/7%''.'$%'' *&'(*.0,5%$'4/%0,C%' 7%.)1'//2')+%'-$*3)+' 1/(%$')%0H*$1/(%$'),*.'8'2'*((1$0*'%'$/2')+')')+%',.),,'/',.51$')%5'0)+-%'8'2'.*)+'7% 4%%.'.*),(%5''.5')+%&,$0)'8*$4,5'66%'$'.(%)+')')$')()'0)%.),*.',0''08'//'5$2'2%/*'3' *$4/'(9,0+'($10)'(*7%$,.-''&,001$%',')+% %6,5%$8,0 *)',.&$%E1%.)/2')+%'&,$0)'5%7%/*68%.)'*& %6,)+%/,*8''',0',.''3')$2'-$*3)+'3+,(+'4%; (*8%0'&,001$%5''&)%$'+'7,.-'$%8',.%5'*&''' 0,86/%'.')1$%'&*$''/*.-'6%$,*5'*&'),8% +%'3')$'&,.'//2',.51$')%0')+%.'1/(%$')%0' '.5''')26,('/'%&),+%/,*8''',0')+%'$%01/) +%'#3 '+'0'101'//2''.' $8%7%.'01$&'(%''.5',0',$$%-1/'$/2'4*1.5%5' 42'+'$5'/,7,5'%7%$)%5'%5-%0')',0'(*7%$%5' 42'8,.1)%'-$'.1/').,*.0'*$42''-$%2,0+'($10)' 3+,(+''&)%$'$%8*7'/',0'E1,(9/2'$%.%3%5')' 5,0(+'$-%0'')+,.' 0('.)2' 0'..*10',(+*$' 3+,(+',-'101'//2',.*&&%.0,%H''.5',)'4/%%50' %'0,/2'3+%.')*1(+%5' .'0*8%'('0%0')+%$%' ,0'7%$2'/,))/%'*$'.*'6',.' .'*)+%$'('0%0')+% 6',.',0'%7%$%''.5'/'.(,.'),.-'*$')+%$%' 8'2' 4%'0),.-,.-'*$'6$,(98-'0%.0'),*.0'3+,(+' ('10%'&$%E1%.)'0($')(+,.-''.5'(*.0%E1%.)' &$$,)',)*+' +%'1/(%$',0'101''//2'$*1.5'*7'/' *$%/*.-')%5')0'%00%.),'/'(+'$'()%$',0')+% +'$5.%0'*&',)0'4*$5%$0''.5'4'0%'3+,(+',0' 6$*51(%5'42')+%',.&,/)$'),*.'3+,(+',0''.',.; 7'$,'4/%'&%')1)%'*&')+%'5,0%'0%' +%',.51; $')%5'4*1.5'$2'(.'.'4%'&%/)'0''5,0),.()'8'00' '5+%$%.)')*')+%'014>'(%.)',001%0' +%'4*$; 5%$0''$%'-%.%$'//2'$',0%5'0,.1*10'*$'.*51; /')%5'&$%E1%.)/2'%7%$)%5''.5'0*8%),8%0' 1.5%$8,.%5' +%'01$&'(%'*/)+%'1/(%$',0' (*.('7%'1.%E1'/'.*51/'$'*$'3')$2'0')+%'5,0%'0%'6$*-$%00%0')+%'1/(%$'),*.'%B)%.50' ,.'5%6)+'.'.5'('10%0'5%0)$1(),*.'*&')+%'014; (1)'.%*10'),001%0'810(/%0''.'54*.%0' +,/0)' 1/(%$'),*.''.'5'5%0)$1(),*.'.'$%'6$*(%%5,.-',.')+%'(%.)$%')+%'08''/'6'6,//'$2'.*51%0'3,)+' ''0('/'201$&'(%'3+,(+'8'$9')+%'%'$/2'0)'-%' '$%'&*1.5'*.')+%'(,$(18&%$%.(%'*&')+%'0*$%' '.5')+%2'8'2',.($%'0%',/')+%2'&*$8'08'//')18*1$0'4%&*$%'4%,.-'&,.''//2',.7*/7%5',.')+% %B)%.0,*.'*&')+%'1/(%$').+%'1/(%$'),*.' .'(*1$0%*&'),8%)+%/2861+'),(-/'.50'(*$%; 06*.5,.-')*')/I''&&%()%5'6'$)'4%(*8%%./'$-%5' 4%,.-'&%/)'')'&,$0)'0'08'//'+'$5'8*7'4/%' ,0*/')%5')18*1$0'6$*51(,.-'/,))/%',.&/'88';)*$2'$%'(),*.' 0')+%2',.($%'0%',/'+%2'&*$8'08'//'

W4%(*8% ,.(*$6*$')%5' ,.' '' 0,. -/%' 0* 8 %34')' /*4./')%5' 8'00' 3+,(+' %7%.)1''//2' 0*&)%.0' $* 8')+% ,.&%()%5' -/''.50')+%' 5,0%'0% 8 '2' %B)%.5'&1$)+%$')*3'$50')+%')$1.9'41)' 8*$% &$%E1%.)/2')+% 6$*B,8')% -/''.50' '/*.% 4%; (*8% ('.(%$*10' +% '&&%()%5' -/''.50' 8'2' ,.&/'8%' 01661$')%' '.5' /%'5')*' ('.(%$*10' 1/(%$0' ,.'3+,(+')+% 6%(1/,'$,),%0' *&')+% 5,0; %'0%' '$% $%6$*51(%5' %(*.5'$2' %6,)+%/,*' 8')*10' -$*3)+0' '$% *((''0,*.''//2' 41)' .*)' &$%E1%.)/2'&*1.5',.')+%' ,.)%$.'/*$-'.0 .')+%$%'$+%$'0)'-%0'*&'.'%6,)+%+*8')*10' -$*3)+')+% 5%0)$1(),*.'8'2')'9%'6/'(%(+,%&/2' ,.')+% (*$,18',.'3+,(+' ('0%')+%' -$*3)+',0' .*)' 81(+'%/%7')%5''4*7%')+%'.*$8 '/%7%/*&')+% 09,.' &'+*3%7%$' 5%7%/*68%.)')'9%0' 6/'(%' (+,%&/2',.')+%' 6'6,//'$2'/'2%$'3%'+'7%' '' 6%$8'.%.)' .5' 3')$2'-$*3)+' 3+,/0)',&',)' -$*30' &$%%/2',.')+%' 014(1)'.%*10',)001%' 3%' +'7%' '' 5%%6 0%')%5' &/')' *$' $*1.5%5' 8'00' +%0%' 5,&&%$%.)' 7'$,%),%0' 8'2' 8*$%' *$' /%00' ,.)%$8,.-/%'.5')+10',.')+%' %'$/,%$')-%0'*&' '.'%6,)+%/,*8'' 3%' 8'2'+'7%' ''7'$,%)2'*&'6; 6%'$'.(%0' +,0'5%6%.50')*'0*8%'%B)%.)' *.')+%' .')*8,('/' 6%(1/,'$,),%0' *&')+%' 6'$)',.' 3+,(+')+%' 5,0%'0%' 5%7%/*60' .'//' ('0%0' 4%&*$%'1/(%$'),*.')'9%0'6/'(%0')+%''&&%()%5'6'$)' ,0',8101''//2'+'$5''.5'%./'$-%5' +%'/,6'&*$ %B'86/%'6*1)0''.5'6$*>%()0'/,9%'*.%'*7%$; -$*3. +%'(+,%&'7'$,%),%0'*&'%6,)+%/,*8'' '$%') +%' '.5')+%' &*$80'3+,(+' $%06%(),7%/2'5%6%.5'*.')+% -$%')%$'*$'/%00' $%0,0)'.(%'*66*0%5'42')+%' ' /')*')+%' %B)%.0,*.' ,.3'$50'*&')+%' %6,;)+%/,'/' -$*3)+' &')+%' 8*$4,5'%6,)+%/,18' 4%&*$'' /*.-'),8%'1.'4/%')*' 6%.%)$')%')+% 0)$*.-'&,$8'41.5/%0'*&')+%'(*$,18''.5'(*.;)%.)0',)0%/&'3,)+'0($*66,.-'*&&<'0' $'0810' ,/0*.'+'0'%B6$%00%5',)')+%'+,-+/2'*$-'.,0%5' '3%'+'7%''')26,('/'016%8&,(,'/ &*$8'3+,(+'3+,/0)',)'%B)%.50'*.')+%'01$&'(%' 8'9%0''.'%&&*$)' ')'+%'/,.-',')+%'(%.)$%' +%' 5,0%'0%' 6$%0%.)0')+%' '66%'$'.(%'*&''. %B)%.5,.-'(,(')$,B'0*8%3+')'/,9%')+')'*&'' 41$.')+%'(%.)$%' '66%'$,.-')*' 4%' +%'/%5' 3+,/0)'+%'57'.(%5'4*5%$'3+,(+'01$$*1.50')+%'(,(')$,B',0',.''' 0)')%'*&'0/*3'1/(%$'),*. 1)'3+%.'%,)+%$'&$*8')+%'-$%')%$'5%0)$1(),7% 6*3%$'*&')+%'('.(%$*10'%6,)+%/,18'*$'&$*8' 3%'9.%00'*&')+%'&,4$*10',001%0'*&')+%'(*$,18')+%'-$*3,.-'%6,)+%+18'6,8%$(%0')+%' 7 ')+%'%+.,('/'06%()0''$%' 81(+'8*$% 0%$,*10''.5''$%'7%$2'5,&&%$%.)' +%'-$*3)+' +'7,.-'*.(%'6%.%)$')%5',.)*')+%'014(1)'.%*10'),001%'%B)%.50' 101'//2'3,)+' (*86'$'),7% $'6,5,)2'6$*51(,.-')+%'5%0)$1(),*.'3+,(+',0' (+'$'()%$,0),(' *&' 5%%6 0%')%5' %6,)+%+*8'' <+%.')+%'(+,%&'&%')1$%'*&')+%'%6,)+%/,*8'',0' '' 6$*>%(),.-'6'6,//'$2'-$*3)+'3%'+'7%')+% 0*('//%5' ' # '*$ 0" "' +,0'&*$8',0'.*)' ,.&$%E1%.)' 3+%.')+%' 5,0%'0%' 5%7%/*60',+' '' 3')')' 8'2'+'7%'4%-1.'0''6'6,//*8''*$''6'6,//'$2' -$*3)+'*$' 8'2'5%7%/*6'0140%E1%.)/2'*.'' 016%$&,('/*$8*%'&$%E1%.)/2'*.'''.*51/'),.- 1/(%$'),.-'%6,)+%/,*8''')'8'2'6$*>%()'(*.; 0,5%$'4/2''4*7%')+%'/%7%/*&')+%'01$$*1.5,.-' 09,.''.5'8'2'4%'0%')%5'%,)+%$'*.''' 4$*'5' 4'0%'*$'+'7%''(*.0)$,()%5'.%(9'00188,.-''' &1.-'),.-'&*$8' +%'01$&'(%',0'&*$8%5'*& (,(')$,(%0'.5'%./'$-%5'6'6,//0%'3+,(+'$% (2/,.5$,('/'62$,&*$8'*$'(*.,('/''.5'0,.-/% *$',.'(/10)%$0' +%2''$% 7%$2'7'0(1/'$')+% 01$&'(%'(+,%&/2'(*7%$%5'3,)+'.''*6'E1%'3+,)% (1),(/%''*&'' 6,.9'7%$8,/,*.'*$' 4$,-+)/2' &/*$,5'+1%' +%.')+%'/**0%'%6,5%$8,('0('/%0' '$% 3'0+%5'*&&'3%'+'7%')+%'-$*.1/')%5'.5' /*41/')%5'01$&'(%'9.*3.''0'0(1/,&/*3%$/,9% %B($%0(%.(% +%'%6,)+%/,'/'(%//0'8'2'(*.;)',.'8%/'.*),(' 8'))%$'3+,(+',0'/0*'&*1.5' 4%)3%%.')+%' (%//0' '.5'3%' +'7%')+%.' " ' # ' .' / ' # 7 ')+%$%',0''0+'$6/2'4*5%$%5',($(1/'$'*$' *7'/' 5,0(')+%' 8'$-,.0'4%,..-'4*1.5%5'42' +%'/)+2',.)%-18%.)'3+,(+',0'$',0%5''.5' 0/,-+)/2'%7%$)%5'42')+%'-$*3)+ .'%6,)+%/,'/'('.(%$'8'2'-$*3'16',.')+%' &*$8'*&''(*.%')/)+*1-+'01(+'('0%0'$%'$'$%' ,$' 8%0'-%)'$%8*7%5'*.%'&$*8')+%/*3%$' /,6'+'/&'.',.(+',-+''.5'.%'$/2''0'81(+',' 5,'8%)%$')',)0'4'0%''.5''.*)+%$',.''(+,8; .%2 03%%60'.%(9'*&''0,8,/'$'9,.5'.'4*)+' ('0%0')+%'-$*3)+'3'0'(*7%$%5'3,)+''')+,(9' /'8,.')%5'0('4'.*)'%'02'')'&,$0)'*'5,0), .; -1,0+'&$*8'026+&,,),('$16,''$'%.$2' *$$,0'+'0'0%%.'*.%',.')+%'*1)%$'5*$018'*&)+%'&**)',.'9'8.''-%5'&,&)20,B' $')+% -$*3)+0'8'2'%7%.'4%'6%.51/*10',$'8%0' '-%)'$%&%$0')5'-$*3)+0'*.')+%/*3%$'/,6'.5' '.10'(*.0,0),.-'*&'8'00%0'*&'7%$2'&,$8'-$'.1; /'),*.0'&'$'*7%$+'.-,.-')+%''5>'(%.)'+%'/)+2' 09,. +%')%.5%.(2',.''/')+%0%'&*$80',0')*'6$*; 51(%'(*.),.1%5'5%0)$1(),*.'*&'+%'/)+2'),001%' 1.%00')+%'8*$4,5'-$*3)+',0'$%8*7%5'42' *6%$'),*.'.')+%/')%$'0)'-%0'*&)+%'8'/'52' %B+'10),*.'016%$7%.%0''.5')+%'6'),%.)'%7%.;)1''//2'01((1840'3*$.'*1)'42'6',.''.5' ,.($%'0,.-'5,0(+'$-%'&$*8')+%'1/(%$'),.-' 01$&'(% G 6,)+%/,*8''8'2'5%7%/*6''')'.2' 6'$)'*&')+%',.)%-18%.)'41)',0'8*0)'&$%E1%.)' *.')+%' .'!@'('0%0'M?'3%$%'*.')+% &'(%'?'*&')+%0%'4%,.-',.')+%'/,6''3%$%'*.')+%'%B)$%8,),%0''.5'8H'*.')+%'81(*10'8%8; 4$'.%'*&')+%'81)+' +%'/*('/'$'7'-%0'8'2' 4%'7%$2'%B)%.0,7%'4%&*$%')+%2'('10%'5%')+' '.5',.')+%'&'(%'8'2'6$*51(%'+,5%*10'5%; &*$8,)2'/'2,.-'4'$%')+%'4*.%0')%%)+''.5' &'1(%0'5%0)$*2,.-'6*$),*.0'*&')+%'091/'1.),/)+%'51$''8')%$',0'%B6*0%5 +%' 2 '3'',0''7%$2'(*88*.'0%')'*& %6,)+%/,*8''3+,(+'(*88%.(%0')+%$%'%,)+%$ '0''3')$2'-$*3)+''*$''0''',001$%$&$*8')+% %5-%0'*&'3+,(+')+%'5,0%'0%'06$%'50' +% 3+*/%'/,6'4%(*8%0')+,(9%.%5''.5'+'$5'6$*; >%(),.-'*1)3'$50''.5'''/*3,.-')+%'0'+7'')*' &/*3'&$*8')+%'81)+' +%'01$&'(%1/(%$')%0' 6$*-$%00,7%/2H'.5',&')+%'&&%()%5'),001%',0'.*)' $%8*7%5')+%'5,0%'0%'%B)%.50')*')+%'81(*10' 8%84$'.%'*&')+%' (+%%90'-,7,.-'$,0%')*

),/(%$'),*X$' .5 %7%.)1'//2)+%)+$*') .5 4*.0 4%(*8%'&&%()%5
 .')+% " %6,)+%/,*8 ' 8 '2 (*88%.(% '0 ' .*51/'$03%//,.-'*&')+%6$%61(%'*$'0 ' +'$5 0(,$$+*10 ,.&,/)$'),*.' *&')+%-/'.0 *$ 4%)3%%.') +% 6$%61(%' .5 -/'.0 .')+%/')%$ ('0%' 5,0(+'$-% 8 '2 4%)+% &,$0)02 86)*8 *40%$7%5),-+)6$%61(% .5 6+,8*),((*.5,),*.' *&')+% 6'$)0 &'7*1$)+% 5%7%/*68%.)' *&')+% 5,0%'0% .' %6,)+%/,*8 *&')+% -/'.0 '.5 01/(10)+%$% %'$/2 *((1$0)+,(+%.,.-' *&')+% 5*$0'/ /2 86+'),('7%00%/' *&)+% 6%.,0'3+,(+' ('.'4%&%/)' '0 '')+,(9'+'65 .*51/')%5')$'()'%B)%.5,.-')*3 '$50')+% 614%0)*'4% (*.),.1%5')*3 '$50')+%',-1,.'/-/'.50 3+,(+'%./'$-% ..)*' +'$5'.*51/')%5 8 '00%0 40(%00' .5 1/(%$'),*.'%7%.)1'//2'*((1$ $,8,),7% %6,)+%/,*8 ' *&')+% " $&%; E1%.)/2'5%7%/*60 '0''08 '//3 '$)2')18*1$H ')*)+%$')1.%0',)',0'6$%(%5%5'42'6$1$,)10'*$ ''/*.-;0)'.5,.-'/%19*6/'9,' +% 6*,.)'*&' *$,-,.',0'.*)',.&$%E1%.)/2'*.')+%'81(*10 01$&'(%'*&')+%/'4,18'8'>10'*$')')+%'>1.(),*.'*&')+%'09,.'.5'81(*10 8%84$'.%' +%$%',0'101'//2' 5,0(+'$-%'*&'4/**52', 08% ,.-'0%$18')184.$'8 '2'&*$8''0/'$-%'0'' .1)'%$'+%.<0 %--'3,)+''+'$5'0+,.,.-'6'6,//')%5'01$&'(%')'8 '2'*$ 8 '2'.*)'4% 6%51.(1/')%5' +% /'4,18'8,.10'8 '2'4%)+%'0%')'*&',.&,/)$'),*.' *&''+'$5'(*.0,0)%.(%''.5'$%55,0+'(*/*1$''.5')+%$%' 8 '2'4% '')18*1$'8*$% *$'/%00'6%51.;(1/')%5'*&')+% (/,)*$%'0%.0'),*.' *&' (*/5' .5'&1/.%00'*&')+% 6%/7,0'%06%(,'//2',.'3'/9;,.-'*$0)'.5,.-' +%'6$*-$%00',0'101'//2'0/*3')'+%' 4%-,.,.-' %6,)+%/,*8 '' *&')+% 71/7''8'2'4% 8,0)'9%.'&*$'(+$*.,(' -$'.1/'$7'-,..;,),0'*$' .*. 8'/,-.')18*1$'.5',.')+%1/(%$'),7%'6%$,*5'&*$''6$,8 '$2'026+,+),(' 0*$%*$' -188' +%' 0%7%$%' /'.(,.'),.-'6',.0'.5'%B)%.0,*.'*&')+%'1/(%$'),*.'$%8*7%')+%5*14)0'3+,(+' 8 '2'+'7% %B,0)%5'51$,.-''.'4'$+%$'6%$,*5' K 6,)+%/,*8 ''*&')+% ',0'$'%')'*((1$0'0''.*)(+%5''.5'6$*)14%$'.)'-$*3)+' ')'+%'.'/*$,&,(%''.5'%B)%.50',.)*')+%'-1) .')+%' '101'//2')+% /%-'%6,)+%/,*8 '8*0)/2' 5%7%/*60',.' (,('))$,(%0' 7'$,(*0%1/(%$0'026+,/,0''.5'/1610 6,)+%,*8 ''*&')+%) ' # '*&')+%'.*0%'(.>1.(),7''7'-,.'''.5'$%()18'8'2''66%'$%),)+%$'6$,8'$,/2''*$0%(*.5'$,/2''0''.'%B)%.0,*.'&$*8')+%'5>'(%.)'09,.' '.(%$'*&')+%')*.-1%''.5'81(*10 8%84$'.%'*&')+%(+%%9'0''*)'1.(*88*.',.'3+,(+'0,)1'),*.0',)' 8'2'5%7%/*6'*.')+%0%')'*&'026+,+),('+'.-%''*$'*.''6')(+'*&/%19*6/'9,'' .')+%)*.-1%',)'4%-,.0''0''$'3'-$'.1/')%5'01$&'(%'3+,(+',0'0*8%),8%0')+,(/52'0%)'3,)+'3+,)%6*,.)0')%.5%$')*'6$%001$%H '.5',)'8'2'4%')+%0%')'*&'6',.'*51/'$',.&,/)$'),*.'5%7%/*6,.-'1.5%$')+%'0*$%' *8%),8%0')+%.*51/'$',.;&,/)$')',*.'6$%(%5%0')+%'1/(%$'),*.' .')+%81(*10 8%84$'.%'*&')+%(+%%9'%6,)+%/,*8 '' ,0'$'$%$''.5',0'-%.%$'//2'&/')'41)'0*8%),8%0'&1.-*,5'3+%.',)'*((1$0 , ! $' ' ' ' $ ' +%'6')+*/*-2'*&'%6,)+%/,*8 ''8'2'4%'0188%5'16'4$,%&/2',.'5%0($,4..-',)'0'.'%6,)+%/,'/.%46/'08'3+,(+'/%'50')+%5%;0)$1(),*.'*&')+%'7'0(1/'$),001%0''8*.-0)'3+,(+',)'-$*30' $*8')+%'$%)%'81(*018')+%$%'*((1$'*&&0+**)0'*&'%6,)+%/,'/-$*3)+'3+,(+')$'7%/'/*.-')+%'6'6,//'$2'/'2%$'6,%$(%'+%'(*$,18''.5'A3+%$%7%$')+%2'-$*3%6$*51(%'..')+%'&,$0)'.0)'.(%'3%// 8'$9%5'5%7%/*6;8%.)0'*&',&/'88')*$2''(),*.'K +%$%7%$)+%'%6,)+%/,*8 '(*80',.'(*.)'()'3,)+')+%7'0(1/'$',001%',)'()0'/,9%''6*,0*.''.5'%7,5%.(%0'*&'5%0)$1(),*.'$%'&*1.5'+%%00%.),'/'&%')8%',0'.*)')+')'+%$%',0''.%3'-$*3)+'*&'%6,)+%+18'41)')+')'+%$%',0''-$*3)+'*&''.%3'9,.5'*&'%6,)+%/,8.'3+,(+',0',.'%&&%()''(*.%(),7%),001%6*,0*.'' ,9%'//6*,0*.0')+,0'%6,)+%/,'/6*,0*.'%B%$)0''.',$$,)'),.-',&/1%.(%'*.')+%'5>'(%.)'4/**5;7%00%/0''0',0'3,).%00%5'42'4,85'.)'08'//(%//',.&,/)$'),*.'0%$*10'%&&10,*.'$%5.%00''.5'*)+%$'%7,5%.(%0'*&'%.-*$-%5'4/'57%00%/0''.(%$*10'%6,)+%/,18'+'0')+%.')3*'4.*$;8'/E1'/,),%0'*.%',.')+')',)'-$*30',.3'$50',.)*')+%'(*..%(),7%),001%H)+%'0%(*.5')+')'3+%$%7%$',)'-$*30'%B%$)0''.',0'*.%',.')+')',)'-$*30',.3'$50'(%'.&'*8'E1'/,),%0'*.%',.')+')',)'-$*30',.3'$50'(%'.&'*8'(),*.' +%.'''7%$),('/0%(),*.',0'8'5%%)+$*1-+')+%'5-%'*&''.'%6,)+%/,*8')*10'1/(%$'3%'&,.5'*.')+%'*1)%$'4*$5%$'3+,(+',0'5>'(%.)')*')+%'+%')/)+2',001%'6$*/*.-';),*.0',.3'$50'*&')+%'$%)%'81(*018'6*,0*.,/0)',.')+%'(*..%(),7%),001%'*&')+%'6'6,//'$2'/'2%$'.5'(1),0'3%'&,.5'0%(),*.0'*&'66'$%.)/2',0*;/')%5'8'00%0'*&'%6,)+%+'/-$*3)+' +%0%',0*/')%5'8'00%0'38(+'$%'8*0)/2',.''(2/,.;5$,('/&*$8' %$%$%'//2',.'1.4$*9%.'*.),.1,)2'3,)+'-$*3)+0'&$*8')+%'$%)%H41)'0')+%-$*3)+0''&)%$')+%2'+'7%'6%.%)$')%5'5*3.;3'$50'&*//*3')*''(%$)',.'%B)%.)')+%/,.%0'*/%'0)'$%0,0)'.(%')+%2'(%'0%')*'4%',.''5,$%()',.%'3,)+'+%'6%$*8*3')+%2'+'7%'(*8%''.5')+%%&*$%',.''')+,.'0%(;),*.''66%'$')*'4% 5%)'(+%5')',0')+,0'6;6'$%.)',0*/'),4.')+')'/%5')*')+%'%$$*.%*10',.;)%6%)')',*.')+')'%6,)+%/,'/('.(%$'3'0'(10%542''+%)%$*/*-*10-$*3)+'*&'(*..%(),7%),001%(*$610(/%0' +')',.'('.(%$*10',001%')+%%6,)+%/,18')'9%0',)0'*$,-,.',.')+%$%)*'81(*018',0''&'()')+')'3'0'$%(*-.,0%5'0*'/*.-''-*''0'?F@'42' '..*7%$'41)'3'0'/*0)'0,-+)'*&'*$8'.2'2%'$0'&)%$'K ,$(+*30'7,%30'*.'(%//1/'$6')+*/*-2'4%('8%-%.%$''//2''((%6)%5')3'0''-',.'(/%'$/2'0+*3.'42' +,%$0(+',.'?DF +%$%',0''06%(,'/%,)+%/,'/6+20,*-.*82'6%(1/,'$')*')+%'8*$4,5'-$*3)+',.'%'(+',.;5,7,51'/('0%' .'8'.2',.0)'.(%0')+%'(%//(*/18.0'1.5%$-*'.'%B)$%8%'5%-$%%'*&+*$.2'(+'.-%''.5'3%'&,.5',.')+%'0%(),*.0'*&'160'*&'7%$2'/'$-%+*82'(%//0'(/10)%$,-'(*.(%.)$,;('//2'-,7,.-'$,0%')*')+%'0*('//%5''8,.')%5'('601/%0'*$'0.%0)0<'.'0*8%'('0%0')+%'(%//'(*/18.0'5*'.*)')'9%'*.')+%')%B)$%8%'+*82'8%)'8*$6+*0,0''')+%'(%//0'$%)',,.-')+%'*$5,.'$2''66'$%.)'(+'$'()%$0'*&'$%)%'(%//0



%'$/2' '.5'(*86/%)%/2',)'3,//'.*)'$%)1$.'')'//'%)'0)'0,0',0'$'$%'+%'-$'7,)2',.''.2'06%;(,'/'('0%5 5%6%.50'.6*.'3+%)+%$')+%'01$&'(%'*$6%.%;)$')%0'5%%6/>$'.')+%'5%6%0%')%5&*8/')+%'5'.-%$)*'/,&%',0'(*.0,5%$'4/%'+%'5,0%'0%'8'2'/'0)'''/*.-'),8%'4%&*$%')+%'+%'/)+'4%;(*8%0'0%$,*10/2'!&&%()%5'./%00'+*3%7%5'42'01((%00&1/')$%')8%.)')+%'6'),%.)<0'0)$%,=+'%7%.)1'//2'&',/0')+%'(+'$'()%$,0),('6','*&('.(%$',.(%$'0%0''.5'5%')+'101'//2')'9%0'6/'(%&$*8'%B+'10),*.H0*8%),8%0'&$*8'+'%8*$$+'-%'('10%5'42'4/**5 7%00%0'4%,.-'%B6*0%5',.')+%'6$*-$%00'*&')+%'5,0%'0%

! G **'8%5,(,.%0''58,.,0)%$%5',.)%$.'//2'+'7%''.2'%&&%()'*.')+,0'5,0%'0%H41)'0*/*.-''0')+%'.%3 -$*3)+'$%8',.0'0,.-/%''.5',0'3,)+,.')+%'$%'(+'*&'01$-,('/')$%')8%.)'3%'8'2'+*6%'&*$''01((%00$'/'$%01/)'0'0**.''0')+%'.')1$%'*&')+%'-$*3)+',0'0(%$;)',.%5')+%'3+*/%'*&')+%'5,0%'0%5'),001%'0+*1/5'4%'$%8*7%5'3+$%$%')+,0',0'6*00,4/%'+'7%'$%(*1$0%)*''(1)),.-'*6%$'),*.H''.5'3+%$%')+%'1/(%$'+'0')),.%5''(%$)',.'0,C%''.5')+%$%',0'(*.;0,5%$'4/%',.&,/)$'),*.'6$%0%.)'(*86/%)%'%B;(,0,*.'*&')+%'3+*/%'*&')+%'5,0%'0%5',001%',0''7%$2'%&&%()1'/8%)+*5'*&'5%'/,.-'3,)+')+%'5,0%'0%'.')+%'%'$/2'0)'-%0'*&')+%'&&%(),*.')+%$%',0'.*5*14)')+')',)',0'3,),+,.')+%'$%'(+'*&'(10),(0'.'%6,)+%/,*8''.''/,8,)%5'3'$)2'(*.5,),*.'8'2'3+%.')+%'&&%()%5'01$;&'(%',0'08'//'4%'01((%00&1//2')$%')%5',.')+,''3'2'&)%$'0($'6,.-'3,)+''(1$%))%'.'0%7%$%'('0%0')*'*''57'.(%5')*'4%$%'(+%5'42')+%'9.,&%')+%'6$*-$%00'*&')+%'5,0%'0%'8'2'0*8%;),8%0')*''%$)',.'%B)%.)'4%''$$%0)%5'42'A'1;)%$,0'),*.'1.5%$'3+,(+')+%'(*.5,),*.'*&')+%'1/(%$')%5'01$&'(%',86$*7%0'6',.',0'5,8,;..,0+%5')+%'5,0(*8&*$)0'*&')+%'6'),%.)<0'(*.;5,),*.'/%00%.%5'.'5'/,&%'6$*/*.-%5'&')+%'9.,&%',0'10%5',)',0'.%(%00'$2')*'*1)'3%/'4%;2*.5')+%''&&%()%5',001%''0')+%$%',0'+))//%'5*14)')+')'$%/'60%0'3+%.')+%2'5**'((1$''$%'51%')*')+%'&')')+)''.,510'*&',.&%()%5'(%//0'+'0'4%%.'/%&)'4%+,.5''/)+*1-+')+%2'+'5'+*)'5%7%/*6%5'1&&,(%.)/2')*'%.'4/%')+%'01$-%*.')*'$%(*-.,0%')+%'%B)%.)')*'3+,(+')+%'5,0%'0%'+'5'06$%'5'%'+'7%&*1.5'42'8,($*0(*6,;('/'%B'8,.'),*.:'*&'%B(,0%5'%6,)+%/,*8')''+)')'0%(),*.0'&$*8')+%'6'$)'.%B)')+%'/,.%'*&',.;(,0,*.'+'7%'(*.)',.%5''('.(%$*10'%6,)+%/,18'4%)3%%.')+%'(*.%(),7%),001%'41.5/%0

+%'(10),(0'-%.%$'//2'10%5''$%'('10),('6*)'0+'(+/*$,5%'*&'C,.('62$*-'(''(,5''.5''$0%.,('10),('6*)'0+'8'2'4%'10%5'%,)+%$',.')0),(9'*$',.'0*/1),*.'')'+'0')+%''57'.)'-%'*&'4%,.-')+*$*1-+','.')0''()*.''.5'*&'.*)'/%'7,.-'81(+'6','&)%$',)'+'0'4%%.'10%5'+%'-$*3)+''*&'(*1$0%'0+*1/5'4%')+*$*1-+/2'(1)%$,0%5'2$*-'//,('('(,5',0'10%5''0''8H6%$'(%.)''*,.)8%.)'3+,(+',0'06$%'5'*./,.%.''.5'9%6)'(*.),.1*10/2''66/,%5'&*$&$*8')+$%%)*'0,B'5'20')',0'/%00'6',.&1/)+'.'(+/*$,5%'*&C,.('+/*$,5%'*&C,.('',0'10%5'0''6'0)%',.

)+%'6$*6*$),*.'*&'*.%'6'$)')*')+$%%'6'$)0'*&'-18'8,B%5'15)+''/,)))/%'3')%$'+%'6'0)%',0'/',5'*7%$')+%'5,0%'0%5'01$&'(%'3+,(+'8 10)'+%'4/,0)%$%5',&')+%'09,.',0%.),$%')+%'01$$*1.5;,.-'+%'/)+2'09,.'4%,.-'6$*)%()%5'42'5+%0,7%'6/'0)%$''0),6'&'6/'0)%$'(*7%$'0+*1/5'4%'6/'(%5'*7%$')+%'3+*/%'+%'6'0)%'3,//'5%;0)$*2'0)$1()1$%0'%(>1'/')*')+$%%'*$'&*1$'),8%0',)0'*3.')+,(9.%00'+%'V,.('6'0)%'3+,(+',0'10%5')')+%',55/%0%B'*06,)'/',0'(*86*0%5'*&'LA,1'/'6')$)0'*&'(+/*$,5%'*&'C,.('.'5'/,E1*$'*6,,'3,)+'01&&,(,%.)'&/*1$')*'8'9%',)',.)*'')'6'0)%'%0*$(,.'+'0'4%%.'$%(%.)/2'$%(*8;8%.5%5'&*$'%6),)+%/,*8')''+%$%'$%'('0%0',.'3+,(+',)'.03%$0'3%//H,.')*)+%$'('0%0',)0''(),*.'5*%0'.*)'0%%8'01&&,(,%.)/2'%.%$-%),(+%'3$,)%$'+'0'10%5',)'0',.(*$6*$')%5',.'(),(',5'+'0'/0*'4%%.'$%(*88%.5%5'&*$'%6),)+%;/,*8'')'',0'0166*0%5')*'+'7%''5%0)$1(),7%%&&%()'*.')+%'5,0%'0%5',001%'3+,/0)',)'06'$%0')+%'+%'/)+2'0)$1()1$%0H41)')+%''//%-%5''5;7'.)'-%0'+'7%'.*)'2%)'4%%.'01&&,(,%.)/2'(*.;&,$8%5

8*.-0)')+%'7'$,*10'('10),('6'0)%0'3+,(+'+'7%'4%%.'10%5',.'%6,)+%/,*8''$0%.,('/6'0)%''0'$%-'$50'%&&,(,%.(2'*((16,%0''+,-+'6/'(%''/)+*1-+'*.''((*1.)'&')+%'5'.-%$'))%.5,.-''40*$6),*.',)'$E1,$%0'06%(,'/'('$%'+%'3$,)%$'('..*)'06%'9'&$*8',0'*3.'%B;6%$,%.(%'H41)'+%'+'0')+%')%0),8*.2')*')+%'8%$,)0'*&')+%'6'0)%'$%(*88%.5%5'42'$'$05%.'*&',0'&$,%.5'$'('1$,.'*&25.%2'3+*'+'0'10%5',)'%B)%.0,7%/2',.'+*0;6,)'/'.'5'6$,7')%'6$'(),(%''.5',0'0'),0&,%5')+')'&*$''(*.0,5%$'4/%'.184%$'&('0%0',)'6*00%00%0'7%$2'-$%')'57'.)'-%0

3801

),/ '*&G +%5,&&%$%.)'9,.50'*&'%6,)+%/,18'810)'4%'0%6';$')%/2'(*.0,5%$%5''0')+%2'5,&&%$'.')+%,$'6')+*/*-,('/$%/'),*.0'G'.'8%/2'T''.5'3"/'%6,)+%/,18'*&'81(*10'01$;&'(%0H'D#'"#e''.5&,.'//2'#'*$'0+/'%6,)+%/,18'+%'/'0)'9,.5'3,/'4%'4%))%$')$%')%5'*&'1.5%$)+%'+%'50'*&')+%'0%7%$'/'-/'.50

'&'#%!%''$'+'/'.&/'88');,.G*)+'7'$,%),%0'*&'%6,)+%/,18'*'(1$$,.-'*.'81(*10'01$&'(%0'$%'014>%()')*',.&/'88';),*.'3+,(+'101''//2')'9%0'3+')',0'('//%')+%'('))$$+'/'&*$8')'$$+'/',.&/'88'),*.',0'(+'$'()%$,0%5'42'+26%$0%8,''03%//,.-''&&*&'(%//0''.5'(%'0%5'51(),*.''.5'(%'),.-'*.'81(*10'0%($%),*.'*&')+%'6'$)0')*3,)+*1)')+%'6$*51(),*.''*&''.2'%*'-1/'4/%'%B15'),*.''*$''.2'/'24$'*&'.%3'8')%$,'/'+%'(%//0')+$AR3.'*&&'$%'6'$)/2'%6,)+%/,'/'6'$)/2'/%1(*(2)%0'*$610(%//0'+%

,.),8 ' ' 3,)+')+$* 8 4*0,0' ' .5' 5,8,.1),* .' *$' %7%.' (* 8 6/%)%' 5,0'66%'$' .(%' *$' *((/10,* .' *&')+%,$' /1 8 %.' ' .-$%.% ',0')+%' 1/),8 ')%' $%01/)' *&')+%0%' 8 *$4,5' (+' .-%0' +%' 6*0)%$,*$' (*/1 8 .0' *&')+%' 06,..' /' (*$5' '$%')+%' 0%')' *&' '' 5%-%.%$'),7%' *$' 0(/%$*0,.-' 6$*(%00'0* 8 %3+')' $%%% 8 4 .-')+%' /%0,* .' 0*' &' 8 ,/,'$')*' 10' ,.' /*(* 8 *)*$')' B2

! (! G ,)+,.' '' &%3' 5' 20' *&')+%' &,$0)' ,.-%0),*.' *&' $2% 8 %' /' (*.)' 8 ,. ')%5' 3,)+' %$-*)')+%' *$5,.' $2' 6+%.* 8 %.'' *&' ,$$,)' .)' 6*,0* . ,.-' $%' 5%7%/*6%5' . ' 8 %/2' 7* 8 ,),.-' 5,' $$+*%' '0%7%$%' '45* 8 ,.' /'6',.0' .5'($' 8 60' ' .5' -%.%$' /' 5%6$%00,* . G -,55,.%00' ' .5' +%' 5;' (+%' 4%,.-' 06%(,'//2' 8 ' $9%5

/* .-' 3,)+')+%' 6$%(%5,.-' (%$)',.' 06%(,&,(' 0J886)* 80' -$' 51' //2' 8 '9%')+%.' '66%' $'.(%' +%' &,$0)' .5' 8 *0)' (+' $' ()%$,0),(' *&')+%0%' ,0' &*$ 8 ,(',*.' A'' 0%.0'),*.' *&' ,.0%()0' $1..,.-' '/*.-')+%' 09,.R' '))%.5%5' 3,)+' 0%7%$%',)(+,.-' *&')+%' %B)$% 8 ,),%0' +%' *)+%$' 06%(,'/0%.0%0' 01(+' '0' 7,0,* .' .5' +%' $,.-' 8 '2' /0*' 4%(* 8 %5,0* $5%$%5' (('0,*.'/')%' $,.-' 6',.0' *((1$' ,.')+%' /,8 40' ' .5' (/*.,(' 06' 0 8 0' *&')+%' 8 10;(/%0' '7%.* 10' +1.-%$',0'0',5')*' 4%' '0),$,9,.-' 02 8 6)* 8 ',.' 0* 8 %',.0)' .(%0' +%' 61/0%',0' ,.&,$%E1%.)' .' 5' 0 8 '//' %06,$'),*.' ,0' .*)' 8 '$9%5/2' 5,0)1$4%5

+%' $% 8 ',..,.-' 6+%.* 8 %.'' 6%(1/,'$')*' %$-*),0 8 ' '$%' 101' //2' 5%0($,4%5' '0' 4%/*.-,.-')*')3*' &*$ 8 0')+%' 0 "0 " ' '.5')+%' 90 ' '((*$5,.-' '0')+%' (,$(1/'),*.' *$')+%' .%$7*10' 020)% 8 ',0' (+,%&/2' '&&%()%5

AO' B "0 " ' 0 G +%' -' .-$%.%' 6$*51(%5' 42' %$-*)' ,0' 6%(1/,'$' *./2' ,.'$%06%()' *&',)0' ('10%' +%')*%0'&,.-%$0'&%%)'%'$0' '.5' .*0%' '$%')+%' 6')0' 8 *0)' (* 8 8*./2' '))'(9%5' +%',.(,6,%.)' 5,0(*/*$'),*.' '6',.'' '.5' 03%//;,.-' '$%' *40%$7%5' 3,)+,.' '' 6%$,*5' *&')3*' 5'20')*')+$%%' 3%%90' &$*8')+%' (* 8 8%.(%8%.)' *&')+%' *)+%$')*B,(' 02 8 6)* 80' +%' .%($*),(' 6$*(%00' 6'00%0')+$*1-+')+%' *$5,.'$2' 0)'-%0' *&' 5%7%/*68%.)H 8'2' 4%' %,)+%$' 03%)'< *$' 05$2H< '.5' '57'.(%0')*' (* 8 6/%)%' 0%6'$'),*.' *&')+%' 6')$',&')+,0' +'7%'.*)' 4%%.' 6$%7,*10/2' $%8*7%5' 42' *6%$'),*.

AXH' 0 'G' +%' /%'5,.-' 02 8 6)* 8' *&')+,0' &*$ 8' *&')+%' 5,0%'0%',0')+%' *((1$$%.(%' *&' 0%7%$%',.)%$ 8 ,))%.)' ($' 86 0' *$' 6',.&1/ 06'0 8 0 '06%(,'//2' '&&%(),.-')+%' /*3%$' %B)$% 8 ,),%0' +%0%' 5%7%/*6',.)*' .,(' (*.;)$' ()',.' *&')+%' 8 10(/%0' 3,)+' &,B'),.' *&')+%' /,8 40H' .5' %.5' 6%$+'60',.' -%.%$' /' (*.71/;0,*.0' 6$*0)$'),*.' 7' $,*10' 9,.50' *&' 8%.)' /' 5%$' .-%8%.)')8(*.0(,*10.%00' '.5' 5%')+' 4*$),*.' 5*%0' .*)' '66%'$')*' 4%' *&' &,$%E1%.)' *((1$$%.(%

$4 ' &% } ' ! "' '.2' %'0%0' *&' %$-*),0 8' '$%' '(1)%' $')+%$')+' .' (+$*.,(H 41)' 3+%.' -' .-$%.%' '66%'$0')+%' (*1$0%' 8 '2' 4%' 7%$2' 6$*)$'()%5' .5' 7' $,'4/%' 6'0 8 *5,(%$-*),0 8' 8 '2'/'0)' &$*8')3*' 3%%90')*' '0' 8 '.2' 8 *.)+0' +%' 8 *$)'/,)2' ,0' 0',5')*' +' 7%' &' //%.' &$*8' 0,B)2')*')%.' 6%$'(%.)' .' '' &%3' ('0%0' $%0*/1),*.' *((1$0' ,.' '&&%()%5' %B)$% 8 ,),%0

H 0< $ " G %2*.5' ,)0' %&&%()' '0' '.' ,$$,;)' .)' 6*,0*.' ')+%' 06%(,&,(' ,.&/1%.(%' *&' %$-*)' ,0' 8 ',./2'%B%$)%5' 16*.')+%' *$-' .0' *&' ($(1/'),*.')+%' (%.)$' /.%$7*10' 020)% 8 ' '.5')+%' 1)%$10' +%' 5,&&%$%.)' %&&%()0' +' 7%' .*3' 4%%.' 0'),0^*')*$,/2')$' (%5')*')+%' '(),*.0' *&')+%' 5,&&%$%.)' *$-' .,(' (*.0),)1%.)0' *&')+%' 5,0%'0%5' -$',.

8 1),.%' '.' '/9'/,5' *.%' *&')+%' &*1$' ,8 6*$)' .)' *$-' .,(' (*.0),)1%.)0' *&' %$-*)' 6$*:;51(%0' 0/*3,.-' *&')+%' ('$5,'(' $+2)+8' 42' 0),8 1/'),*.' *&')+%' 7'-10' ')',)0' (%.)$' /' %B;)$% 8,)2' +%' (*.)$')',*.' '.5'+2'/,.%'(+'.-%*&')+%' 3'//0' *&')+%' '$)%$,%0' '$%' 51%')*')+%*()',*.' *&' '' 0%(*.5' (*.0),)1%.)' 06+'(%/,.,('(,5' +%' $%01/)' *&')+%0%' %&&%()0' *.')+%' +%' $)' .5' '$)%$,%0',0')+')')+%' 4/**5 6$%001$%' $,0%0' +%' -'.-$%.%',0' $%'5,/2' '((*1.)%5' &*$42')+%'7' 41/'$' (+'.-%0' '.5',0')+10'5%&,;.,)%/2'$%&%$'4/%)*')+%' 06+'(%/,.,(' ,5+%'6',.&1/06'080' '0'3%/' '0')+%' &*$8,;(')',*.' '.5' *)+%$' 0%.0*$2' 5,0)1$4'.(%0' '$%)+%' 5,$%()'$%01/)' &*')+%' '(),*.'*&')+%' (*$.1),.%' 16*.')+%' 06,..' /'(*$5

+%' '(),*.'*&' %$-*)' 16*.')+%' 1)%$10',0' %B;6/',.%5' 42' 0*8%' '1)+*$,),%0' '0' 51%')*' 0),8 1;/'),*.' 42' (*$.1),.%' *&')+%' 1)%$,.%' (%.)$%',.)+Z' (*$5')+%$' '1)+*$,),%0' 8 '..')'.')+')',0' 0%)' 16' 42')+%' /*('/' '.'%8,'' 6$*51(%5' 42')+%' 7'0(1/'$'(*.)$'(),*.H 3+,/0)'*)+%$0')'-',.'(*.0,5%$')+')' %$-*)' '()0' 5,$%()/2' 16*.')+%' 8 10(1/'$' &,4$%0' *&')+%' *$-'.

& G +%' *((1$$%.(%' *&' -' .-$%.%',.'' .18 4%$' *&' 2*1.-'' .5' 6$%7,*10/2'+%')+2' 6%$0*.0',.' (*1.)$,%0' 3+%$%' $2% 8 %' /' 0',.' '$),(/%' *&' &**5'0+*1/5' $% 8 *7%' '/' 5,&&,(1/)2' &$*8')+%' 5,'-.*0,0' *&' %$-*),0 8 ' +%' 06'0;8 *5,(' &*$8' *&')+%' 5,0%'0%' (' .' 101'//2' 4%' 5,0),.-1,0+%5' &$*8' %6,5%8,(' (%$%4$* 06,.' /' &%7%$' 42')+%' '40%.(%' *&' 62$%B,'

G= +%6$*-.*0,0' 5%6%.50' (+,%&/2' 16*.')+%' %'$/2'$%(*-.,),*.' '.5' $% 8 *7' /' *&')+%' ('10%' +%' 6$*4'4,/,)2' *&')+%' 0('6%' *&' '&&%()%5' %B)$% 8 ,),%0' 8 '2' 4%' %0),8 ')%5' 42')+%' 5%-$%%')*' 3+,(+')+%' -' .-$%.*10' 6$*(%00' +'0' '57'.(%5

! G +%')$%')8%.)' *&' %$-*),0 8 ' 8 10)' (* 8 8%.(%' 3,)+')+%' $% 8 *7' /' *&')+%' ('10%' .' '))%86)' 8 10)')+%.' 4%' 8 '5%')*' +'0)%.')+%' %/,8,.'),*.' *&')+%' 6*,0*.' 42')+%' ('1),*10' '58,.,0)$'),*.' *&' %),(0' '.561$;-'),7%0' H)*' '//'2')+%' 02 8 6)* 80' *&' -'0)$*;%.)%$,),0' H ' .5')*' 0166*$)')+%' 0)$%.-)+' *&')+%' 6'),%.)' 42',.)%$.'/' .5' %B)%$.'/' 0),8 1/'.)0' 01(+' '0' '/(*+*/' 3 '$ 8)+' '.5' &,&,(),*.' +%)$%')8%.)' *&' /%0' '(1)%' %$-*),0 8 ',.(/15,.-' 06'0 8 *5,(' ('0%0',0' 02 8 6)* 8 '),(' '.-$%.% 8 10)' 4%' '7%$)%5' 42' ('$%&1/' /*('/' 0),8 1/'),*.' G 42' 8 %'.0' &*$' %B' 86/%' *&' 3 '$8' &* 8 %.)';),*.0' H *$')$%')%5' 01$-,('//2',&',)' 8 '9%',)0' '66%'$'.(%' 'C

I ' ' 6)' 0 '

U / &' ' ' -.'3R G ' 016%$;&,(,'/' 5%0)$1(),*.' *&'),001%' ('10%5' %06%(,'//2' 42' &$,(),*.' 6$%001$%' (*$$*0,*.' *$' *%,)',' ' &*$ 8 0' *&' 1/(%$'),*.

U /&/ ' " C ' /*7%('.5' " 4 ' 8'5.%00R G T)*=&' *7% 8%/'.(/,*/2H' ')2$; ,'0,0' A,.' 8%.RH 286+*8'.,'' A,.' 3*8%.RH $' " ' 3T H %$' & 2 #G' .0'.,)2' (+'$'()%$,0%5' 42' %B(%00,7%' 0%B1'/ %B(,)%8%.)H 0*8%),8%0'0286)*8'),('*&'(%$%; 4$'/'/%0,*.' 0*8%),8%0'*&' 5,0*$5%$',')+%'$%; 6$*51(),7%'*$-'.0' '

$) 'A%3*>,3'.5%$R G '.5%$,.-' 0+,&),.-' *$' ,$$%-1/'$' 66/,%5')*' 6',.0' %$16),*.0' *.')+%' 09,.' '.5' *)+%$' 8*$4,5' 6+%.*8%.'' 3+%.')+%2' 0+,&)' *$' 8*7%' &$*8' 6/'(%')*' 6/'(%

U ' 0' 4%/(+R G' & # G +%' 0155%.' %0('6%' *$' %B61/; 0,*.'*&'-'0'&$*8')+%'0)*8'(+' 163'$50'3,)+' *$'3,)+*1)'.'.'58,B)1$%'*&'6*$),*.0'*&'/,E1,5' *$'0*/,5'&**5'*$'*&'-'0)$,(>1,(%'*$'*)+%$'/,E1,50 & ' (``` +%' '()'*&'%$1()'),*.' 8'2 4%'7*/1.)'$2'*$',.7*/1.)'$2' .')+%'&*$8%$' ('0%$''08'/'6*$),*.'*&'',$',0'&,$0)'03'/'*3%5' '.5'42')+%'*7%$ 5,0)%.0,*.')+10'6$*51(%5')+%' %0('6%'*&''6*$),*.'*&')+%'-'0%*10'(*.)%.)0'*&')+%'0)*8'(+',0'&'7*8%5' +%.',.7*/1.)'$2' 3%' 810)'0166*0%')+')')+%' ('$5,'(' *$,&,(%' 3+,(+',0'(/*0%5',.')+%' .*$8'/'0)')%'*&'5,-%0;),*.',0'$%/'B%5''.5')+10'6%$8,)0')+%'$%>%(),*.' *&'6*$),*.0'*&')85,-%0)%5'8')%$' $*8')+%' 7,*/%.(%'3,)+'3+,(+'%$1()',*.0'*&)%.')'9% 6/'(%'3%'8'2''/0*''0018%')+')')+%'810(1/'$' (*')'*&')+%'0)*8'(+'(*.)$')0'06'08*5,('//2' ')')+%'0'8%'8*8%.)')+')')+%'$%/'B'),*.''*&)+%'($5,'('*6%..-'*((1$0' +%'.')1$%'*&)+%'8')%$,'/'$%>%()%5'7'$,%0'-$%')/2' *8%;),8%0',)'(,0')'0)%/%00''')'*)+%$'),8%0'(,5''.5' ,.'$'$%$'..0)'.(%0''/9'/,.% .6 ! $1()'),*.0'*((1$',.''//-'0)$,(' 5,0%'0%0'))%.5%5'3,)+'.'1.51%&*$8'),*.''*& -'0' +%2''$%' (*.0)'.)/2' (*86/'..%5'*&',.' ')*.,('5206%60,''8*$%'%06%(,'//2',.')+')'&*$8' 3+,(+'*((1$0',.'%/5%$/2'6%*6/%''.5'$%'6$*; 4'4/2')+%'$%01/)'*&'.',86%$&%()'(*.)$'(),*.''*&)+%'0)*8'(+'6$%7%.),.-')+%'51%'%B61/0,*.''*&)+%'5,-%0)%5'&**5',.)*')+%',.)%0),.%' +%2'&*$8' ''6$*8,.%.)'.5'5,0)$%00,.-'0286)*8',.'5,/';)'),*.''*&')+%'0)*8'(+' .'01(+'('0%0')+%' 6')%.)'*&)%.'('*86/',.0'*&''0%.0%'*&'&%$8%.;)')',*.',.'+,0'45*8%.''.5',88%.0%'E1'.),;),%0'*&'-'0'$%'%B6%//%5'-%.%$'//2'8,B%5'3,)+' .''(,5'*$'($,5'&/1,5 ! G +%',.5,(',*.0',.')+%')$%'); 8%.)'*&'%$1()',*.0'$%')*'6$%7%.)')+%'5%(*8; 6*0,),*.''*&'&**5''.5')+%'&*$8'),*.''*&'-'0%0' .5')*)+%$'6$*51()0H')*'$%0)*$%')*.%')*')+%$ 0)*8'(+''.5'$%8*7%'.2'8*$4,5'(*.5,),*.' *&')+,0'*$-'.H '.5')*'-,7%'$%8%5,%0'3,)+')+% 7,%3'*&'40*$4,.-'-'0%0'*$'00,0),.-')+%''()'*& %$1()',*. I' ! '),0%'0%0'*& !%$'4 @'5

'0/ #7$)7)-)94 '")94) ' $' 5'I') *7'7)#7$'!'.)"'/'$'!)4# $'5!#!' +'#7-$)'!'.)"'/'$'!)4# $'5!#!' 7'7- $' '.)"'/'$'!)4# $'5!#!'

U 'A%$3=)0*''41$0),.-'&*$)+R G' +,0')%$8',0'(*88*./2''66/,%5')*'/*)+*/*; -,('/'8'.,&%0)'),*.',.')+%'09,.'8*$%'*$/%0O' -%.%$'/H0*8%),8%0'8'$9%5'42'(*/*1$'0*8%;),8%0'42'6$*8,.%.(%'41)'8*$%'&$%E1%.)/2'42' 4*)+' +%.'0155%.''.5'+26%$ %8,%''')%$8' 5%$,7%5'&$*8')+%' %&))*$%0(%.(%'*&''6/'.)' .'8%/2'(# ',0'%86/*2%5''0',.')+%' ,.0)'.(%'*&')+%' %B'.)+%8')*10'%$16),*.0G' 0('$/'),.''$14%*/''$*0%*/'''.5'7'$,*/''' +%)%$8',0'%E1'//2''66+('4/%)*'/%00''(1)%'&*$80' *&'5%$8')*0,0'01(+'0'1$),('$,''%(C%8''',8; 6%),-*'%()+28''('.%'.5'&1$,8(1/10H'.5' ,0'/0*'10%5'&*$0),'8*$%'(+$*.,('&*$80'*& 5,0%'0%'&*$' %B'86/%'60*$,'0,0'71/-'$,0H'.5' &*$*1)-$*3)+0'*&')+%'09,.'51%')*'4%$$'),*.' *&'.1)$,),*.''0',.')+%',.0)'.(%'*&'3')0'.5' 8*//10(*10')18*1$0' * !%'1 $

U ',)E E '$%5H'.53&YY'' 09,.R " /G ')' " J' $'9 -' " H %$'9 " ' *61/'$'.'8%OHG')' .)+*.20',$%' A .-+0+RH)+%' U*0%' A (*)(+RH '# J (''.5' '# 'A %$R & # " .&/'88'),*.'*&')+%',.)%-1; 8%.)')%.5,.-')*'06$%'5',.5%&,.,)%/2' $ ' 0' 6# " J' N " 2 ' ' C ' +%'7'-1%.%00'*&')+,0'5%&,.,),*.' ,.5,(')%0')+%'/**0%.%00'3,)+'3+,(+')%$8' ,0'%86/*2%5' +%'&%')1$%0'(*88*.')*' //' ,.&/'88'),*.0'01''//2'06*9%.'*&''0'%$20,6%/';)*10'$%'&%7%$'0*8%),8%0'66'$%.)/2'6$%(5; ,.-')+%'/*('/'6+%.*8%.'H'.5''.'.&/'88';),*.')%.5,.-')*'06$%'5',.5%&,.,)%/2'42'8%'.0' *&')+%'&&%()%5'6'$) %!! ' (' E G' $20,6%/'0' ,0' 101'//2'5,7,5%5',.)*'A'0R " ' ((H ALR" ('*$' N(- / ('.5' '=' ('*$' (' (/'A 1..%/%2R' .')+%'&,$0)'*&')+%0%')+%',.&/'88'),*.',0'0%')%5' ,.')+%'(1),0'7%$''')+%'014(1)'.%*10',001%'4%,.-' *&)%.'(%5%8')*10'41)'.*)'()1''//2',86/,()%5' ,.')+%'8*$4,5'6$*(%00' +%$%',0'6$'(),('//2'.*)%.5%.(2')*'01661$'),*.','.'0,8%/%(1)'.%*10' %$20,6%/'0' .'6+/%-8*.*10'*$' (% 1/*' ( )'.%*10'%$20,6%/'0')+%'014(1)'.%*10''$%*; /'$'),001%',0'6$,8'$,/2''&&%()%5'41)')+%'09,.' (*7%$,.-')+%',.&/'8%5''$%'',0'06%%5,/2',8; 6/,(')%5' &'.*)'$%/,%7%5'42')$%')%.)')+% ,.&/'88'),*.'.')%.50',.%7,)'4/2')*'5,&&10% 01661$'),*.'*&)%.'((*86'.,%5'42'%B)%.0,7% 0/*1-+,.-'*&')+%'(1)'.%*10'.'5'014(1)'.%*10'),001%0'.'%75'$%$20,6%/'0'*$5,&&10%(%//1; /,),0'5%%6 0%')%5'6/'.%0'*&''$%*/'$',001%'$% '&&%()%5'01(+'0')+*0%'*&')+%'6%/7,0'+% (*1$0%'*&')+%'5,0%'0%',0')+%0'8%'0',.'(%//1/* (1)'.%*10'%$20,6%/'0')%.5,.-')*')%$8,.')%',. 5,&&10%'01661$'),*.'.'.5'0/*1-+,.-'.''55,;),*.')*')+%0%')+$%% (+,%&'7'$,%),%0'%$20,6%/';)*10',.&/'88'),*.'*&')+%'/286+'),('7%00%/0' '.5'7%,.0'.'.5'*&'0%$*10'.5'81(*10'8%8; 4$'.%0',0'/0*'5%0($,4%5 * $ ' $ G'& ' ! ' -- # $ '3)$4/7'$3 !)' ')" / $4' + $ 3'$'!'# '$-'-#.'-**$ % '

('10%0' +%' -$%')' 8 '>*$,)2'*&')+%' ('0%0'*&' ' 6+,%-8*.*10' %$20,6%/'0' *((1$' ,.' +'$5' 5$,.9%$0' /' -%'+'0'.*', ,.&/1%.(%' A&GR +%' 5,0%'0%',0'0'1,5')*'4%'8*$%'(*888*.',.'3*8%.' %06%(,'//2''))+%'8%.0)$1'/'6%$,*5' #' +%' 6$%0%.(%'*&''' 3*1.5'*$' '4$'0,*.')*'0%$7%'0')+%'0%')'*&',.*(1/'),*.',0')+%'*./2',86*$)'.)' /*('/'6$%5,06*0,.-' ('10%'*&'%$20,6%/'0 $2 0,6%/'0' 1.5*14)%5/2' *((1$0' ,.' ' ' .5')+%')26%'*&')+%'5,0%'0%'7'$,%0',.' 5,&&%$%.)'*1)4$%'90' %'9.*3'.*)+,.-'*&')+%' ('10%0'3+,(+'$%.5%$')+%'5,0%'0%'%6,5%'8,(%'0+'//'.*3'6$*(%%5')*'5,0(100',.'5%)','/)+%'0%7%$'/'7'$,%),%0'*&'%$20,6%/'0'0188'$,0%5' '4*7% ',86/%' 1)'.%*10' $20,6%/'0 G +,0',0')+%'8*0)')26,('/&*$8'*&')+%'5,0%'0% ! ' $' G +%' 7 '66%'$'.(%0'*&' %$20,6%/'0' '$%'42'.*' 8%'.0'(+'$')()%$,0),(' +%' $%5.%00' &')+%',.&/'8%5' '$%'' *&'(*1$0%' &'5%0' '&)%$' 5%')+' /%'7,.-''&',.)'2%//*3,0+')',.)' +%'09,.'&%%/0' +'$5' '.5',.%/'0),(''.5')+%'014(1)'.%*10'),001%'(*.)',.0'.'%B(%00'*&'0%$*10'&/1,5' .' 7%$2'(1)%' ('0%0')+%$%' 8'2'4%')+%'101'/' 0,-.0'*&'4/**5(+'.-%'0%%.',.''//'8'/,-.'.)' &%7%$0H ' '0)',.,.-',86%$&%()' (*'-1/'),*.'*&')+%'4/**5'0140%$ 10'6%)%(+,0%' 03*//%.''.5'0*&)'06/%%.''.5'(/*152'03%//,.-' *&')+%'/,7%$' .5'9,5.%20' ,//%$'0)')%0')+')' 8,($*0(*6,(''%B'8,.'),*.'*&')+%'4/**5'4%&*$% 5%')+'0+*30'8.'2'*&')+%'3+,)%'(*$610(/%0')*'+'7%',85%$-*.%'5%-%.%$'),7%'(+'.-%0'.'5' 4%(*8%'(*.7%$)%5',.)*'8'00%0'*&'+,-+/2'$%; &$'(),.-'-$'.1/%0' 109'+'0'5%0($,4%5'6/1-0' *&'01(+'/)%$%5'(*$610(/%0',.')+%'08''/'7%00%/0' *&')+%'/1.-'.'.5' '0),'.'+'0'*40%$7%5' '' 0,8,/'$'(*.5,),*.',.')+%'7%00%/0'*&')+%'4$',.' ,($*0(*6,(''%B'8,.'),*.'*&')+%'!&,%()%5'6'$)' *&')+%'098'0+*30'$-%'.184%$0'*&'8,-$'),.-' /%1(*(2)%0'/2,.-',.')+%'06'(%0'*&')+%'&,4$*10'),001%''8*.-0$')+%'&')(%//0''.5',.')+%'/18%.' *&')+%'/286+'),('7%00%/0' +%2'$%%06%(,'//2' '41.5'.)'$*1.5')+%'08''/'7%00%/0' +%' 8,($*$-'.,080'&*1.5',.')+%'/286+06'(%0' *&')+%'098'')')+%''57'.(,.-'8'$-,.'*&')+%' $'0+'+'7%'4%%.''/$%'52'5%0($,4%5 !(! G .'0,86/%%$20,6%/'0')+%'(*.; 0),)1),*.'/0286)*80'*&)%.''66%'$')*'6$%(%5%')+%'/*('/' +%',.7'0,*.',0'8'$9%5'42'(+,//,; .%00'0%/5*8'42'.''()1'/'$,-*$H/*00'*&''66%;),)%'H -%.%$'/'8'/',0%H .'10%''41)'0%/5*8' '(0)1'/'7*8,),.-H +%'5'(+%H 6',.',.')+%' /,840H'.5')+%'101'/0,-.0'*&'62$%B,''' +%' ,.7'0,*.',0')*/%$'4/2'0155%.' +%')%86%; $')1$%'$'6,5/2'$,0%0')*''4*1)'!"g' '*$' +,-+%$' +%'$'%$'0286)*80')'+),0'0)'-%' '$%'%6,0)'B,0',.''51/)0''.5'(*.71/0,*.0',.' (+,/5$%.' 01'//2'3,)+,.')3%.)2&*1$'+*1$0' *&')+%'.7'0,*.')+%'(+'$')%$,0),('(1)'.%*10' ,.&/'88'),*.'4%(*8%0'%7,5%.)')'8'2' +*3%7%$'(*88%.(%'0,81/)'.%*10/2'3,)+')+%' &%4$,/%'5,0)1$4'.(%'*$'4%'5%/'2%5'%7%.'&*$')3*'*$')+$%%'5'20' $%E1%.)/2')+%'/286+'),(' -/'.50'.%'$%0)')*')+%'6'$)'$%'03*//%.'4%&*$%)+%'(1)'.%*10'%$16),*.''66%'$0H'&)%$3'$50)+%2'$%',.7'$,'4/2'%./'$-%5'.5')%.5%$' +% /*('/',.&/'88'),*.'.01''/2',&'.*)'/'3'20' 0)')$)0'&$*8'0*8%'3*1.5'0($')(+'*$'4$'0,*.')'(*88%.(%0',.5,&&%$%.)/2',.''&$%0+'3*1.5' *$''-$'.1/'),.-'0*$%' K+%.'.*'3*1.5'(.' 4%'$%(*-.,0%5''0',)0')$),.-6*,.)',)'101'//2' 0)')$)0'&$*8')+%'>1.(),*.'*&'81(*10'8%8; 4$'.%''.5'09,.'8*0)'(*88*./2'&$*8')+% (*$.%$'*&')+%'%2%'(10,.-''03%//,.-'($*00')+%'4$,5-%'*&')+%'.*0%')'8'2''/0*')$)' &$*8')+%''.-/%'*&')+%'8*1)+')+%'%B)%$.'/' '15,)*$2'8%')10''*$')+%'.10')'8'2'(*8' ,&/%.(%',.')+%'.'0'/&*000%'*$'6+'$2.B''.5' %B)%.5'*1)3'$5')*')+%'09,.'*&')+%'&'(%' *00,4/2',.''//'('0%0',)'0)')$)0'&$*8'0*8% 0+-+)'4$'0,*.'3+,(+',0'0('$(%/2')*'4%5%;)%()%5'A$*100%'1R'+%',.&/'8%5'09,.',0' 4$,-+)'$%5',.'(*/*1$'3,)+'*8%),8%0''2%/; /*3,0+'),.-%H')+%'$%5.%00''57'.(%0',.''// 5,$%(),*.0'41)'101''//2'8*0)'$'6,5/2',.')+') *&')+%'/2860)$%'8'+%''57'.(,.-'8'$-,. ,0',$$%-1/'$'0+'$6/2'5%&,.%5''.5'7%$2'0/,-+)/2' $',0%5'+%'(1),0',0'(%5%8')*10''.5'6$%001$% 3,)+')+%&,.-%$.'/'%'7%0''5%%6''.5'14,5,.-' 8'$9'+%$%')+%'014(1)'.%*10'$%*/'$),001% ,0'/'B''0',.')+%%2%/,50'*$0($*)18',)'/0*' 4%(*8%0'-$%')/2'03*//%.'.')+%'/,840')+% 014(1)'.%*103%//,.-',0'-$%')'*./2',.'0%7%$% ('0%0'.'8'.2'('0%0'08'//'7%0,(/%0'$,0%' 3+,(+'8'2'(*'/%0(%'&*$8,.-'4/%40'*&'(*.; 0,5%$'4/%'0,C%'+%0%'*$5,.'$,/2'(*.)',.'(/%'$ 2%//*3'0%18'3+,(+',.'4'5'('0%0'8'2'#' 0)',.%5'3,)+'4/**5 6,-8%.)' 0')+%0%'41//'% 41$0')+%2'5$2'16'&*$8,.-'0('40'*.')+%'01$; &'(%'41)'.*'1/(%$'),*.')'9%0'6/'(%'4%.%')+')+%0%'0('40'+%',.&/'88'),*.'+'0'41)'/,))/%')%.5%.(2')*'%.5',.'01661$'),*.H3+%.')+,0' 5*%0'*((1$',)',.')+*0%'6'$)0',.'3+,(+')+% *%5%8''+'0'4%%.'-$%')%0)')'0'+%'%2%+50' +%$%',0'+%')')%.0,*.''.5'6',.',.')+%''&&%()%5' 6'$)'.5''6%(1/,'$'0%.0'),*.''*&'0),&&.%00' 3+,(+'8'2'%7%.'6$%(%5%')+%''66%'$'.(%'*&)+%'$%5.%00 +%'&%4$,/%'0286)*80'3+,(+'10+%$',.')+% '))'(9'$%8','.'1.$%/,%7%5'0*'/*.-''0')+% $%5.%00'(*.),.1%0')*'06$%'5' +%'61/0%',0' ')'&,$0)'E1,(9'.5'&1//'41)%',)'0**.'/*0%0 &*$(%''.5',.'4'5'('0%0'4%(*8%0'%B)$%8%/2' $'6,5'.5'&%%4/%')',0'42')+%'61/0%'8*$%)+'.''.2)+,.-'%/0%')+')')+%'-$'7,)2'*&')+% ('0%',0'8'$9%5' +%')%86%$')1$%'0%/5*8' $,0%0'4*7%'!Dg'')+*1-+'!M<Fg'+'0' 4%%.'$%(*5%5' +%'5',/2''$,'),*.0'$%'.*)' -$%')'+%$%%'4%,.-'8%$%/2')+%'101'/0/-+)' 8*$.,.-'&'//'.5'%7%.,.-'$,0%' %/,$,18',0' .*)'1.(*88*.'')'.,-+)'%7%.',.',8,/5'('0%0' .'%$20,6%/'0'*&')+%'+%'5',)'8'2'4%'"6$*; 8,.%.)'0286)*8')',0'101'//2'51%')*')+% 4/**5(*.5,),*.''.5'.*)'0'3'0'&*$8%$/2' 0166*0%5')*'%B)%.0,*.'*&')+%',.&/'88'),*.')*')+%'8%84$'.%0'*&')+%'4$',.' +,0'+*3; %7%$'5*%0'*((1$',.'$'%'('0%0'%06%(,'//2',' %$20,6%/'0'*&')+%'*$4,)'*$',.')+')'&*//*3,.-'' (*86*1.5'&$'()1$%'*&')+%'091//' +%)*.-1% ,0'/3'20'&*1/''.5'101''//2'5$2H,.'4'5'('0%0' 4%(*8,.-'($'(9%5''.5'4$*3.'3,)+'0*$5%0'*.

@F 6 '),%.)0)$%')%5 ,.)+% 8 %5,('/ 3 '$50 *& .,7%$0,)2 */!%-% *06,)'/&*$&'(,'/%$20,6%;
/'0 &$*8 ?M@)* ?MD'*./2*.% 5,%5'.5 +% 3 '0 01&&%$,.-&$*8 (+$*.,($,-+)0 5,0%'0%
" I " " G $20,6%;
/'0 4%,.-'!8 *0)'%B+'10),.-'.5 5%6$%00,.- 5,0%'0%'.*'.),6+/*-,0),(')$%')8 %.)',0 %7%$ >10),&,'4/% /%'$)+% 4*3%/0 ')+%(*8;
8%.(%8%.)'*&')+%'))'(9 41)'7*,5 7,*/%.) 61$-'),61 ./2')3*'5$1-0+'7%'.2'$%61)';
),*.,.')+%)$%')8 %.)' *& %$20,6%/'0 +%),.()1$%'*& 6%$(+/*,5%'*&,$*. ,.')*',0 %7%$ >10),&,'4/% /%'$)+% 4*3%/0 ')+%(*8;
8%.5%5'42 $'U%2.*/50'.5*)+%$0'.5',0 0)')%5'42'0*8%)*'('0''06%(,&,(*'4%*& '.2' 10%,)'8 10)'4% -,7%.','.'+'/& 8,.,8'*$ 8,.,8'5*0%0 *&)+%),.()1$%'')'&,$0)'%7%$2'E1'$)%$'*&'. +*1$&*$'.*% *$)3*'+*1$0' (*.,)%'.5'&)%$3'$50 +*1$/2'),/')+% 09,.'4%(*8%0'8*,0)'.5')+%)%86%$')1$%&'//0'41)',)0'%&&%()0'8 10)'4%'7%$2 ('$%&1//2'3')(+%5')*'7*,5'5'.-%$*10'5%;
6$%00,*.' +% 8 10)'4%'0'.*1$,0+,.-''0 6*00,4/%G4%%&)%''%-0'.5'8,/*^(' */,5' &**5'('.'.%7%$'4%')%.'51$,.-')+%'57'.(% *&)+%'5,0%'0%'),81/'.)0'$%'101''//2'$%;
E1,$%5'.5')+%'8*1.)'8 10)'4%$%-1/')%5' 42')+%'>R1/0%' '$-%'E1'.),),%0' '$%'*&)%.'
.%(%00'$2
@'S G *('/)$%')8 %.)',0'7%$2'7'$,*10' '$8)+'.5'*7*,5'.(%'*&'7'$,'),*.0'*&')%8' 6%$%')8 %' '$%%00%.),'/' */5',0'1))%$/2',.'5;
8,00,4/%H ,)'--$'7')%0')+% ,.&/'8 8'),*.'.5')%.50')*' ('10% 01668'),*.'*$ %7%.'
0/*1-+,.-' *)'&*8%.)'),*.0'*$ +*)'4')+0' 8'2'4% %86/*2%5'3+%.')+%'6')$)' '&&%()%5' $%.5%$0')+%8'*58,00,4/%' .'*)+%$'('0%0'5$2' 3'$8)+'8 10)'4%'10%5H ,)',0'4%0)'*4)',.%5'42' (*7%$,.-')+%'*&%()%5'6')$)'3,)+'''),(9'/'2%$' *&'(*))*.3**/' *1/),(%0'0+*1/5'4%'7*,5%5' '0')+%2'.%%5/%00/2',$$,)')%')+%'09,.''.5' '$% 5,$)2''.5'6)'*'-%)'(*/5' ,)+')+%' '66/,(';
),*.'*&'3'$8)+',..18%$'4/%'7'$,%),%0'*&'/*('/' '66/,(',*.0'+'7%'4%%.'$%(*8%.5%5' +%0%' 8'2'4%'5,7,5%5')+10'H '5" "' 7
" ' +%0%'$%',.)%.5%5'*./2')*'%B(/15%')+%',$'41)')+%2'+'7%')+%' 5,0'57'.)'-%'*& 0+1)),..-',.')+%'0%($%),*.'*&')+%'09,.' +%' 8*0)'(*88*.'*&')+0%'$%'(*//*5,*.'*,/''.5' '')+,(9'/'2%$'*&'&/*1$'*$'0)'$(+'1.5%$'(*))*.;
3**/' A4R)' "' +%'8*0)' ,8 6*$)'.)'$%8%52'*&')+,0'(/'00',0'4%//'5*..'')',0'4%0)' '66/,%5' '0''6',.)'(*86*0%5'*& %E1'/'6')$0'*&')+%'%B)$')'.5'-/2(%$,.%'),0'%06%(,'//2'10%&1/'3+%.')+%$%',0'81(+' ,.&/'88'),*.'*&')+%'/2861+'),(' 7%00%/0'.5 -/'.50'A(R 6 2 ' "0 " '/%))%' *& 2*.0'$%(*88%.50''"!'6%$'(%.)'0*/1),*.' *&6%$(+/*,5%'*&',$*.H ,--,.4*))*8''0*/1;
),*.'*&')+%'04$,))/%'0),(9'*&.,)$')%'*&0,/7%$'<
G@!'-$'..0')*'.%'5$'(+8'*&'3')%$' %&*$%' '66/>1.-'%,)+%$'*&')+%0%')+%'09,.'8 10)'4% ('$%&1//2'3'0+%5'3,)+'0*'6'.5'3')%$')*'&$%% ,)'&$*8'-$%'0%' +%'6%$(+/*,5%'*&',$*.'8 10)'4%'$144%5',.'3,)+''-/*7%' '&" 3'
" ' '$0+'/H $%(*88%.50'($%'' 0*)%'8'5%',.)*''6')%'3,)+'9'*/,.%H %3'$' %E1'/'6')0'*&'01/6+1$*10''(,5'A R'.5' -/2(%$,.%',.()1$%'*&',*5,.%',0''(*88*.' '66/,(',.*.' *(+'$%(*88%.50'.*.)8%.)' (*86*0%5'*&'($k*/,.'6')$),*5*&*$8'6')0' '.5'/'.*/,.'!'6')0' 1%)%$'6$'(),0%5')+%' 014(1)'.%*10',.>%(),*.'*&''8',.'9H 0*/1),*.' *&'('$4*/,('(,5' %'0)')%5')+')+,0'('10%0' '.',8 8%5,')%''$$%0)'*&')+%',.&/'88'),*.'&*$ ''08'//'5,0)'.(%'$*1.5')+%'61.()1$%H ,&')+%$%&*$%')+%')%')8%.)'4%'5*6)%5')'0*%'$/2' '0)'-%')+')')+%'$%''*&',.&/'88'),*.'.('.'4% 01$$*1.5%5'42'&*1$'*$'&,7%'61.()1$%0')+% 5,0%'0%'8'2'4%'(+%(9%5' %2*.5')+,0')+%$%' 3*1/5'4%'5'.-%$*&'('$4*/,('(,5'6*,0*.,.-' $'09%'.5'U,%5%/'$%(*88%.5'0('$,&,(',*.' *&')+%'57'.(,.-'8'$-,.'3,)+''06%(,'/' ,.0)$18%.)''.5')+%'0140%E1%.)'66/,(',*.' *&'/,.)'0*'9%5',''.'F!!'0/1),*.'*&'($$*: 0,7%'014/,8')%'A%/C 2 "0'"0'"' ,.'&$*.)'*&')+%'57'.(,.-'$'0+'+,0'+'0' 4%%.'5*.%'3,)+'0*/,5',.)$')%'*&0,/7%$'.5 3,)+'4 0)%$,.-'&/1,5')',0'1))%$/2'10%/%00' */&/%$'$%(*88%.50')+%'66/,(',*.'&$ 01$%',8 8%5,')%/2',.'&$*.)'*&')+%'57'.(,.-' /,.*&'$%5.%00'42'8%'.0'*&'5+%0,7%'6/'0)%$' %'4%+%7%0')+,0'6$%7%.)0')+%',.7'0,*.'*&')+%' /286+06'(%0'42')+%'8,($*(*(((, $20,6%/'0'*&')+%&,,1(%0',0'4%0)'$%')%5'42')+%'/*('/'66/,(',*.'*&'')0)$*.-'0*/1),*.'*& 6%$(+/*,5%'*&',$*.' &')+%$%'4%'*%5%8''-/*)'),5,0')+%'03*//%.'6')0'8 10)'4%'0('$,&,%5''.5 ,&')+,0'&',/0')*'-,7%'$%+%&')$'(+%*)*82'8'2' 4%'.%(%00'$2
' +/%-8*.*10' *$' %//1/*(1)'' .%*10' $20,6%/'0 G +,0'3'0'5%0($,4%5' 42'16 2)$%.'1.5%$')+%'.'8%'*&'05,&&10%' 6+/%-8*.<
! ' $' G= .(0,*.0'8'5%' ,.)*')+%',.&/'8%5'6')$)',.')+%'%'$/2')'-%0' 0+*3')+%'06'(%0'*&')+%'$%*/'$')001%'5,0;)%.5%5'3,)+''0%8,0*/,5',.&/'88')*$2'%B1; 5'),*.H ''/,))/%'/')%$')+,0',0'&*1.5')*'4%'')1$4,5'.5'61$,&*$8'&/1,5H /')%$')0),')+%'014; (1)'.%*10'(%//1/'$),001%',0'$%6$%0%.)%5'42' 8'00%0'*&'0+$%552'0/*1-+0'0*'9%5',.'610' .%00'%B6*0%5')*')+%',$'42',.(,0,*.0'*$'42' 0/*1-+,.-'*&')+%09,.')+%0%'0/*1-+0'$%'&$%% &$*8'.2'*5*1$*&'5%(*86*0,),*.''.5'(*.),' .*'-'0' +%'0)$%6)*(((10'/$%'52'5%0($,4%5' ('.',.7'$,'4/2'4%'5%8*.0)$')%5',.')+%'%B1; 5'),*./&/1,50'*&')+%''&&%()%5'6')$' +%$%',0' .*)+,.-'(+'$'()%$,0),(' ,.')+%' '66%'$'.(%0'*&')+%'09,.' !(! 'G' +%',.7'0,*.',0' 101''//2' 8'$9%5'42'(+,//,.%00'*$''$,-*$'%/%7'),*.''*&)%86%$')1$%'.'10%''+%'5'(+%''.5'-%.%$'/ 8'/',0% +%'/*('/',.&/'88'),*.'8'2'(*8; 8%.(%'.'0*8%'3*1.5'*$'4$0,*.'41)',)' 8'2''/0*'$,0%06*.)'.%*10/2' $*8')+% 4%-,.,.-')+%$%',0'8'$9%5'(%5%8''*&')+% 014(1)'.%*10'),001%' +%'09,.',0'$%55%.%5' 41)')+%'8'$-,.'*&')+%$%5.%00',0'.*)'0+'$6/2

5%&,.%5' '.5' 03%//,.-' '.5')%.5%$.%00' *&')+%'
/286+'),(' -/'.50' '$%' *&)%.' '40%.)' 0')+%'
'$%'' *&',.&/'8 8 '),*.' %B)%.50')+%' '&&%()%5'
6'$)' 4%(*8%0')%.0%'' .5'4$'3.2''.5'7%0,(/%0'
$'/'$-%'4/%40'&$8' +%')%.0,*.' 8'2'4%;
(*8%'0*-$%')')+')' &,$8' 6$%001$%' 3,)+')+%'
&,.-%$0('$(%/2'8'9%0' '.2',86$%00,*.' .'''
&%3' 5'20' &$*8')+%' (*88%.(%8%.)'*&')+%'
5,0%'0%')+%'-$%')%$' 6')$' *&''/,84'8'2'4%
,.7*/7%5' &' .$%/,%7%5' 42')$%')8%.)')+%'
),.)'*&')+%'$%5.%00'4%(*8%0'8*$%'51092'.5'
5'$9'61$6/%'6')(+%0' '66%'$')')+%'0'8%'
),8%')+*')%.0,*.' 4%(*8%0'/%00' '.5'-,7%0'
6/'(%')*''' 0*&)' 4*--2'&%%/,.-',.5,(','.-
0/*1-+,.-'*&')+%'014(1)'.%*10'(%//1/'$',001%'
+%.'/,7,5'6')(+%0'66%'$'3+,(+'4$%'9'5*3.'
,.)*' 0/*1-+0' 0')+%0%' 0/*1-+0' 0%6'$')%'
/'$-%'0+$%552'8'00%0'*&'-'.-$%.*10'(%//1/'$
),001%'('.'4%'5$'3.'*1)'/%'7,.-')+%'1.5%$;
8,.%5'09,.'(*..%()%5' 3,)+')+%' 5%%6%$'6')$'0
.'/2'42'4'.50'(.)',.,.-')+%' /'$-%$'7%00%/0'
,.''//2')+%' $%8',.,.-'09,.'4%,.-'.01&&,;
(,%.)/2'.*1$,0+%5' 8'2'4%(*8%')+,.'.'.5'8%)'
'3'2'/%'7,.-'/'$-%')$'()0'*&')+%'&'0(,''*$
8 10(/%0'4%.%')+' %B6*0%5')*' 7,%3' .')+,0'
3'2',&'6$*6%$')$%')8%.)'4%'.*)'5*6)%5',.'
),8%')+%')+%'-$%')%$'6')$'*&''/,84'8'2'4%
5%.15%5'*&',)0'(1)'.%*10'.5'01461)'.%*10'
(*7%$,.-' +%'%B)$%8%0)'-%'8'2'4%'$%'(+%5'
,.''3%%9'*$')%.'5'20'41)''/*.-%$'),8%'
101''//2'%/'60%0'4%&*$%''/')+%'0/*1-+0'+'7%'
0%6'$')+%'.')+%'%'$/,%$'0)'-%0')+%$%0',0'
81(+'41$.,.-''.5')%.0,7%'6',.'41)',0'
0140,5%0'0'-'.-$%.%'0%)0',.' +%'(*.0),)1;
),*.'/02886)*80'$%'-$'7%'&,*8')+%'4%-,.;
.,.-' +%$%',0'+,-+'&%7%$')+%')+%$8*8%)%$'
,)%.'$%'(+,.-'Hf d'.' +%').-1%',0'5$2'
'.5'4$*3.''.5'0*$5%0''((181/')%'*.')+%'
/,60'.5')%%)+H)+%$%',0')*)'/'/*00'*&'66%),)%H'
'.5'5,'$$+*%'',0''' &$%E1%.)'02886)*8' +%'
61/0%''')'&,$0)'&1/'.5'4*1.58-'0**./*0%0'
&*$(%'4%(*8,.-'$'6,5'.5'3%'9' %/,$,18'
101''//2'*&')+%'81))%$,.-')26%',0'/3'20'
6$%0%.)',.'0%7%$%'%'0%0' %')+'*((1$0'&$*8'
%B+'10),*.'*$'&$*8'0*8%'(*86/,(','),*.'01(+'
'0'6.%18*.,''6/%1$,02'^*' 1$,.-')+%'
0%6'$'),*.'*&')+%'0/*1-+0'0%6),(0%8,''.5'
62'%8,''$%'*&'&$%E1%.)'*((1$$%.(%' +%'
5,0%'0%'8*0)'(*88*./2'))'(90'*.%'*&')+%'
/,840'41)',)',0'*((0,*.'//2'0%%.',.')+%'
0($*)18''.5''6%(1/,'$/2'7,$1%.)'&*$8'+'0'
4%%.'5%0($,4%5'0'&&%(),.-')+%'&'(%' +/%-;
8*.*10'%$20,6%/'0'8*0)'(*88*./2'*((1$0',.'
'51/'6'),%.)0'*&'4$*9%.'(*.0),)1),*.'01&&%$;
,.-'101'//2'&$*8')+%'%&&%()0'*&')+%'410%'*&
'/(*+*/'*$'&$*8'0*8%'5,0%'0%'*&')+%'/,7%$'*$
9,5.%20

. !:$*8'0,86/%'%$20,6%/'0')+%
6+/%-8*.*10'&*$8',0'5,0),.-1,0+%5'42')+%
-$%')'03% ,.-''.5'4$'3.2'+'$5.%00'42')+%
3'.)'*&''0+'$6/2'5%&,.%5'%5-%'.'.5'42')+%
%'$/2')%.5%.(2')*'0/*1-+,.-H&$*8'06$%',.-
-'.-$%.%'42',)0'0/*3%$'6$*-$%00''.5')+%
'40%.(%'*&')+%'$'6,5'5%(*86*0,),*.'.'.5'
5%7%/*68%.)'*&'-'0',.')+%'),001%0' (1)%
.%($*0,0'0*8%3+')'$%0%84/%0',)'41)' #

5,0%'0%',0'/,8,)%5')*'2*1.-'014>%()0')+%'
03%//,.-',0'/%00'4$'3.2''.5'3+%.'610'&*$80'
)+%$%',0'5,0),.()'&/1()1'),*.''.5'.*)')+%'4*--2'
&%%/,.-'*&'6+/%-8*.*10'%$20,6%/'0
'G' +%'6$*-.*0,0',0''/3'20'
-$'7%'%06%(,'//2',&')+%$%'4%'.2'5%/'2',.'
'5*6),.-')+%'6$*6%$')$%')8%.)' '$/2'&',/1$%'
&')+%'+%'$)0'&*$(%'%B(%00,7%/2'5$2').-1%'
5,'$$+*%'''.5'7*8,),.-'$%'4'5'0,-.0' +%'
-$'7,)2'*&')+%'('0%',.($%'0%0'5,$%()/2'3,)+')+%'
'$%''''&&%()%5
G +%'6'),%.)'810'4%'016;
6*$)%5'42'-**5'4%%&)%''8,/9''.5'%-0'.5'
0),81/'.)0'$%'101''//2'$%E1,$%5')*'4%'&$%%/2'
-,7%.' *' 5%6/%)*$2'8%'01$%0' '$%' %7%$'
>10),&,'4/%' 88*.,''3,)+'4'$9',0'0*8%),8%0'
*&'0%$7,(%' S ')+%')$%')8%.)',.'7%$2'
8,/5''.5'5*14)&1/('0%0'810)'(*.(,0,0)',.')+%'
'66/,(','),*.'*&'+*)'&*8%.)'),*.0''.5'%B)$'()'
&'4%//'5..'' 8'5%'..)*' '' 6',.)' 3,)+'.'
%E1'/'8*1.)'*&'-/2(%$,.%' 0'0**.''0')+%$%'
'$%'.2'0,-.0'*&')%.0,*.'&$%%',.(,0,*.0'810)'
4%'8'5%')*' $%/,%7%'.)' +%'0)$,()%0)'.),;
0%6),('6$%('1),*.0'0+*1/5'4%'5*6)%5',.'
8'9,.-')+%0%',.(,0,*.0'.'5'0*8%'%&&,(,%.)'
'.),0%6),('5$%00,.-''66+%5''&)%$3'$50'*)'
4*$,('(,5'&*8%.)'),*.0'&$%E1%.)/2'(+'.-%5'
*$'0+%%)0'*&'0'/,(2/,('3**/D8H'6%$'(%.)R'
8*,0)%.%5'3,)+'4*,/,.-'3')%$''.5''66/,%5'
/,9%''6*1/),(%'3,/'4%&*1.5'7%$2'10%&1/
' ,&, *0%' %//1/,),0'*$' %//1/'$'
$20,6%/'0G.',)+,0'5,0%'0%')+%' ,.&/'8;
8'),*.','0'(*.&,.%5')*')+%'014(1)'.%*10'(%/;
/1/,'$'),001%'*$'4%.%')+')+%'6/'.%0'*&'$%*/'$'),001%'
'8*.-0)'810(/%0'*$'4%.%')+'&'0(,'%' +%'
(*1$0%'*&')+%',.&/'88'),*.','0'0,8,/'$',.'
8'.2'$%06%()0'*')+')'*&'6+/%-8*.*10'%$2;
0,6%/'0')+%'*./2',86*$)'.)'5,&&%$.(%'4%,.-'
)+')')+%'09,.'$%8',.0'1.'&&%()%5'*$',0'*./2'
,86/,('%)%5',.')+%'/')%$'0)'-%0''0''''(*.0%=
E1%.(%'*&')+%'0/*1-+,.-'*&')+%'014(1)'.%*10'
),001%0
! '$' G +%'
'66%'$'.(%0'%$'0,8,/'$')*')+*0%'*&'
6+/%-8*.*10'%30,6%/'0
'#0 # G +%'/('/0,-.0'*&'5,&&10%'(%/;
/1/,),0'3+%.'*(*1$$8-',.')+%'014(1)'.%*&,0'
),001%'*$'4%.%')+')+%'016%$&,(,'/'&'0(,''$%
8'$9%5'(%5%8')*10'03%//,.-'-$'51'//2'4%;
(*8,.-'4$'3.2'0-+)'$%5.%00'*&')+%'0)*'
'.5' 01'//2'8*))/8-'&$*8'*7%$5,0)%.0,*.'
&')+%'016%$&,(,'/'7%,.0' +%$%',0'.'0+'$6'
/,8,)')*')+%'03%//,.-' +%$%' ,0' 8)%.0%'
)%.0,7%'*$'41$.,.-'6',.',.($%'0%5'42'8*7%;
8%.)' '.5' '(1)%')%.5%$.%00' *.'6$%001$%'
+%'.%,-+4*1$,.-'/286+'),(' -/'.50'$%'8'
8*0)'('0%0'03*//%.''.5')%.5%$' 0')+%'5,0;
%'0%''57'.(%0')+%03%//,.-'4%(*8%0'5*1-+2'
'.5'6*00,4/2'.',.5,0),.()'0%.0'),*.' &&/1(;
)1'),*.'8'2'4%&%/)' +%'09,.'.*3'4%(*8%0'
$%55%$' '.5')+%' -'.-$%.*10' ,.&/'88'),*.'
8'2'%7%.'%B)%.5')*',)'1./%00'6$%7%.)%5'42'
)$%')8%.)' .',.(,0,*.',.')+%'(%5%8')*10'
4'3.2'0)'-%8%$%/2'0+*30')+%'$%*/'$
06'(%0'5,0)%.5%5'3,)+'0%$18'0*8%),8%0'
(/%'$'8*$%'*&)%.')1$4,5'5')+%',.(,0,*.'4%

5%/'2%5'),/f # ' /')%$' 0)'-%0')+%' '&&%()%5'(%//1/'$'),001%' ,0' $%51(%5')*' ' 8 '00' *&'0+$%552'0/*1-+0' 0*'9%5' ,.' 610' $'0' 5*%0' . *)' &*$8'' 8 *. -0')+%0%' 0/*1-+0'),/f '&)%$' ',$' + '0' 4%%. '58.,))%5' &$*8' 3,)+*1)' .' 8,/5' ('0%0')+%' ,. &/' 8 8 '),*.' 8 '2' /*('/,0%' ,)0%/&' ' .5'/%' 5')*'+%' &*$8'),*.' *&' '' /'$-%' '40(%00' +%' (*.; 0),)1),*. '/' 02 8 6)* 8 0' $%' '/3 '20'-$'7%' +%')%8 6%$')1$%' ,0' +,-+' ! g')*' !Dg' +%$%' '$%')+%' 101'/' 02 8 6)* 8 0' *&'&%7%$H)+%')*. -1%' ,0' &*1/' .5' 06%%5,/2' 4%(* 8 %0' 5$2H 7* 8 ,). -' '.5'5,'$$+*%'' '$%' .*)'1.(* 8 8 *.H)+%' 61/0%' ')' &,$0)' E1,(9' .5' &1// 0**.' 4%(* 8 %0' &%%4/%' '.5'$'6,5' +%$%' ,0' '/8 *0)' '/3 '20'5%/,$,1 8 ' +%' 5,0%' 0%' 101'//2'$1.0' '' $'6,5' (*1$0%')3*'*$')+$%%' 5'20' 0* 8 %),8 %0' 4%,. -' 01&&,(.%.)' &*$' ,')*' $%'(+',)0' %B)$% 8 %' 0)'-%

,&&10%5' (%//1/,),0' '0' '4*7%' 5%0($,4%5' ,0' 8 *0)' &$%E1%.)/2')+%' $%01/)' *&' '' 6*,0*.%5'3*1.5H ,)' 8 '2')+%.' 0)'$)' &$*8')+%' 3*1.5'*$' 8 '9%',)0' '66%'$'.(%' ')' '' 5,0)'.)' 6'$)')' &*$8 0')+%' 8 *0)' &')'/' 7'$,%)2'*&' 3*1.5H ,)' 8 '2')+%.' 0)'$)' &$*8'

7'$2'&$*8' '' 4$,-+)'$*0%')*' '' 5'$9' 4/1%'$%5H ,)' 8'2' *$ 8'2' . *)' 4%' '((*86'.,%5'42'03%//; ,.-'9')+%' 66%'$'.(%' 8'2' 6$%0%.)' ,)0%/&' '0' 06*)0'%,$(180*$,4%5' *$'5,&&10%' *$' '0' 3+%'/0')' ,'0'0*8%),8%0' '))%.5%5' 42' '' 0%.0'),*.' *&' 0/,-+)' 41$.,.-' *$',)(+,.-' 41)'-%.%$'//2'-,7%0' $,0%)*' .*' 014>%(),7%'02806)*80' &)%$',)'+'0' 5,0'66%'$%5')+%'09,.',0' %,)+%$' .*$8'/' *$'%; 8',.0' 0/,-+)/2' 6,-8%.)%5' *$' 5%0E1'8')%0' %.%$'//2')+%$%',0' ' ',.($%'0%' &')%86%$';)1$%'3,)+' 0/,-+)' &%7%$,0+' 02806)*80' $2;)+%8'' 8'2'4%' %,)+%$' ' *$' # %) $+( ) 1+'4' *%+,.) 10W0S '('0(3) -' + 5 02 $2)+%8'' *((1$0',.' $'$%' ,.0)'.(%0' '&)%$')+%' '58,.,0)$')',.' *&' 5$1-0' '0%0' '$%' $%(*$5%5' '&)%$')+%' ,.-%0),*.' *&' '$0%.,('4%//'5*..'' (+/*$'/'+25$')%' (*6,4' '%14%40' 5,-,)'/,0' ,*5,5%0' *6,18' E1,..%' 0'/,(2/,(' '(,5' 0)$'8*.,18' 0)$2(+.,.%'6+%' .'C*.%' .'5'),.$6%.),.%' +%' $'0+' 101''//2' '66%'$0',8 8 %5,')%/2''&)%$')+%' '40*$6),*.' *&')+%' 8 %5,(,.%' ,.)*')+%' (,$(1/'),*.H '&)%$' '$0%.,(' ,)' '66%'$0')' '' /')%$' 6%$,*5' - ' o * B6*01$%')*'+%')'*$'(*/5' '.5'(*.)'(')'3,)+' 7'$,*10'($,5'*$6*,0*.*10'0140)'.(%0''$%'/0'*' (*88*.' ('10%0'*&'%$2)+%8'' $,(),*.' '.5' A,.')+%' '40%.(%'*&'(/%'./,.%00R')+%' 0%($%),*.0' *&')+%' 09,.',)0%/&'8'2'-,7%'$,0%')*',)''0'3+%.' # ' " 0',0'6$*51(%5'4%)3%%.')+%' 0($*)18'.'5')+,-+0'42')+%',$$,)'),*.'*&'6$*; &10%' 03%')' .5'0%4'(%*10'0%($%),*.0' +%' 4/10+'*&'0+'8%'*$'*&'.-%$',0' .'%$2)+%8'' 6$*51(%5'42')+%',8 8%5,')%' '(),*.' *&')+%' 7'0* 8*)*$'.%$7*10'020)%8 '$,*/'' (+*/%$'.%.)%$,(' &%7%$')26+10'0%6'),(0%8,'' $+%18')',(' &%7%$' .5'7'$,*10'*)+%$' /%00'5,0),.()/2'5%&,.%5'&%4$,/%' (*.5,),*.0' '$%' &$%E1%./)/2''((*86'.,%5'51$,.-'7'$,*10'0)'-%0' *&')+%,$' (*1$0%'42'' 8*$%' *$' /%00'-%.%$'//2' 5,&&10%5' .5'8*0)/2'%6+%8%$'/'&*$8' *&'%$2;)+%8' +%' %$2)+%8'')+')' '((*86'.,%0',.)%0),.'/'5,0)1$4; '.(%')%%)+,.-'' .5'7'$,*10'*)+%$'5,0*$5%$%5' (*.5,),*.0' *&')+%'020)%8',.' (+,/5$%.')0' '66%'$'.(%' 8'2' %B'()/2'0,81/')%')+')' *&' 8%'0/%0' *$' 0('$/'),.'H' 41)',)' 5,&&%$0'&$*8')+%0%',.' 5,0'66%'$,.-',.' /%00')+'.')3%.)2' &*1$'+*1$0'' .5',.' /%'7,.-'.*' 5%0E1'8'),*.' 4%+,.5',) +%' %$2)+%8'')+')' '((*86'.,%0'08'//6*B' ? ') / G'66%'$0'-%.%$'//2'*.')+%' 0%(*.5'5'2'*&')+%' 5,0%'0%'%,)+%$' '' 5,&&10%' $%5.%00'*&')+%' 3+*/%',.)%-18%.)'*$'0'4$,-+)' $%5'06*)0'3+,(+'' $%' 0%%.'&,$0)'*.')+%'&'(%'.5')+%.'*.')+%$'6')0'*&')+%'4*52')'/'0)0'&$*8')3%/7%')*')+,$)2 0,B'+*1$0'' .5' 5,0'66%'$0' 3+%.')+%'08'//6*B'%16),*.'4%-,.0')*' 0+*3' ,)0%/&' '06%(,'/'/,8,)%5'&*$8' *&'%$2)+%8'' +'0'4%%.' *40%$7%5' *.')+%' 0%(*.5' '.5')+,$5' 5'20'*&'08'//6*B'%B)%.5,..'&$*8')+%' +26*' -'0)$,8.'5*3.')+%'&$*.)' *&')+%'166%$')3*')+,$50'*&')+%')+,-+0H)+%' '&%()%5' 01$&'(% 3+%.')+%'/%-0'$%'(/*0%5'+'7,..-')+%'&*$8'*&' ')$,'.-/%')+%'4'0%'*&'3+,(+',0'('($*00')+% /*3%$'6'$)'*&')+%'*45*8%.' +,0'01$&'(%'$%; 8',.0'/8*0)'*$%.),$%/2'&$%%'&$*8')+%'7'$,*; /*10'610)1/%0''.5'8'.2'*&')+%'*'0%0',.'3+,(+' ,)',0'6$%0%.)'%.5'&')'//2 $*8')+%')+,$5')*')+%'%,-+)%%.)+'5'2''&)%$' 7'((,.'),*.'08' '*$' /'$-%' %$2)+%8')*'10' 6')(+%0G ') " G'$%' 0*8%),8%0' 0%%.'-%.%$'//2'*.')+%' '$80'41)'/0*'*.'*')+%$' 6'$)0'*&')+%'4*52' +%2'101''//2'5,0'66%'$' 3,)+,.')3%.)2&*1$'+*1$0''.5'/%'7%'.%,)+%$' 5%0E1'8'),*.'.*'&,6,-8%.)','),*.'*$6,-8%.)',* +%'&*$8' *&'%$2)+%8'' 8%.),*.%5' '4*7%' ('..*)'4%'(*.0,5%$%5'0'4%,.-',.')+%80%/7%0' 06%(,&,('7'$,%),%0'*&'5,0%'0%''.5'6')+*/*-,('//2' (*.0,0)',.'''%86*$'$2',.>%(),*.'*&')+%'('6,/; /'$2'4/**5 7%00%/0' &)+%' 09,.' +%2'$'%')*' 4%' 5,0),.-1,0+%5'&$*8')+%' %$2)+%8')'')+')' $1.''' 5,0),.()'(*1$0%')%$8,.'),.-',.'6,8%.')'),*.'.5'5%0E1'8'),*.''.5',.'3+,')+% Q('6,//'$2',.>%(),*.',0''((*86'.,%5'42'%B15');),*. 5,*6')+,(' $2)+%8' G' I # " P ? I ' &*$8'*&',5,*6')+,%' %$2;)+%8''0'8*0)'(*88*./2'0%%.',.'06$,.-''.5' '1)18.''.5',0'5,0),.-1,0+%5'42',0'/*('/,0',),*.')'4%-,.0'*.')+%' 4'(90'*&')+%'+'.50' '.5'&%%)''.5'&$%E1%.)/2',0'&*1.5',.')+%0% 0,)1'),*.0'*./2' .'0*8%' ('0%0',)' %B)%.50' 163'$50')*')+%'0+*1/5%$0''.5'+,60'.5','.' 7%$2'$'$%' (''0%0',0''/0*'&*1.5'*.')+%')$1.9 +%' '66%'$'.(%'(*.0,0)0',.'&/'))%.%5'6'; 61/%0'&$*8')+%0,C%*&''6%'')*')+)'*&''4%'.' *&''5'$9'4/,%'*$4$*3.$%5'(*/*1$' +%2' '$%01$$*1.5%5'*.')+%,$'&,$0)'66%'$'.(%'42' ''$%5'C*.%'3+,(+'0**.'5,0'66%'$0''.5')+% 4*$5%$*&')+%'6'61/%')+%.'0)'.50'*1)',.'&1//%$' $%/,%&' +%'$./5%0)'&*$8'*&'),0'5,0%'0%'(*.; 0,0)0',.'6'61/%0'3+,(+'5,0'66%'$'&)%$''&%3' 5'20G # ' 7%/' 7 ' .0)%'5'*&')+10'5,0'66%'$,.-',)'8'2' 06$%'5'*1)3'$50'&$*8')+%'%5-%''.5'&/'))%.' .5'4%(*8%'6'/%',.')+%'(%.)$%')+10'&*$8,.-' '$%5'$,.-')+%'(*.5,),*.'4%,..-'9.*3.''0' 7 # ' " ' K +,/%')+%'&,$0)'(,$(/%'6%$; 0,0)0''0%(*.5'$,.-'8'2'&*$8''$*1.5',)''.5')+%'(,$(/%0'8'2'4%'(*.0),)1)%5'42'08'//'6'; 61/%0'&*$8,.-')+%'(*.5,),*.'$%(*-.,0%5'0' # ' 7%/' .*)+%$' 0)'-%'8'24%'$%'(+%5' ')+%'%./'$-,.-'(,$(/%0' 8%%),.-''.5'0*'&*$8,.-'0%-8%.)0'*&''(,$(/%' (*.0),)1),.-')+%'&*$8'9.*3.''0' # ' 0 '7%/' 0 " ' .'(*.0%E1%.(%' *&',.($%'0%5'%B15'),*.'%$2)+%8''6'6,&,')18' 8'2'00188%')+%'06%()'*&''3+% '&*$8,.-' @ # ' '*$' # "' ' +,0'(*.5,),*.',0'))%.5%5'3,)+'(*.0,5%$'4/%' ,)(+,.-H'.5','(*.0%E1%.(%'*&'0($')(+,.-')+% (%.)$%'*&')+%'6'61/'$'3+%'/',0'*&)%.'(*7%$%5' 42''' 8,.1)%'4/**52'$10)' +%'%B15),*.' 8'2'4%'01&&,(%.)'*'-,7%')+%'%$16),*.')+% '06%()'*&'7%0,(/%0'*$'41 0%')+%'0*('//%5' 7 # ') '.5' # ' # ' *.(%.)$,(' (,$(/%0'*&'7%0,(/%0'6$*51(%')+% '66%'$'.(%'('//%5'#

)' ' . 2' *&')+%0%' 0)' -%0')+%' %$16),* .' 8 '2' 5,0'6:R%'$' +%' 0%E1%/'%' '$%' 0/,-+)' 6,- 8 %. ;) '),* .' ' .5' 5%0E1' 8 '),* .

+%' 5,0%'0%' 3+*0%' 5,&&%$%.)' 0)' -%0' +' 7%' $%(%,7%5')+%' 0%7%$' /' . ' 8 %0' '4*7%' , .5,(')%5 ' 4 '0' 4%%. '5%0,- . ')%5 ' "' ' ((*1.)' *&')+%' 7 '$,; *10' &*$8 0' 1.5%$' 3+,(+' ,)' ,0' 0%%. ' # ' (2 ' ')',0' ((*86' .,%5' 42' '' 0/,-+)' &%%/, . -' *&' 41$. ,. -' *$' 42' 7%$2' 0/,-+)',)(+,. -' .')+%' 8 '>*$,)2' *&' ('0%0' (* . ; 0),)1),* . ' /' 0286)*80' '$%' %,)+%$' '40%.)' *$' '$%' 0*' ,. 0,- .&,(' .)' '0' . *)')*' %B(,)%' ')) %.),. , * . '

+%$%' '$%'+*3%7%$' *' '0%0' , ' 3+,(+')+%' 0286;)*80' '$%' '0' 8 '$9%5' '0')+*0%' 3+,(+' 6$%(%5%' . 5' '((*86' . 2' . ' %$16),7%' &%7%$' +%' 6$*; 5$*8 '/ 0286)*80' '$%' 101' //2' 6' ,. ' , . ')+%' 4 '(9 ' +%'5' /,8 40' ' . 5' >*, .)0 ' 3,)+' -'0)$,(' 5,0)1$4' . (%' ' . 5' 0*8%),8 %0' '' (* . -%0)%5' (* . ; 5,),* . ' *&')+%')+$*')' ' . 5' &' 1(%0' . ' 0%7%$%' *'0%0')+%' 6$*5$*8 '/ 6%$,*5' +'0' 4%%. ' *4; 0%$7%5' 51$, . -' &*1$')*' 0,B' 5' 20H ' . 5' ' 8 *. -0)' *)+%$' 0286)*80' 0. %%C, . -' 4/%%5, . -' ')')+%' . *0%' /' $2. -,),0' 4$*. (+,),0' , .)%. 0%' 03%'), . -' 8 %.)' /' 5,0)1$4' . (%' ' . 5' &%7%$' +' 7%' 4%%. ' *4; 0%$7%5' /')+%0%' 0286)*80' 8 '2' 4%(*8%' --$' 7')%5' 51$, . -')+%' 6%$,*5' *&' %$16),* . ' . ' 3%// 8 '$9%5' ('0%0')+%' 5,0%'0%' 8 '2' /'0)' &$*8' ' ' &*$) . ,-+)')*' ' 8 *.)+' 41)' , . ' %B(%6),* . ' /' (,$(180)' . (%0')+%' 0286)*80' 8 '2' 4%' 6$*; /* . -%5' 42' &$%0+' *1)4$%' 90' *&' %$16),* . ' ,8 ; 1/)' . %*10/2' 3,)+')+%' %$16),* . ' * . ')+%' 09, . ' $%5' 06*)0' 8 '2' 66%'$' * . ')+%' 8 *1)+' . 5' 6+'$2. B' &,$*8' 3+,(+')+%' %6,)+%/,18' E1,(9/2' 5,0'66%'$0'/%'7, . -')+%' 6'$)0' $' 3' . 5' 6', . ; &1/' '0%0' '$%' $%(*$5%5', . ' 3+,(+' 0286)*80' *&' 0%7%$%' , .)%0), . '/' 5,0)1$4' . (%' 0+,7%$; , . -' +, -+' &%7%$' , .)%. 0%' , . &/' 8 8 '), * . ' . 5' 1/(%$'), * . ' *&')+%' 81(*10' 8%84$' . %' *&')+%')+$*')' 0%7%$%' 8%.)' /' 5%6$%00, * . ' ' . 5' ' 6', . &1/' (* . 5,), * . ' *&')+%' >*, .)0' +'7%' 4%%. ' 6$%0%.)

. '0*8%' *'0%0')+%' %$2)+%8 '', 0' 61. (), &*$8' ' . 5' 0*' 81(+' $%0%84/%0')+%' '66%'$' . (%' *&' 0('$/'), . '')+')' 1)+*$0' +'7%' 5%0($,4%5' ' . ' # ' / " ')' ,0' 5,0), . ; -1,0+%5' &,$*8' 0('$/'), . '' ')+%' '40%. (%' *$' 7%$2' 0+-+)' 5%-$%%' *&' &%7%$' +%' &'1(%0' '/)+*1-+' $%5' '$%' . *)' 03*//%. ' +%$%' ,0' . *' (+'$'()%$,0),(' 66%'$' . (%' *. ')+%')*. -1%H ' . 5')+%' 61/0%' ,0'))/%' '&&%()%5' +%$%' '$%' . *' 0%E1%/'%

%4$'' $%/')%0')+')' , . ' '' 3*8' . ' 3+*' 5,%5' 3+,/0)' ' . ' %$16),* . '*&' # '0 '3'0' *. ')+%' 09, . ' 0,8 ,/'B' $%5' $, . -0' 3%$%' &*1. 5' , . ')+%' 08' /' , .)%0), . %')' ,0' 8*0)' (*88*. ' , . ' '5*/%0(%. (%' ' . 5' ,0' 8*$%' &,$%E1%.)' , . ' 8 '/%0')+' . ' , . ' &%8 '/%0

' I # ' " G +,0' . '8%' ,0' -,7%. ')*' '' 5,0%'0%' (+'$' ()%$,0%5' 42')+%' '6; 6%'$' . (%' (+,%&/2' *. ')+%' 01$&' (%' *&')+%' /*3%$ %B)$%8,),%0' *&' 6'/%' $%5' +%8,06+%$,(' /' *$ *7'/' 03%/+. -0' +%0%' 7'$2' , . ' 0,C%' &$*8')+')' *&' '' 6%'') *')+')' *&' '' +%. ⊲' %- - ' ' . 5' '$%' 6', . &1/' *. ' 6$%001$%' %7%$' ,0' 0*8%),8%0' 6$%0%.)

+%' 03%//, . -0' '$%' ')' &,$0)' 6'/%' $%5' 3,)+' ' 2%//*3,0+'), . -%' /')%$' 5'$9' $%5' ' . 5' &, . '//2' /,7,5H '&)%$')+%2' 5,0'66%'$')+%2' /%'7%' 4%+, . 5')+%8' '' 2%//*3' 6, -8%.)'), *. ' 0,8,/'$')*')+')' 3+,(+' &*//*30' '' (*.)10,* . ' +%' . 184%$'*&' 03%//, . -0' 8 '2' 7'$2' &$*8' '' 7%$2' &%3' *. ')+%' /*3%$' %B)$%8,),%0')*' 01((%00,7%' ($*60' *. '5,&; &%$%.)' 6'$)0' *&')+%' /,840' . 5')$1. 9' . ')+%' /')))%$' ('0%')+%' &%7%$,0+' 0286)*80' '$%' 3%//' 8 '$9%5' +%' (*1$0%' *&')+%' 5,0%'0%' ,0' (*8; 6/%)%5', . '&$*8')3*')*' &*1$' 3%%90' +%' 03%//; , . -0' . %7%$' 01661$')%' . %7%$' ,)(+' '$%' '/3'20' 6', . &1/' . 5')+%' $%5. %00' . %7%$' 06$%'50')*')+%' '5>*, . , . -' 09, ' +,0' 7'$,%)2' (' . ' *((1$' , . ' (*84, . '), *. ' 3,)+')+%' 6$%7,*10/2' 5%0($,4%5' &*$80' *&' # '

$2)+%8 '' . *5*018' ,0' &*1. 5')*' 4%' 0*' &$%; E1%.)/2' '00*(,')%5' 7$,)+' 5%&, . ,)%' $+%18'), (' 0286)*80'01(+' '0' $)+$,),0'0*1$'03%')0'0*$%')+$*')' %. 5*('$5,),0' ' . 5' %7%. ' 82*('$5,),0')+')' ,)' ,+'2' 4%' (*. 0,5%$%5' 7%$2' 6$*4'4/%')+')')+%' '&&%(),*. ' ,0' '//,%5' 3,)+')+%' $+%8. '), (' 5,')+%0,0

'('0%'+'0' 4%%. '$%6*$)%5', . ' 3+,(+' 6+/%4,),0' /%'5, . -')*' %84*+08'+'0' (*86/,(')%5')+%' 5,0; %'0%

=,* *'$ G +%' ('10%' *&' %$2)+%8 '' . *5*; 018',0' . *)' 5%&, . ,)%/2' 9. *3. ' '/)+*1-+' '0' 3%' +'7%'$%8 '$9%5',)',0'&$%E1%.)/2' '00*(,')%5' 3,)+' $+%18'),08' *8%' 1)+*$0'&'7*1$')+%' 7,%3')+')' ,)' 8 '2' 4%(*. 0,5%$%5' '0' '') 26,('/' . ' -,*. %1$*0,=' 3+,/0)' *)+%$0' 4%/,%7%')+')' ,)' ,0' '/3'20' . ' . &%(),7%'(*. 0),)1),* . ' /' 5,0%'0%')' 8 '2' *((1$' ')' %7%$2' -%' 41)' -%. %$' //2' &$*8' %, -+)%%. ')*')+,$)2' . ' 5' 8*0)' &$%E1%.)/2' , . ' 3*8%. ')' *((1$0')' '//' 0%'0*. 0' . ' 5' 5%4,/,)2' 06$%5,06*0%0')*' '))' (90

! ' $' ' G +%' 8,($*; 0(*6,('/' 66%'$' . (%0' '$%')+*0%' *&' . ', . &/' 8 ; 8')*$2' +26%$0%8,' ' %1(*(2)%0' '$%' &*1. 5' '$*1. 5')+%' 4/**5 7%00%/0' ' . 5')+%$%' '$%' %B)$' ; 7'0'),*. 0' *&' $%5' (*$610(/%0' +%$%' ,0' '/0*' ' . ' %&&10,* . ' *&' 0%$18' 4%)3%%. ')+%' (%//0' *&')+%' %6,5%$8,0

G +%' 6$*-. *0,0' *&')+%' 06%(,'/ &*$80'*&%$2)+%8 'G ' " ' G,0' 101' //2'&'7*1$'4/%' 41)' ('0%0' '$%' $%6*$)%5' , . ' 3+,(+' 5%')+' +'0' 4%%. ' (' 10%5' 42' 7,0(%$'/ (*86/,(')*. 0')' ,0' '0018%5')+')' , . ')+%0% %B(%6),* . '/' ('0%0' 4*)+')+%' 09, . %$16),* . ' . 5')+%' 7,0(%$'/' /%0,* . 0' '$%' 6$*51(%5' 42' 0*8%' , . &%(),7%' 6*,0* . ' +*0%' 7'$,%),%0' 0%%. ' , . ')+%' (*1$0%' *&' *)+%$' 5,0%'0%0' 5*' . *)' 0' '' $1/%8 *5,&2')+%' 6$*- . *0,0' *&')+%' 6'$),(1/'$'5,0%'03+,(+' %'(+' ((*86' . ,%0

! G +%')$%')8%.)' *&' %$2)+%8 '' (* . 0,0)0', . '6'/+'), . -')+%'))%. 5' .)'02 86)*80' 10), . -' 3,)+' &/*1$' *$')+%' '66+%'), *. ' '%&' 06,$,) /*), *. ' 0+*1/5' 4%' %86/*2%5' 3+%. ' 6$*; 51(),7%' *&' '' 0%. 0%' *&' (*8&*$)')*')+%' 6'), %.)' . ' # ' " ' 3'$8' '66/,('), *. 0' *&' , . &10, *. ' *&' 6*66,%0' *$' (+' 8*8,/%' '$%' 0**)+; , . -'H 3+,/%' '6%$,%.)0' ' . 5' 3+%. ' &%7%$' ,0' 6$%0%.)' -%.)/%' 5,'6+*$%),(0' 8 '2' 4%' -,7%. ' , .)%$. ' //2' . ' 8 ' . 2' 01(+' ('0%0')*. ,(0' %0; 6%(,'//2' E1, . , . %' '$%' $%E1,$%5

C ')

#-' &')'/ ,// . %00%0' 8 '2' 0* 8 %), 8 %0' 4% $%/,%7%5' 42' '))%.),*. ')*')+%' 3 %, -+)' * &')+%' 4%5(/*)+%0' 3+,(+' ('. ' 4% (* . 7% . ,%.)/2' $%51(%5' 42' % 8 ; 6/*2, . -' '' 01,)' 4/%' $'5/% ' +%' '$$' . -% 8 %.)' *&')+%' 6/ *30' . 5' '))%.), *. ')*')+%' 6*0)1$%' *&')+%' 52, . -'6'), %.)' (* . 0)' .)/2')'B')+%' , . -%. 1,)2' . 5' $%0*1$(%' *&')+%' '))%. 5' .)0' +%')% 8 ; 6%$')1$%' . 5' 7% .),/'), *. ' *&')+%' 0,(9 $** 8' '$%' /0*' *&' -$%')', 8 6*$)' . (%' , . ')+, 0' $%06%()' (/*0%. %00' . 5' *7%$ +%'), . -' 4%, . -' C%' /*10/2' 6$%7%.)%5' ' 0' 3%/' 0' ($*35, . -' *&')+%' 0, (9 ' (+' 84%$' 3,)+' '. B, *10' &$, %. 50' +%' &%%)' . 5' /%-0' *1-+)')*' 4%' &$%E1%.)/2' %B' 8, . %5' '. 5' , &' (+, //%5')+%2' 0+*1/5' 4%' 3' $8%5' 42' '' ('$%&1//2' '66/, %5' &**) 3' $8%$' +%' 1. ; 6/%'0' .)' %&&%()0' *&' (*/5' 03%')0' 3, /' /0*' ('/' &*$'))%.), *. ' +%' ('&+%)%$' 3, /' $%8*7%' '. *)+%$' *&)%. ' *7%$/*9%5' ('10%' *&' , . E1, %)15%' G''5, 0)%. 5%5' 4/'55%$' 2')+%0%' . 5' 0, 8, /' $ 8%'01$%0' 3%' 8 '2' 4%' '4/%')*' (*1.)%$')' ()+%' ('10%' *$' ('10%0' *&' , . 0* 8 . , ' ' . 5')+10' 0%(1$%' &*$' *1$' 6'), %.)' '' &%3' 6$%(, *10' +*1$0' *&' 0/%%6

' , 0' *&)%. ' '' 8 *0)' 5, 0)$%00, . -' 02 8 6;)* 8 ')' 8 '2' 4%0)' 4%' $%+%7%5' 3,)+' , (%' *$' W3,)+')%'06** . &1/0' *&', (%5' 3 ')%$' *$' '(, 51/')%5' 1. 03%%)%. %5' (*/5' 4/' (9')%'' *$' (*&%%' 1)' , . ')+, 0' (* . . %B, *. '/%)',)' 4%' 1. 5%$0)**5')')' 3' 8 10)' 4%' ('$%&1/')*' '7*, 5')+%' 6*61/'$' 8, 0;)' 9%' *&' &*$(, . -' 5*3 . ' /, E1, 50' , . ' ('0%0' 3+%$%' /, &%' , 0' %7, 5%.)/2' &')0)' %44, . -' '3'2' 1(+' ' 6$'(), (%' . %(%00'$, /2' %8 4' $$'00%0' $%06, $'), *. ' ' . 5' 3%' +'7%' /, 9%3, 0%')*' $%8%84%$')+')')')+, 0'), 8 %')+%' ' ()' *&' 5%-/1),), *. ' 7%$2' *&)%. ' , 0' , . ' '4%2' . (%' %')+' , 0' *(('0, *. '//2' ((%/%; $')%5' 42' , . >15, (, *10' '))%8 6)0')*' $', 0%')+%' 6'), %.)' *6%. ' +, 0' 8 *1)+' ' . 5' '58, . , 0)%$' &**5

. ')+%' 8 '. '-%8%.)' *&')+%' 52, . -' 3%' +'7%' /3'20')*' (*.)%. 5' 3,)+' ' . ' %. &%%4/%5' 5, -%0;), *. ' +%' / ' , . ' 01(+' '0%0' 0+*1/5' 4%' *. %' 02' *&' '00, 8, /'), *. ')' . *)' , . &$%E1%.)/2' +'66%. 0')+')')+%' &**5' -, 7%. ' 8 '2' 4%' %B(%00, 7%' *$' 5%&, (%.)', . ' E1' .),)2' *$')+')',)' , 0' '58, . ; , 0)%$%5' ')' , $$%-1/'$', .)%$7'/0')+%$%42' ('10, . -' 8 1(+' 5, 0)$%00')*')+%' 6')%.)' 1((%00', . ')+, 0' 5, $%(), *. ' 5%6%. 50' 0*/%/2' *. ')+%')' ()' *&')+%' . 1$0%' +, /0)', . ' '(1)%' 5, 0%' 0%' . *)+, . -' (*. ; 51(%0' 8*$%')*' 01((%00')+' . ' 5%&, . ,)%' , . 0)$1(;), *. 0' '0')*')+%' ' 8 *1.)' ' . 5' 9, . 5' *&')+%' &**5')*' 4%' -, 7%. ' ' . 5')+%' +*1$0' &*$' ,)0' '58, . , 0;)$'), *. ' ,)' , 0' , 8 6*00, 4/%' . 5' , . '57, 0' 4/%')*' *40%$7%')+%0%' $, -, 5' $1/%0' , . ')+%' &%%5, . -'*&')+%' 52, . -

. ' (*. >, 8 (), *. ' 3,)+' . *1$, 0+8%.)' 3%' ('. ' *&)%. ' $%8*7%' 8 1(+' *&')+%' 01&&%$, . -' 42')+%' >15, (, *10' 0%/%(), *. ' ' . 5' '58, . , 0)$'), *. ' *&'

' &')+%' 6'), %.)', $%0' *&' *. %' &*$8' *&' 0), 8 1/'.)' ' . *)+%$' 0+*1/5' 4%')$, %5' 6$*7, 5%5' 3%' '$%' ('$%&1/')*' 10%' *. /2' 01(+' '0' '$%' %'0, /2' 5, -%0)%5' ' . 5' '00, 8, /')%5' ' . 5' -, 7%. ' , . ' 5, 7, 5%5' E1' .),), %0' ' (*84, . ';), *. ' *&' 4%%&)%' ' /, E1*$' 0)$2*+. , . 00' +25$*' (+/*$'), 0' ' . 5' 4$' . 52', 0' *&)%. '7%$2' ((%6)'4/%' %06%(, '//2' , . ' 4' 5' ('$5, ' (' ('0%0' . *)+%$' 0), 8 1/'.)' *&' %B)$%8%' 0%$7, (%', 0' %)+%$' 3+, (+

6'$), (1/'$/2' '//%7, ')%0' 6', . &=' '))' (90' *&' 06'08*5, (' 4$%')+, . -

'0, . '6, 08')*')+%' %6, -'0)$, 18', . ' (*. >1. (;), *. ' 3,)+')+%', .)%$. '/ 10%' *&' '/,))/%' %)+%$' . 5' 4$' . 52' 3, //&$%E1%.)/2' $%/, %7%')+')' 0*8%'.), 8 %0' 5, 0)$%00, . -' 02 8 6)*8 G=+, ((*1-+

, 0)$%00, . -' " ' " "' 8 10)' 4%' $%/, %7%5' 42')+%' %8 6/*28%.)' *&')1$6%.), . %' 0)16%0' . 5' 42' %8'))'' (*.)', . , . -' 0*8%'.), ' 06'08*5, (' ' * !

+%')$%')8%.)' *&' 5$*602' '45*8, . '/ 5, 0;)%. 0, *. ' 4%5 0*$%0' . 5' %B+'10), . -' 5, 0(+'$-%0' , 0' 5%'/)' 3,)+', . ')+%6)0' *&)+, 0' 3*$9 . ' '55,), *. ')*')+%' (*. 5,), *. 0' 3+, (+' (''/' &*$' %1)+' . '0, ' ',)' , 0' (/%'$')+')')+%' 0%7%$%' 5, %)%), (' $%0)$, (), *. 0' 3+, (+' 8 '2' +'7%' 4%%. ' %. &*$(%5', . ' '' ('0%' *&' $, -+)<0' 5, 0%'0%' 5, '; 4%)%0' ^(' *1-+)')*' 4% $%(*. 0, 5%$%5' . 5' $%; 8*7%5' 3+%. ' ,)' 4%(*8%0' '66'$%.)')+')')+%' 6'), %.)<0' (*. 5,), *. ' , 0' '40*/1)%/2' +*6%/%00' +%' 3, 0+%0' . 5' 01--%0), *. 0' *&')+%' 6'), %.)' 8'2' -%. %$'//2' 4%' (E1, %0(%5', . ' . 5') +%2' 7$, //6$*7%' '' 10%&1/ -1, 5%')*')+%' 6$'(), *. %$' 0')*')+%' /, . %' *&' (), *. ')*' 61$01%')' , 0' *&)%. ')+%' W3, 0%0)' (*1$0%')*' +18*1$'($'7, . -0' %%8, . -' %B)$'7'-'. (%0' 0')*' 5, %)', &' 6%$0, 0;)%.)/2' '09%5' &*$'+'5' 4%))%$' 4%' -$'.)%5' %06%; (, ''//2' 3+%. ' 9, . 5' . 5-%.)/%' 6%$01' 0, *. ' +'0' &', /%5')6' -%)')+%' 6'), %.)')*' 3', 7%' +, 0' 5%0, $%&*$)+%8

. ' '55,), *. ')*')+%' 8%'. 0' '/$%'52' 8%. ;), *. %5' ,)' . %%5' +'$5/2' 4%' 0', 5')+')' 3%' 0), //+'7%' '/')+'0%' 8%'01$%0' 3+, (+' 8 '2' 4%' 018 8%5' 16', . ')+%' %B6$%00, *. ' 06%$&%()' . 1$0; , - 3+, (+', 86/, %0' ('$$2, . -' *1)' 8 ' . 2' 5%;)', /0' '0' 3%/' '0' %B%$(, 0, . -' 02 8 6')+2' . 5')' ()' G'' . 1$0%' . *)' *7%, 5$, %5' ' 8 %$%' 1)*8 ';)*. ')+, . 90')*' 81(+' *&' +%$' 01, &*$8' ' . 5' *&' +%$' 0 51)2 = $

, ,) ' ' %8 6)2R G' 6 ' ' $' OD) " H %$' & " '

& # G %5, (, . %0' 10%5')*' 6$*51(%0*8%' %7'(1'), *. ' &$*8')+%' 4*52

* %! G +%' (+, %&' %7'(1'.)0' '$%')%$. 1)')*$, %0' B6%()*$' .)0' , '/'-*-1%0' 8%), (0' +*, '-*-1%0' 1$-'), 7%0' , '6+*; $%), (0'' . 5' , 1$%), (0' ')+%'0%7%$'/'$), (/%0' 16*. ')+%0%' 014>%()0

' , . ' '7*2' $'. (% G /9'/, . %' 3')%$0' ' $' 1

Y U ' W (# ' ''--$'; 7')%R G . ($%'0%', . ')+%' 0%7%$,)2' *&')+%' 02 8 6; $* '$-''5, 0%'0%' '&)' 1$'), *. '$-

Y H' Y ; ' AN: ' *1)H' . 5')$ ' ' 4/*00*8H' /4E' I (# ' ( )' & # 0

& # G ' $'0+' *$' %$16), *. ' *. ')+%09, . ' ''))%. 5, . -' '' 06%(, &, (' &%7%$' +%' 06%(, &, (' &%7%$0' '))%. 5%5' 42' $'0+' +, 0')%$8' *. (%' 5%; . *), . -' ' . 2' (1)' . %*10' %$16), *. ' , 0' . *3' $%; 0)$, ()%5')*')+%' %$16), 7%' &%7%$0' ('//%5')+%' (7

" # +%' &%4$, /%' $'0+%0' *$' %B' .)+%8 0

D"? Y

& /('/ *$,.5,7,51'/ *$,-,.'G'1$),('$,'' %$2)+%8'' '.5 $*0%*/'G'$% .*) ,.(/15%5 3,)+)+%)$1% %B'.)+%8')''3+,(+''$% '(1)% 06%(,&,(',.&(),*10 5,0%'0%0'.'8%/2' 26+10' '$,*/''' '$,(%//'' *$4 ,' 1+%//'' %.-1%' ('$/%) %7%$' 26+*,5' *$.)%$,(' %7%$' '.5'6%$+'60 $20,6%/'0' 0)+%/%'5,.-'&%';)1$%0*&)+%0%'5,0%'0%0'3,//+% 5,0(100%5'1.5%$)+%,$ 0%7%$'/ +%'50',),0 *./2'.%(%00'$2&1$;)+%$)+*.*),(% (%$)','/%00'5%&,.%5''.5'$%-1/'$ %$16),*.0'00*(,')%5'3,)+'&%7%$ //)+% %)%.5%5 3,)+' &%7%$ '.5 %./'$-%8%.) *&)+% /2286+'),(-/'.50' *.71/0,*.0 ,' (+,/5$%.'8'2'*((1$ 3,)+)+% &,$0)'&%7%$H,.'0*8%*&)+% 5,0%'0%0' 4%&*$%)+% $'0+'66%'$0 # G +% 81/4%$$2'$'0+'66%'$0 015; 5%./2**.')+% &*1$)+'.5 &,&)+'5'20 *&, .%00'0 '' 51// $%5 8*))/,.-'*&,$$%-1/'$' 6%$0,0;)%.)'.*. %/%7')%5'06*)0H)+% &%7%$',0'+,-+''))+% (*88%.(%8%.)''.5'(*.),.1%0)* 4% 0* '&)%$')+% $'0+'/66%'$0 # G .')26+*,5'*$%.)%$,(&%7%$')+% 08'//'$',0%5'$*0% 06*)0'5* .*)'66%'$'),//)+% 0%(*.5'3%%9'*& &%7%$H 06'$0%/2'0(''))%$%5'*.')+%')$1.9')+%2&'5%*.'6$%001$%'5,0'66%'$,.- ,.')+$%% *$&*1$'5'20'3+,/%'.%3'06*)0'$,0% (G '$9%5' &%7%$ *&0155%.' ,.; -$%00'*((1$0')3*'5'20'4%&*$%)+%'$',0%5'%$16;),*.' *8%),8%0' '' $*0% $'0+'&,$0)' '66%'$0' 41)')+% 0%7%$% 0286)*80' 4%-,.'' &1/'5'2' 4%&*$%)+%0' .'5' .*)' 8*$%')+'.')3*'5'20' 4%&*$%)+%' (+'$'()%$,0),(06*)0' +%' (%$7,('/ -/'.50' $%'%./'$-%5 8 G +%' %$16),*.' 4%-,.0' *.')+%' &,$0)'5'2'*&,//.%00'3,)+'0/,-+)'&%7%$',.($%'0; ,.-'0'&$%0+'06*)0' '66%'$' +%' &%7%$'8'2'4% +,-+'.5'(*8%' *.'0155%./2'41)'%./'$-%5' (%$7,('/ -/'.50' '.5' 06*)0' 0*8%3+%$%' '$% '/3'20')*'4%' &*1.5'')')+%'0'8%'),8% G +$%%'5'20'*& &%7%$'.5'(')'$$+' 3,)+'6'/6'4/%'./'$-%8%.)' *&')+%'(%$7,('/ -/'.50'6$%(%5%)+%'$'0+H)+%$%' ,0')+%.'015; 5%.',.($%'0%' *& &%7%$' 0140,5,.-'3+,/%')+% $'0+',0'')',)0'+%,-+) $ # g'$ # "' / #'G' +% $'0+' '66%'$0'3,)+,.''&%3'+*1$0' *&')+%'&,$0)' &%%/,.-' *&', .%00'3+,(+',0'0/,-+)'.5'0**.' *7%$' +%' $'0+',0' ')' &,$0)' 06*))%5'$')+%$')+'.'&,.%/2'5,&&10%5' 2')+%',8%',)',0'&1//2' *1)')+%' &%7%$'+'0'0140,5%5'41)')+%'%./'$-%5' (%$7,('/ -/'.50'3+,(+' 8'$9%5')+%',.-$%00' '/3'20'$%8','.')*',.5,(')%''06%(,&,(' 5,0%'0%' ,.%'5%0E1'8'),*.'$'$%/2'&*//*30''.5')+%$%' ,0'.*'/418,.1$,'' 14%//''06$%'50'42'5,$%()' ,.&%(),*.')+%',.(14'),*.'4%,.-'&$*8')3*')*')+$%%'3%%90' +,0'/*.-'6%$,*5'*&',.(14'),*.' ('10%0')+%'0*1$(%'*&',.&%(),*.')*'4%=!*&)%.' *7%$/**9%5''.5'%7%.')+%'6*00,4,/,)2'*&',)')*' 4%'5%..%5' +%.'('$$,%5')*''&'8,/2'*$0(+**/ %,)+%$''.'1..%(%00'$2'/'$8'*&8%'0/%0',0' $',0%5H*$'(*.)'-,*.',0'5%..%5''.5')+%'.%B)' 01&&%$%$0' '$%'0','5')*'+'7%'' $*0%$'0+'&$*8' +%')'*$'&$*8',$$,)'),*.'*&')+%'0)*8'(+ C "0 'G' ,5%/2' 06$%'5',.' &$,('')+%' 3'$8%$'6'$)0'*&' 8%$,('''.5'4*)+')+%' .5,%0 5%.-1%' 8'2'6*00,4/2'4%'/,8,)%5')*'+*)'(/,; 8')%0'H,)0'6$%0%.(%'3,)+'10',0''0'2%)'1.5%)%$; 8,.%5' +%'$'0+',0''),&,$0)'5,0($%)%'/,9%')+')' *&'8%'0/%0'41)'&* *30'0**.'&)%$',.&%(),*.H '.5')+%'5,0%'0%',.'),0'-%.%$'/'(*1$0%',0''//,%5')*',.&/1%.C' '.) G +%&,.%/2'5,&&10%5'$%5.%00' ,0'&*1.5'*.')+%'09,.''.5',.')+%'8*1)+''.5')+$*')'*&)%.'3,)+,.''&%3'+*1$0'*&')+%'0155%.' ,.-$%00'*&&%7%$' +%'&%7%$',.($%'0%0'7$,)+')+%' 5%7%/*68%.)'*&')+%'$'0+'4*)+'6%$0,0),.-'&*$ 0%7%$'/'5'20' &)%.')+%')+$*')',0'&,$0)'(*8; 6/',.%5'*&H)+%'-/'.50')')+%''.-/%'*&')+%'>'3' '$%'&1/'.5')%.5%$H)+%')*.-1%'6$%0%.)0' 6$*8,.%.)'$%5'6'6,//'%6$*>%(),.-')+$*1-+')+%'3+,)%'&1$'+%'09,.',0'.*)'03*//%.''0' ,.'%$20,6%/'0'.*$')+%'$%5.%00'0*'(,$%,,8' 0($>4%5H)+%')+$*')'/0*',0'$%55%$H)+%'(%$7,('/ -/'.50'$%'%./'$-%5',.'4*)+'1$-,('/0('$; /'),.'',0'*&)%.'5%(/'$%5')+$%%'*$&*1$'5'20' '&)%$'*6%$'),*.0H)+%'$'0+'*&'0%6),('%8,''')' ''/')%$'6%$,*5 I '$ G +,0',0''.'8%'&*$ $*)+%/.H'/0*'&*$''$'0+'+'7,.-'01(+'$%/'),*.')*'0('$/%)'&%7%$'0'$14%//'')*'8%'0/%0'41)'3,)+' 0/%.5%$'(/',8')*'1)*.*82' ,/5'('0%0'*& 0('$/%)'&%7%$'*&)%.'4%-,.'3,)+''&,.%/2'5,&&10%5' $%5.%00'0+*$)/2'+&)%$'0*8%'&%%/,.-'*&'&,.).%00' *$'-,55,.%00''.5'.',.(14'),*.''*&'&$*8')+$%%' 5'20')*''3%%9H0*8%),8%0'/418,.1$,''*((1$0' '0'.'%'$/2'02886)*8' +%'&,.%/2'5,&&10%5'$'0+' %./'$-%5'(%$7,('/-/'.50''.5'0/,-+)'0*$%)+$*')' %7%.'705)+'7%$2'/,))/%'%/%7'),*.''*&'%86$%')1$%' $',0%)+%'0106,(,*.'*&'0('$/%)'&%7%$H0+*1/5' '/48.,.1$,''&* *3'*$'.'2'0+$%552'5%0E1'; 8'),*.''*&)+%'+'.50'.5'&%%)'.*'1.(%$)',.)2' $%8',.0' (')*'&%7%$'0* 8*5,&,%5'*&)%.' 06$%'50'.5'-,7%0'$,0%')*')+%'0%7%$%$'&*$80'*&)+%'5,0%'0%'3+%.'),'+'0'4%%.'('//%5'*./2'$*0%' $'0+'*$*$*0%*/'H)+%'10%'*&)+%0%')%$80'3,)+; *1)''5,0),.(),7%'E1'/,&,(','),*.''/3'20'/%'7%0' ''5*14)'0')*')+%'(*86/%)%.%00'.5'0'&%)2'*&)+%'5,'-.*0,0 I # G= $2)+%8''(*80'.%'$%0)')*')+%0%'('0%0',.''66%'$'.(%G0*'.%'$''0'*&)%.')*'4%'06*9%.'*&'0'$%(1$$%.)'0('$/%)'&%7%$'*$ %$20,6%/'0'41)')+%$%',0'.*'%./'$-%8%.)'*&')+% (%$7,('/-/'.50',.'%$2)+%8''.5'0*'/),))/% &%7%$')+')')+%')%86%$')1$%'*&')+%'$%55%.%5' 09,.',0'4'$%/2'%/%7')%5''4*7%')+%'.*$8'/' ,.(%'1//%$<0I(# 0')+,0'9,.5' *&'&/10+'6'00%0'1.5%$'5,&&%$%.)'.'8%0'*& $*0%*/''((*$5,.')*')+%'7'$,'),*.0'.0'*&')+%'2%'$' ')'3+,(+')+%2'*((1$ I # '" ? #'5,0%'0%',0'*&)%.' 6$%(%5%5'42'0/,-+)'&%7%$'&*$''5'2'*$')3*' 3+,(+'8'2'$%'(+'!@g'41)'0140,5%0'0')+% $%5'03%//,.-0'66%'$' *('//2')+%$%',0'/,))/%' *$'.*'%/%7'),*.''*&)%86%$')1$%'%7%.'3+%.')+%')%.5%$'6'$)'&%%/0'+*) I(" # '$ G +,0''&&%(),*.' *((1$$,..-',.')+%'(*1$0%'*&'*)+%$'06%(,&,('5,0; %'0%0',0'5,0),.-1,0+%5'&$*8')+%'$*0%*/''3+,(+ 5%6%.5,0'*.'.%$7%,$$,)'),*.'01(+'0')+')'&$*8' '($,5',.-%0)''42')+%'6$%0%.(%',)+%$'*&'+,-+

&%7%$'*$*&'-/'.51/'$'%./'$-%8%.)'*$*&'4*)+'
'0'3+%.',)'6$%(%5%0')+%')$1%'7'$,*/*10'%$16;
),*.'1$,.-'%.)%$,('&%7%$')+,0'&*$8'*&'$*0%*/''
8'2'*((1$'E1,)%',.5%6%.5%.)/2'*&')+%'06%(,'/
/%.),(1/'$'$*0%06*)0
.'%$16),*.'*&')+,0'9,.5',0'.*)',.&$%E1%.)'
,.')+%%'$/2'0)'-%0'*&'5,6+)+%$,''0'8%),8%0''0
''5,,&10%5'$'0+'/,8,)%5')*'(%$)',.'6')$0'*&')+%
(+%0)''.5'4*52'*$''0'5,0($%)%'06*)0'*.')+%
/,840'.'.5'4'(9'*&')+%'+'.50''.5'&%%)'.;
&/1%.C''.5'0*8%'&*$80'*&'('))'$$+'3,.)%$
≟(*/50ᵏ*$'0188%$'5,'$$+*%*''0'.*),(%5'42'
')%8'.'8'2'6$%0%.)'7'$,*10'9,.50'*&$*0%*/''
*.')+%'4'(9'0+*1/5%$0''.5'(+%0)ℍ)+%'(%$;
7,('/-/'.50'$%'6$%(%6),4/2'%./'$-%5')+*1-+'
)+%$%'8'2'4%/,))/%'&%7%$'.')+%0%'('0%0',)'
,0'.*)')+%'$*0%*/''41)')+%'06%(,&/%'5,0%'0%'*.'
3+,(+',)'5%6%.50')+')'8,-+)'3,)+*1)'6$%;
('1),*.0'4%'(*881.,(')%5')*'*)+%$0
#'O\'QG'06%(,'/$*0%*/''
8'$90')+%'0%(*.5'$2'0)'-%'*&026+,/,0ℍ,.''6;
6%'$'.(%',)'$%0%84/%0')+%'$'0+'*&'8%'0/%0'
'5%0')+%'#'"0'3+%.'6$*51(%5'
42'(14%40'41)'+,0'+'0'.%,)+%$'&%7%$'.*$
-/'.51/'$'%./'$-%8%.)
+%''40%.(%'*&'&%7%$'&$*8')+%'$*0%*/''&)%$
7'((,.'),*.'$%&%$0')+,0'&*$8'*&'%$16),*.'/,9%'
)+')'*((1$$,.-'&$*8'5%.),),*.')*')+%'(/'00'*&
$'0+%0'&$*8'.%$7%,$$,)'),*+'8'',0'
ℍ,)0%/&'.'%B'.)+%8',.')+%'3,5%$'5%&,.,),*.'*&'
)+%')%$8'$%6$*51(%5''&)%$''5%&,.,)%'6%$,*5'
Wᵏ&',.(14'),*.'42',.*(1/'),.-''06%(,'/(*.'
)'-,18'.'),.-')+,0'(+'$'()%$')+%'5,&&%$%.)'
&*$80'*&'+%$6%0'$%'%B(/15%5'1./%00'$%01/),.-'
Q&$*8''-%.%$'/&%4$,/%'5,0)1$4'.(%ℍ)+*1-+'
,.**1/'4/%'%()+28''.5',86%),-*'$%'/*('/
'&&%(),*.0'.*)'4%/*.-,.-')*')+%'%B'.)+%8')'
1$$!'
I&35!'('%B(,)%R'G)'
0%%80'+'$5/2'.%(%00'$2')*'-,7%'.'2'06%(,'/
(*.0,5%$'),*.')*')+,0')+%$'6%1),('/(/'00''0'
''/')+')'8'2'4%'0',5'*.')+%'014>%()'$'.-%0',);
0%/&'3,)+'-$%')%$'6$*6$,%)2'1.5%$')+%'+%'5,.-'
/'),81/'),*.',0','&'()''''5%;
-$%%'*&'%B(,)%8%.)ℍ''.5',)',0'*./2'3+%.',)0'
%&&&%()0''$%'8*$%'7,-*$*10/2'610+%5')+')'3%'
4)',.')+')',.%4$,'),*.'*$%B+,/'$'),.'3+,(+'
,0'0*'(*88*./2'*40%$7%$')*'&*//*3')+%'10%'*&'
'/(*+*/''%)+%$'.'.5')+%'.'%0)+%,('7'6*1$0
'''!%$!
'U/$
I&52'&3"!!*M%%'
ᵏ'10%0'*&
I&+'!!]]
'2*'+
I&3 5'A%'&$*8ℍ'.5(*88'
)+%'09,.RG+%'016%$&,(,'/5%0)$1(),*.'*&''
6*$),*.'*&')+%'09,.'*$'81(*10'8%84$'.%
I&!'G'&#'G'.',)0'
3,5%0)'.'5'8*0)'(*$%()'0,-.,&,(',),*.'%B%$(,0%'
,0')+%'0%)),.-',.'8*),*.'.''.2''(),7%'4*52ℍ'.5'
3+%.')+%')%$8',0'10%5',.''6+20,*/*-,('/
'(*..%(),*.',)'8'2'$%&%$')*')+%'&1.(),*.'/

'(),7,)2'*&'.'.2'*&')+%'*$-'.0'3+%)+%$'
810(1/'$'.%$7*10'.1)$,),7%'0%($%)*$2'*$
$%6$*51(),7%'.')+,0'7%$2'(*86$%+%.0,7%'
0%.0%')+%'014>%()'*&'%B%$(,0%',.(/150'''/'$-%'
6*$),*.'4*)+'*&'+2-,%.%''.5'*&')+%$'6%1),(0'
+%'6*61/'$'0,-.,&,(''),*.'*&'%B%$(,0%',0'+*3;
%7%$'81(+'8*$%'/,8,)%5')+'.')+%'6$%(%5,.-'
+'7,.-'$%&%$%.(%*./2')*')+%'.80/%05,$%()/2'
'.5')*')+%'6')0'(''//%5',.)*'6/'2')+$*1-+')+%'
0'8%G%06%(,'//2')+%'(,$(1/')*$2'.5'$%06,$';
)*$20)0)+8 0
+%)+%$',.',)0'3,5%$'*$',.',)0'.'$$*3%$'
0%.0%'%B%$(,0%'+'0'0%7%$'/,86*$).')'$%/';
),*.0')*'%5,(,.%''')',0'%00%.),'/')*')+%'
6$%0%$7'),*.'*&'+%'/)+'‘$'/'
@')'+'0')*'4%'$%-'$5%5'0'&$%E1%./2'00*;
(,')%5'3,)+'+%'('10'),*.'*&'5,0%'0%'A0%%
-'10%0'*&R'9'B%$(,0%',0''8*0)'
$'),*.'/'.5'01((%00&1/'8%'.0'*&')$%')8%.)'
,.'(%$)','.'5,0*$5%$0'.5'5,0%'0%0'7
#'+%$'6%1),('/0%0'*&R';'B%$(,0%'
,0'*&)%.'410%5ℍ'.5'%B(%00,7%',.51/-%.(%'
,.'0*8%'&*$80'*&',)'-,7%0'$,0%')*'0%$,*10'(*.;
0%E1%.(%0'+%'6$%0%.)'$),(/%'3,//'4%'5%;
7*)%5')*')+%'(*.0,5%$'),*.'*&'%B%$(,0%',.')+%
/'0).'8%5'06%()'*.'/2ℍ'.5')+%'014>%()'3,//'
4%'5,0(100%5'((*$5,.-')*')+%'8*$%/,8,)%5'
'.5'6*61/'$'5%&,.,),*.'*&')%$8
410%'*&'B%$(,0%G$*8')+%'8*;
8%.)''.',.&'.)',0'4*81.),/')+%'%.5'*&'+&%'
%B%$(,0%'51/2''66*$),*.%')*'%0')',0')+%'.*$;
8'/0)')%'*&%B,0)%.(%ℍ'.5'3+,/0)'(+'.),1%5'
7%$0)$',.'&''.'26*$),*.'*&')+%'+18'.'8';
(+,.%',0')+%'&*$%$1..%$'*&'5,0%'0%'0*'*.')+%'
)+%$'+'.5',0'%E1'//2',&'.*)'8*$%'0')+')'
3'.)'*&'%B%$(,0%'3+,(+',.51(%0'3'0),.-''.5'
5%-%.%$'),*.
$o``+%'/')%'$'$9%0'+,0
6'$0"'+'0'-,7%.''7%$2'(*8;
6/%)%'0)')%8%.)'*&')+%'$%01/)0'*&')+%',.7%0;
),-'),*.0'*&+,80%/&'.5'*)+%$0'*.')+%/+'.-%0'
%&&%()%5'42')+%'0),81/1'*&'810(1/'%B%$(,0%'
.')+%'7',,1'$-'.0'.5'),001%0'*&')+%'4*52'
&$*8'3+,(+'+%'+'0'5$'3.')+%'&*'3,.-'(*.'
%/10,*.0
0+%'8',.'%&&%()'*&'%B%$(,0%',0')*',.($%'0%'
)+%'*B,5'),*.'*&'('$4*.'6%$+'60''/0*'*&'+2;
5$*-%.'')'/0*'%/,8,.')%0'3')%$'&$*8')+%'
4*52'.'.5')+,0'(),*.'(*.),.1%0G'0'0%%.'&$*8'
%))%.9*&%$'.5'*,)0'%B6%$,8%.)0'G'&*$
0*8%'),8%ℍ'&)%$'%B%$(,0%')+%'4*52',0')+%$%;
&*$%'6**$%$',.'3')%$'%06%(,'//2'*&')+%'4/**5ℍ
,)',.($%'0%0')+%'$'6,5,)2'*&'(,$(1/'),*.'%7%$2;
3+%$%'0'3%'0')+%'6$%001$%'*.')+%'7%00%/0'
'.5')+%$%&*$%',)'('10%0',.''//'*$-'.0''8*$%
$'6,5'*1)&/*3'*&'6/'08''.5''8*$%'(),7%'
'40*$6),*.G,.'*)+%$'3*$50''E1,(9%$'%;
.%3'/
0.')+,0'3'2''/0*',)'$%8*7%0')+%'6$E51()'
*&')+%,$''(),*.'3+,(+''((181/')%0',.'*$-'.0'
'.5'$%0)*$%0')+%'6*3%$'*&''(),*.')*')+%'7'$,;
*10'6'$)0'*&')+%'4*52'')',.($%'0%0')+%'*1);
&/*3'*&'3'$8)+'&$*8')+%'4*52'42',.($%'0,.-'
6%$06,$'),*.''))+%$%&*$%'0)$%.-)+%.0''//
6'$)0')'810'4%(*84,.%5'3,)+',.($%'0%5'
0166/2'4*)+'*&'.,)$*-%.''.5'%'$45.'A)+%

/'))%$' 6*00,4/2' ,. ') +%' &*$ 8' *&' &')R' *) +%$ 3 ,0%') +%' '40*$6),*.' *&' *B2 -%. ')+%' 8 *⁄%(1/'$' (+' . -%0' ,. ') +%' . ,)$*-%. *10'),001%0' ' .5') +%' %⁄, 8 , . '), *. ' *&' ('$4*. ' 3 ,/f 4%' (+%(9%5' +%$%' 8 10)' '/0*' 4%' . ' , . ($%'0%5' 0166/2' *&' 0 ')0 ' (%$) ', ./2' *&' (+/*$,5%' *&' 0*5,1 8 ' 6$*4 '4/2' *&' 6*)'00,1 8 ' 6+*06+')%' . 5' (+/*$,5%' +%$%' 8 10)' 4%' 6$*6%$' , .)%$7 '/0' *&' $%0) ' *$') +%' 0)*$%' *&' *B2 -%. ' . 5' *&') +%' 8 ') %$, ' f , . ') +%' 8 10; (/%0' 3 +, (+' ,0') *' 4%' 8 %) ' 8 *$6+*0%5' 51$, . ' (*.) $' (), *. ' ('. . *)') '9%' 6/' (%' +%', .) %-$,) 2' ' . 5' 6%$&%()' &$%%5*8' *&' '(), *. ' 4*)+' *&') +%' +%'$)' . 5' $8-0', 0' %00%.), ' / ' *) +%$ 3 , 0%' . %,) +%$' '40*$6), *. ' *&' *B2-%. ' . *$' %/, 8 , . '), *. ' *&' (' $; 4*. '(' . '-*' *. ' . *$' (' . ') +%' . %(%00' $2', . ($%' 0%5' 0166/2' *&' 4/**5' 4%' (*. 7%2%5') *') +%' '(), . -' 8 10 (/%0' 3 +, (+' ,0') *' 4%' 8 %) ' 8 *$6+*0%5' 51$, . ' (*.) $' (), *. ' ('. . *)') '9%' 6/' (%' +%', .) %-$,) 2' ' . 5' 6%$&%()' &$%%5*8' *&' '(), *. ' 4*)+' *&') +%' +%'$)' . 5' $8-0', 0' %00%.), ' / ' *) +%$ 3 , 0%' . %,) +%$' '40*$6), *. ' *&' *B2-%. ' . *$' %/, 8 , . '), *. ' *&' ('$

' . 2'6$% 8,. '$2')$', , , . - ' ' . 5')+10')+$*3'01(+' ' .'1 . %B6%()%5'0)$', . ' * . ')+%' +%' $)$' . 5' -$%')' 4/**5 7%00%/0')+ ')' , . 0)%' 5' *&' 8 %$%' &1 . (),* . '/ 5,0)1$4' . (%' '0' , . ' %' $/2' /,&%')+%2' 0*3')+%' 0%%50' *&' *$-' . ,(' 5,0%' 0%' 1(+' 4%, . -')+%' ('0%' +*3' . ,1(+' 8 *$%' ,B-1$,*10' 8 10)' 0155%. ' *7%$0)$', . ' 4%')*' '' +%' $)' /$%' 52' 3%' 9%. %5' 42' 5,0%' 0%']' +%$%' ,0' *&)%. ' &*1. 5' ' 8 *. -0)' 8%. ' '' -$%')' ' 7%$0,*. ')*' + ' 7, . -')+%,$' +%' $)0' %B' 8, . %5' ' . 5' 3+%. ' 5,0%' 0%' ,0' 5,0(*7%$%5',)' ,0' 0* 8%), 8 %0' (* . 0,5%$%5' *&' E1%0),*. ' 4/%' '5 ' 7' .)' -%')*' , . &*$ 8')+%' 01&&%$%$' *&' +,0' (*. ; 5,),*. '41)')+,0',0' '' 8,0)'9%' &*$' &$*8' 3' .)' *&' 9 . *3/%5-%' *&' +,0' 0)')%' +%' 8 '2' 42' 1. ; . %(%00' $2' 0)$', . ' $' 6,5/2' '--$' 7')%' ,)' ' . 5')+10' 0+*$)%. ' '' /,&%' 3+,(+' 8 , -+)' *)+%$3,0%' +' 7%' 4%%. ' 8 1(+'6$*/*. -%5

+%' 61$6*$)' *&')+%0%' *40%$7'),*. 0',0')+10')*' 6*,.)' *1)')+') ' ,$0)' 3+%$%' 0' %B%$(,0%' ,0' . %(%00' $2')*' 6$%0%$7%' *1$' 4*5,%0',. ' ''6$*6%$*0)')%' *&' +%' /)+2' ' (),7,)2' ,)0')%. 5%. (2' 3+%. ' ('$$,%5')*' %B)$%8%0' ,0')*' 0%)' 16' *$-' . ,(' /%0,*. 0' %(*. 5/2')+')' 0' ,. ' 0*8%' ')+/%),(' (*86%),),*. 0' '' 7%$2' -$%')' 0)$', . ' ,0')+$*3. ' 16*. ')+%')*+$-' (,(' *$-' . 0'),')' ,0' %00%.),'/')+')' . *'4*20' *&' 5%/,()'%' &$' 8%' 0+*1/5'4%' +*3%5')*')'9%' 6'$)' , . ')+%8' *$' , . ')+%' 6$%/,8, . '$2')$', . , . - ' %B(%6),. -' 1. 5%$' ('$%&'/' 8%5,('/016%$7,0,*. ' . 5')+,$5/2')+')' , . ' 801+**5' . *'7,*/%.)' (*86%),),*. '0+*1/5'4%' 1. 5%$)'9%. ' 3+,(+' 3*1/5')+$*)7' '-$%')' 0)$', . ' 16*. ')+%')+*$'(,(' *$-' . 0' 3,)+*1)')+%,$' 4%,. -' 6$%; 7,*10/2'%B' 8, . %5' . 5'6$*. *1. (%5'0*1. 5' . *$' ,8),/),+%,$'&$,//6*3%$0'+'7%'4%%. '4$*1-+)', .)*' 6/'2'42'('$%&1/6$%/,8, . '$2')$', . , . -

' ' 2^

Y A%,$ &$*8 H' F & & ' '/%'&R G +%' 0%6'$')," . '*&' '6*$),*. ' *&' 5%'5' 4*. %' *$' ('$),/'-%' &$*8')+%' /,7, . -'),001%', . ')+%' &*$8' *&'/'2%$0' A0%%' 0)' ,0%'0%0' *&R' +%')%$8',0' /0*' '66/,%5')*')+%' 0%6'$'),*. ' *&' '&'/0%' 8%84$'. %'3+,(+'+'0' 4%%. ' 8,0)'9%. ' &*$')+%' 3+*/%' 81(*10/,. , . -' *&')+%'4/'55%$' *$1)%$10' %%' 0$)' ,0%'0%0' *&

Y) ' A%a' &$*8 H' . 5'# ' ' 5$' 3' *1)R

& # G= B+'10),*. ',0''6+%. *8%. *. ' 3+,(+' '/' ,$$,)'4/%'),001%0' ('. ' 4%' 8'5%')*' 8' . ,&%0)' ' . 5' (*. 0,0)0' , . ' '' &',/1$%')*' $%06*. 5')*' 0),81/'),*. ' B+'10),*. ' *&' 810(/%' ' . 5' . %$7%',0' 4$*1-+)' '4*1)' 42' %B(%00,7%' E1,(9/2' $%6%')%5' *$' (*.),. 1*10' 0),81/'),*. ' ')', 0' &'7*1$%5' 42' (1)),. -' *&&' *$' 42' ' . ' '/)%$')',*. ' ,. ')+%' E1'/,)2' *&')+%' 4/**5 0166/2H' 42' 6$%; 7,*10' ,. 01&&,(,%.)' %B%$(,0%' *&' $' . (),*. H' 42' %B6*01$%')*' %B)$%8%0' *&')%86%$')1$%H' 42' . ' ,. 01&&,(,%.)'0166/2'*&'*B2-%. H' 42' . '%B(%00,7%' 0166/2'*&' ('$4*. ,(' ' (,5H' . 5' 42' %B6*01$%')*' ($%)' . ,. ')*B,(' '-%.)0' +%0%' &' ()0' 3+,(+' +'7%' 4%%. ' %0)'4/,0+%5' 42' 6+20,*/*-,('/' %B; 6%$,8%.)0' '$%' &1 2' 4*$. %' *1)' 42' (/,. ,('/' %B6%$,%. (%

B+'10),*. ' 8 '2' 4%' 0 ' *$' 8' ' - +42 ' -+ +'10),*. ' ,0' 4$*,=+)' '4*1)' 42' *7%$ 3*$9' 3+%)+%$' 6+20,('/' *$' 8%.)'/' . 5' %06%(,'//2' 42' 1. $%8,)),. -' ' . 5' 8*. *)*. *10' 51),%0' 3+,(+' 9%%6')+%' 0' 8%' 6')+0' *&' '(),*. ' ,. ' '' 0)')%' *&' (*. 0)' .)' (),7,)2')' ,0' . *)' *&)%. ' ,&' %7%$')+')' . 2' 6%$8' . %.)' +'$8' ,0' 6$*51(%5', . ' '' +%' /)+2' 8 ' . ' 42' 8%$%' 6+20,('/' 4*1$' +*3; %7%$' -$%')H 41)' %B(%00,7%' 8%.)'/' 4*1$' %=%(,'//2',&',)' 4%' 8*. *)*. *10',0' (%$)' . /2' ('6'4/%' *&' 6%$8' . %.)/2' 5' 8' -, . -')+%' . %$; 7*10'),001%0' +%. ' , . ' '55),)*' . ' $5' 8%.)'/3*$9'3+,(+',0'6%&$*8%5'7*/1.)'$,/2' 0*8%' (*. 0)' .)' 0),81/10' 3+,(+' (' . *)' 4%' '$$%0)%5'1. (%'0,-/2'3*$90'16*. ')+%' 4$',. ' %B+'10),*. ' E1,(9/2' $%01/)0H' '0' 3+%. ' &*$' %B' 86/%' '' 8' . ' 3+*' ,0' +'$'00%5' 42')$2,. -')*' %' $. ' 01&&,(,%.)' &*$' +,0' &' 8,/2' 8%%)0' 3,)+' 0*8%' 0+*(9')*' +,0' . %$7*10'020)%8'A01(+' '0' '' $',/3'2' '((,5%.)')+%' 0155%. '5%')+' *&' '' 5%' $' $%/'),7%' '*$' ''0%7%$%' 8*. %2'/*00R'3+,(+'+'1.)'0' +,8'/,9%' '' 06%()$%' 5'2' . 5' . ,-+)'$*40' +,8' *&' +,0' $%0)' ' . 5' 5%6$,7%0' +,8' *&' +,0' 66%),)%' %. %$'/' %B+'10),*. ' ,0' &%7*1$%5' 42' 48' (*. ; 5,),*. 0' 3+,(+' -,7%' $,0%')*' ' 8%8,'' *$&'1/)2' . 1)$,),*. ' 01(+' '0' +'%8*$$+'-%' 6$*/*. -%5' 62$%B,' ' ,. '5%E1')%' 5,%)' 6%$0,0%).)' 8*$4,5' 5,0(+'$-%0' *$' 7%. %$%'/' %B(%00H' 42')+%' $%)%. ;),*. ' ,. ')+%'),001%0' *&')+%' 6$*51()0' *&')+%,$' '(),7,)2' 3+,(+' ,0' &'7*1$%5' 42' 3*$9,. -' ,. ' '' &*1/')8*06+%$%' *$' 42' 5%$' . -%8%.)' *&')+%' %B($%),. -'&1. (),*. 0H' 42' %B6*01$%')*' %B)$%8%0' *&')%86%$')1$%H' . 5' 42' '6$%7,*10' (*. 5,),*. ' *&' %B(%00,7%'0/*)+&1/. %00' %. %$'/' %B+'10),*. ' 8 '2' *(('0,*. '//2' 4%' 0155%. /2' ,. 51(%5' 42' 6+20,('/' ('10%0' 01(+' '0' '' 0%7%$%' ,. >1$2' A(*//'60%' &$*8' 0+*(9R' *$' 602(+,('/' ('10%0' 01(+' '0' &$,-+)

! (! G +%' 0286)*80' *&' -%. %$'/' %B; +'10),*. ' '$%' ' *00' *&' 0/%%6,. -' 6*3%$' 6%$0,0)%.)' 5$%' 8,. -')'/9,. -', . ')+%' 5%%6' ' . 5' 0*8. '841/,08' +%'6'),%.)'8'2'3'9%', . ')+%' 8*$. , . -' &%%/, . -')*)'//2'1. $%&$%0+%5' @' . ; ('6'(,)2' &*$' 3*$9' ' . 5', . '4,/,)2')*' 0%$,*10/2' '66/2')+%' 8, . 5')*' *. %' 014>%()'&*$' . 2'/%. -)+' *&'),8%' "' %'5'(+%' ' . 5' '&%%/, . -' *&'6$%0; 0,*. ' , . ')+%' +%'5' ' . -1*$' . 5' -%. %$'/' /'00,)15%' F' ' $'6,5' &%%4/%' 61/0%' L' . ' . B,*10' %B6$%00,*. ' *&' (%H' . 5' A'0' 0)')%5' 42' $' %*$-%' *+. 0*. H' '(*.)$'()%5' . 5' 0/1-' -,0+'616' . ' '55),)*. ')*')+%0%' 3%' 8' 2'-%)$%. ,*$' 5%/,$,18' +26*(+*. 5$,'0,0' +20)%$,' '%,/%602' (+*$%' ' 8' . ,' ' . 5'-%. %$'/' 6' $'; /20,0' 3*' ,. 0)' . (%0'+'7%'(*8%' 3,)+,. ')+%' 3$,)%$<0'9. *3/%5-%' *&')$' . 0,%. ' +%8,6/%-,(' 0286)*80'+'7, . -' 4%%. ' , . 51(%5' 42' %B(%00,7%' '66/,(',*. ')*' +)%$'$2' 3*$9' +%' 5,-%0),*. ' ,0' *&)%. ' 5%$' . -%5' ' . 5' &1. (),*. '/5,0)1$4' . (%' *&')+%' +%')$' ,0' (*88*. ' ((' 0,*. '//2')+%' 1$,. %' ,0' '/)%$%5', . ' E1'/,)2' ' . 5' 8 '2' (*.),' . ' '/9' /, . %' 6+*06+')%0' *$' 01-'$' *$%' $'$%/2',)' 8' . ,&%0)0' %B(%00,7%' ' (,5,)2 @' *('/' B+' 10),*. G= *('/' %B+'10;),*. ' ,0')+%' $%01/)' *&' %B(%00,7%' /*('/' 0),81; /'),*. ' ' . 5' ,)' ,0' 6'$),(1/'$/2'/,'4/%')*' *((1$' 0' '' 6$*8,. %.)' 0286)*8' >. ' 6'),%.)0' 3+*' '$%' 01&&%$,. -' &$*8' -%. %$'/' %B+'10),*. ' +%'/*00

*&' 6*3%$' ,.')+%' $%()18' 3+,(+' $%01/)0' &$* 8')+%' %B(%00,7%' 10%' *&' 61$-'),7%0H)+%' &',/1$%' *&')+%' 1)%$10' ,.' ('0%0' *&' 6$*)$')(%5' /'4*1$H '.5')+%' &',/1$%' *&')+%' 7*/1.)'$2' 8 10(/%0' 3+,(+' *((1$0' ,.')+*0%' 6$*&%00,*.'/' ',/8%.)0' *&' 3+,(+' 0 3$,)%$<0' ($' 8 6'<' ,0')+%')26%' 8 '2' 4%')'9%.' '0' %B' 8 6/%0' *&'/*('/' %B+'10),*.

! G .')+%')%').)' *&' %B+'10;),*.')+%' 8 ',.' ,.5,(',*.0' $%')*' /,-+)%.')+%' /'4*1$' '.5'*4)',.' $%0)' .')*'0%0' *&' -%.%$'/' %B+'10),*.',)',0' *&)%.' '57,0'4/%')*' '58,.,0)%$'.'$(*),(0'01(+' '0' *6,18' (+/*$'/'01/6+*.'/' *$' 4$*8,5%' *&'6*)'00,18H' .5',)'3,//4%/.5%.%;$'//2'&*1.5')+')'3+%.' *.(%' $%&$%0+,..'0/%%6'+'0' 4%%.' %0)'4/,0+%5')+%' 8 *$%' '--$'7')%5'02 8 6)*8 0'3, '0140,5%' $%0+' ',$' .5' ''-**5'5,%)' '$%' 8 *0)'.%(%00'$2'),8 1/'.)0' 8 10)'4%'10%5' 3,)+' -$%')' ('1),*.'&*$',)' ,0' (/%'$/2'.*)'5%0,$'4/%')*' -*'5')+%' %B+'10)%5' *$-'.0',.)*'&1$)+%$' '(),*.''/)+*1-+',)' 8 '2'4%'.%(%00'$2')*' %8 6/*2' 0),8 1/'.)0')*' -,7%')%8 6*$'$2'6*3%$' 3+,/%')+%'&'(1/)2'*&' 0/%%6,.-',0' 4%,.-'$% %0)'4/,0+%5' //' ('10%0' *&' '.'%8,'' 8 10)'4%'$%8*7%5' +%.' $%(*7%$2',0' %0)'4/,0+%5')+%' 6'),%.)' 8 10)' 4%' %.(*1$'-%5')*' $%/,%7%')+%' 8*.*)*.2' *&' +,0' /,&%' 42' 0*8%' 61$01,)'3+,(+'0+*1/5'4%'' '0',)' 3%$%')+%'(*8 6/%8%.)'*&' +,0' *$5,.'$2'*((16'),*.' +10')+%'+%'5'3*$9%$' 0+*1/5'%.5%'7*1$')*' '8 10%'+,8 0%/&',.'+,0' /%,01$%'+*1$0' 42'-%.)/%'*1)5**$'%B%$;(,0%' 42' 8 10,(' *$' 6',.),.-'*$' 42'6$'(),0,.-'0*8%'+'.5,($'&)' %%'& $ /'.5'4 %

C ' ' H$$

, ! ($ ' $4 % 7'$/;$MS ' ! ' . G ')*' // 7' $' 4*+ # ' !) ' '

B & $) ! 5%' 1 & 5 *1)H - ')+%' %2%H '.5' 0 2 ')+%')+$*')R G ' ' $'7%0<0' ,0%'0%' ' 0%; 5*3<0' ,0%'0%H $' ' ' B) H B ' (# # T 'K %$' B %2 0 ' - J' $ 2J # 'F "-O & # G ./'$-%8%.)' 3,)+' 7'0(1/'$')1$-%0(%.(%' *&')+%')+2$*,5' -/'.5' '((*8;6'.,%5'42'6$*)$10,*.'*&')+%' %2%4'//0'4$%')+;/%00.%00' 6'/6,)'),*.')'(+2('$5,' ' .5' ' .0%8,'

* $ G +,0' 5,0%'0%',0'(*86'$'),7%/2'$'$%' ,.' 8%.')' *((1$0' 8*0)' &$%E1%.)/2',.'3*8%.' 4%)3%%.')+%' -%0' *&')3%.)2'.5')+,$)2'41)',0' 8%)'3,)+'8*.-0)'*/5%$'6%$0*.0'),%.)0'01&&%$,.-'&$*8',)'*&)%.'4%/*.-')*')+%0*('//%5'.%$7*10'5,')+%0,0')0'*((1$%.(%',0'*&)%.'6$%(%5%5'42'8%.0)$1'/5,0)1$4'.(%'.5'.0%8,' *8%),8%0'.*' %B(,),.-'('10%'(.'4%'5,0(*7%$%5'41)',.'8.2'('0%0',)'(*8%0'*.''&)%$'7,*/%.)'.%$7*10'%B(,)%8.)'0*8%;),8%0'&)%$'(1)%5,0%'0%

!(! G %&*$%' %B*6+)+'/8,(' -*,)$%'8'9%0',)0'66%'$'.(%''/)%$'),*.0',.')%86%$'$%' &$%E1%.)/2'*40%$7%5')+%'6'),%.)'4%(*8;)1$4'.(%0'*&')+%' +%'$)'6'/6,)'),.-'&$%)'(%'&/10+,.-'.5''0%.0'),*.'*&'&1/.%00'4%,.-'&%/)',.')+%'+%'5'%2%0''.5')+$*')' +%'6'/6,)'),*.',.($%'0%0')+%'%2%0'4%(*8%'68,;.%.)''.5')+%'&'/,1$%'*&')+%'7*/1.)'$2'810(/%0'3+,(+'*((1$0',.')+*0%'6$*&%00,*.'/',/8%.)0'*&'3+,(+'0 3$,)%$<0'($'86'<',0')+%')26%'8'2'4%')'9%.''0'%B'86/%0'*&'/*('/'%B+'10),*.

! G .')+%')%').)' *&' %B+'10;),*.')+%' 8 ',.',.5,(',*.0' $%')*' /,-+)%.')+%'/'4*1$' '.5'*4)',.' $%0)' .')*'0%0'*&'-%.%$'/'%B+'10),*.',)',0'*&)%.''57,0'4/%')*''58,.,0)%$'.'$(*),(0'01(+'0'*6,18'(+/*$'/'01/6+*.'/'*$'4$*8,5%'*&'6*)'00,18H'.5',)'3,//4%/.5%.%;$'//2'&*1.5')+')'3+%.'*.(%' $%&$%0+,..'0/%%6'+'0' 4%%.' %0)'4/,0+%5')+%' 8*$%' '--$'7')%5'02 8 6)*8 0'3, '0140,5%' $%0+' ',$' .5' ''-**5'5,%)' '$%' 8*0)'.%(%00'$2'),8 1/'.)0' 8 10)'4%'10%5'3,)+'-

4 '//0',0' 51% %,)+%$')*' 5,/') '), * . ' * &')+%' 7%00%/0' , . ')+%' *$4,)' *$')*' (* .)$' (),* . ' * &')+%', . 7*/1 . ;)' $2' 810(1/'$ &,4$%0', . ')+%' *$4,)' /' 8 %8 4$' . % 3+,(+' (*7%$0')+%' 06+% . * 8 'B,//' $2' &,001$%' *$ 6*00,4/2')*' 4*)+' ('10%0' (*84, . %5 ' +%' % . ; /' $-%8%.)' *&')+%')+2$*,5', 0' 51%')*' 5,/') '), * . ' * &')+%' 7%00%/0' * &')+%' -/' . 5 ' &)%$')+%' 5,0%' 0%' +' 0' /' 0)%5' 0* 8%'), 8% ', . ($%' 0%5' &*$ 8 '), * . ' * &'),001%' , . ')+%')+2$*,5' -/' . 5' 8 '2' *((1$' '/; 6,)'), * . ' * &')+%' +%' $)', 0' 6$*4' 4/2' 51%')*' 0), 8 1; /'), * . ' * &')+%' '((%/%$'), . -' ('$5, '(' . %$7%0H' . 5')+,0' '0' 3%/' '0')+%' ')/)%$'), * . ', . ')+%' . %$7%0' * &)+%' *$4,)' . 5')+2$*,5' +' 0' 4%%. ' 'O($,4%5')*' 5,0%' 0%' * &')+%' /*3%$' (%$7,(' /' 02 8 6')+%),(' - ' . -/,' ', . ' K3+,(+', . ($%' 0%5' (* . .%(),7%',)001%' . 5' 5,8, . 1), * . ' * &' - ' . -/, * . ,(' (%//0' +' 7%' 4%%. ' *40%$7%5

& G +%. ')+%')+$%%'/%' 5, . -' 0286 ')*, . 0' $%' 6$%0%.)',)', 0', 8 6*00,4/%')*' (*. &*1.5' %B*6+)+' /8, (' -*,)$%' 3,)+' . 2' *)+%$' 5,0%' 0%' +%' %. /' $-%8%.)' * &')+%')+2$*,5', 0' 5,0), . ; -1,0+%5' , . ')+, 0' 5,0%' 0%' &$*8')+')' * &' (20), (' -*,)$%' 42',)0' -$%')%$' %/' 0), (,)2' 42',)0' 6' $*B20; 8 'f %./' $-%8%.)' ' . 5' 42',)0' 61/0'), * . ' +%' %B*6+)+' /8 * 0', 0' 5,0), . -1,0+%5' &$*8' +')' 51%')*' 5,0%' 0%' * &')+%' *$4,)' *$' ($' . ,18' 42' 4%, . -' %E1' f , . ' 4*)+' %2%0' ' . 5' 42')+%' 40%. (%' * & 0E1, .)')', 0' 5,0), . -1,0+%5' &$*8' 6$*8, . %. (%' 51%')*' ('$5, '('5,0%' 0%' 42')+%' /10)$*10' 66%' $; ' . (%' * &')+%' %2%H' &$*8' +25$*H=+)+' /8, '' 42')+%' . ')1$' f (*. 5,), * . ' * &')+%' 616, /H' +5' &$*8')+%' 6$*8, . %. (%' 3+,(+' 8 '2' *((1$', . ' 82*6, '' 42')+%' W7,0, * . ' 4%, . -' . ')1$05' ' . 5' 42')+%' 6' $*B20; 8 'f , . ($%' 0%' * &')+%' 6$*8, . %. (%' , . ' %B*6+;)+' /8, (' -*,)$%

G +,0' 810)' + ' -1' $5%5')+%' 5,0%' 0%' . *)' 4%, . -' 7%$2' ' 8%. '4/%')*')$%')8%.)' ' . 5' 7%$2' $' $%/2' 5,0' 66%' $, . -' ')' -*-%)+%$' '/;)+*1-+' '&)%$' (*.), . 1, . -' &*$' 0*6,%' 2%' $0',)' 8 '2' -$' 51'//2' 86$*7%

6 ! G +%')$%')8%.)' * & %B*6+)+' /; 8, (' -*,)$%' (+, %&/2' (*. 0,0)0', . ' 0%(1$, . -' &$%0+' ', $' -%.)/%' %B%$(, 0%')+%' '7*, 5' . (%' * &')+%' /%' 0)' &'), -1%' *$' %8*), * . ' /5,0)1$4' . (%' ' . 5' ('$%&1/ 5,%)' $*. ' , 0' 0*8%), 8%0' 10%&1/')+%' 8, /5%$' &+$80' 01(+' 0')+%')' $)' $')%5', $*. ' *$' (,)$')%' * &', $*. ' ' . 5' 88*. , ' ' 4%, . -' 6$%&%$'4/%')*')+%' 8*$%' 6*3%$&1/6$%6'$')', *. 0' +%' K $,)%$' 4%; /, %7%0' +%' +' 0' 0%%. ' 81(+', 86$*7%8%.)' &$*80' ((+' $')%5' 0*/1), *. ' * &/, 8%' X1, . . . %' /*. %' *$', . ' (*84, . '), * . ' 3,)+' 5, -,)' /, 0G' . 5' 6%$+' 60' W3,)+' 4% '5*. . ' G * &)%. '6$*51(0' -**5' $%01/)0' , -,)' /, 0' . 5' 0)$*6+' .)+10' '$%' *((' 0, * . '//2' 41)' . *)' /3' 20' 10%&1/' /*%0' . 5' 82$%$+' 8 '2' 4%' %86/*2%5')*' 9%%6')+%' 4*3%/0' *6%. ' /7' . , 08')*')+%' . %(9' +' 0' 0*8%), 8%0' 4%%. ' 6$*51(), 7%' *&' 4%. %&,)' *. %' 6*/%' 4%, . -' 6/' (%5' *. ')+%' . ' 6%' *&')+%' . %(9' . 5')+%' *)+%$' '/*. -')+%' 0,5%0' *&')+%')+2$*,5')18*1$' +%. ')+%' %2%4' //0' $%' 0*' 6$*8, . %.)' 0')*' 4%(*8%/, '4/%')*', . &/' 88'), * . ' . 5' 1/(%$'), * . ' ('$%' 810)' 4%')' 9%. ' 42' 8%' . 0' *&' ' 0+' 5%')*' 6$*)%(')+%8' &$*8', $$,)'), * . H ' . 5', &')+, 0' 0+*, B/5' 6$*7%' 1. ' '7' /. -')+%', . &/' 88'), * . ' 810)' 4%')$%')%5' 42' '66$*6$, ')%' $%85, %0

' / + ' /

I ! ! !' A&/' *1)' *&H' . 5')' ' 4*. %R G ' 4*. 2' *1)-$*3)+' &$*8' ' . 2' 6' $)' *&)+%' 09%/%)*. ' ' 0 ' ,0%' 0%0' *&

I & 35 ' 3 5 5 M3 ,86*$)' .)' 8%.)' /0)')%' ' ! !

I & 35 !' A%a' *1)' *&H " ' ')+%' (+%0)R G ' ' $' I (H %$' & 2)/ '

& # G %5, (, . %0' 3+, (+' &' (, /,)')%')+%' $%8*7' f *& 0%($%), *. 0' &$*8')+%' ', $ 6' 0' 0' -%0

* %! G +%' /%' 5, . -' %B6%()*$' .)0' '$%' GA R' 6%(' (1' . +' ' .), 8*. 2' 6*8*$' 6+, . %' . 5' *5,5%' *&' *)' 00,18H' +/*$,5%0' *&' *)' 00,18' *5,18' ' . 5' 88*. , 18H' . 5' . +' /'), * . ' * &')%' 8' A R' E1, //' %. %-' ' %. C*, . ' %. C*, (' (,5' %. C*')%' * &' 88*; . , 18' H 2$$+')*$' B' '/0' 8' * &' */1' '/0' 8' * &' %$1' 88*. , '%18' '/4' . 18' 0' &*%), 5' ' . ,0%' %. . %/H '$(+' '$+' '$' %$%4%. %' *6', 4' H '6*1$' * &' +/*$, . %' *5, . %' 88*. , ' ' $%' 0*)%' ' . 5' '$4*/, ((,5' A R' 88*. , ' ' '$4*. ')%' * &' 88*' , . , 8. ')$2(+. , . %' 1B' *8, (' ' ' . 5' %//' ; 5*. . '

' " +%' 8*5%' * &' (), * . ' * &' %B6%()*$; ' .)0', 0' . *)' 3%// 1.5%$0)**5' ' . 5' ' . 2' %B6/' . ';), * . ' * &',)', . ')+%' 6$%0%.)' 0')' %' * &' *1$' 9. *3; /%5-%' (' . ' * . /2' 4%' $%-' $5%5' '0' 6$*7, 0, * . '/' B6%()*$' .)0' 8' 2' 4%' 5, 7, 5%5' , .)*')3*' (/' 00%0GA R' +*0%' 3+, (+' 8*5, &2')+%' . ')1$%' * &')+%' 0%($%), * . 0' &$*8')+%' $%06, $')*$2' 6' 0; 0' -%0H' . 5' A<R')+*0%' 3+, (+' 8*5, &2')+%' $%06, ; $')*$2' 8*7%8%.)0' 42' 3+, (+')+%' 0%($%), * . 0' '$%' %B6%//%5' . ' (*. 0,5%$, . -')+%' 8*5%' * &' (), * . ' * &')+%' &, $0)' (/' 00' ,)' 810)' 4%' $%8%8; 4%$%5')+')')+%' 0%($%), * . 0' &$*8')+%' $%06, $')*$2' 6' 00' -%0' 5%6%. 5' , 9%' 8' . 2' *)+%$' 0%($%), * . 0' * . ')3*' &, 09()*$0')+%' ' . &/1%. (%' * &')+%' ") ' 16*. ')+%' 0%($%), . -' 0)$1(0)1$%0' ' . 5')+%') ' ' ' 0166/, %5')*')+%8 ' ' (+' * &')+%0%')3*' &' ()*$0' 8' 2' 4%', . &/1%. (%5')*' ' 5, &; &%$%.)' %B)%.)' 42' 7' $, *10' 5$1-0' 0' + ' 0' +%' 52' 4%%. ' 0', 5')+%' B' ()' (), * . ' * &' %' (+' (' . *)' 4% 5%)%$8, . %5' ')' 6$%0%.)' 41)')+%' &, $0)' (/' 00' * & %B6%()*$' .)0' 8' 2' 4%' 0145, 7, 5%5' , .)*')3* 580, * . 0' 3+, (+' $%5, 0), . -1, 0+%5', . ')+%' &*%; -*, . -' %. 8. %$')*. ' ' 0' ' ' . 5' ' +%' 80, * . ' $')+%$' 5, 8, . , 0+')+' . ', . ($%' 0%')+%' ' (), 7,)2' *&')+%' (, $(1/'), * . ' ' . 5' ' $%')+%$%&*$%' ('//%5') ' %B6%()*$' .)0' +%' 5, 7, 0, * . ' ' 0*8%; 3+')', . ($%' 0%')+%' (, $(1/'), * . ' ' . 5' ' $%' ('//%5' " 0' %B6%()*$' .)0' +*0%' (*86$, 0%5' 1. 5%$' H' # ' " ' , ')+%' 8%51//'' *4/*. -')' ' . 5', . ($%' 0%')+%' $%; 06, $')*$2' 8*7%8%.)0 6 ?) ' (" ' A(/' 00' R' $% 10%&1/' 3+%. ')+%$%', 0' (*. -%0), * . ' * &')+%' $%06, $';)*$2' 6' 00' -%0' 3,)+' 7%$2' 0(' .)2')*1-+' %B6%(;)*$')', * . ' ' 0' , . ' (*88%. (, . -' 4$*. (+,), 0' ' 01(+' (, $(180)' . (%0' 3+%. ' 5$2' $+*. (+, ' '$%' +%' $5' '41. 5' .)/2' W3,)+' &%3' *$' . *' 8*, 0)' $5/%0')+%' 6'), %.)' *&%. '(*1-+0' 1.), /' E1,)%' B+' 10)%5' 4$, . -, . -' 16' 0(' $(%/2' ' . 2)+, . -' +%' 58, . , 0;)$'), * . ' * &' 0%5'), 7%' %B6%()*$' .)0' $%. 5%$0')+%

' V

0%($%),*.'&$*8')+%'$%06,$')*$2'6'00'-%0'8*$%'&/1,5''41.5'.)''.5'%'02')*' %B6%()*$')%'+%.')+%0%' %B6%()*$'.)0'5*'.*)'01((%%5',.'*$5,.'$2'5*0%0')+%,$''(),*.'8'2'4%'8.(+''0;0,0)%5'42')+%''58,.,0)$'),*.'*&''61$-'),7%'*$'0),/'4%))%$'42'-,7,..-'%,)+%$',6%('(1'.+''*$')'$)'$'%8%),(',.'01(+''/'$-%'5*0%'0')*'6$*51(%'0,(9.%00'.5'7*8,),..-'+%.')+%'5,0)$%00'*&')+%'6'),%.)',0'-$%')')+%'40)$'(),*.'*&''08'//'E1'.),)2'*&'4/**5'42'(166,.-'*$42'7%.%0%(),*.'8'2'-,7%'-$%')'$%/,%&'+%'.+'/'),*.'*&'0)%'8'/*.%',0''/0*'4%.%&,(,'/'.5')+%',$'*&')+%'6'),%.)<0'(+'84%$'0+*1/5'4%'9%6)'3'$8''.5'8*,0)

"0' (" '6# ' ' 5*'8*$%'+'$8')+'.'-**5'L3+%.''56',.,0)%$%5',.')+%'(*.5,),*.0'>10)'5%0($,4%5'4+)''$%'4%.%;&,(,'/'3+%.')+%''(1)%'02836)*80'+'7%'6'00%5'*&&' +%.')+,0',0')+%'('0%'41)')+%'%B6%(;)*$'),*.',0')*1-+''.5'0*8%3+')'0(.)2'0E1,/'/',0''10&%&,5'%B6%()*$'.)H41)'5!')+%'%B6%(;)*$'),*.',0''41.5'.)'4%.C*,.'4'/0'80'*$'88*.,'(18'3*1/5'4%'6$%&%$'4/%'.'(+$*.,('4$*.(+,),0',.+'/'),*.0'*&'88*.,'(+/*$,.%',*5,.%'($%'0*)%''('$4*/,('(,5'%1('/26)10'*$6,.%'*,/'$%'10%&1/'+%.')+%'%B6%()*$'),*.',0'&*%),5'(+/*$,.%'.,*5,.%'.5'('$4*/,('(,5',.+'/'),*.0'$%'4%0)

' (" '2# #' ' "' # ' 7 ') " ' A(/'00' H R' '$%' 10%&,/'..'('0%0'*&'5%4,/),2''0')+%2'0),81')%')+%'$%06,;$')*$2'.%$7*10'(%.)$%',.')+E'8%51//''*4/*.;-')''0'3%/'0''00,0)')+%'&'./,.-'(,$(1/'),*.'+%2'8'2'4%'57'.)'-%*10/2'(*84,.%5'3,)+'0),81/'),.-'%B6%()*$'.)0'01(+'0E1,/'*$4%.C*,.''((*$5,.-')*'+%'(.'1)$%'&'+%'0%($%),*.

'/+#'#B

Y K' (''*1)'*&H'.5 ')+%'(+%0)R

& # ." +,0'3*$5'3+,(+'0)$,()/2'8%'.0')+%''()'*&'%B6//,.-''.2)+,.-'&$*8')+%'(+%0)',0'101'//2'66%5')*'+%'8'))%$'0*'%B6%//%5'3+,(+',0''/0*'('//%5' '*$# 0

' ' '#'*,(' G +%'08'//%$'4$*.(+,'/)14%0'$%'9%6)'&$%%'&$*8'*40)$1(),*.'42')+%''(),*.'*&'(,/,')%5'%6,)+%/,18' +%''$%''*&')+%'08'//%$')14%0'4%,.-'-$%')%$')+'.')+')'*&')+%,$')$1.90')+%',$'6'00%0'8*%$'&*$(,4/2'+$*1-+')+%'/'))%$'.'5'0*')%.50'%7%.',.'.')1$'/4$%')+,.-')*'('$$2'06%%5,/2''3'2'.2'((181/')%5'0%($%),*.'+%'&*$(,4/%'()0'*&'(*1-+,.-'%3'.5'0+'39,.-,.($%'0%'+%'.')1$'/&*$(%'.5'&1/.%00'*&')+%'%B6,$')*$2'%&&*$)''.5'(/%'$')+%',$6'00'-%0H)+%'$%6%')%5'(/*01$%'*&')+%'-/*)),0',.'(*1-+,.-',.($%'0%'0).,'&1$)+%$')+%'%B61/0,7%'%&&%()'42'('10,.-')+%',$')*'%0('6%',.'0155%.'>%$90'&')+%'-/*))),0'(.'.*)'(/*0%'.,'(*.0%E1%.(%'*&'/'$2.;-%'/'5,0%'0%')+%''()'*&'%B6%()*$'),*.'4%(*8%06',.&1/'.5'5,&&,(1/)'&&*$)0'')'%B6%()*$';),*.'.''$%''/0*'/'4*8%5''.5'&1),/%',&')+%'6*3%$')*')'9%''5%%6',.06,$'),*.',0'/*0)'.'(*.0%;E1%.(%'*&'%86+20%8''*$'810(1/'$3%'9.%00

.'4,/,)2')*'%B6%()*$')%',0'*&)%.')+%',88%;5,')%'('10%'*&'5%')+')+%'001&&*(',7%'(')'$$+'*&')+%'52,..'4%,..-''.*)+%$'.'8%'&*$''((181;/'),*.'*&'6+/%-8'3+,(+')+%'6'),%.)',0'6*3%$;/%00')*'$%8*7%'2')%'(+,.-')+%'6'),%.)'0+*3')*'%B6%()*$')%'42')+%'58,.,0)$'),*.'*&''),8%/2'0),81/'.)'*$''E1,(9/2''(),.-'%8%),(''*$'42'(+'.-%'*&'6*0)1$%'+&%'8'2',.'01(+''('0%'4%'6$*/*.-%5'+*1/5')+%'01&'&%$%$'4%'//*3%5')*'-%)'&/1$$,%5')+%'4$%')+,.-'4%(*8%0'8*$%''.5'8*$%'0+'//*3'5''.5'5%%6,.06,$'),*.'.''.5'&$%%'%B6%()*$'),*.''$%',86*0;0,4/%'&'+*3%7%$')+%'6'),%.)'('.'4%',.51(%5')*'4$%')+%'('/8/2''.5'5%%6/2')*'00188%''8*$%'%'02'6*0)1$%''.5')*'03'//*3''8,B)1$%'*&''88*.,''3,)+'%)+%$')+%'4$%')+,.-'-$'51'//2'4%(*8%0'/%00'0+'//*3''.5'$'6,5'',$'%.)%$0')+%5%%6%$'6'$)0'*&')+%/1.-''.5'6*3%$',0'-',.%5')*'%7'(1')%')+%''((181/')%5'0%($%),*.''3'+%''('*&'%B6%()*$'),*.',0''0''$1/%'8*0)'%'02',.')'6*01)$%',.'3+,(+'$%06,$'),*.''(*8%0'8',./2'&$*8'*.%'/1.-')+%''.5'*&'-$'7,)','.*.'8'2'4%'('//%5',.')*%86)2')+%'*40)$1()%5')14%0

' ' E G %&*$%'10;(1/)'),*.'3'0'6$'(),0%5'5,'-.*0,0'3'0'*&)%.'4'0%5'*.')+%'(+'$')(%$'*&')+%'%B6%()*$'),*.'1.3'$$').'4/%',86*$)'.(%'+'7,.-'4%%.''');')'(+%5')*')+%'5,0),.(),*.'4%)3%%.'610'.'581(10'*.')+%'001186),*.')+')'610'3'05,';-.*0),(''&'6+)+,0,0'')')+%'6$%0%.)',8%'3%'$%''6')')*'/*0%'81(+'10%81/,.&*$8'),*.'42&'//,.-',.)*')+%'*66*0,)%'%$$*$

.'+%')/+')+%'0%($%),*.'&$*8')+%'81(*10'8%84$'.%'*&')+%',$)14%0',0''')$'.06'$%.)'(*/*1$/%00'0/,-+)/2'-/1),.*10'/,E1,5'/,9%')+,.'81(,/'-%H',)'(*.),'.0'81(,.''7'$2,.-'E1'.;),)2'*&'0'/,.%8'))%$''.5'3')%$

+%'0'/,.%8'))%$',0'41.5'.)',.')+%')$'.0;6'$%.)'7,0(,5'%B6%()*$'),*.'5%&,(,%.)',.')+%*6'E1%''.5'/%00')%.'(,*10'9,.5'/%'0)',.')+')'3+,(+',0''()1'//2'61$1/%.)

+%'*$5,.'$2'81(*10'0%($%),*.',0',.($%'0%5',.'E1'.),)2''.5'7,0(,5,)2'0''$%01/)'*&'0,86/%()''$%+'/'..&/'88'),*.'.'*&')+%'4$*.(+,'/'8%84$'.%'+%.'4$*.(+,),0'+'0'%B,0)%5'&*$'0*8%5'20''(+'.-%*((1$0',.')+%'(+'$'()%$'*&')+%0%($%),*.H',.0)%'5'*&'4%,.-')$'.06'$%.)'.'57,0(,5',)'4%(*8%0'0%8,)$'.06'$%.)'.'5')+%.'6'E1%')+%'(*/*1$'(+'.-,..')*''2%//*3'*$-$%%.,0+'+1%

+%'061)18'4%(*8%0'&$*)+2'&$*8')+%'5;8,B)1$%'*&','H'.5'$10)2'*$'6$1.%>1,(%'(*/*1$%5',&')+%',.&/'88')*$2''(),*.'%B)%.50')*')+%'1/),8')%'4$*.(+,'/'$'8,&,(,').0''.5',0'*&'0*',.)%.0%''9,.5''0')*''//*3'*&'**C,.-'&$*8')+%'('6,//'$2'7%00%/0

,4$,.*10'8*1/50'*&')+%'4$*.(+,'/)14%0'*$'(+'/92'8'00%0'(*.0,0),.-'*&',.06,00')%5'.5'('/*8%5'(+%%02'8'))%$''$%'.*)',.&$%;E1%.)/2'%B6%()*$')%5

+%'5'$9'-$%2'*$'4/'(9,0+'0)'.'*&)%.'0%%.',.'%B6%()*$'),*.'8'2'4%'5%$,7%5'&$*8'('$4*.',.')+%')8*06+%$%H'*$',&',)'^5%*.')+%''55,;),*.'*&'.,)$,(''(,5',)'8'2'4%'51%')*'61+.*

. '$2' 6,-8%.)' &*$8%5' 1.5%$' 0/,-+)' ,$$,)';),*.

+%' %B6%()*$'),*.' 8'2' '&4$5' ,86*$)' .)' ',5',.'5,'-.*0,0' '0' 8'2'4%' /.0)$')%5'42')+%' &*//*3,..-'%B'86/%0' &' ''6%$0*.' 3,)+' 0%7%$%' (+%0) (*86/',.)' (*1-+0' &$%E1%.)/2' '.5'06,)0' *./2'&$*)+2'0'/,7'$2'&/1,5' 3%' 8'2'0106%()' 6/%1$,02' &')+%'&/1,5',0'-/','$2'/,9%'3+,)%'*&' %--'3%'8'2'0106%()'4$*.(+,),0' &',)'+'0'' $10)2'),..-%' '.5'$%0%84/%0')+,(9'-18 3')%$' (*/*1$%5'3,)+'4/**5'3%' '$%'.*)'/,9%/2')*' %$$' ,.'$%(*$5,.-'6.%18*.,''' &')+%$%' ,0' '015; 5%.'-10+'*&'&(%),5'610'3%'8'2'5,'-.*0%'4; 0(%00',.')+%'/1.-'*$' .'%862%).'

1$1/%.)' %B6%()*$'),*.'8'2'*((1$',.'4$*.; (+,),0'0'3%/'0',.'6+)+,0,0H 41)',&'/*.-'(*.;),.1%5''.5'1.'((*86'.,%5'42'5,0),.()'$+*.' (+10',)'/8*0)''/3'20'(*8%0'&$*8''7*8,('+%' %B(%00,7%/2'*&&%.0,7%' %B6%()*$'),*.'*&61/8*.'$2'-'.-$%.%''.5')+')' $,0,=' &$*8''4$*.(+,%()',('0'((1/%''$%5,'-.*0),('*&')+%'&&%(),*.0'&$*8'3+,(+')+%2'06$,.

.'6+)+,0,0')+%'061)18',0')' ^0)'0'/,7'$2'*$'&$*)+2')+%'$%01/)'*&',$$,)'),*.H')+%.'7,0('10',.5,(',7%'*&'8*$%' (*.&,$8%5''&&%(),*.''*&')+%'81(*10'8%84$'.%H'.5'0140%E1%.)/2'5*))%5''.5'0)$%'3,)+'4/**5' +,)0+'*6'E1%'0)'%'$'%'.*)'/,9%/2')*'%$$'.'$%(*$5,.-'6.%18*.,''' &')+%$%'0'''015;5%.'-10+'*&'&(%),5'610'3%'8'2'0*8%),8%0'4%'5%)%()%5'42''8,($*0(*6,('/'%B'8,.'),*.''*&')+%'%B6%(;)*$'),*.

! G=.')$%')8%.)'81(+'8'2'4%'-',.%5'42'0)152'*&')+%'%B6%()*$'),*.' +%'(*1-+'8'2'*&)%.'4%'$%/,%75''.5')+%'5206.*%''.5'*)+%$'02 8 6)*8 0'$%8*7%5'42'%&&%(),..-''.'/)%$'),*.'.')+%' ./)%$'),*.'.')+%' .'),,$%'*&')+%'0%($%'),(8

&'42')+%'&$*)+2'(+'$')(%$'*&')+%'061)''(*.-%0),7%'5,0*$5%$',0',.5,(')%5')+,0'8'2'4%'8%)'42')+%''66/,(','.*&'3'$8'6*1/),(%0)86%.),.%'0)16%0'*$+*')'&/'..%/0'%B)%$.'//2H'.5'42'01(+'8%'.0'0''$%'('/(1/')%5')*'$%;51(%'&%7%$'.5',$$,)'4,/,)2'.'8%/2')+%'5;8,..0)$'),*.'*&'0'/,.%0'3,)+'.'),8*.2'*$'(*.,)%'&')+%'%B6%()*$'),*.',0')'**'7,0(,5'.5'-/1),..*10'&*$%'02'$%8*7'/'/%8*.>1,(%'/,E1*$'6*)'000%'0*5''*$'7'$,*10',.+'/'),*.0'-,7%'$%&&%&'42'/%00%.,.-')+%')%.'(,)2'*&')+%'0%($%),*.H*$')+%'(+'.-%&$*8')%.'(,*10''.5')$'.06'$%.)')*'*6'E1%'/%00'5+%0,7%'0%($%),*.'8'24%'+'0)%.%5'42'-,7,..-',*5,5%'*&'6*)'00,18'3,)+''&%3'5$*60'*&'.),8*.,'/3,.%

+%.'81(*6188/%.)'0%($%),*.',0'%0)'4;/,0+%5''.5'0+*30'.*'0,-.'*&5,8,.1),*.')+%'10%'*&'0%.%-''.5'*&')+%'-18 $%0,.0',0',.5,;('')%5H')+%0%'8'24%'-,7%.',.')+%'&*$8'*&'/*C%.-%'3+,/%'4%.C*,.')*/.''.5'(*6'.4''$%'/0*'*&'7'/1%'(%),('*$')'..,('(,5'-,7%.',.'08'//'.5'&$%E1%.)/2'$%6%')%5'5*0%0'$%;51(%0')+%'E1'.),)2'*&'0%($%),*.

+%.')+%'(*84,.%5'-/',$2''.5'81(*;61$1/%.)'(*.5,),*.'*&')+%'%B6%()*$'),*.''.5'*)+%$'0286)*80'-,7%'%7,5%.(%'*&'4$*.(+,),0'*&''.'%%)'4/,0+%5'9,.5''00*(,')%5'3,)+'-*1)'*$'45*8,.'/')*$6*$'''(*84,.'),*.'*&'('/*;8%/'3,)+''.),8*.2''.5'-1','(18'A'0'...

/188%$<0'6,//H',0'*&')+%'-$%')0)2'0%$7,(%H41)')+,0')$%')8%.)'.%%50'6%$0%7%$'.(%'5,0;($,8,.'),'*.''.5'3')(+&1/.%00'+%'8*$4,501$&'(%'8'2''')+%'0'8%'),8%'4%'8%5,('%)%'42')+%',.+'/'),*.'*&')'$'($%'0*)%'*$'*./*&'>1..,6%$'1.),/'3,)+')+%',86$*7%8%.)'*&')+%'-%.%$'/+%')/+'1.5%$'(*5+7%$'*./'.5',$*.')+%'%7./',0'%.),$%/2'$%8*7%5

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(I(!"% *' *&G %$%')+%')%$8'0%B6*01$%'<)*'4%')'9%.',.),0'3,5%0)0,-..,&,('.(%',)'8,-+)'&%,$/2'(/',8')*',.(/15%'*'$'.-%'*&'014>%()0'*./2'4*1.5%5'42')+%'/,8,)0'*&'6$'(),('/'8%5,(,.%'.&%(),*.')1$'//2',86+%0%B6*01$%')*'0*8%'(*.)'-,*10',.&/1%.(%'6*,0*.*10'-'0'*$'8'/'$,*10'*$*)+%$'1.+%'/)+2'%8'.'),*.'4%'$,.-',.')0'$',.''&*$8,5'4/%'0%E1%.(%'*&',' $%01/)0''.5'6$*4'4/2'5%6%.5,.-'*.')+%')0*51(),*.'3,)+,.')+%'020)%8'*&''06%(,&,('&*$8'*&'8,($*4%'.2'*&')+%'5,0*$5%$0'3+,(+',8;6','*1$'(*8&*$)'.5'0+*$)%.'*1$'/,7%0'8'2',.5%%5'4%')$'(%5',.'0*8%'5%-$%%')*'%B6*;01$%'*&'0*8%'9,.5')*'.'%B(%00'*&'+%')'*$'*&(*/5')*''7'$,%)2'*&'(*86/,(')%5'$%'(),*.0''$,0,.-',.'3+*/%'*$',.'6')$'&$*8'1..')1$'/,86$%00,*.0'8'5%'*.')+%'6+20,*/*-,('/6$*;(%00%0'*&'/,&%'42'7'$,*10'%B)%$.'/'-%.(,%'.2'0)152'*&'*1$014>%()'+*3%7%$'&$*8')+,0'%B)%.5%5'6*,.)'*&'7,%3'3*1/5'(/%'$/2'4%'*1)'*&'6/'(%'+%$%''.5'%&&%()0'*&'%B)$%8%%/%7')*.''.5'5%6$%00,*.'*&')%86%$')1$%'3,/'4%&*//2'(*.0,5%$%5'%/0%3+%$%%'0*)+')'%B6*01$%',.')+%0%.0%',.'3+,(+',)'3,//4%)$%')%5'+%$%'8'2'4%.'$$*3%5'5*3.')*')+%'$%01/)0'3+,(+'.01%3+%.'6%$0*.0'*&''7%$'-%'(*.0),)1),*.''/6*3%$'$%014 8,))%5'&*$''/*.-%$*$0+*$)%$',8%')*')+%',.&/1%.(%'*&'*$5,.'$2'(*/5''*$'3%)'*$5'86'*3',)',0''.'*/5'0'2,.-')+')',&',7'

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*$ 0,B 6%*6/%*&%,)+%$ 0%B 01&&%$ 0+,63$%(9 *$ $%3%)+$*1-+ *$ %B(%00,7%/2 (,//%5 42 8 *,0)(/*5 %(+ 3 ,/ 6$*4 4/2 01&&%$,*0 8 % 5,&&%$%.)(3 2 .% 8 2 /)*-%)+%$ %0(6% 9,.5H "0%(*.5 8 2 0 (')(+<G 0)+%6*61/ $ %B6$%00,*.6 1)0 ,)G *0*$%)+$*1) *$ 0 4 5 (*/5H& 3+,/0))+,$5 8 2 4% 0%,C%5 3,)+ 6.%18*.,H .5 " 0%(*.5 8 2 0 (')(+<G 0)+%6*61/ $ %B6$%00,*.6 1)0 ,)G *0*$%)+$*1) *$ 0 4 5 (*/5H& 3+,/0))+,$5 8 2 4% 0%,C%5 3,)+ 6.%18*.,H .5 " *&*1$)+ 3,)+ $+%18'),(&%7%$

.5,7,51 / (*.0),)1),*.* $,5,*02.($ 02 6 $)/2 %B6/,.0)+%0% 5,&&%$%.(%0 .5)+%& 8,/,$)%$8 *& " 0 3%9 6*,.)0 *8 3+%$%& ,& .*)(*.7%2,.-8 1(+ ,86$%00,*.* &0(,%.,),&,(1($ (2 ,0 $,-+)0*& $ .0+*3,.-)+))+% ,.)%$. / (*.-%0),*.(10%5 42 0155%.(*.)$ (),*.* (1).%*10 $)%$,*/%0 ,0 >.*0) .)1$ //2 5,$%()%5)*)+)*$-.3+*0%7%00%/0 +7%4%%.3%9%.%5 42 6$%7,*10 ,.&/8 8 ;),*. &) +%6),%.))+%$%&*$%) +7% 6$%; 7,*10/2 01&&%$%5 &$*8)*.0,//,),0 *$ 4$*.(+, / (*.-%0),*.* *$ $+%18),08 +% 3 / 4% 6$%5,0; 6*0%5 *+%18),08 *$ .5 (1$%.(%*&) %0 8 % &&%()0 *$.)*.* " $%.%3 / *&) %B(,), -(10% &) - ,. &$*8 0%5%.)$2 *((16),*. .5 *7%$ .51/-; %.(%, .,)$*-%.*10 &**5 +,0 4/**5 4% *7%$; (+ $-%5 3,)+)+% 6$*51()0 *& $%)$*-$ 5% 8%) 8*6*0,0 *$ *& ,86%$&%()0 00,8,/),*. ,) *./2 .%%50)+% (/*01$%*&)+%%+8,.)*$2 -%.(2*&) +%09,.)6 6$*7*9%)+%,$$,)(),*. *&,.)%$. / *$-.0 .5) / 8,)%5 0%.0% $%)+10)*/%$ 4/2 7$,*10 4*)+,.)%B)%.)0 .5,.5%-$%% .5 8 2 4% 0)15,%5 *. " / $-%(0(/ % 51$,.- *1$ -$%)%$ (86(,-.0 .5,.*/%00%$ 5%-$%% 51$,.-)+% *$,.$2 1)18.8 .*%17$%0 3+%.)+% 3%)+%$+ 66%.0)*4%1.&7*1$ 4/% %$% +*3%7%$ %7%$2)+,.-,.>,1,*10 ,0 8,.,; 8,0%5 42)+% +% /)+2 (*.5,),*.* &)+% 8%.)+%,$ -**5 (/*)+.-.5 &**5 .5)+%%.&*$(%5 $%-1/ $,)2 &+ 4,)0 3+,(+ 6$%7%.)., -$%)8%01$% *.% &)%B6*01$%H .5 8*.-)+% 8*0) %&&,(.)8 .0&*6%7%.),.-)+% 6*)%.) ,.; &/1%.(% *& 4 (,//,&*$ %7,/ 3% 8 10) 6/ (% //+2-,%.,(8 %.0 3+,(+ ,86$*7%)+% 4*5,2 7,-*1$) ,0 .*3 3%/ 9.*3.)+) .*)+,.-)%.50 0*0%$,*10/2)*,86 ,$)+% 6*3%$ &4%$,.-%,)+%$ %B)$%8% &) %86%$)1$% 0 %B(%00,7% ,.51/-.(% ,.0)$*.-5$,.9H 0*)+) ,.))$,.-)+.*3+*+0 4%%.*B6*0%5)*)+% ,.&/1%.(% &(*/5 .5 3%) 3% 8 10) .*) &*$-%))*) 9% /0*,))*((*1.))+% 6$*4 4/% (*8 4,.),*.* &) 5%6$%00,.-%&&%()0 &/(*+*/*.)+% .%$7*10 020)%8 / 10)$),*.0 &) +,0 8 10) 4% &8,/,$)*. 5 3% 8 10) / +7% 8%) 3,)+.18%$*10 *0%0 ,.3+,(+)$ 8 60 &) +)+%$6%$0*.0 3,)+ 3% 9%.%5 4*5,2 7,-*1$ +7% 4%%.4$*1-+) ,.)*1$ +*06,)/0 01&&%$,.-&$*8)+% %&&%()0 &) %B6*01$% ,. 7$,*10 5%-$%% # G .0%%9,.-) $%8%52)+% %&&%()0 >10) 5%0($,4%5 ,) 3,// 4% &*1.5) +) 0*8% &) +% (0%0 $%(*7%$ 1.5%$)+%

, .&/1%.(% &3 $8)+ .5 -**5 &**5 .5)+% -%.%$ //2 ,.7,-*$),.-) %&&%()0 &) %&(%$%&1/.1$0; ,.-H 3+,/0))+%)*0 &) %&)+% 5 8 2 01((184)+) %$6,5/2 5%0)$1(),7%)%.5%.(,%0 &) (1)% 5,0%0%$))+% 0/*3%$6)+*/*-,(/ >1*(%00%0 &(+$*.,(/1-*$9,5.%2 5%-%.%$;),*. .)+%)$%) 8%.)))+%$%&$%) &) 01(+ (0%0 3% 8 10) .*) /2 55))+%-%.,/ ,.&/1%.(%0 &+*8%*$ +*06,)/ (%$% 01(+ 06(,/ 5$1-0 0)+% 7 $,%5 5%7%/*68%.) &2 8 6) *8 0 8 2 $%E1,$%41) 3% 8 10) %&1/2)9%,.)* ((*1.))+% *((1$$%.(% &7 $,*10 0%$,*10 $ 6$*&*1.5/2 5,0*$-.,0,-(*86/,; (),.-) (10%0 +10 ,&*1$ 6),%.) +0 4%%. &*1.5,./ .0%.0,4/% 0))%3%8 2 $%0*.; 4/2 0106%() (%$%4$/+ %8*$$+ -% *$ /(*+*/,(*$.$(*),(6*,0*.,.-./ 01(+ 0106,(*./ 0 &,.=2 $%8*7%5 (./3% $%0) *./1$ *1$0 .5 (*.&,.% *1$))%.),*)*)+% ,8 8%,5,) % &&%()0 3+,(+ &*//*3 %B6*01$% *&) 9,.5 ,.5,(,) %5 4*7% $8)+ $%0) .5)+% $%-1/)%5 10% &0),81/.) .5 &**5 3,// *3 4% ,.5,() %5 .5 8 10) 4% %86/*2%5 3,)+)+% 6$%(1;),*.0 01--%0)%5 42)+% *$5,.$2 6$,.(,6/%0 &) +%$6%1),(0 .5 42 (*8 8*.%0%.0%

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Y , \ 2 3,)+*1)H .5 $8'3&6 4/**5R G %6$,7%5 8*$% *$ /%00 &4/**5G=4/**5/%00 *8%),8%0 10%5 02.*.2; 8*10/2 3,)+ .'%8,(!

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& # G B)$'7'0'),*.,0)+% %0('6% &2 *.)+% &/1,50 &+% 4*52.*$8 / *$ 4.*$8 /,&,*8)+% 7%00%/ ('7,)2 *$ (.' / +) .')1$ //2 (*.),.0 ,) .5 ,)0 5,&&10,*. ,.)*)+% 01$$*1.5,.-),001%0 +% $%01/ *&)+% %&&10,*.,0 /0* (' /%5 8 2 4$) * B)$'7'0'),*.'4%,.-)+% %&&%()0 &$16)1$% *$ 6%$&*$'),*.* &)+% 3 //0 &+ *3 *$-.' 8 2 4% 51% *.>1$2 3,/9.%00 &)+% 6',$,%)/0)$1()1$%0)* 8*$4,5 (*.5,),*.0 &)+% 4/**5 *$),.($%'0%*& ,.)%$. / 6$%001$% $. ' 0 +% &/1,50 &$%E1%.)/2 &*1.5%,)$'7' 0')%5 $% 4/**5 1$,.*&

6$%0%.(%' *&' '' &,/8' *&')1$4,5' 0%($%),*.')+%')$'.06'$%.(2' *&')+%'(*$.%'',0' .*)' '&&%()%5' '.5')+%''(1)%.%0Ø' *&'7,0,*.'',0' .*)',86',$%5 ℟ +%'(*.-%0),*.',0'/,8,)%5')*')+%'(*.>1.(),7''.5')+%'5,0)%.5%5'7%00%/0'('.'4%'%86),%5'&*$ ''8*8%.)'42'6$%001$%')+$*1-+')+%'/*3%$',/,5'0*''0')*' $%7%'/' '' -/,860%'*&')+%'3+,)%'0(/%;$*),('1.5%$.%')+

.'8,/5'('0%0'(*.>78(),7,),0',0''.'1.,86*$;)'.)''&&%(),*.'41)',.',)0'8*$%'0%7%$%&*$80',)'',0'))%.5%5'42')3*'5,0),.()'0*1,K*%0'*&'5'.-%$'1$,.-',)0'(1)%'0)'-%',)'8'2'6$*51(%'6'$),'/'*$'(*86/%)%'.%($*0,0'*&')+%'(*$.%''/%'5,.-')*'-$%')',86',$8%.)'*&'0,-+)''.5'.*)'0%/5*8')*'4/,.5.%00H''.5'3+%.'(+$*.,(',)'*&)%.'*((';0,*.0'-$%')'+J=%$)$*6+2'*&')+%'6'6&//0%'*&')+%'6*$),*.'*&')+%'8%84$'.%'3 *+'/,.%0')+%'/,50' +%0%'6'6,//'%'8'2'%7%.'4%(*8%'(*.;7%$)%5',.)*'0+'--2'*$'3')2'%B($%0(%.(%0'3+,(+'8%(+'.,('//2',$$,)')%')+%'(*8%'/'01$;&'(%''.5'('10%')+%'5%7%/*68%.)'*&'7%00%/0'4%.%')+',)0'%6,)+%+18'.'),8%')+%'6'6,0%'53,.5/%''.5')+%'%&&10,*.'$*1.5'4*1)')+%8'(*.)$'()0')+10'$%.5%$,.-')+%')'$0'/'('$),/'-%'A%06%(,'//2')+')'*&')+%'166%$'/,50R',.(1$7%5''.5'4$,.-,.-')+%'(,/,'')*'$%0)'16*.')+%'01$;&'(%'*&')+%'%2%4'//'$%')'5,0)$%0Ø''.5'6%$;8'.%.)',86',$8%.)'*&'7,0,*.'8'2'4%*)+10'*(;('0,*.%5'H'.5')+%'6$*-$%0Ø'*&')+%'(*.)$'(),*.'8'2'4%'0*'0/*3''0')*'5%6$,7%',)'*&''.2'8''.,;&%0)'(*..%B,*.'7,)+')+%',.&/'88'),*.')',.'3+,(+',)'+'5',)0'*$,-,.

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6' +' 6 7 G .&'.),/%'(*.;>1.(),7,),0',0'6$*4'4/2'51%'.'8*0)'('0%0')*'5,$%()',.*(1/'),*.'3,)+'7'-,.'/0%($%),*.')'101'//2'(*88%.(%0'*.'*$'4*1)')+%')+,$5'5'2''&)%$'4,$)+'.5'6'00%0'$'6,5/2',.)*')+%'6)11'/%.)'&*$8')',0''))%.5%5'42'(*.0,5%$'4/%'61&&2'03%/,.-'*&')+%'/,50''.5'42'6$*&10%')+,(9'5,0(+'$-%'3+,(+'0**.'5$,%0'16*.')+%')'$0'/'8'$-,.0''.5'*&)%.'('10%0')+%8')*'(*+%$%'&'.%-/%()%5'*$',86$*6%$/2')$%')%5')+%'5,0%'0%'*&)%.'/%'50')*'0/*1-+,..-'*&')+%'(*$.%'H41)',)'8'2''/3'20'4%'(1$%5',&',)',0'0%%.'3+,/%')+%'(*$.%'',0'0),'4$,-+)

G +%')$%')8%.)'$%E1,$%5',0')*'3'0+'3'2')+%'5,0(+'$-%'(''$%&(2''.5'&$%E1%.)/2H')*''66/2''.''0)$,.-%.)'/*),*.'A)+%'4%0)',0''0*/1),*.'*&')3*'-$',.0'*&'.,$)'%'*&0,/7%$')*''.*1.(%'*&'5,0),//%5'3')%$R')*')+%'(*.>1.(),7'/01$&'(%'%7%$2'&*1$'+*1$0'*$'/%00'&$%E1%.)/2'3+%.',86$*7%8%.)',0'%0)'4/,0+%5H'.5')*''.*,.)')+%'%=%0'*&')+%/,50'3,)+'0,8;6/%'*,.)8%.)')*'6$%7%.)')+%,$''--/1),.'),*.'.'*'0%0'*&',.+%$,)%5'026+,/,0'8%$(1$,'/',.;1.(),*.'0+*1/5'4%'6$%0($,4%5'+%',.&.')<0'&**5'810)'4%'('$%&1//2'$%-)5')%5',&',)',0'7%$2'&%%4/%',)'8'2')'9%''/,))/%'(*5/,7%$*,/'(*84,.%5',.''.'%81/0,*.'3,)+')3*8,.,8'5*0%0'*&'/,E1*$),.(+*.0%'+%$%')+%'8*)+%$<0'8,/9'&',/0',)0'*&)%.'5%0,$'4/%')*'*4)',.''3%)._1$0%H41)')+%'/*('/')$%')8%.)',0')+')'3+,(+',0'(+,%&,2',86*$)'.)''.5'16*.'3+,(+',.'8*0)'('0%0'%.),$%'$%/,'.(%'8'2'4%'6/'(%5

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6' +' 6 7 G +,0'&*$8'*&(*.>1.(),7,),0',0'101'//2'51%')*'%B6*01$%')*'(*/5'*$')*'0*8%'(+%8,.('/'*$'8%(+'.,('/',$$,;)'.)')0'8*0)'5,0),.(),7%'(+'$')(%$',0')+')'+%'5,0(+'$-%',0'(+,%&/2'81(*10''.5'+'0'.*)'81(+')%.5%.(2')*'4%(*8%'61$1/%.)

G .'%7%$2'('0%')+%'01$&'(%'*&')+%'%2%4'//''.5')+%'/,.,.-'8%84$'.%'*&')+%'/,50'0+*1/5'4%'('$%&1 2'%B'8,.%5'&*$''.2&*$%,-.'4*52'3+,(+'8'2'4%')+%'('10%'*&')+%')$*14/%H''.5',&'01(+'3*1/5'4%&*1.5''.5'$%8*7%5')+%$%'3,/'0%/5*8'4%.%%5'&*$'&')+%$')%')8%.)'='&')+%$%',0'+*'&*$%,-.'4*52')+%')3*-$',.'0*/1),*.'*&',)$')%'*&0,/7%$'*$'*&'01/6+')%'*&'C,.('8'2'4%'6/'(%5'3,)+,.')+%'(*.>1.(),7'/0'('42'8%'.0'*&''E1,''*$'5$*66,.-4*)/%'%7%$2')3*'*$')+$%%'+1$0'.5'06%%52'$%(*7%$2'10+'2'4%')+%'$%01/'.'*'0%0'*&'7%$2'8,/5')26%'*.%'*$')3*'66/,;('),*.0'*&')+%'0),.-%.)'8'2'4%'01&&,(,%.)H'.5')+%0%'8'2'4%'0166/%8%.)%(/42')+%'10%'.')+%'0'8%8'.%$'&'')%'$%)'5,0)$%0Ø'--5'7')%5'42')+%'0)')%'*&)+%'6'),%.)'3+,(+',0'6$*51(%'42'.*(1/'),*.'3,)+')+%'5,0(+'$-%&$*8'''0,8,/'$'('0%'*$'3,)+'(*.)'-,*10'6'0'&,$*.,')+%'1$%)+$'/'*$'7'-,.'/'81(*10'8%84$'.%'+%0)')%'*&')+%'6'),%.)'3+,(+',0'8*0)'/,9%/2')*'6$*8*)%')+%'5%7%/*68%.)'*&')+%'(*.)'-,*10'&*$8',0')'),.'3+,(+')+%'(*.>,8(),7''',0'4%0%)'3,)+')+%'-$*.1/'$0%8,)$'.06'$%.)'4*5,%0'&*$8%5'42''--$%-'),*.0'*&/2861+'(*$610(/%0'3+,(+''$%9.*3.''0'00'-*-$'80'&*$&*//,(1/'$'-$'.1;/'),*.0'+%0%'4*5,%0''$%'(*88*./2'6$%0%.)',.')+%'%2%/,50'*&'6%$0*.0'A%06%,('//2'*&'2*1.-'6%$0*.0R'3+*'$%'($*35%5')*-%)+%$'1.5%$80'.,)'$2'(*.5,).*.0'*&'/,7,.-''0',.'4'$$'(90'('860'*$'4'5/2'$%-1/')%5'0(+**/0H''.5')+%,6%0%.(%'$%.5%$0')+%'(*.>1.(),7,),0'*&'0,86/%,$$,)','),*.'6$*.%')*''0018%''61$1/%.)'(+'$'(;)%$''),0',86*00,4/%')*'0'2'+*3'0**.')+%'5,0;(+'$-%'*&'(*.>1.(),7,),0'4%(*8%0'(*.)'-,*10'*$'('6'4/%'*&$%6$*51(,.-')+%'5,0%'0%',.'*)+%$0H41)',)0''(),7,)2',.')+,0'$%06%()'0%%80')*'4%'$0*8%'6$*6*$),*.')*')+%',.)%.0,)2'*&')+%,.&/'8;8'),*.'3+,(+'6$*51(%0',)H''.5')+%''(),7,)2'*&'-*.*$$+*%'/'610',0'6$*4'4/2'-$%')%$')+'.')*'&'.2'(*.>1.(),7'/6$*51()' .')+%

9',/0*' '/&*$5' (/%'$'7,0,*.'*&'%B)%$.'/'*4>%()0' '%6'),%.)H 41)',&'.*' 01(+'6'/'(%' ('.'4%*7%$%5' '' 7%$2' ('1),*10' *6,..*.' 0+*1/5' /,7%.' 3,)+'$%-'$5')*')+%' 5%-=$%%' *&' 4%.%&,)' 6+' 8 '2' 4%' +*6%5' &*$' ^*8' '.' *6%$'

U G +% %B)$% 8 %' ,8 6*$)'.(%' *& 4*8 %'') *') +%' 7,01'/' &1. (),*.'$%.5%$0' ,)' :%00'$2')+')',)0' ,.)%=.,)2'0+*1/5'4%' -1'$5%5' 8)+%' -$%')%0)'6*00,4/%' ('$%' .' '.2'(' 0%*=*.>,8(),7,),0'*&'%7%.' 8*5%$')% 0%7%$,)2' (*$.%'' 0+*1/5' 4%' 3')(+%5' &$*8' 5'2')*' '.5' '.2' '66%'$'.(%' *&')1$4,5,)2' '4*1)' .)$'/6*$),*.' $*&'%/%7')',*.' *$',$$%-1' 2' *&')+%' %6,)+%/,18' ')',)0' 8 '$-,.'0+*1/5')*' '' $%(*.0,5%$')*.' *&')+%')$%')8%.)' :,',0' 4%,.-'61$01%5' +%' &*$8%$' *&')+%0%' >,*.0',0')+%' *$5,.'$2'6$%(1$0*$' *&'0/*1-+' 6(%$' *$'.%($*0,0H)+%'/')))%$' *&')+%' %B)%.' ')+%' (*$.%''*&'.',.&/'88')*$2'6$*(%00' % -%.%$'/6$,.(,6/%0' 3+,(+'-*7%$.')+% 8%.)*'*$2'6$*(%00'=5'4%'9%6)'1.5%$')+%',.&/1%.(%'*&'%0%$,.% '+'0''8'$9%5'%&&%()',.'(+%(9,.-')+%'%B' 4.'*&'1/($'),*.'42''$%0),.-')+%' 8,-$' /*&'3+,)%'(*$610(/%0H')+')'.2'0)$,.-%.)0' +' 8'2'4%' '66/,%5')*')+%' (*.>1.(),7''/5'4%' 6$%7%.)%5'&$*8'(*8,.-',.)*'(*.'=3,)+')+%' (*$.%'H')+')'0)$%.-)+'0+*1/5' 66*$)%5'6',.'$%/,%7%5''.5'/*('/'.1)$,' /,81/')%5'42'+*)''66/,(',)*.0' +%.' %$',.1%0')*'06$%'5',)0'6$*-$%00' 6%.'4%' '$$%0)%5'42'5,8,.,0+,.-')+%' *&')+%'-/*4%'42')+%'%7'(1'),*.'*&')+%' +18*1$H''.5')+,0'8'2'4%'('((*8' %,)+%$'42'$%6%')%5'6'$'(%.)%0,0')' m/%'/8'$-,.''*$'42' '%8,0(+<0'8%)+*5' >,-')+$*1-+')+%'4'0%'*&')+%'1/(%$''.5' >,-')+%',.(,0,*.'5',/2'1.),/''6$*(%00'*&' 83%/'%0)'4/,0+%5'*$'42')+%'6%$&*88' $,5%*)*82' &')+%0%')+$%%'(*1$0%0' m.'8%5',0')+%'8*0)'-%.%$'//2''66/,')'.*)'*./2'6$*51(%0')+%',88%5,')% =(+',0'5%0,$%5'41)',)'+'0' '/0*')+%' :'/''57'.)'-%'*&'%0)'4/,0+,.-''.'$),' 6,/')')+%'0,5%'*&')+%'(,('))$,B' 66/,(','),*.'*&'%0%$,.%'.0'4%0)'%&&%()%5' ''0*/1),*.'*&')+%'.%1)$'/01/6+')%' $%.-)+'*&'&*1$'-$',.0')*')+%'*1.(%'*&' 3')%$g'.5''5$*6'*&')+,0'0*/1),*.' Q6/'(%5'3,)+,.')+%'(*.>1.(),7'/'0'(' 6+$,(%'5',/2 *1-+,..-'1/(%$0'*&')+%'(*$.%''3+,(+' ('10%0'*)+%$')+'.'(*.>1.(),7,),0' *$'&',/1$%'*&'.1)$,),*.'8 10)'4%' m*.')+%'6$,.(,6/%0'3+,(+'+'7%'/';,'/',5'5*3.' +%$%''$%'+*3%7%$' /*$2'1/(%$0'3+,(+'$%E1,$%')+%'10%' 66/,%'),*.0'*&''0),81/'),.-'9,.5' /,%+'5$2' ('/*8%/'.5')*)+%, X%$$' 5''6$*8,.%.)'6/'(%' 1(+'1/(%$0' =2''/%'0+'*&'7%00%/0'$,8..-'&$*8' 8 $.%'/'8'$-,.''.5''$%'*&)%.'*40),.')%/2' m3+%.(%')+%2' '$%'9.*3.''0'0$%' 0(1/'$'1/(%$0<+%2' '$%'101''//2' 7,)+'0*8%'8'.,&%0)'020)%8,(' 5%; $'.-%8%.)'.5''$%'*&)%.')'))%.5%5'42'6+*)*; 6+*4,''+%2'/%'7%'0*'$0'16*.')+%'(*$.%'' *&''0,C%'.5'*6'(,)2'6$*6*$),*.')%')*')+%,$' %B)%.)'.5'5%6)+H'.5'*.')+,0'((*1.)',)'0' 5%0,$'4/%'3+')%7%$'(*.0),)1),*.'/')$%')8%.)' 8'2'4%' $%E1,$%5')*'+%'/')+%' 1/(%$0')+%8; 0%/7%0''0'06%%5,/2''0'6*00,4/%'42')+%''5'*&' /*('/'66/,(''),*.0' .')+%%'$/2'0)'-%0'*&')+%' 1/(%$'),*.'%0%$,.%0+*1/5'4%10%5H41)'&)%$; 3'$50%,)+%$'5$2'('/*8%/'*$'.'*,.).'%.)'(*.;)',.,.-'&$*8')%.')*')+,$)2'-$',.0')*')+%'*1.(%' *&')+%'6$%(,6,)')%5'2%//*3'*B5%*&'8%$*1='+,0'*,.)8%.)'3'0',.)$*51(%5',.)*'6$'(),(%' 42')+%'/')%' $' -%.0)%(+%$'*&' ,%04'5%.' '.5',0'*&)%.'('//%5'42'+,0'.'8%' .'7%$2' *40),.')%'('0%0')+%'/')%' $',$,)(+%))'$%(*8; 8%.5%5'0%)*.0',.')+%')%86*$'/$%-,*.0H41)')+%'*6%$'),*.'*&',$,5%()*82 3,/'*&)%.'&&*$5' '0),/'8*$%' %&&,('(,*10' $%8%52' +%$%')+%$%',0'81(+'6+*)*6+*4,''')+%'10%'*&%0%$,.%' ,0'%06%(,'//2',.5,('%5'4%('10%',.''55,),*.')*',)0''(),*.'*'4*7%'8%.),*.%5',)'6$*51(%0' (*.)$'(),*.''*&)+%'616,/''.5')+10',7%0'(*8; &*$)'42'/%00%.,.-')+%'E1'.),)2'*&'/,-+)'3+,(+' ,0'58,))%5',.)*')+%2%' &')+%'6+*)*6+*4,'' ,0'7%$2'0%7%$%'*$',.)$'()'4/%',)',0'*&)%.'4%.%; &,(,'/')*'5,7,5%')+%'*$4,(1'$,0'810(/%&$%%/2' ')')+%'*1)%$'('.)+10'0*'0')*'5,8,.,0+')+% 6$%001$%'3+,(+',0'('10%5'42',)0'06'08*5,(' (*.)$'(),*.''.5'3+,(+'0*8%),8%0'0L%80')*' 4%''(+,%&'('10%'*&')+%',$$,)'4,/,)2' &)%$' 01(+'.',..(,0,*.''(*/5'(*86$%00'0+*1/5'4%' '66/,%5''.5')+%'6'),.)'9%6)',.')+%'5'$9&*$' ''&%3'+*1$0'3+%.')+%$%'3,/'*&)%.'4%'' 8'$9%5''//%7,'),*.'*'&')+,0'5,0)$%00,.-'0286;)*8''.5''-$%')/2',.($%'0%5'-%.%$'/'8%.; '4,/,)2')*')$%'),.%.) <'5" '' ! ' 6 '' %$')),)0 G' .&/'88'),*.'*'&')+%'(*$.%''6$%0%.)0')+$%% 5,0),.()')26%0')+%) ')+%) ' '.5')+%'/" ') ' F G 1661$'),7% ,.&/'88'),*.'*$'40(%00'*&')+%'(*$.%''0%%80')*'4%%00%.),'//2''6+/%-8*.'*$'4*,/'*&')+% (*$.%'/'),001%''6*$),*.'*&'3+,(+'5,%0'' .5',0' ('0)'*&&,.')+%'&*$8'*&''0/*1-+ !(! G=+%'40(%00'(*88%.(%0''0''' 7%$2')%.5%$'-$%2'06*)',.')+%'(*$.%''01$; $*1.5%5'42''C*.%'*&')1$4,5,)2''.5'((*8; 6'.,%5'42''-**5'5%'/'*&',/,'$2'.%1$'/-,'''0' 3%/'0'42''7'$,'4/%'5%-$%%'*&'/'($28'),*.' (*.>1.(),7'/'(*.-%0),*.''.5',.)*/%$'.(%'*& /,-+)'.5%$')+%',.&/1%.(%'*&')$*6,.%'+*)' &*8%.)'),*.0''.5'01(+'(*.0),)1),*.'/')$%'); 8%.)'0')+%'0)')%'*&')+%'6'),%.)'8'2'5%8'.5')+%')+$%')%.%5'01661$'),*.',0'*8%),8%0' '7%$)%5''.5')+%')1$4,5,)2'(/%'$0'3'2' *$%(*88*./2'610',0'&*$8%5''.5'8'9%0' ,)0'3'2'%,)+%$'%B)%$.'//2'/%'7,.-'.'*$5,.'$2' ,5*%$H*$',.)%$.'//2'6$*51(,.-')+%'%*.5,),*,,' ('//%5'# '',.'3+,(+')+%$%',0'610',.')+0' .)%$,*$'(+'84%$'*8%),8%0',)'0%6'$')%0')+%'(*$.%'/'8,.'%'42'-$'7,)'),*.')*''(*.; 0,5%$'4/%'%B)%).)'4%&*$%'6%$&*$'),.-')+%8'.5' ,0')+%.'('//%5'"(' &$*8'' '$%0%84/'.(%')*)+%'/1.1/''')')+%'4'0%*&''&,..-%$.'/

7%/*68%.)' *&'7%00%/0'16*.')+%'(*$.%''3+,(+' /*2'*((1$',.'(*..%B,*.'3,)+')+%'(,('),$,0').*.' '1/(%$0'*$',.' (*.0%E1%.(%'*&')+%'&$,(),*.'*& &%Ø/%&)' -$'.1/'$'42'(*.>1.(),7,),0' .'4*)+'))%0%&*$80')+%' .%3'7%00%/0' '$%' '$4*$%0(%.)' '5',$$%-1/'$',.')+%,$' 5,0)$,41),*.',.0)%'5'*& 4%,.-' (/*0%/2'6'(9%5')*-%)+%$H ' .5')+%2' '$% E*)' '))%.5%5' 42')+%' 6,.9'C*.%'*&'%,$*18' 4*$.%'/'(*.-%0),*.'3+,(+',0'.%7%$' '40%.)',.' m)$1%'(*$.%'/',.&/'88'),*.

+%'7%00%/0'3+,(+' '))%.5')+%'&*$8'),*.'*&' (,('))$,(%0'-%.%$'//2'53,.5/%',.'(*1$0%'*&'),8%H 3+,/%')+*0%'6$*51(%5'42'-$'.1/'$'/,50'.5' 3+,(+' 3+%.')+%2' '$%' 7%$2' '41.5'.)' .5' (/*0%/2' 0%)' (*.0),)1)%')+%' (*.5,),*.' ('//%5' '3,/' *&)%.' 5,0'66%'$' 3,)+*1)' 5,$%()')$%')8%.)',&')+%'0)'%'*&')+%'/,50')+%80%/7%0' ('.'4%&'7*1$'4/2'8*5,&,%5'42')+%''66/,(','),*.' *&'0)$,.-%.)0'*$'42'*)+%$' 8%'.0' b +%.' $%0,51'/'-$'.1/'),*.0'' $%'/'$-%'.5'.18%; $*10')+%2'8'2'4%'$%')%5'42'($10+,.-')+%8' 3,)+'&*$(%60'42'0($'6,.-'*$'42'%/%()$*/20,0H &*$'3+,(+'61$6*0%')+%2'0+*1/5'4%'0%6'$')%/2' 61.()1$%5'42''6/'),.18'.%%5/%'(*,8%*)%5' 3,)+')+%'.%-'),7%'6*/%'*'-'/7'.,('4')%$2' '3%'9'(1$%.)'*./2',0'$%E1,$%5''.5',)'8'2' 4%'01&&%$%5')*'6'00')+$*1-+'%'(+'-$'.1/'),*.' &*$'&$*8')%.')*')3%.)2'0%(*.50' .'8'.2' ('0%0')+%'7'0(1/'$'.%)3*$9'*&'6'..10'3,/'4%' (*86'$'),7%/2'40%.)'&$*8')+%'/*3%$')+,$5'*&)+%'(*$.%''0*')+')'0,-+)',0'1/8*0)'5%0)$*2%5'9.5' 3+%.',)'$%0,0)0'8,/5%$')%')8%.)',)'8'2' 0*8%),8%0'4%'(1$%5'42',.*(1/'),*.'3,)+')+% 5,0(+'$-%'*&',.&'.),/%'61$1/%.)'*6+)+'/8,'' +%'610',0',.0%$)%5'4%)3%%.')+%',50'.5')+%'$),&,(,'/8'/'52'01&&%$%5')*'$1.',)0' (*1$0%'1.(+%(9%5'%B(%6)'42'(/%'./,.%00'.5' &$%E1%.)'4')+,.-'+%.')+%'5,0(+'$-%'+'0' (%'0%5')+%'(*$.%''3,/'*&)%.'(/%'$',.'' '01$6$,0,.-'8'..%$''.5',)0''4.*$8'//2'7'0; (1/'$0)'%'6$*)%()0',)'*''7%$2'-$%')'5%; -$%%'-',.0)'+%'$,09'*&'0/*1-+'.-'),//)+,0(' $,^',0'42'.*' 8%'.0'40%.)'.5')+%)$%')8%.)'42',.*(1/'),*.'0+*1/5'4%'$%-'$5%5' *./2''0''/')'$%0*1$(%' '0*8%3+')'0,8,/'$' %&&%()'8'2'4%'*)',.%5'42')+%',.&/'88'),*.' 3+,(+',0'%B(,)%5'42'4')+,.-')+%'%2%0'3,)+' '.',.&10,*.'*&')+%'0%%50'*&'>%E1,$,)2H 41)')+,0'8%)+*5',0'0('$(%/2'/%00'5'.-%$*10')+'.')+')'42',.*(1/'),*.

A(R'5" 'F G +,0',0''(+$*.,(' =i5'52'3+,(+',0'0%%.'(+,%&/2'*$'6%$+'60' =B(/+0,7%/2'.')+%'014>%()0'*&',.+%$,)%5' 026+,/,0'3+*'6*00%00')+%'6%(1/,'$')%%)+'.5' '3+,(+' $'1)(+,.0*.'+'0'0+*3.')'* 4%'(+'$'()%$,0),(''*&')+%,$',.+%$,)'.(%' +%' 5,0%'0%'3'0'/*.-'5%0($,4%5''0''' 7'$,%)2'*& 00)$18*10'*6+)+'/8,'H<'.5''/)+*1-+')+%' /')%' ,$' ,X,'8' ,/5%'6*,.)%5'*1)'+*3' &$%E1%.)/2',)'3'0'00*(,')%5'3,)+'5%'&.%00' '.5''/0*''/',5'0)$%00'16*.')+%'7'/1%'*&'6%$' (+/*$,5%'*&'8%$(1$2',.',)0')$%')8%.)',)0

026+,/,),(' (+'$'()%$'0%%8 0')*'+'7%'4%%.'&,$0)' 0106%()%5'42'$'1)(+,.0*.'3+*'+'7,.-' *.(%'*4)',.%5')+%'(/1%'&*//*3%5',)'3,)+' (+'$'()%$,0),(' 5,/,-%.(%'1.),'+%'$$,7%5''),'' (*.(/10,7%'5%8*.0)$'),*.'*&')+%''((1$'(2'*& +,0'0106,(,*.

!(! G .)%$0),),''9%$'),),0' (*8; 8%.(%0''0''' 0/,-+)'(/*15,.%00'*&')+%'(%.)$'/ 6*$),*.'*&')+%'(*$.%''3,)+'0*8%$*1-+%.,.-= *$,$$%-1/'$,)2'*&')+%'%6,)+%/,18')'%B)%.5= &$*8')+%'(%.)$%')*3'$50')+%'8'$-,.''.5', /,'4/%')*'4%'))%.5%5',.'5,&&%$%.)'('0%0'.'5 ')'5,&&%$%.)'0)'-%0'*&',)0'(*1$0%'42'7'$,'4> 5%-$%%0'*&',/,'$2'.5'(*8%'/'(*.-%0),*' '.5',.)*/%$'.(%'*&/,-+)' &'.%-/%()%5'*.')$%')%5'42',$$,)'.)0',)'/,'4/%')*'0018%'& (+'$'()%$0'*&'7'0(1/'$'9%$'),),0',/,'4/%')*'0018%'& %B)%.5')*')+%',$,0',.'01(+',.0)'.(%0'*&)= 5*,.-',$$%6'$'4/%'8,0(+,%&')',0'8*' (*88*.'51$,.-'(+,/5+**5'41)',)0''66%'$R '.(%8'2'4%'5%/'2%5'1.2',/'5*/%0(.(%'*E %7%.'1.),/'51/)'-%H'.5',.'01(*'%'0%' 101'//2''66%'$0')*'4%'5%)%$8,.%5'42'0*85' -%.%$'/*$/*('/%B(,),..'('10%'01(+'0'4*5,/2' ,//.%00'*$5,$%()',.>1$2')'))'(90'4*)+' %2%0'*.%'(*88*./2'0*8%3+')'/')%$')+'.')+% *)+%$'.5',)0'(*1$0%',0'*&)%.'6$*)$'()%5'*7%$ 0%7%$'/8*.)+0'+%.'0%7%$%',)'/%'7%0'0*8% $%0,51'/(/*15,.%00'*&')+%'(*$.%''.5'%7%.' 3+%.'8,/5',)'5*)',0'5*14)&1/3+%)+%$')+%'(*$.%'' %7%$'%.),)$%/2'$%-'.,0')+%'.06'$%.(2'*& +%'/)+'),//'3+%.'''('0%',0'0%%.''.5'>15,:, (,*10/2')$%')%5'%'$/2')+%'6$*-.*0,0'8'2' -%.%$'//2'4%'''&'7*1$'/,/%'*.% ! "+%')$%')8%.)'(*.0,0)0'6$,; 8'$,/2',.')+%'7*,5'.(%'*&''',$$,)'.)0H)+% 10%'*&'%0%$,.%''.5'/*('/'0%5'),7%0'%06%(,'//2' (*(',.%H''.5')+%'58,.0)$'),*.'*&'6%$' (+/*$,5%'*&'8 1$2'*$'*&',*5,5%'*&'6*)'00,18' 3,)+'*$3,)+*1)',$*.'*$(*5/,7%$'*,/'.+%.')+%2'$%'.*)'(*.)$',.5,(')%5'42''.2'06%A=' (,$(180)'.(%0')+%'6%$(+/*$,5%'*&'8%$(' '.5')+%'*,/'$%')+%'$%8%5,%0'*.'3+,(+'& -$%')%0)'$%/,'.(%8'2'4%'6/'(%5'+%%' ,.5,(',*.0'&'6$*)%()0',)'*''7%$2'-$%')'5%; 5*')+')'/,-+)',0''(),.-''0''.',$$,)'.)'0+*1' 4%'8%)'42'(*.&,.%8%.)')*'''.'/8*0)'5'$9%.., $**8'''.5'42'&$%E1%.)'4')+,.-'*&')+%'(/*0% /,50'3,)+'(*/5'3')%$H'41)',.'&,.%'3%')+%]' 5',/2'%B%$(,0%'0+*1/5'4%')'9%.',.')+%*6%.'',$')+%'%2%0'4%,.-'(*7%$%5'&*$')+%'),8%'3,)+' '' 4/'(9'0,/9'4'.5'-%''.5'(*86$%00%0'*&'('$5%5' 3**/'0*''0')*'%B(/15%/,-+)'%.),$%/2'0'**.' '0'6+*)*6+*4,''0140,5%0')+%0%'6$%('1),*.0' 8'2'4%'/%&)'0,5%G)+%'%0%$,.%''.5'8%$(1$2' 4%,.-'0),/'(*.),.1%5''')'/%'0)'1.),')+%'(1)% 0)'-%*&')+%'8'/'52'+'0'%.),$%/2'6'00%5''3'2' &)%$'),+,0')+%'*40*$6),*.'*&'$%0,51'/*6'(,)2' 8'2'4%'6$*8*)%5'42')+%''66/,(','),*.''.(% 5',/2'*&''8*$0%/'*&''.'*.)8%'(*.),'+,-.-' '08*//'E1'.),)2'A'4*1)')%.'-$=0')*''.' *1.(%'*&')+%'6$%(,6,)')%5'2%//*3'*B,5%'*& 8%$(1$2 .'('0%0'3+,(+'+'7%'4%%.'.%-/%()%5'*$' '--$'7')%5'42',$$,)'.)0',.')+%,$'%'$/2'0)'-%0' '.5',.'3+,(+')+%'6+%.*8%.''*&'*$5,.'$2

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5,&&%$%.)' ('0%0H' .5' '/F)+')' (' .' 4%' ('//%5' %00%.),'/' .' *$5%$')*' (*.0),)1)%' -/'1(*8 ' ' ,0' ' (*84, .'),*.'*&',86',$%5'*%.)$,'7,0,*.' .5' 5,8,.1),*.'*&')+%'&,%/5'3,)+',..($%'0%5')%.0,*.' 5,0(*7%$'4/%' 42')+%' %51(')%5'&,.-%$' +%.')+,0' (*84,.'),*.' ,0' 6$%0%.)')+%$%' 0+*1/5' 4% .*' 5*14)' 0')*')+%' 5,'-.*0,0' 0')+%$%' 3,/F (%$)',./2'4%' .*'),8%')*' 3'0)%',.',.%&&,(,%.)')$%')8%.)

! G +%')$%')8%.)' *&'-/'1(*8 '' ,0'%.),$%/2'01$-.,('/')+%'&&%(),*.'4%,..-'('6'4/%' *&'$$%0)'42',$,5%()*82'*$'0(/%$*)*82',.')+%' -$%')'8'>*$,)2'*&'('0%0' .')+%'8*$%''(1)%' &*$80'.'*6%$'),*.',&'6%$&*$8%5'01&,*,%.)/2' %'$/2'101''//2'$%0)*$%0'7,0,*.')*',)0',.)%-$,)2H 41)')+%',8%'51$,.-'3+,(+')+,0' ('.'4%'5*.%' ,0'/,8,)%5''.5',.')+%'8*$%'(+$*.,('&*$80'.*' *6%$'),*.' 3,/F 5*' 8*$%')+'.'6$%0%$7%$3+')' '8*,8)'*&'0,-+)',0'0),/F$%)',.%5' %.(%',)',0' ,86*$)'.)')+')')$%')8%.)' 0+*1/5' .*)' 4% 5%/'2%5'42' .2'%$$*$'*&'5,'-.*0,0H' .5')+%' 6*,.)0')*' 3+,(+' '))%.),*.'0+*1/5'(+,%&/2'4% 5,$%()%5',.'.2'('0%'*&',86',$8%.)'*&'7,0,*.' ,.'3+,(+')+%'E1%0),*.'8'2''$,0%''$%',.($%'0; ,.-'+'$5.%00'*&')+%'%2%4'/F'0'5%)%$8,.%5'42 6'/6'),*.' .5'-$'51'F(*.)$'(),*.'*&')+% &,%/5'*&'7,0,*.' +%.%7%$')+%'%2%',0'4%(*8; ,.-'+'$5%$'.5')+%'(,$(18&%$%.),'F%B)%.)'*& 7,0,*.',0'.'$$*3,.-',.')+%'('0%',0'*.%',.'3+,(+' .'*6%$'),*.'0+*1/5'4%'('**86+0+%5'3,)+'0' /,))/%'5%/'2'0'6*00,4/%')')+%'0'8%),8%' 1.),F)+%'*6%$'),*.'('.'4%'6%$&*$8%5''&*1$' -$'.'0*/1),*.'*&'%0%$,.%'0+*1/5'4%''66/,%5' %7%$2'&*1$'+*1$0H),0'5$1-'+'7,.-'''8'$9%5' %&&%()',.'(*.)*//,.-''.5'5,8,.0+,.-')*.0,*.' '.5'4%,.-''66'$%.)/2',.5%4)%5'&*$')+,0'6*3%$')*',)0'8%(+'.,('F'(),*.'16*.')+%',$,0'3+,(+' 42')+%'(*.)$'(),*.'*&')+%'616,/',0')+,..%5'*1)' .5'5$'3.''3'2'&$*8')+%'&,/)$'),*.''$%''')',0''$5/2'.%(%00'$2')*''55',)+')'.'.2'('0%' *&'()1'F*$')+$%')%.%5'-/'1(*8''')+%'10%' *&''8 25$,'),('3*1/5'4%'+,-+/2'5'.-%$*10' +%'8*$%''(1)%'%'0%0'*&'-/'1(*8''$%' ')%.5%5'42'81(+'6'8'&,$*8')+%'5,0)%.0,*.' *&')+%'*(1/'$)1.,(0''.5'*&)%.'42'(*.-%0),*.' '.5',.&/'88'),*.')+%'$%01/)0'*&')+,0'5,0)%.; 0,*.'H'.5'01(+'('0%0'3%$%'')'*.%'),8%'5%; 0($,4%5''0'0'(1)%'.)%$.'F'$)+$,),('*6+)+'/; 8,'<*$42'0*8%'0,8,/'$'.'8%' ,0,*.'+'0' 4%%.',$$%)$,%7'4/2'/*0)',.'+1.5$%50'*&'('0%0' 42'%.5%'7*1$0')*' (*.)$*F)+,0'&*$8'*&'-/'1; (*8''42'8%5,('F)$%')8%.)')*')+%'.%-/%()'*& *6%$'),*.H'.5')+%'%$$*.%*10'6$'(),(%'+'0' 4%%.'9%6)'/,7%'42')+%'(,$(180)'.(%')+')' 0*8%'*&')+%'('0%0'3,/F1.5%$-*'6'$),'F'.5')%86*$'$2' 8%.58%.)' .'01(+'(,$(18; 0)'.(%0'+*3%7%$')+%'7,0,*.'.%7%$'$,0%0')*')+%'5%-$%%'*&'(1)%.%00'3+,(+'%B,0)%5'6$,*$)*')+%'')'(9'.5')+%'8%.58%.)'.0'.%7%$' 8*$%')+'.')%86*$'$2' .*)+%$',.($%'0%'*&)%.0,*.'0**.'*((1$0H'.5'3,)+*1)'01$-,('F ',5'4/,.5.%00'0**.%$'*$'/')%$'(/*0%0')+%' 0(%.%

' ' ' ' 0 ' % # ' '.5' G=0 0+*3.'42')+%'*6+)+'/; 8*0(*6%')+%0%'5,0%'0%0'(*7%$''7%$2'3,5% &,%/5'*&'6')+*/*-2' .'*$5%$')*',85%$0)'.5')+%8'((1$')%/2',)',0'.%0%'$2')*'4%'$',' 8,.5')+%''.')*82'.5'$%/'),7%'$$'.-%8%.)' *&')+%'&&%()%5'),001%0' +%'*6),('.%$7%',')+%'*$4,)',0',.7%0)%5'42''5*14/%0+%')+'.5')+%',.)%$7'F4%)3%%.')+%'/'2%$0'*&),0'0+%')+' 3+,(+',0'(*.),.1*10'3,)+')+%'014'$'(+.*,5' 06'(%')%$8,.')%0',.''')*3'$50')+%' %2%4'//')+%')3*'/'2%$0'4%(*8,.-',.),8')%/2' ,8,)%5'3+%$%')+%2'4/%.5'3,)+')+%'0(/%$*),(')')+,0'6*,.)')+%'*6%...-',.')+%'0(/%$*),('&*$)+%'58,00,*.'*&')+%'*6),('.%$7%',0'($*00%5' 42''&,/8'*&'6%$&*$')%5'(*$8%%),7%),001%')+%' "'3,)+'3+,(+')+%'0+%')+0'*&')+%'.%$7%&,4$%0'4/%.5'*$',.'3+,(+')+%2'$% /*0)'0*')+')+%'.%$7%'.)%$,*$)*')+%'/'8,.'' (*.0,0)0'*&''41.5/%'*&')80+%')+%5'&,4$%0' %.7%/*6,.-')+%'(%.)$'/'$)%$2'*&')+%'$%),.'' 3+,(+'%.)%$0')+%'%2%'3,)+')+%8''.5')+%' (%.)$'/'7%,.'*&')+%'$%),.''3+,(+'6'00%0'*1)' ,.')+%'0'8%'6*0,),*.' .'%.)%$,.-')+%2%')+%'.%$7%&,4$%0'4%.5'$*1.5')*'&*$8')+%' '.)%$,*$'/'2%$'*&')+%'$%),.''/'4/**5 7%00%/0'/8*0)')*')+%,$'1/),8')%'5,7,0,*.0')*-%)+%$'3,)+' 0*8%'5%/,(')%'(*..%(),7%'),001%'+%'(6,/; /'$2'(,$(1/'),*.'*&')+%'.%$7%',)0%/&'0'5%$,7%5' &,=*8')+%''.)%$,*$'(%$%4$'/'$)%$2''.5',0' 5,0),.()'0'7%'&*$''7%$2'0/,-+)'8*1.)'*& '.'0)*8*0,0'&/*8')+%'('6,//'$2',($(1/'),*.' *&')+%'0+%')+'3+,(+',0'&%5'42')+%'$)%$,%0' *&')+%'6,''8')%$')'&*//*30')+')'+26%$0%8,'' *&')+%'0+%')+'*$'*&')+%'(,$(/%'01$$*,85,.-')+%'.%$7%'8'2'%B,0)'3,)+*1)'+26%$'%8,''*&)+%'6$*6%$'.%$7%),001%''.5',)'+'0'4%%.'016; 6*0%5')+')'&/1,5'6$%001$%',.')+%',.)%$7'-,.'/ 06'(%'8'2',..)%$6*0%''.'*40)'(/%')*')+%'(,$; (1/'),*.',.')+%'7%00%/0'3+,(+'6'00')+$*1-+')+%'0(/%$*),('&*$'8%.''.5'8'2')+10'*((0,*.' 5$*602'*&')+%')%$8,.'),*.'*&')+%'.%$7%'3,)+,.')+%'%2%'&')+%')3*'&*$%-*,.-'(*.5,),*.0' %,)+%$'8'2')85%$-*'$%0*/1),*.'+'$8/%00/2'*$ 8'2'6$*51(%'01(+'(+'.-%0',.'*$'$*1.5')+%' .%$7%'0')*'*((0,*.'')$*6+2'.5'/*00'*&'0,-+)' %,)+%$'*&')+%8',.)%$&%$%0'3,)+'0,-+)'5,$%()/2' 4%('10%')+%'(,$(1/'),*.'8'2'4%'0%$,*10/2'5,0;)1$4%5'42''5%-$%%'*&'6$%001$%'3+,(+',0',.01&; &,(,%.)')*'0)*6')+%'(*.51(),*.'*&',86$%00,*.0')+$*1-+')+%'.%$7%&,4$%0'+%$%',0'2%)')+,$5'(*.5,),*.'6$*6%$/2'('//%5'*6),('.%1$,),0' *$" ' " " ',.'3+,(+')+%'('6,//'$2' .%)3*$9'*&')+%'.%$7%',)0%/&'6'$),(,6')%0',.' (+'.-%0'6$*6'-')%5'5*3.3'$50''.5',.'3+,(+' ,86',$8%.)'*&'7,0,*.'+*/50''7%$2'%'$/2'6/'(% '8*.-')+%'0286)*80

'6 " G +%')$1%'6%$,.%1$,),0',.' 3+,(+')+%'1.(+'.-%5'.%$7%5,0('0'01$; $*1.5%5'42''C*.%'*&+,-+'7'0(1/'$,)2',0' *./2'0%%.'0''$%01/)'*&'8%.,-,),0'3+,(+' 8'2'4%'%,)+%$')14%$(1/'$'*$'51%')*')+%$ ('10%0')'3'0')'*.%),8%'+*6%5'42'*1(+1)' 42'3+*8')+,0'%06%(,'F6+%.*8%.*.'3'0'&,$0)' 5%0($,4%5')+')'6%$,.%1$,),0'8,-+)'0%$7%''0' '5,'-.*0),('0,-.',.'('0%0'*&5*14)&1/8%.,.-%'/ ,.&/'88'),*.H41)')+,0'%B6%()',*.'+'0'.*)' 4%%.'$%'/,0%5' +%'6%$,.%1$,),0',)0%/&'+'0'*./2

4%%.' *40%$7%5',.' ('0%0')+%' (+'$' ()%$'*&'3+,(+' 3'0' 0('$(%/2' 5*14)&1/' '.5' 3+,(+' ,.' 8*0)' ,.0)' .(0%0'+'7%')%$8,.')%5'&')''//2' %$2'6$*; 4'4/2'+*3%7%$',)' 3*1/5'4%'&*1.5',&'/**9%5' &*$',.')+*0%' ('0%0' *&' %B'.)+%8')*10' '.5' *)+%$'&%7%$0'3+,(+' '$%' ''))%.5%5' 42' (%$%4$'/ 0286)*8 0'&*//*3%5' '&)%$'$%(*7%$2'42',8 6',$; 8%.)'*&'7,0,*.' .')+%0%'3%'%7%.)1''//2'&,.5' '0' ''$1/%''''6'$),'/.%$7% ')$*6+2'3+,(+'5*%0' .*)/%'5'*.')*' (*86/%)%'4/,.5.%00'41)'3+,(+' 5*%0' .*)' '66%'$')*'4%'010(%6),4/%'*&',86$*7%; 8%.)H' .5')+,0'6'$),'/')'$*6+2'8'2'.*'5*14)' 4%'51%')*')+%'6$%001$%'*&'6%$,.%1$'/%B15'),*.' 51$,..-',)0' (*.)$')'(),.-'0)'-%

2 = +%)$%')8%.)'*&'6%$,.%1$,),)0' 810)'-%.%$'//2'4%')+')'*&')+%' '&&%(),*.',' 3+,(+',)'+'0',)H'*$,-.H 41)',.' .2'&%7%$',.' 3+,(+')+,0'0286)*8'+'5'4%%.'5%)%()%5',)' 3*1/5'4%'''E1%0),*.'3+%)+%$'8%$(1$2'0+*1/5' .*)'4%'('1),*10/2'58,.,0)%$%5'&*$''(*.0,5%$; '4/%'),8%''&)%$'(*.7'/%0(%.(%',.'*$5%$')* 6$*8*)%')+%''40*$6),*.'*&'.2'%&&10%5'/286+' 42'3+,(+')+%'*6),(.%$7%%.)$'.(%'8,-+)'4% (*.0)$,()%5

G' B# 'C G '9 $*6022'*&')+%' 6),(%$7%'.)$'.(%G+,0',0''(*.5,),*.' (+,%&/2'0%%.'.','(*..%B,*.'3,)+',.)$'($'.','/)18*1$0'3+%)+%$'026+,/,),('1)14%$(1/'$'*$'*&' 0*8%'*)+%$'9,.5H '.5',)''/8*0)',.7'$,'4/2' '&&%()0'4*)+'%2%0')'3'0'&*$8%$/2'0166*0%5')*'4%'51%')*')+%'6$%001$%'*&'&/1,5'5$,7%.'5*3.')+%',..)%$7%'-,.'/06'(%''$*1.5')+%'.*$7%' .5'0*'(*.0)$,(),.-')+%/'))%$'')')+%')%$8,.'/ '0')*',86%5%)+%*1)&/*3'*&'7%.*10' 4/**5' +,0'+26*)+%0,0',0'.*)'.*3'1.,7%$0'//2' '((%6)%5'41)')+%'(*.5,),*.'7,0,4/%'3,)+')+%' *6+)+'/8*0(*6%',0'*.%'*&'5,0)%.0,*.'.'5')*$)1*0,)2'*&')+%'$%),.'/'7%,.0H '$%0)'*&')+%' ('6,//'$2' (,$(1/'),*.H ,86%5,8%.)')*')+%' '$)%$,'/,.&/*3H 5$*60,('/'%&&10,*.' ..)*')+%' 5,0( ),001%0H '.5'0*8%),8%0'0%(*.5'$2',.; &/'88')*$2'(+'.-%0'01(+''0''%&&10,*.'.'5' (%// 6$*/,&%$'),*.'(*86'$'4/%')*')+%'%$2)+%8''3+,(+'*((1$0',.')+%',.)%-18%.)'*&''5$*60,('/ +84' //)+%0%'(+'.-%0'8'2'%B,0)'3,)+*1)' ,86',$8%.)'*&'7,0,*.'4%('10%')+%2'.%,)+%$' '&&%()')+%'6%$(%6),7%'/'2%$'*&')+%'$%),.''.*$' '$$%0)')+%'(*.51(),*.')+$*1-+')+%'.%$7%' &,4$%0'')''/')%$'6%$,*5'+*3%7%$'3+%.' .2'6/'0),('%/%8%.)0',.')+%'%B15'),*.'4%-,.')*'1.5%$-*'(*.)$'(),*.')+%',.)%$&%$%.(%'3,)+')+%'(,$(1/'),*.'4%(*8%0'8*$%'(*86/%%')+% .%$7%&,4$%0')+%80%/7%0'4%(*8%'(*865%00%5' '.5')+%.'&'/,8%'*&'0,-+)'(*88*./2'*((1$0')')+%'0'8%'6%$,*5')+%'.%$7%'6'00%0',.)*' '0)')%'*&')$*6+2'&$*8')+%',.)%$&%$%.(%'3,)+' ,)0'(,$(1/'),*.'.'5')+%0%'*'0%0'*&'.%$7%' ')$*6+2'3%$%'*.(%'0*1$(%0'*&'-$%')'6%$6/%B,)2')*'01$-%*.0''.5'3%$%'$%&%$%5')*''/(*+*/')*; 4'((*''.5')*'*)+%$'('10%0'3+,(+'6$*4'4/2' +'5'7%$2'+))/%')*'5*'3,)+')+%8'.'6+2' /**9%5''.5'3'0'*./2'5,0(*7%$%5'3+%.'6+2' 0,(,'.0'4%-'.')*'10%')+%'*6+)+'/8*0(*6%''0'\0166/2'*&')+%'*6),('.%$7%'4%,.-'5%$,7%5'&$*8 '.'*$5,.'$2',.0)$18%.)'*&'5,'-.*0,0',.''// ('0%0'*&'(%$%4$'/''&&%(),*.')'3'0')+%.'0**.' %0)'4/,0+%5'.*)'4/2'42')+%'/'4*1$0'*&' $0' 1-+/,.-0' (90*.' 1CC'$5''.5' +&&*$5' 41))')+')')+%''))$*6+2'+'5'4%%.'6$%(%5%5' 42'03%//,.-'*&')+%'5,0(''.5'42'*40)$1(),*.'*&' ,)0'(,$(1/'),*.H'.5',)'3'0'0+*3.'4%&*$%/*.-')+')'+%'('0%0'*&')$*6+2'3+,(+'+'5')+,0' +,0)*$2'3%$%'$%(*-.,0'4/%''&)%$')+%'03%//,.-' +'5'6'00%5''3'2'42')+%')*$)1*0,)2'*&')+% $%),.='7%,.0'3+,(+'3'0'/%&)'4%+,.5''.5'42')+%'3'2',.'3+,(+')+%0%'7%,.0'3%$%/,&)%5',.)*' 4*/5'(1$7%0')')+%'8$-,.'*&')+%'5,0(H)+,0' '/)%$'),*.'*&')+%,$'*$,-,.'/(*1$0%'+'7,.-'4%%.' 51%')*')+%'03%//,.-''.5'$%8',.,.-''&)%$'#' 03%//,.-'+'5'0140,5%5' +%'(*.)$'(),*.'*&')+%'%&&10,*.''.5')+%'(*.0%E1%.)''$*6+2'*&')+%'.%$7%&,4$%0'.5'(/*01$%'*&')+%'('6,//'$2' 7%00%/0'3*1/5'4%'/,9%/2')*'*((1$%'$/,%$',.' 0*8%'6')0'*&')+%5,0(')+'.',.')+%$0H''.5' +%.(%'')')+%',8%'3+%.'(*88%.(,.-'&*,/1$%' *&'0,-+)'&,$0)',.51(%$')+%'6'),%.)')*' 0%%9' 57,(%'*.''((*1.)'*&',)'+%'5,0('3'0'(*81' 8*./2'0%%.')*'4%',.7'5%5'42'0%()*$0'*&'3+,)%; .%00'41)')*'$%)',.',)0'7'0(1/'$,)2'*$'6%$+'60' 8*$%')+'.',)0'.*$8'/7'0(1/'$,)2',.')+%$ 6')0H3+,/%')+%'0'8%),8%')+%'0,-+)'3'0' &,$0)'/*0)',.')+*0%'$%-,.0'*&')+%'$%),.')+% &,4$%0'&,*8'3+,(+'3%$%'&,$0)'(*86$%00%5' %.(%',)'&*//*30')+')''6'$),'/.7'0,*.'*&)+%'5,0('42')$*6+,('(+'.-%0''.5''6'$),'/ .7'0,*.'*1.5')+%'&,%/5'*&'7,0,*.'42'4/.5'6*$;),*.0''$%''8*.-')+%'%'$/,%0)'0286)*80',. *'0%0'*&')+%'(/'00'1.5%$'(*.0,5%$'),*.H'.5')+%0%'0$86)*80'3%$%'')'*.%'),8%'$%&%$%5' $')+%$')*')+%'.%$7*10'(%.)$%0')+'.')*')+% $%),.''*$')+%'5,0('),0%/&')*'(+'.-%0',.'3+,(+')+%2'$%'.*3'))$,41)%5''.*)'1.(*88*.' (/,.,('/'+,0)*$2',.'01(+'('0%0',0')+')')+%$%' +'0'4%%.'(*.0),)1),*.'/026+,/,0',86%$&%()/2')$%')%5''.5'1/),8')%/2'6$*51(,.-'+%'5'(+%' *$'*)+%$'(%$%4$'/'0286)*80'3+,(+'+'7%'6$*; 4'4/2'('//%5'&*$')+%''58,.,0)$'),*.'*&',*5,5%' *&'6*)'00,18'.5'+'7%'4%%.'$%/,%7%5'42',)' *8%'3%%90'&)%$3'$5'0')+%$%',0'&*$')+%'&,$0)'),8%''(*86/',.)'*&'&',/,.-'0,-+)H'.5')+%.')+%'*6+)+'/8*0(*6%'$%7%'/0')+')'+)+%'5,0(' '$%'6'00,.-',.)*''0)*6+2')+')'+)+%'$%),.'/ 7%,.0'$%+&)%5',.)*'6$*8,.%.)'(1$7%0')')+% 5,0(8'$-,.0''.5')+')'+)+%,$'&'$)+%$'(*1$0% *7%$')+%'$%),.''',0'-%.%$'//2'0%$6%.),.%' 8'.2'('0%0')+%'$%(*7%$2'*&')+%'6'),%.)''0' &'$'0'-%.%$'/+%')+',0'(*.(%$.%5'/%'7%0')+% 6$%(,0%(+'$'()%$'*&')+%',.)$'($'.,'/8,0(+,%& 5*14)&1/H 41)'.'&')'/('0%0''')18*1$',0')+% 8*$4,5'(*.5,),*.'8*0)'&,$%E1%.)/2'5,0(*7%$%5' (!.'*$5,.'$2',.0)$18%.)'*&'5,'-.*0,0',.''// ('0%0'*&'(%$%4$'/''&&%(),*.')'3'0')+%.'0**.' %0)'4/,0+%5'.*)'4/2'42')+%'/'4*1$0'*&' $0' 1-+/,.-0' (90*.' 1CC'$5''.5' +&&*$5' 41))')+')')+%''))$*6+2'+'5'4%%.'6$%(%5%5' 42'03%//,.-'*&')+%'5,0(''.5'42'*40)$1(),*.'*&' ,)0'(,$(1/'),*.H'.5',)'3'0'0+*3.'4%&*$%/*.-')+')'+%'('0%0'*&')$*6+2'3+,(+'+'5')+,0' +,0)*$2'3%$%'$%(*-.,0'4/%''&)%$')+%'03%//,.-' +'5'6'00%5''3'2'42')+%')*$)1*0,)2'*&')+% $%),.='7%,.0'3+,(+'3'0'/%&)'4%+,.5''.5'42')+%'3'2',.'3+,(+')+%0%'7%,.0'3%$%/,&)%5',.)*' 4*/5'(1$7%0')')+%'8$-,.'*&')+%'5,0(H)+,0' '/)%$'),*.'*&')+%,$'*$,-,.'/(*1$0%'+'7,.-'4%%.' 51%')*')+%'03%//,.-''.5'$%8',.,.-''&)%$'#' 03%//,.-'+'5'0140,5%5' +%'(*.)$'(),*.'*&')+%'%&&10,*.''.5')+%'(*.0%E1%.)''$*6+2'*&')+%'.%$7%&,4$%0'.5'(/*01$%'*&')+%'('6,//'$2' 7%00%/0'3*1/5'4%'/,9%/2')*'*((1$%'$/,%$',.' 0*8%'6')0'*&')+%5,0(')+'.',.')+%$0H''.5' +%.(%'')')+%',8%'3+%.'(*88%.(,.-'&*,/1$%' *&'0,-+)'&,$0)',.51(%$')+%'6'),%.)')*' 0%%9' 57,(%'*.''((*1.)'*&',)'+%'5,0('3'0'(*81' 8*./2'0%%.')*'4%',.7'5%5'42'0%()*$0'*&'3+,)%; .%00'41)')*'$%)',.',)0'7'0(1/'$,)2'*$'6%$+'60' 8*$%')+'.',)0'.*$8'/7'0(1/'$,)2',.')+%$ 6')0H3+,/%')+%'0'8%),8%')+%'0,-+)'3'0' &,$0)'/*0)',.')+*0%'$%-,.0'*&')+%'$%),.')+% &,4$%0'&,*8'3+,(+'3%$%'&,$0)'(*86$%00%5' %.(%',)'&*//*30')+')''6'$),'/.7'0,*.'*&)+%'5,0('42')$*6+,('(+'.-%0''.5''6'$),'/ .7'0,*.'*1.5')+%'&,%/5'*&'7,0,*.'42'4/.5'6*$;),*.0''$%''8*.-')+%'%'$/,%0)'0286)*80',. *'0%0'*&')+%'(/'00'1.5%$'(*.0,5%$'),*.H'.5')+%0%'0$86)*80'3%$%'')'*.%'),8%'$%&%$%5' $')+%$')*')+%'.%$7*10'(%.)$%0')+'.')*')+% $%),.''*$')+%'5,0('),0%/&')*'(+'.-%0',.'3+,(+')+%2'$%'.*3'))$,41)%5''.*)'1.(*88*.' (/,.,('/'+,0)*$2',.'01(+'('0%0',0')+')')+%$%' +'0'4%%.'(*.0),)1),*.'/026+,/,0',86%$&%()/2')$%')%5''.5'1/),8')%/2'6$*51(,.-'+%'5'(+%' *$'*)+%$'(%$%4$'/'0286)*80'3+,(+'+'7%'6$*; 4'4/2'('//%5'&*$')+%''58,.,0)$'),*.'*&',*5,5%' *&'6*)'00,18'.5'+'7%'4%%.'$%/,%7%5'42',)' *8%'3%%90'&)%$3'$5'0')+%$%',0'&*$')+%'&,$0)'),8%''(*86/',.)'*&'&',/,.-'0,-+)H'.5')+%.')+%'*6+)+'/8*0(*6%'$%7%'/0')+')'+)+%'5,0(' '$%'6'00,.-',.)*''0)*6+2')+')'+)+%'$%),.'/ 7%,.0'$%+&)%5',.)*'6$*8,.%.)'(1$7%0')')+% 5,0(8'$-,.0''.5')+')'+)+%,$'&'$)+%$'(*1$0% *7%$')+%'$%),.''',0'-%.%$'//2'0%$6%.),.%' 8'.2'('0%0')+%'$%(*7%$2'*&')+%'6'),%.)''0' &'$'0'-%.%$'/+%')+',0'(*.(%$.%5'/%'7%0')+% 6$%(,0%(+'$'()%$'*&')+%',.)$'($'.,'/8,0(+,%& 5*14)&1/H 41)'.'&')'/('0%0''')18*1$',0')+% 8*$4,5'(*.5,),*.'8*0)'&,$%E1%.)/2'5,0(*7%$%5' ($! ' (' ') +%.')+%'8%$%/2'6'00,7%'5$*60,('/'%&&10,*.' ,.)*')+%'5,0(' 4%(*8%0'(*86/,()%5'3,)+',.; &/'88')*$2'(+'.-%0''0'$%01/)0'*&')+%'5,0)1$4; '.(%'*&')+%'),001%0')+%'0,-+)'4%-,.0')*'&','/ 4%&*$%''')$*6+,('(+'.-%0'4%(*8%'8'.&%0)H '.5'01(+'('0%0''$%'7%$2'5,&&,(1/)')*'5,0; 0)'-%'3'0'&*$''''/*.-'),8%''40*/1)%/2'*7%$'' /**9%5''.5'3'0'*./2'5,0(*7%$%5'3+%.'6+2' 0,(,'.0'4%-'.')*'10%')+%'*6+)+'/8*0(*6%''0'\0166/2'*&')+%'*6),('.%$7%'4%,.-'5%$,7%5'&$*8

)+%' .)%$,*$ (%$%4$'/ '$)%$2'3%8 '2' $%'0* .; '4/2 %B6%()')*' &,. 5' ('6,//'$2' %. -*$-%8%.)' *&)+%' .%$7% 0140)' .(%' *&')+%' 5,0(' ,.' (* .,%B,*.' 3,)+' '$)%$,'/ +26%$%08,'' *&')+%' 4$',.'H ' .5')+,0 ('6,//'$2' %. -*$-%8%.)' 8'2' 6'00' ,.)*' ,.&/' 8 8 '),*.' %,)+%$' *& /*('/ *$,-,.' *$' 42')$' .08,00,*.'5*3.3'$50'&,$*8' '4*7%' .'' .2' ('0%',&')+%' &,$0)' (+'.-%0' ,.')+%' 5,0(' '$%' *&)+%' (+'$')(%$' *& .%1$,),0' $')+%$')+'.'*&' *4; 0)$1(),*.' 3%' 0%%' ('6&,/'$2' *$ '$)%$,'/ +26%$' '08,'' *&)+%' .%$7% 0140)' .(%' $')+%$')+'.' 7%.*10' (*.-%0),*.H ' .5' %&&10,*.' *&' 6/'0),('8')%$,'/16*.')+%' 5,0(' ,)0%/& 3,)+' (*86'$'),7%/2'/,)))/%' 6$*8,.%.(%' *$' 5,0* 03% ,.-' '.5' 3,)+' (*86'$'),7%/2'/,))/%' %B)%.0,*.' *7%$')+%' 5,0(8'$-,.0' 16*.')+%' 01$$*1.5,.-' $%),.' ')')+%'0'8%),8%'%7%.',.')+%' %'$/2'0)'-%' *&)+%' '&&%(),*.' 3%' &,.5' -$%')' ,86',$8%.)' *& 0,-+)')+%' (*.51(),.-' 6*3%$' *&')+%' .%$7% &,4$%0' 4%,.-' 0%$,*10/2' ,.>1$%5' 1(+' ('0%0' '$%'&,$%E1%.)/2'026+,/,),('' .5'1./%00')+%' '4; 0*$6),*.' *&')+%' %&&10,*.' 0+*1/5' 4%' E1,(9/2' 4$*1-+)<'4*1)'42')$%')8%.)',)0' *.)$'(),*.' /,9%)+')'*&')+%' %&&10,*.' *&'*40)$1(),*.' 0**.' *(('0,*.0')$*6+,(' (+'.-%0' .')+%0%' ('0%0' +*3%7%$')+%' 03%//,.-'+'7,.-'4%%.' '40%.)' *$,.(*.0,5%$'4/%$)+%'7%00%/0' 5*' .*)' 0+*3')+')' %/%7'),*.',.)*'4*/5'(1$7%0' ')+%' 5,0(8'$-,.' 3+,(+'+'0' '/$%'52'4%%.' 5%0($,4%5H ' .5')+%' (*.)$' (),*.' 4%,.-',.)%$0),),'/ ,.')+%' .%$7% 0140)' .(%' ' .5'&,$*8')+%'&,$0)' '&&%(),.-' 7%,.0' '.5' %$,%0',.' ' .' %E1'/ 5%-$%%')+%' %)$%,'/ ,.&/*3',0'5,8,.,0+%56'$,6'001'3,)+')+%' 5,8; ,.1),*.' *&')+%' 7%,.(+' ..%/0' '.5')+%' /')0)%$' 7%00%/0' '$%' 0%/5*8' 5,0)%.5%5' ,.' 01(+' ' 8'..%$' 0')*' $%.5%$')+%8'5,0),.()/2'7'$,(*0%' *$)*$0)1*10' +%' 1/),8')%' $%01/)',0' ''3+,)%' 5,0(' *.' 3+,(+')+%' '$)%$,%0' '.5'7%,.0' '$% 53,.5/%5')*')+$%'50'*$' ')' /%'0)' -$%')/2' $%; 51(%5'&$*8')+%,$' .*$8'/('/,4$% %' 8'2')+%$%&*$%' +'7%')+$%%' (*.5,),*.0' 3+,(+',.')+%,$')26,('/ &*$80' '$%')*/%$'4/2' 5,0),.()'41)'3+,(+''$%' 6$*.%)*' $1.',.)*' *.%' '.*)+%$'42' '/8*0)',86%$(%6),4/%' -$'5')',*.0' '.5'3+,(+'8'2' '//' /%'5'*.')*')$*6+2'.'5' (*86/%)%4/,.5.%00'.'8%/2'6%$,.%1$,),0'.%1; $,),0''.5'(+*9%5'5,0(' +%/,'4,/,)2')*')+%/')' 8%.),*.%5' (*.5,),*.' 0+*1/5' 4%' ('$%&1//2' $%8%84%$%5'42'6+20,(,'.0''.5'0+*1/5' /%'5')*' ('$%&1/' *6+)+'/8*0(*6,(' %B'8.')',*.',.' '// *'0%0' *&' *40),.')%' +%'5'(+%' *$' *)+%$' (%$%4$'/ 0286)*80' *&' *40(1$%' *$,-,.' 8*$% Q%06%(,'//2',.''6'),%.)'3,)+''026+,/,),(*+,0)*$2 ! ")',0'8'.,&%0)'+')')+%' 4%0)' +*6%' *&' 6$%7%.),.-' 1/),8')%' 4/,.5.%00' .,.' 6%$0*.0',.' 3+*8'(+*9%5'5,0(' +'0'*((1$%$%5' 3,/' 4%' 0%(1$%5' 42')+%' '58,.,0)$'),*.' *& 8%5,(,.%0' ('/(1/')%5')' '00,0)')+%' '40*$6),*.' *&')+%' %&&10,*.' ' .5' 42' (*.),.1,.-')+%0%' 8%5,(,.%0' 3,)+' *86'$'),7%/2'08'//' $%&%$; %.(%')*')+%' -%.%$'/0286)*80'1.),/)+%'5,0(0' +'7%' (/%'$%5' +%' 3$,)%$' +'0' 0%%.' 01(+' %/%'$,.-'*((1$'3,)+*1)'/*00' *&'0,-+)',.' (,$; (180)'.(%0' 3+,(+'$%.5%$%5',)' '/8*0)'(%$)',.')+')'.%-/%()'*&')+%'5,0(%&&10,*.0' 3*1/5'+'7%' 4%%.' &*//*3%5' 42' 4/,.5.%00' ')' .*' 5,0)'.) 5')%' +%'0'8%'-%.%$'/ $1/%' 3,/' '66/2'*& (*1$0%')*')+%' 8*$%' 5,$%()/2' ,.&/'88')*$2' %&&10,*.0' *&'.%8,),0' *$ 6%$,.%1$,),0Hf ' .5' 3+%.'3%&,.5' .2'*.%'*&')+%')+$%%' (*.5,),*.0' 6'00,.-',.)*')$*6+2'*$ 3+%.' 3%' &,.5' (*8; 8%.(,.-')$*6+2',.'5,0(0' 3+,(+'0+*3')$'(%0' *&'6'0)' %&&10,*.')+%' 6$,.(,6/%'*&')$%')8%.)',0')*' %.5%'7*1$')*' 6$*8*')+%' '40*$6),*.' *&' .2'(*.)$'(),.-'8')%$,'/ 3+,(+' 8'2'4%')+%' 6+20,('/ ('10%' *&')+%' ')$*6+2H ' .5')+%.' 3+%.')+,0'+'0'4%%.'5*.%')*' 0%%9')*' 0),81; /')%')+%' .1)$,),.'*&')+%' .%$7%&,4$%0'.5')*' '00,0)')+%8')*'$%(*7%$&$*8')+%'0+*(9'3+,(+')+%2'+'7%010)',.%5' +%'8*5%'*&&1/&,/8%.)' *&')+%' &,$0)' ,.5,(','*.'810)'5%6%.5'8',./2' 16*.'3+%)+%$')+%$%' ,0' '' +,0)*$2' *&026+,/,0' '.5',&'0*'16*.')+%' 7*1$')*' 6$*8*')+%' 40*$6),*.' *&' 4%%.')$%')%5' .1 8%$*10' 5%6%.5'8',./2' 16*.'3+%)+%$')+%$%' ,0' '' +,0)*$2' *&026+,/,0' '.5',&'0*'16*.')+%' 8'..%$',.'3+,(+',)' +'0' 4%%.')$%')%5' .18%$*10' %0' ,.' 3+,(+'' 0+*$)' (*1$0%' *&' 8%$(1$2' +'0' 4%%.' '58,.,0)%$%5'%.*1-+')*' '//%7,')%' 0%(*.5'$2' 0286)*80' 41)' 3+*//2' ,.01&&,(,%.)')*' %$'5,; (')%')+%' 5,0%'0%',)' 3,// -%.%$'//2'4%5%,$'4/%')*'-,7%',*5,5%' *&' 6*)'00,18',.'&,&//5*0%0' &*$'')',8%'.5')*' &*//*3')+,0' 42')+%' 6$*/*.-%5' '58,.,0)$'),*.'*&')+%6%$(+/*$,5%' *&8%$(1$2',.')+%' +*6%' *&' $%'//2' (1$,.-')+%' 6'),%.)' +%$%' '$%'.')+%' 3$,)%$0' %.*.-%' 3$%)+,.-0' 4%))%$' 3*$)+' $%8%/.4%$,.-',.')+%$'6%1),(0')+'.')+')')+%',*5,5%',8 8%'01$'4/2'>,+%' 8*0)'7'/1'4/%'5$1-'3+,(+'3%'6*00%00' '0' '' $%8%52'&*$' '' /')%' 026+,/,),(' 0286)*8' ,0'.*%')+%' /%00' '/8*0)'10%/%00' '0' '' $%8%52'&*$'(*.0),)1;),*.'/026+,/,0')' 3,/' $%8*7%')+%' 6$%0%.)' 0286)*8'06%%5,/2'.5'*&)%.'(*86/%)%/2H 41)' ,)'('.'0('$(%/2'4%'0',5')*'+'7%' .2')%.5%.(2')*'6$%7%.)')+%' $%(1$$%.(%'*&026+,/,),(' 0286;)*80')' '' &1)1$%'),8%',.')+%'0'8%*$',.'0*8%' 5,&&%$%.)'&*$8' *$')+,0'61$6*0%')+%' *./2')$10)3*$)+2' '-%.)',0' 8%$(1$2H ' .5')+%$%; &*$%'3+,/%')+%' '58,.,0)$'),*.'*&')+%',*5,5%' &*$' '01&&,(,%.)',8%'.5',.'01&&,(,%.)'E1'.;),),%0')*')%0)',0'6*3%$'*&5*,.-'**5'3 /4%' %.*1-+',.')+%' *'0%0',.'3+,(+'02,6+,/,0',0' .%,)+%$'9.*3.'.*$'0106%()%5')+%',*5,5%'810)' 4%'&*//*3%5'42'8%$E1$2'3+%.%7%$''026+,/,),(' +,0)*$2'*&')+%' &&%(),.*.',0'(*.0),)1),*.')+%$' (/%'$' *$ +,-+/2'6$*4'4/%' +%' 0%(*.5',.5,(',*.')*' 0),81/')%')+%'.1)$,),*.'*&')+%'.%$7%&,4$%0',0' 10,,'//2'4%0)'((*86+0+%5'42'0)$2(+.,.%'-,7%.' ')'01(+',.)%$7'/0'.5',.'01(+'5*0%0'(0')*' 6$*; 51(%'%7,5%.(%'*&',)0'(*.0),)1),*./%&&%()'4%; &*$%,)0'58,.,0)$'),*.',0'4'.5*.%5')'8'2' 6%$+'60'4%'8*0)'%&&%()1'//2'-,7%.'42'+26*; 5%$8,(',.>%(),*.H 41)')+,0',0''6*,.)'3+,(+' 810)'4%0%))%5',.''((*$5'.(%'3,)+')+%'(,$; (180)'.(%0'*&')+%'('0%',.'%'(+'.,5,7,51'/ ,.0)'.(%' 1$,.-')+%'/'0)'3*'*$)+$%%'2%'$0' ,.'('0%0'*&'-$%')'5,0(' 03%//,.-'3,)+',86',$; 8%.)'*$'/*00'*&'0,-+)')+%' 3$,)%$'+'0'*.'&*1$' *((0,*.0' ,.(,0%5')+%'0+%')+'*&')+%',6),(' .%$7%'4%+,.5')+%'%2%'0*'('0')*'-,7%'%B,)'* '.2'((181/'),*.'*&'&/1,5',.')+%',.)%$7'-,+'/ 06'(%'*$')*'$%/%'0%'.'',.&/'8%5'.%$7%'&$*8')+%'6$%001$%'*&',)0'1.2,%/5,.-'(*7%$,.-' +%' $%01/)0'+'7%'4%%.'-%.%$'//2'0'),0&')(*$2H '.5' ,.'*.%'*&')+%'6'),%.)0'3+*'+'5'4%%.')*')//2

DD@ ' ' ' ' ' '

4/, . 5' &*$ 0%7%$'/' 5'20'7,0,* .' 3 '0' (* 8 6/%)%/2' $%0)*$%5

"' ('& ' (' " 'N 7

G 1(+' '))%.),*. ,' + '0' 4%%. ' 4%0)* 3 %5' *&' /')%' 2%'$0' 16*. ' '' &*$ 8' *&' -$'51'/' &', /1$%' *&' 7,0,* . ' 3+,(+' &,$0)' '&&%()0' (+,%&/2')+%' (%.)$'/ 6*$),* . 0' *&')+%' $%),. '%' ' . 5' 3+,(+' '66%'$0')*' 5%6%. 5' 16*. ' '' (+$* . ,(' . %1$,),0' '))' (9,. -' *$,-,. '//2')+%' 6*$),*. ' *&')+%' *6),*' . %$7%')$1. 9' 3+,(+' (* .)' ,. 0')+%' &,4$%0' 5%0),. %5' &*$')+%' $%-,* . ' *&')+%' 8' (1/' '/1)%' ' +,0' '&&%6'),* . ' + '0' *&)%. ' 4%%. ' (* . . %()%5' 3,)+')+%' %B; (%00,7%' 10%' *&')+%' 0)$* . -%$' &*$ 8 0' *&')*4' ((* ' '0' 3%/' '0' 3,)+')+%' '410%' *&' '$5%.)' 06,$,)0' *$ 3,)+' 4*)+')+%0%' (* . 5,),*. 0',. ' (* 8 4,. '),*. ')' ,0' (+' $' ()%$,0%5' 42' ,8 6 ',$8 %.)' *&' 0,-+) ' . 5' '/0*' *&' (*/*1$ 0%. 0%')+%' ,8 6 ',$8 %.)' 4%,. -' ')' &,$0)' /, 8 ,)%5')*')+%' (%.)$'/ 6*$),* . ' *&' &,%/5 ' '. 5')+%' (*/*1$ 0%. 0%' *&)%. ' 4%(* 8 ; , . -' (+' . -%5' 4%&*$%&*$8 7,0,* . ',0' 7%$2' . *),(%; '4/2' '&&%()%5')' 8 '2' %B)%. 5' ,&' . %-/%()%5' *7%$')+%' 3+*/%' *&')+%' . %$7% &,4$%0' ' . 5' 8 '2' 1/), 8 ')%/2' /%' 5')*' 6$' (),(' /' 41)' 0%/5*8')*' '40*/1)%' 4/, . 5 . %00' 6%$(%6),* . ' *&/,-+)' ' . 5' *&' /'$-%' *4>%()0' 4%, . -' *&)%. ' $%)' , . %5' . ' *$5%$')*')%0)' &*$' (%.)$' /' /*00' *&' (*/*1$ 0%. 0%' ,)' ,0' . %(%00' $2')*' 4%' 6$*7,5%5' 3,)+' 08' /' $%5' ' . 5' -$%%. ' *4>%()0' 3+,(+' 8 '2' 4%' 8 *7%5' ,' 01(; (%00,* . ' *7%$' 7' $,*10' 6' $)0' *&')+%' &,%/5 ' ' . 5' 3+,(+' ,' . ')26,(' /' ('0%0' 3,/' '66%'$' 8 1(+' /%00' 4$,-+)' , ')+%' (%.)$%')+' . ' 3+%. ')+%2' '$%' +%/5' ''/,))/%')*' * . %' 0,5%' *&')+%' 5,$%()' /, . %' *&' 7,0,* .

2 +,0' *. 0,0)0' &,$0)/2' , . ')+%' '4' . 5* . 8%.)' *&')*4' ((*' . 5' '/(*+*/H 0%(* . ' 5' $,/2' , . ' %. 5%' 7*1$0')*' , 8 6$*7%')+%' -%. %$' /+%')/)+' H)+,$5/2' , . ')+%' 10%' *&' 8 %5,(, . %0' 01(+' '0' ,*5,5%' *&' 6*)'00,1 8' . 5' 8 %$(1$2' 42' 3+,(+' (+$* . ,(' , . &/' 8 8 ')*$2' (* . 5,),* . 0' '$%' /,9%/2')*' 4%' (* .)$*//%5H ' . 5' /' 0)/2' , . ' 0), 8 1/'), * . ' *&')+%' 3%' 9%. %5' . %$7%0' 42')+%' ('$%&1/' % 8 6/*2; 8%.)' *&' 0)$2(+. , . %' '7%$2' ('$%&1/' 6$*- . *0,0' 0+*1/5' 4%' -,7%. ' , . ')+%' &,$0)' , . 0)' . (%H 41)' ,&' ,8 6$*7%8%.)' *. (%' (* 8 8%. (%0')+%' ('0%' 3,//' 101''//2')%$8, . ')%' , . '$%(*7%$2

' ' # ' ' 3 'N) G %0,5%0')+%' (* . 0%(1),7%' &*$ 8 0' *&')*6+2' '4*7%' %. 1; 8%$')%5')+%$%' ,0' 2%)' ' . *)+%$' *&' (* 8 8 *. ' *((1$$%. (%' 3+,(+',(+' ,0' %,)+%$' ''6$,8 '$2' 0('/%$*0,0' *&')+%' *6),(' . %$7%' *$' ''0('/%$*0,0' 0%(* . 5' $2')*' '' 0,8,/' $' '&&%(),* . ' *&' *)+%$' 6')0' *&')+%' . %$; 7*10' (%.)$%0' +,0' &*$8' *&')*6+2' ,0' . *)' 6$%(%5%5' 42' %&&10,* . ' . *$' ,0' ,)' '))%. 5%5' 42' ' . 2' 8 '$9%5' 5%($%'0%' , . ')+%' ('/,4$%' *&')+%' (%.)$'/ 7%00%/0' *&')+%' $%),. ' '%7%. ' 3+%. ')+%' ('6,//'$2' (,$(1/'), * . ' *&')+%' 5,0(' +'0' '/8*0)' 3+*//2' 5,0' 66%'$%5')', 0' *&)%. '0%%. ', . ' (* . ; . %B,* . ' 3,)+' 5,0%'0%' *&')+%' 06,. '/ (*$5' '0' , . ' /*(* 8 *)*$' ')' B2H' . 5' '/0*' *((1$0' , . ' '66'; $%.)/2' +%' /)+2' 6%*6/%' 0%% 8 , . -/2' '0' '' 61$%/2' /*('/' &&%(),* .

(/%$*0,0' ,0' %' 0,/2' 5,0),. -1,0+%5' &,=*8')+%' ')$*6+,%0' (* . 0%(1),7%')*' %&&10,* . ' 3+%)+%$' '(),7%' *$' 6' 00,7%' 42')+%' (,$(180)' . (%')+')')+%' %&&10,* . ' '0' ,)' 1. 5%$-*%0' (* .)$' (),* . ')%. 50')*' $%. 5%$')+%' . %$7%),001%0' *6' E1%' '0 3%/' '0')*' 4/%' (+')+%8 ' . 5')+10'/%' 7%0' '' 5,0(' 01$&' (%' *&' . ' '/8*0)',7*$2' 3+,)%. %00' . 5' *&' 1. ,&*$8' (*/*1$' .' 0(/%$*0,0' * . ')+%' *)+%$' +' . 5')+%' . %$7%),001%' 5,0' 66%' $0')*' '' -$%')' %B)%.)' ' . 5')%7%' /0')+%' 8 *))/%5' 01$&' (%' *&)%. ' *&' '' 4/1,0+ 3+,)%'), .)' *&')+%' /' 8,. ' ($,4$*0' '

+%. ')+,0' ,0' 6/' , ./2' 0%%. ' ' . 5' 3+%. ' ')') + %% 0' 8%'), 8%')+%' 7%00%/0' '$%' . %,)+%$' 8 1(+' 5,8, . ,0+%5' , . ' ('/,4$%' . *$' /)%$%5' , . ')+%,$' . *$ 8 '/ (1$7')1$%0' 0(/%$*0,0' 8 '2'4%' '0018%5')*' %B,0)H ' . 5')+,0' &*$8' *&')$*6+2' 8 '2' /0*' 4%' 5,0),. -1,0+%5' &, *8')+')' 3+%,(+',0' 6$*51(%5' 42')+%' 8 *0)' (+$* . ,(' &*$8 0' *&' -/' 1(*8 ' ' 42')+%' (,$(180)' . (%')+')' , . ')+%/')%$')+%' 7%00%/0' 4%. 5' , .)*')+%' %B('7')%5' 5,0(' ')' ,)0' 8 '$-, . ' 3+,/%' , . ')+%&-$8%$')+%2'6'00'*7%$')+%' 8 '$-, . ' , . ' 0)$' , -+)' /, . %0' *$' . %' $/2' 0*' +$*. ,(' -/' 1; (*8 '' 3*1/5' '/0*' 101''//2' 4%' 5,0), . -1,0+%5' 42')+%' (+'$' ()%$' *&')+%' &', /. $%' *&' 0,-+)' 3+,(+' 3*1/5' 4%' 8 '$9%5' 42')+%' *$5, . '$2' (* .)$' (),* . ' *&')+%' &,%/5' *&' 7,0,* . ' % %. ' 3+%. ' (%.)$'/ 7,0,* . ' 3 '0' * . /2' '' /,))/%' ,8 6 ',$%5H' . 5' '/0*' 42')+%' -$'51'/' +'$5%. , . -' *&')+%' %2%4' //' 3+,(+' 3*1/5' 4%' 6$%0%.)' , . ' -/' 1(*8 '' ' . 5' '40%.)' , . ' . %$7% 0(/%$*0,0'),&&' ,)' ('. . *)' 4%' 5%. ,%5')+')')+,0' 6' $),(1/'$' 5,' - . *0,0' ,0' . *)' 3,)+*1)' ,)0' 5,&&,(1/),%0' ' . 5')+')' , . ' (%$)' , . ' ('0%0' ,)' +'0' -,7%. '$,0%')*' 5,&&%$%. (%0' &*6, . ,* . ' 4%)3%%. ' 8$' ,' *&' /' $-%' %B6%$,%. (%' * . ' '//' 0,5%0' *&')+%' E1%0),* . ' ')' ,001%

+%' 5,' - . *0,0' ,0' ,8 6*$)' .)' '0' 3%/' '0' 5,&&,' (*/) ' 0,. (%')+%' 8 ,0(+,%&' *&' -/' 1(*8 ' ' 8 '2' '5 8 ,)' *&' '$$%0)' 42' ,$,5%()* 8 2' *$' 0(/%$*)* 8 2H 0*')+')')*' 8 ,0)' 9%' (+$* . ,(' -/' 1(*8 '' &*$')$*6+2' ' . 5')*' . %-/%()' *6%$'), * . ' 8 '2' 4%')*' (* . 5%8 . ')+%' 6 '), %.)')*' 1. . %(%00' $2' 4/, . 5; . %00' +%' *66*0,)%' %$$*$' (' . ' ')' /%'0)' 5*' . *' +' $8H' . 5')+%$%&*$%' 3+%. %7%$' ''5*14)' $%' //2' %B,0)0' 16*. ')+%' 6*, .)')+%' 8 *0)' 6$*6%$' (*1$0%' ,0')*' -,7%')+%' 4%. %&,)' *&')+')' 5*14)')*')+%' 6'), %.)' ' . 5')*' '57,0%')+%' 6%$&*$8' . (%' *&' ' . *6%$'), * . ' 3+,(+' (' . . *)' , . >1$%' ' . 5' 3+,(+' 8 '2' $%+%7%+,8 ' +%' ')$*6+2' *&' 0(/%$*0,0' 0('$(%/2' '58,)0' *&')$%')8%.)' 41)',)' 8 '2' 6%$; +'60' 0*8%), 8%0'4%'5%/'2%5'*$'%7%. '6$%7%.)%5' &, *8'4%(*8, . -' (*86/%)%'+2')+%' '58, . ,0)$';), * . '*&'&1/'5*0%0' *&' 0)$2(+. , . %' . 5',$*.

F' & # ' ' # ' G %0,5%0')+%' &*$%-*, . -' &*$8 0' *&')$*6+2')+%$%' ,0' ' 7'$,%)2' 3+,(+' '66%'$0')*' 4%' '00*(,')%5' 3,)+' (+$*8%' /%'5 6*,0*. , . -' . 5', . ' 3+,(+')+%' 5,0(0' 8 '2' (E1,$%' '' 6%(1/,'$' -$%2' *$' 4/1,0+').)H' . 5')+%' *6),(' . %$7%0' 8 92' '/0*' 1. 5%$-*' 0%(* . 5'$2' 3 '0), . -' , . ' (* . 0%E1%. (%' *&' *)+%$ (* . 5,),* . 0' 6$%0%.)/2')*' 4%' 8%.),* . %5' 01(+' '0' *40)$1(),* . ' *&')+%' (%.)$' /' $)%$2' 42' ' . ' %8; 4*/10' *$')+%' /* . -' (* .), . 1' . (%' *&' 6, - 8%.)' $2' $%), . ,)0

L' " ' P # 0 G +%' (+,%&' 5,0; *$5%$0' *&')+%' $%), . ' /' (,$(1/'), * . ' 5,06/' 2%5' 42')+%' *6+)+' /8*0(*6%' '$%' +' %8*$$+' -%0' 3+,(+' 8 '2' 4%' '))%. 5%5' 42' 7%$2' 5,&&%$%.)' (,$(18; 0)' . (%0' ' . 5' 8 '2' 6$%0%.)' 3,5%/2' 5,&&%$%.)' (+' $' ()%$0

' "0 G +%. ' 4/**5' 6$*(%%50' &$*8' * . %' *&')+%' /' $-%$' 7%, . 0' *&')+%' $%), . ' ' 3+,(+' 2,%/5

-%.%$’/)1$4,5,)2’*&’)+%’$%),.’’,)0%/&’*$’*&’)+%’ 7,)$%*10’4*52’,.’,)0’,8 8%5,’)%’7,(,.,)2’)+%’ /’))%$’(*.5,),*.’4%,.-’*&’,)0%/&’/8*0)’(*.51’ 0,7%’*&’)+%’.’)1$%’*&’)+%’8*/’52

G +%’)$%’)8%.)’ 810)’ 4%’ -$%’)/2’-*7%$.%5’42’)+%’6’0)’+,0)*$2’*&’)+%’ (’0%’41)’ 8’2’,.’8*0)’,.0)’.(%0’)1$.’ 6*.’)+%’ 10%’*&’,*5,5%’*&’6*)’00,18’&*$’)+%’$%/,%&’ *&’)+%’$%),.’/’)$*14/%0’&*//*3%5’42’’’01)&,(,%.)’ (*1$0%’*&’8 3(1$2’&*$’)+%’%$’5,(’),*.’*&’)+%’ 026+,/,),(’)’,.)

(’.0 ’’ / ’$ ’’ G +,0’66%’$0’)*’ 4%’ ’’)$1%’,.&/’8 8’),*.’*&’)+%’$%),.’’5,&; &%$,.-’&$*8’)+%’&*$%-*,.-’’&&%(),*.0’,.’)+’)’ ,)’’)’(90’)+%’6%$(,6,%.)’%/%8%.)0’,.0)%’5’*&’)+%’&,4$%/’2%$’ $)+%’(*8,%(),7%’),001%’*&’)+%’ 8%84$’.%

3 G +%’ 014>%()0’*&’6,-8%.)’$2’ $%),.,)0’’$%’*&’’//’-%0’&$*8’.,.%’*$’)%.’ 2%’$0’)*’0%7%.)2H’.5’,.’0*8%’,.0)’.(%0’)+%’51$’),*.’*&’)+%5,0%’0%’+’0’4%%.’0’81(+’ 0’)3%.)2’2%’$0’&$*8’)+%’&,$0)’66%’$’.(%’*&)+%’02 8 6)*8 0’)*’)+%,$’1/),8’)%’)%$8,.’,.’,.’ 4/,.5.%00’ 0’’’$1/%’+*3%7%$’)+%’6’),%.)0’ ’$%’2*1.-’’51/)0’*$’6%$0*.0’.*)’6’0)’8,55/% ’-%’

)’,0’’’$%8’$9’4/%’&%’)1$%’*&’6,-8%.)’$2’ $%),.,)0’)+’)’,)’’/8*0)’,.7’$,’4/2’’))’(90’ 8*$%’)+’.’*.%’8%8 4%$’*&’’’&’8,/2H’.5’,)’ +’0’4%%.’0’,5’)*’4%%06%(,’//2’&$%E1%.)’,.’)+%’ *&&06$,.-’*&’8’$$,’-%0’*&’ *.0’.-1,.)2’41)’)+,0’0)’)%8%.)’,0’.*)’4*$.%’*1)’42’ .-/,0+’ %B6%$,%.(%’ 1$,.-’)+%’/’0)’)3%.)2’2%’$0’)+%’3$,)%$’+’0’*./2’8%)’3,)+’*.%&’8,/2’,.’ 3+*8’)+%’.E’/’52’+’5’)+,Z’+,0)*$2

! ’ $’ ’ :G $*8’)+%’%B;)$%8%’(+$*.,(,)2’*&’,)0’(*1$0%’&$*8’,)0’*4; 0),.’(2’’.5’&$*8’,)0’6%(1/,’$’’.’)*8,(’/ 5,0)$,41),*.’6,-8%.)’$2’$%),.,)0’0+*1/5’6$*; 4’4/2’4%’$%-’$5%5’)*-%)+%$’3,)+’0*8%’&*$80’ *&’(+*$*,5,),0’’0’+’7,.-’,)0’’.’/*-,%0’’8*.-’ 0*8%’*&’)+%’(+$*.,(’5,0%’0%0’*&’)+%’09,.’&)’ 101’//2’’66%’$0’)*’(*8 8%.(%’,.’’’.’$$*3’ ’..1/10’.%’$’)+%’%E1’)*$’*&’)+%’%2%4’//’ ’.5’-$’51’//2’06$%’50’,.3’$50’)*3’$50’)+%’ *6),(’5,0(H’)+%’),001%0’’&&%(%5’’$%’)+%’6%$; (%6),7%’’.5’6,-8%.)’$2’/’2%$0’*&’)+%’$%),.’’ ’.5’)+%’014>’(%.)’(+*$,*(’6,//’$,0’3+,(+’ 0/*3/2’4%(*8%’5,0*$-’.,0%5’’.5’8’))%5’)*; -%)+%$’,.’*.%’(*8 8*.’5%-%.%$’),*.’’*,.’ (,5%.)/2’3,)+’)+%’6$*-$%00’%’*&’)+%’5,0%’0%’ 6,-8%.)’,0’5%6*0,)%5’,.’)+%’6’$)0’’&&%(0)%5’ ’.5’,.’)+%’$%),.’’016%$&,(,’/’)*’)+%8’,.’)+% ’’,$$%-1/’$’/,.%0’’.5’0)$,’),*.0’’.5’ %06%(,’//2’’/*.-’)+%’(*1$0%’*&’)+%’8’,.’ ’$)%$,’/’4$’.(+%0’’..1/10’*&’5,0%’0%’ -$’51’//2’(/*0%0’8’16*.’)+%’8’(1/’’)+%’*6),(’ 5,0(’1.5%$-*%0’&)$*6+2’*&’’’9,.5’3+,(+’-,7%0’ ,)’’’6%(1/,’$’),.$c’*&’3+,)%.%00’7%$2’$%’5,/2’ $%(*-.,0’4/%’3+%,=’,)’+’0’*.(%’4%%.’.*),(%5’ ’.5’)+%’(%.)$’/’=7%00%/0’4*)+’7%,.0’’.5’ ’$)%$,%0’53,.5/%’,.,’0,C%

*’#0 # ßG +%o14>%(),7%’02 8 6)*8 0’’$%’ ’0’(+’$’()%$,0),(’’0’A)+%’*6+)+’/$6*0(*6,(’’6; 6%’$’.(%0’ 7%$’)+E’$%-,.*.’’()1’//2’,.7’5%5’)+%’6%$(%6),7%’%/%8%.)0’*&’)+%’$%),.’’’$%’5%; 0)$*2%5’’.5’)+%’6*3%$’)*’$%(%,7%’7,01’/’,8; 6$%00,*.0’,0’/*0)’ +%’&,4$%/’2%$’.*)’4%,.-’ ,86/,(’)%5’)+%’(*.51(),*.’*&’,86$%00,*.0’ &$*8’6’$)0’*&’)+%’$%),.’’8*$%’6%$,6+%$’/’)+’. ’)+%’5,0%’0%’8’2’$%8’,.’1.’&&%()%5H’.5’ +%.(%’3%’8’2’+’7%’’’4/,.5’C*.%’01$$*,85’ ,.-’)+%’(%.)$%’*&’)+%’&,%/5’*&’7,0,*.’’.5’01$; $*1.5%5’,)0%/&’42’’’C*.%’)/’8*$%’%B)$%.’/’ ,.’3+,(+’5,8’7,0,*.’,0’6$%0%$7%5’ 1)’)+% 0’/,%.)’02 8 6)*8 0’’$%’)3*G)+%’-$’51’/’*.;)$’(),*.’*&’)+%’&,%/5’*&’7,0,*.’51%’)*’)+%’6$*; -$%00,7%’%.($*’(+8%.)0’*&’)+%’5,0%’0%H’.5’ .,-+)4/,.5.%00’51%’)*’)+%’%$7%’)$*6+2’ 3+,(+’,.)%$&%$%0’3,)+’)+%’(*.51(),*.’*$’6%$; (%6),*.’*&’.2’41)’0)$*.-’,86$%00,*.0’ +%.’)+%0%’02 8 6)*8 0’(*%B,0)H 3+%.’)+%’&,%/5’*& 7,0,*.’,0’08’//’.5’4%(*8,.-’-$’51’//2’ 0 8’//%$H’.5’3+%.’)+%’6’),%.)’3+*’(’.’0),’ 0%%’&’,$/2’,.’)+%’5’2),8%’(’.’0(’$(%/2’&.5’ +,0’3’2’4*1)’0’5109’4%-,.0’)*’&’//’3%’8’2’ 6$%5,()’)+%’*6+)+’/8*0(*6,(’’66%’$’.(%0’ 3,)+’’’7%$2’.%’$’’66$*’(+’)*’(%$)’,.)2’ +%’ *6),(’5,0(’3,’4%1.’)1$’//2’6’/%’.5’)+% &1.510’*7%$0)$%3.’)*’3’$50’)+%’6%$,6+%$2’ 3,)+’,$$%-1/’$’4/’(9’/,.%0’.5’0)$,6%0’*& 3+,(+’,)’,0’E8)%’6*00,4/%’)+’).*.%’8’2’4% 7,0,4/%’3,)+’,.’)+’)’6*$),*.’*’&’%,&/5’*&’)+% *6+)+’/8*0(*6%’3+,(+’,.(/15%0’)+%’5,0(

G ,-8%.)’$2’$%),.,)0’8’2’6*0; 0,4/2’4%’8,0)’9%.’&*$’)+%’8*0)’(+$*.,(’&*$8’ *&’-/’1(*8’’*.’’((*1.)’*&’)+%’(*.)$’(),*.’ *&’)+%’&,%/5’*&’7,0,*.H 41)’,)’8’2’4%5,0),.; -1,0+%5’42’)+%’40%.(%’*&’+,-+’)%.0,*.’42’)+%’.,-+)4/,.5.%00’’.5’42’)+%’6,-8%.)’),*.’ *&’)+%’$%),.’’ ’)’8’2’/0*’4%’8,0)’9%.’&*$)+%’’&$*6+2’*&’0(/%$*0,0’41)’*./2’,&’)+%’*6+;)+’/8*0(*6,(’%B’8,.’),*.’,0’/,8,)%5’)*’)+% .%$7%5,0(’)*’)+%’%B(/10,*.’*&’)+%’01$$*1.5; ,.-’6’$)0’*&’)+%’&1.510

% G .’)+%’)$%’)8%.)’*&’’’5,0%’0%0 *’%00%.),’//2’(+$*.,(’,)’0’5,&&,(1/)’)*’’$$,7%’ ’)’.2’)$10)3*$)+2’%7,5%.(%’(*.(%.)$,.-’)+% %&&,(’(2’*&’’$%852’41)’)+%’6$*/*.-%5’’5; 8,.0)$’),*.’*&’,$*.’$’)+%$’0’’’&**5’)+’.’0’ ’’8%5,(,.%’,0’)’/%’0)’*&’’’(%$)’.’5%-$%%’*& 1),/,)2’.’’$%0),-’)+%6$*-$%00’*&’)+%’8’/’52’ +%’6$%6’$’),*.’%86/*2%5’,0’6$*4’4/2’.*)’ 8’)%$,’/’’.5’0*8%’8’2’4%’&*1.5’)*’01,)’ 6’$),(1/’$’6%$0*.0’4%))%$’)+’.’*)+%$0H41)’)+% W3$,)%$’*&’,0’((10)*8%5’)*’4%-.,’3,)+’)+%’),.(;)1$%’*&’)+%’6%$(+/*$,5%’,.’5*0%0’*&’&,7% 8,.,80’3%/’5,/1)%5’’.5’-,7%.’)+$%%’),8%0’’ 5’2’’0’6’$)’*&’’’8%’/

0’.#/"’’#’$"’,’1 ’’ 14$%),.’/’$*602 G +,0’,0’’’(*.5,),*.’)+% (’10%0’*&’3+,(+’+’7%’.%7%$’4%%.’0’),0&’(0)*$,/2’ %B6/’,.%5’41)’,)’+’0’4%%.’’))$,41)%5’)*’)+% (*.)$’(),*.’*&’ s’%&&10,*.0’,.’)+%’ 7,)$%*10’4*52’3+,(+’+’7%’4%%.’0166*0%5’)+10’)*’%B%$)’)$’(),*.’*.’)+%’$%),.’ +%’&,$0)’02 8 6)*8’3+,(+’’))$’(0’)+%’ ’);)%.),*.’*&’)+%’6’),%.)’,0’)+%’/*00’*&’6’$)’ 101’//2’%,)+%$’)+%’166%$’*$’)+%’/*3%$’6’$)’*&’)+%’&,%/5’*&’7,0,*.H’.5’,)’,0’8’.,&%0)’)+’)’ /*00’*&’)+%’166%$’6’$)’*&’)+%’&,%/5’8%’.0’5%;)’(+8%.)’*&’)+%’/*3%$’6’,)’*&’)+%’$%),.’’ ’.5

'-%5 42 8%.,.-,),0 '(1)% *$ (/,$*.,(' '.5 %06%(,'//2 42 026+,/,),(' .&/'88'),*.'*$ 42 6$%001$% *&.%,-+4*1$,.-' -$*3)+0' +%*$'5,; (1/'$&,4$%0 3,)+,.')+% 6*.0'*$')+% .1(/%10 4%.%')+')+%&*1$)+'7%.)$,(/%'8 2'4%5'8'-%5 42 +0%8*$$+'-%' 0*&)%.,.-' *$ 42)18*1$0 ,.7*/7,.-')+')'6'$)

C ' ,0 7%$2'$'$%'.5 ,0 51%)*' 5'8'-%)*' 4*)+' .%$7%0'')'+)%*'4'0% *&)+%' 4$',.' &$*8' 8%.,.-,),0 *$ 0288%;)$,('/ 026+,/,),(' 5,0%'0%H)*' 0288%)$,('/ *),),0H *$')*' .'&&%(),*.'*&')+% .1(/%,' 42 5,0%'0%' *&')+%' 6*.0'*$')*' /*00' *&'&1.(),*.' *&')+% .%$7% &,4$%0',.'7'$,*10' &*$80'*&6%$,; 6+%$'/ .%1$,),0')',0 6$*4'4/2' 42')+%'/'))%$' '-%.(2')+')' 5*14/% &%(,'/ 6'$'/20,0 0*8%;),8%0'$%01/)0'&$*8')*B,('4/**50')%0' 26+,/,0' .5'5,6+)+%$,'' '$%')+% 8*0)'(*88*.'.');%; (%5%.)0' *&' 5*14/%' &'(,'/ 6'/02' .*)' 51%)*' 5%8*.0)$'4/%',.>1$2')*')+% .%$7%0' ,0%'0%' *&')+%' .1(/%,' '&&%()0' 4*)+' 0,5%0' 8*0)' &$%; E1%.)/2' 3+%.)' ,)' 5%-%.%$')',7%',.' .')1$%H ,)',0')+%.' (*88*./2'6'$),'/',.7*/7,.-' %06%; (,'//2')+%'/,6' 810(/%0',.'/'4,* -/*00'/'6'$'; /20,0'*$')+%' *$4,(1/'$,0'6'/6%4$'$18',.'$'$% ('0%0'*&'.1(/%'$'*6+)+'/8*6/%-,''0)/2',)' 8 2' 4%' 8%.)+'.*5')+')+%'&'(,'/ 810(/%0' A-%.%$' 2')+*0%',.'.5'4*1)')+%'/,60G=$'$%/2 '//R' $%*(('0,*.'//2',.7*/7%5',.'5,*6')+,(' 810(1/'$' ')$*6+2'.'.5'.'&&%(),*.'*&')+% .%$7%0' 8 2'4%)+10'0,81/')%5

! (! G +%*.0%)'*&'&'(,'/ 6'$'/20,0' 101'//2'$'6,5'3+%.'51%)*' ,)0' (*88*.' ('10%0',.(/15,.-'.%1$,),0' 3,)+,.')+%' ('.'/')'*((16,%0'&$*8''&%3'+*1$0')*')+$%%'*$'&*1$ 5'20',.',)0' 5%7%/*68%.)')',0'&*1.5'&*$' ,.0)'.(%'*.%' 8*$.,.-',.'5$,. .-')+')')+%' &/1,50'$1.'*1)'*&')+%'0,5%'*&',+%'8*1)+'H)+%' &'(%',0'.*),(%5')*'4%''/,))/%'1.028%)$,('/H ')',.-+)')+%'%2%'('..*)'4%'(*86/%)%/2'(/*0%5' '.5'.%B)'8*$.,.-')+%'6'$'/20,0',0'&*,85')*' 4%'(*86/%)%'U'$%/2')+%'*.0%)',0',.''&%3' 8,.1)%0H 6$*4'4/2')+%.'''+'%8*$$+'-%',.)*')+%'.%$7%0+%')+',0')+%'('10%'+%.',.; &/'88'),*.',0'%B(,)%5'42'(*/5')+%'02 86)*80' *&)%.'(*88%.(%'3,)+,.')3%.)2&*1$'+*1$0' *&')+%'%B6*01$%'+%2''$%101=2'6$%(%5%5' *$''((*86'.,%5'42'0*8%'6',.''4*1)'+)%'%'$' *$0,5%'*&')+%'+%'5

.'(*86/%)%'1.,/')%$'/&'(,'/6'$'/20,0''//')+%'810(/%0'*.'*.%'0,5%'*&')+%'&%(%''$%'6'$'; /20%5')'$%0)'+%'08**)+'&*$%+%'5' .5' /*3%$%5' .-/%'*&')+%'81)+'$%')+%'(+,%& ,.5,(',*.0'41)'*.'8*7%8%.)')+%'5,&&%$%.(% 4%)3%%.')+%')3*0,5%0'4%(*8%0'7%$2'8'$9%5H)+%'*.%'+'/&'*&')+%'&*$%+%'5'8*7%0''/*.%',. &$*3.,.-'*$%/%7'),*.'*&')+%'%2%4$*3' +% %2%/,50'('..*)'4%'4$*1-+)')*-%)+%$'.5',.)+%'))%86)')*'(/*0%')+%'%2%')+%'-/*4%',0' $*//%5'163'$50'0')+')'*,&/2')+%'0(/%$*),(' '66%'$0'4%)3%%.')+%'-'6,.-'/,50H)+%'6'),%.)')+%.'*&)%.'&'.(,%0')+')'+%'%2%',0'0+1)' 1$,.-'0/%%6'+%'%2%'$%8',.0'*6%.' .' 08,/,.-')+%'/,60'8'2'4%5,06/'(%5'/)*-%)+%$')*')+%'+%'/)+2'0,5%'&$*8')+%'1.*66*0%5' '(),*.'*&')+%'C2-*8'),(' 810(/%0H)+%'.*0)$,/ *&')+%' '&&%()%5'0,5%'('..*)'4%'5,/')%5H)+%' 166%$'/,6'('..*)'4%'$',0%5'H)+%'(+%%9'&/'60' /**0%/2'&$*8')+%'$%/'B')',*.'*&')+%'41((,.')*$H '.5'&$*8')+%'0'8%' '10%'&**5''((1812/')%0' 4%)3%%.')+%'>'30'.5')+%'(+%%9' +,0)/,.-' ,0',86*00,4/%'&$*8')+%'6'$'/20,0'*&'+'/&'*&)+%'*$4,(1/'$,0'.5')+%'/,60'(*.*)'4%'6; 6$*B,8')%5'01&&,(,%.)/2'%7%.')*'6%$8,)'*&'' (' .5/%'4%,.-'4/*3.'*1)' +%.')+%'/%0,*.',0' 4%)3%%.')+%'>1.(),*.'3,)+')+%'/'$-%'6%)$*0'/ '.5')+')'3,)+')+% +*$5'')286'.,'.%$7%0')'0)%',0'6')/2'*$%.),$%/2'/*0)'.')+%)*.-1%' +%/*00'*&'6*3%$'*&'$%(*-.,0,.-' '(,%5'.5'0'/,.%'0140)'.(%0',0'8*0)'8'$9%5H 41)'4,))%$0'.5'03%%)0''$%'/0*')')'0)%5',.)+,0'6')' 5*14/%'&%(,'/ 6'$'/20,0'0*8%;),8%0'$%01/)0'&$*8')*B,('4/**50')%0' 26+,/,0' .5'5,6+)+%$,''$%')+%'8*0)'(*88*.'.');% (%5%.)0'*&'5*14/%'&'(,'/6'/02'.*)'51%)*' 5%8*.0)$'4/%',.>1$2')*')+%'.%$7%0' ,0%'0%' *&')+%'.1(/%,''&&%()0'4*)+'0,5%0'8*0)' &$%; E1%.)/2'3+%.)',0'5%-%.%$')',7%',.' .')1$%H ,)',0')+%.'(*88*./2'6'$),'/',.7*/7,.-' %06%; (,'//2')+%'/,6'810(/%0',.'/'4,* -/*00'/'6'$'; /20,0'*$')+%' *$4,(1/'$,0'6'/6%4$'$18',.'$'$% ('0%0'*&'.1(/%'$'*6+)+'/8*6/%-,''0)/2',)' 8 2' 4%' 8%.)+'.*5')+')+%'&'(,'/ 810(/%0' A-%.%$' 2')+*0%',.'.5'4*1)')+%'/,60G=$'$%/2 '//R' $%*(('0,*.'//2',.7*/7%5',.'5,*6')+,(' 810(1/'$' ')$*6+2'.'.5'.'&&%(),*.'*&')+% .%$7%0' 8 2'4%)+10'0,81/')%5

! (! G +%*.0%)'*&'&'(,'/6'$'/20,0' 101'//2'$'6,5'3+%.'51%)*',)0' (*88*.' ('10%0',.(/15,.-'.%1$,),0' 3,)+,.')+%' ('.'/')'*((16,%0'&$*8''&%3'+*1$0')*')+$%%'*$'&*1$ 5'20',.',)0' 5%7%/*68%.)')',0'&*1.5'&*$' ,.0)'.(%'*.%' 8*$.,.-',.'5$,. .-')+')')+%' &/1,50'$1.'*1)'*&')+%'0,5%'*&',+%'8*1)+'H)+%' &'(%',0'.*),(%5')*'4%''/,))/%'1.028%)$,('/H ')',.-+)')+%'%2%'('..*)'4%'(*86/%)%/2'(/*0%5' '.5'.%B)'8*$.,.-')+%'6'$'/20,0',0'&*,85')*' 4%'(*86/%)%'U'$%/2')+%'*.0%)',0',.''&%3' 8,.1)%0H 6$*4'4/2')+%.'''+'%8*$$+'-%',.)*')+%'.%$7%0+%')+',0')+%'('10%'+%.',.; &/'88'),*.',0'%B(,)%5'42'(*/5')+%'02 86)*80' *&)%.'(*88%.(%'3,)+,.')3%.)2&*1$'+*1$0' *&')+%'%B6*01$%'+%2''$%101=2'6$%(%5%5' *$''((*86'.,%5'42'0*8%'6',.''4*1)'+)%'%'$' *$0,5%'*&')+%'+%'5

.'(*86/%)%'1.,/')%$'/&'(,'/6'$'/20,0''//')+%'810(/%0'*.'*.%'0,5%'*&')+%'&%(%''$%'6'$'; /20%5')'$%0)'+%'08**)+'&*$%+%'5' .5' /*3%$%5' .-/%'*&')+%'81)+'$%')+%'(+,%& ,.5,(',*.0'41)'*.'8*7%8%.)')+%'5,&&%$%.(% 4%)3%%.')+%')3*0,5%0'4%(*8%0'7%$2'8'$9%5H)+%'*.%'+'/&'*&')+%'&*$%+%'5'8*7%0''/*.%',. &$*3.,.-'*$%/%7'),*.'*&')+%'%2%4$*3' +% %2%/,50'('..*)'4%'4$*1-+)')*-%)+%$'.5',.)+%'))%86)')*'(/*0%')+%'%2%')+%'-/*4%',0' $*//%5'163'$50'0')+')'*,&/2')+%'0(/%$*),(' '66%'$0'4%)3%%.')+%'-'6,.-'/,50H)+%'6'),%.)')+%.'*&)%.'&'.(,%0')+')'+%'%2%',0'0+1)' 1$,.-'0/%%6'+%'%2%'$%8',.0'*6%.' .' 08,/,.-')+%'/,60'8'2'4%5,06/'(%5'/)*-%)+%$')*')+%'+%'/)+2'0,5%'&$*8')+%'1.*66*0%5' '(),*.'*&')+%'C2-*8'),(' 810(/%0H)+%'.*0)$,/ *&')+%' '&&%()%5'0,5%'('..*)'4%'5,/')%5H)+%' 166%$'/,6'('..*)'4%'$',0%5'H)+%'(+%%9'&/'60' /**0%/2'&$*8')+%'$%/'B')',*.'*&')+%'41((,.')*$H '.5'&$*8')+%'0'8%' '10%'&**5''((1812/')%0' 4%)3%%.')+%'>'30'.5')+%'(+%%9' +,0)/,.-' ,0',86*00,4/%'&$*8')+%'6'$'/20,0'*&'+'/&'*&)+%'*$4,(1/'$,0'.5')+%'/,60'(*.*)'4%'6; 6$*B,8')%5'01&&,(,%.)/2'%7%.')*'6%$8,)'*&'' (' .5/%'4%,.-'4/*3.'*1)' +%.')+%'/%0,*.',0' 4%)3%%.')+%'>1.(),*.'3,)+')+%'/'$-%'6%)$*0'/ '.5')+')'3,)+')+% +*$5'')286'.,'.%$7%0')'0)%',0'6')/2'*$%.),$%/2'/*0)'.')+%)*.-1%' +%/*00'*&'6*3%$'*&'$%(*-.,0,.-' '(,%5'.5'0'/,.%'0140)'.(%0',0'8*0)'8'$9%5H 41)'4,))%$0'.5'03%%)0''$%'/0*')')'0)%5',.)+,0'6')' 5*14/%'&%(,'/ 6'$'/20,0'0*8%;),8%0'$%01/)0'&$*8')*B,('4/**50')%0' 26+,/,0' .5'5,6+)+%$,''$%')+%'8*0)'(*88*.'.');% (%5%.)0'*&'5*14/%'&'(,'/6'/02'.*)'51%)*' 5%8*.0)$'4/%',.>1$2')*')+%'.%$7%0' ,0%'0%' *&')+%'.1(/%,''&&%()0'4*)+'0,5%0'8*0)' &$%; E1%.)/2'3+%.)',0'5%-%.%$')',7%',.' .')1$%H ,)',0')+%.'(*88*./2'6'$),'/',.7*/7,.-' %06%; (,'//2')+%'/,6'810(/%0',.'/'4,* -/*00'/'6'$'; /20,0'*$')+%' *$4,(1/'$,0'6'/6%4$'$18',.'$'$% ('0%0'*&'.1(/%'$'*6+)+'/8*6/%-,''0)/2',)' 8 2' 4%' 8%.)+'.*5')+')+%'&'(,'/ 810(/%0' A-%.%$' 2')+*0%',.'.5'4*1)')+%'/,60G=$'$%/2 '//R' $%*(('0,*.'//2',.7*/7%5',.'5,*6')+,(' 810(1/'$' ')$*6+2'.'.5'.'&&%(),*.'*&')+% .%$7%0' 8 2'4%)+10'0,81/')%5

! (! G +%*.0%)'*&'&'(,'/6'$'/20,0' 101'//2'$'6,5'3+%.'51%)*',)0' (*88*.' ('10%0',.(/15,.-'.%1$,),0' 3,)+,.')+%' ('.'/')'*((16,%0'&$*8''&%3'+*1$0')*')+$%%'*$'&*1$ 5'20',.',)0' 5%7%/*68%.)')',0'&*1.5'&*$' ,.0)'.(%'*.%' 8*$.,.-',.'5$,. .-')+')')+%' &/1,50'$1.'*1)'*&')+%'0,5%'*&',+%'8*1)+'H)+%' &'(%',0'.*),(%5')*'4%''/,))/%'1.028%)$,('/H ')',.-+)')+%'%2%'('..*)'4%'(*86/%)%/2'(/*0%5' '.5'.%B)'8*$.,.-')+%'6'$'/20,0',0'&*,85')*' 4%'(*86/%)%'U'$%/2')+%'*.0%)',0',.''&%3' 8,.1)%0H 6$*4'4/2')+%.'''+'%8*$$+'-%',.)*')+%'.%$7%0+%')+',0')+%'('10%'+%.',.; &/'88'),*.',0'%B(,)%5'42'(*/5')+%'02 86)*80' *&)%.'(*88%.(%'3,)+,.')3%.)2&*1$'+*1$0' *&')+%'%B6*01$%'+%2''$%101=2'6$%(%5%5' *$''((*86'.,%5'42'0*8%'6',.''4*1)'+)%'%'$' *$0,5%'*&')+%'+%'5

.'(*86/%)%'1.,/')%$'/&'(,'/6'$'/20,0''//')+%'810(/%0'*.'*.%'0,5%'*&')+%'&%(%''$%'6'$'; /20%5')'$%0)'+%'08**)+'&*$%+%'5' .5' /*3%$%5' .-/%'*&')+%'81)+'$%')+%'(+,%& ,.5,(',*.0'41)'*.'8*7%8%.)')+%'5,&&%$%.(% 4%)3%%.')+%')3*0,5%0'4%(*8%0'7%$2'8'$9%5H)+%'*.%'+'/&'*&')+%'&*$%+%'5'8*7%0''/*.%',. &$*3.,.-'*$%/%7'),*.'*&')+%'%2%4$*3' +% %2%/,50'('..*)'4%'4$*1-+)')*-%)+%$'.5',.)+%'))%86)')*'(/*0%')+%'%2%')+%'-/*4%',0' $*//%5'163'$50'0')+')'*,&/2')+%'0(/%$*),(' '66%'$0'4%)3%%.')+%'-'6,.-'/,50H)+%'6'),%.)')+%.'*&)%.'&'.(,%0')+')'+%'%2%',0'0+1)' 1$,.-'0/%%6'+%'%2%'$%8',.0'*6%.' .' 08,/,.-')+%'/,60'8'2'4%5,06/'(%5'/)*-%)+%$')*')+%'+%'/)+2'0,5%'&$*8')+%'1.*66*0%5' '(),*.'*&')+%'C2-*8'),(' 810(/%0H)+%'.*0)$,/ *&')+%' '&&%()%5'0,5%'('..*)'4%'5,/')%5H)+%' 166%$'/,6'('..*)'4%'$',0%5'H)+%'(+%%9'&/'60' /**0%/2'&$*8')+%'$%/'B')',*.'*&')+%'41((,.')*$H '.5'&$*8')+%'0'8%' '10%'&**5''((1812/')%0' 4%)3%%.')+%'>'30'.5')+%'(+%%9' +,0)/,.-' ,0',86*00,4/%'&$*8')+%'6'$'/20,0'*&'+'/&'*&)+%'*$4,(1/'$,0'.5')+%'/,60'(*.*)'4%'6; 6$*B,8')%5'01&&,(,%.)/2'%7%.')*'6%$8,)'*&'' (' .5/%'4%,.-'4/*3.'*1)' +%.')+%'/%0,*.',0' 4%)3%%.')+%'>1.(),*.'3,)+')+%'/'$-%'6%)$*0'/ '.5')+')'3,)+')+% +*$5'')286'.,'.%$7%0')'0)%',0'6')/2'*$%.),$%/2'/*0)'.')+%)*.-1%' +%/*00'*&'6*3%$'*&'$%(*-.,0,.-' '(,%5'.5'0'/,.%'0140)'.(%0',0'8*0)'8'$9%5H 41)'4,))%$0'.5'03%%)0''$%'/0*')')'0)%5',.)+,0'6')' 5*14/%'&%(,'/ 6'$'/20,0'0*8%;),8%0'$%01/)0'&$*8')*B,('4/**50')%0' 26+,/,0' .5'5,6+)+%$,''$%')+%'8*0)'(*88*.'.');% (%5%.)0'*&'5*14/%'&'(,'/6'/02'.*)'51%)*' 5%8*.0)$'4/%',.>1$2')*')+%'.%$7%0' ,0%'0%' *&')+%'.1(/%,''&&%()0'4*)+'0,5%0'8*0)' &$%; E1%.)/2'3+%.)',0'5%-%.%$')',7%',.' .')1$%H ,)',0')+%.'(*88*./2'6'$),'/',.7*/7,.-' %06%; (,'//2')+%'/,6'810(/%0',.'/'4,* -/*00'/'6'$'; /20,0'*$')+%' *$4,(1/'$,0'6'/6%4$'$18',.'$'$% ('0%0'*&'.1(/%'$'*6+)+'/8*6/%-,''0)/2',)' 8 2' 4%' 8%.)+'.*5')+')+%'&'(,'/ 810(/%0' A-%.%$' 2')+*0%',.'.5'4*1)')+%'/,60G=$'$%/2 '//R' $%*(('0,*.'//2',.7*/7%5',.'5,*6')+,(' 810(1/'$' ')$*6+2'.'.5'.'&&%(),*.'*&')+% .%$7%0' 8 2'4%)+10'0,81/')%5

0%$,*10’ ,’)+’)’ ,)’ ,0’ %. 51$, . - ’ +%’ 3$,)%$’+’0’ 9 . *3 . ’ ,)’ , . 51(%’ ‘’ -**5 /**9, . -’ -,$/) *’ 61)/ ‘ . ’ % . 5’)*’ +%$’ /,&%’ &’)+%’ , .)%$$16), *. ’ *&’)+%’ . %$7%’ ,0’ ’40*/1)%’ ’ . 5’ 6%$8 ’ . %.) ’)+%’ 8 10(/%0’ $%8 ’ , ’)* . %/%00 ’ ’ . 5’ . *’ (* .)$’ (0)1$%’ 016%$; 7% . %0

+%’ %/%()$,(’/’ (* . 5,),* . ’ *&’)+%’ 8 10(/%0’ ,0’ 7%$2’ ,8 6*$)’ .) ’)’ ,0’)+’)’ ’/3 ’20’ 0%% . ’ , . ’ 6 ’$’/20,0’ &$*8’ . %$7% /%0,* . ’ +%’ 8 10(/%0’ ’&)%$’ ‘’ 5 ’2’ *$’)3*’ *&’ 0/, -+)/2’ , . ($%’0%5’ ,$$,;)’4,/,)2’)*’ 4*)+’ &’$’5,08’ ’ . 5’)+%’ 0/*3/2’ , .)%$$16)%5’ 7*/)’ ,(’ (1$$%.)’ /*0%’ -$’51’//2’)+%,$’ ,$$,)’4,/,)2’)*’)+%’ &*$8%$’$%)’ , . , . -’)+’)’)*’)+%’/’))%$’ ’ . 5’%7%. ’%B+,4,), . -’)*’ ,)’ ,. ($%’0%5’ ,$$,)’4,/,)2’ 0*’)+’)’)+%2’ ’ ()’)*’ ‘’ 08 ’//%$’ . 184%$’*&’*% 0’)+’ . ’ 5*’)+*0%$’ *. ’)+%’+%’/)+2’ 0,5%’ . ’)+%’ . %$7%’ *. ’)+%’ *)+%$’ +’ . 5 ’)+%’ ,$$,)’4,/,)2’ ,0’/*0)’)*’ 4*)+’ &*$8 0’ *&%%()$,(,)2’)+,0’/*00’ 6$*(%%5,. -’ ’ 3,)+’)+%’ 5%; -%. %$’),*. ’ 3+,(+’ &*//*30’ 0%6’$’),*. ’ *&’)+%’ . %$7%’ &$*8’ ,)0’ . 1)$,%.)’ (%.)$%’ . ’ 0/,-+)%$’ ’ . 5’ 8 *$%’)$’ . 0,%.)’ &*$8 0’ *&’ &’ (,’/’6’$’/20,0’)+%’ (+’ . -%’ ,$$,)’4,/,)2’ *’ &’ 8 10(/%’ . 5’ . %$7%’ 8 ’2’ 4%’ /%00H’ 41)’ %7%. ’ , . ’ 8 *0)’ 3+,(+’/’0)’ * . /2’ ‘’ &%3’ 5’20’ ‘’ 0/,-+)’ (+’ . -%’ , . ’ ,$$,)’ ; 4,/,)2’ 8 ’2’ 4%’ 5,0(*7%$%5’ . ’)+%’ 0/,-+)%0)’ (’0%0’A’ . 5’, . ’)+%’%’$/,%0)’0)’ -%’*&’8*$%’0%7%$%’ &*$80R’)+%$%’ 8 ’2’ 4%’ ’ . ’ ,. ($%’0%5’ ,$$,)’ ; 4,/,)2’ , . ’)+%’ . %$7%’ *&)%. ’ 8*0)’ 8 ’$9%5’)*’)+%’ , . 51(%5’ A&’5,(R’ 00+*(90<G ’ ,0*/’)%5’ (1$$%.)0’ *. 0,5%$’4/%’ (+’ . -%’ , . ’ ,$$,)’4,/,)2’ ,0’6$**&*’ (*. 0,5%$’4/%’5,0%’0%’ *&’)+%’ . %$7%’ ’ . 5’ ,0’)+10’ *&’)+%’ +,-+%0)’6$* 0),*’ ,86*$;)’ . (%’41)’ ,)’ ,0’ . *)’5,0), . ()’1 .)1’ ’&)%$’ ‘’ 3%%9H ,&’ ’40%.)’ ’)’)+%’%. 5’*&’ ‘&*$) . ,-+)’)+%’5,0%’0%’ ,0’0/,-+)’ ’ . 5’ ’/)+*1-+’)+%’6’$’/20,0’8 ’2’0),// 4%’ (*86/%)%’ ,)’ 3,//6$*4’4/2’ . *)’!0)’/*. -

& ’’ +%’5,’ - . *0,0’ *&’ &’ (,’/’6’$’; /20,0’ A(*88*./2’ 0* (’ %5G ’)+’)’ 51%’)*’ 5,0%’0%’ *&’)+%’ . %$7%’ *$’,)0’ . 1(/%10R’ ,0’ %’02’)’ 5%6%. 50’A R’*. ’)+%’ , 86/,(’), *. ’ *&’ ’ ’)+%’ &’(,’/’8 10(/%0’, . (/15, . -’)+*0%’ *&’ 4,/’)%$’/’ 10%’)+’)’ %0(’6%’, . ’ +%8,6/%-, ’’ 4%(’10%’$%; /’)%5’)*’ 4*)+’ (%$%4$’/’+%8,06+%$%0H’ A<R’*. ’)+%’, . 5,(’), *. ’ ’&&*$5%5’ 42’)+%’ %/%()$,(’/’$%; ’(),*. 0’)+’)’)+%’ . %$7%’ *$’,)0’ . 1(/%10’,0’ 5,0; %’0%5’ %. (%’,)’ ,0’ ,86*$)’.)’)*’ *40%$7%’ ’+’)+%’ 8 10(/%0’ *&’)+%’ &’(%’ ’ . 5’)*’ ’0(%$)’, . ’)+%’ %/%()$,(’/’$%’(),*. ’,. ’*$5%$’)*’ 5%)%$8, . %’ 3+%)+%$’,)’,0’)+%’ 7’$,%)2’ . *3’5%0($,4%5’*$’,0’ (%$%4$’/’ . 5’$%’ 2’6’$)’*&’+%8,6/%-, ’ ’ +%’ $%(*- . ,),*. ’*&’)+%’ 6/’(%’*&’)+%’ /%0,*. ’,0’/%00’ %’02’ +%. ’ 3,)+,. ’)+%’ 6*. 0’.),’ ,0’ *&)%. ’ ’00*(,’)%5’ 3,)+’6’$’/20,0’*&’)+%’ 0,B)+’ . %$7%’ *$’3,)+’+%8,6/%-, ’’*&’)+%’ *66*0,)%’0,5%&$*8’ 5’8’-%’)*’)+%’ 8*)*$’6’)+’)*’)+%’/,8 40’)’)+%’ 4’0%’ *&’)+%’ 4$’, . ’)+%’ ’15,)*2’ . %$7%’ ,0’ 101’//2’ ’&&%()%5’ ’)’)+%’ 0’8%’), 8%’41)’ (’$%’ 8 10)’ 4%’)’9%. ’ . *)’)*’ 8 ,0)’9%’ 5%’&. %00’51%’)*’ %’$ 5,0%’0%’&*$’ . ’ ’&&%(),*. ’*&’)+%’ ’15,)*$2’ . %$7%’ 3,)+, . ’)+%’ 091//’ +%. ’)+%$%’ ’$%’ . *’ *)+%$’6’$’/20%0’)+%’ 5,0%’0%’ ,0’6$*4/4/2’3,)+; , . ’)+%’ +*. 2’(’. ’/’ %7,’),*. ’*&’)’0)%’ , . ’)+%’ &$*.)’*&’)+%’ . -1%’ , . 5,(’)%0’ 5,0%’0%’ 3,)+, . ’)+%’ (’. ’/’ 6%(,’/’, . E1,$2’0+*1/5’4%’ 8’5% &*$’%B6*01$%’)*’ (*/5’%’$ 5,0%’0%’026+,/,0’*$’ ’’4/*3

G +%’8 ’>*$,)2’*&’(’0%0’*&’&’(,’/’6’$’/20,0’$%’51%’)*’5,0%’0%’*&’)+%’ . %$7%’ ’ . 5’)+%’6$*- . *0,0’5%6%. 50’*. ’)+%’%7,5%. (%’*&’)+%’5%-$%%’*&’5’8’-%’)*’)+%’&,4$%0’%06%(,’//2’*. ’)+%’, . 5,(’),*. 0’ ’&&*$5%5’42’ ’. ’ %/%()$,(’/’%B; ’8,. ’),*. ’ ’ . 5’ ’/0*’ *. ’)+%’(’10%’ *&’)+%’ /%0,*. ’ +%. ’)+,0’,0’6$*-$%00,7%’,. ’ . ’)1$%=’)+%’, .)%$&%$%. (%’3,)+’)+%’ . %$7%’,0’ . %(%00’$,/2’ 6%$0,0)%.)’, . ’51$’),*. ’ +10’. ’&’(,’/’6’$’; /20,0’51%’)*’ ’’ -$*3)+’5’8’-, . -’)+%’ . %$7%’)+%’6$*- . *0,0’8 10)’4%’-$’7%’ . ’ 026+,/,), (’ 5,0%’0%’ *. ’)+%’ *)+%$’ +’ . 5’ ,)’ ,0’ -**5’6$*I’ 7,5%5’)+%’ 51$’),*. ’ *&’)+%’ 5’8’-%’)*’)+%’ . %$7%’ ,0’0+*$)’ +,0’ ,0’ ’/0*’)+%’ (’0%’ ,. ’ 6’$’/20,0’&$*8’ (*/5’, . ’ 3+,(+’ +*3%7%$’)+%’ %7,5%. (%’ ’&&*$5%5’ 42’%/%()$,(,)2’ ,0’*&’06%(,’/’ ,86*$)’. (% . ’5*14/%’&’(,’/’6’$’/20,0’)+%’%7,5%. (%’*&’ (%.)$’/’8 ,0(+,%&’$%. 5%$0’)+%’6$*- . *0,0’1 . ; &’7*1$’4/%’41)’$%(*7%$2’8’2’4%’+*6%5’&*$’ ,&’)+%’/%0,*. ’ ,0’ ’(1)%’ . 5’)+%’6’/02’, . (*8; 6/%)%’ . ’026+’,),*’ *’0%0’)+%’6$*- . *0,0’,0’ *. ’)+%’3+*/%’- **5’ . ’ ’/’ %’0%0’*&’5*14/%’ &’(,’/’6’/02’&$*8’6%$,6+%$’/’. %1$,),0’)+%$%’,0’ ’ 0,8,/’$’ ’&&%(),*. ’ *&’ *)+%$’ 6’$)0’ ’ . 5’)+%’ 6$*- . *0,0’8 10)’4%’5%)%$8, . %5’42’)+%’-%. %$’/(+’$’()%$’ ’ . 5’ (*1$0%’ *&’)+%’ ’&&%(),*. ’ ’ . 5’ %06%(,’//2’)+%’ 5%-$%%’)*’3+,(+’)+%’ 8*$4,5’ 4/**5 0)’)%’>0’ ’ 8%. ’4/%’)*’)$%’)8%.) L +%’)$%’)8%.)’*&’&’(,’/’6’$’; /20,0’3,/’5%6%. 5’ *. ’)+%’ 6$*4’4/%’ (’10%’ +%. ’51%’)*’,)0’(*88*. ’8%(+’ . ,08 G . %1; $,),0’&$*8’ (*/5’+*)’&*8%.)’),*. 0’)*’)+%’0,5%’ *&’)+%’+%’5’ . 5’&’(%’0+*1/5’4%’%86/*2%5’, . ’)+%’%’&*’)+%’ ’&&%(),*. ’&*’)+%’&&%()%’ . ’&*//*3%5’42’ ’’ 4/,0)%$’4%+, . 5’)+%’%’$’ ’ 4/,0)%$’0+*1/5’ . %7%$’4%’ ’66/,%5’, . ’&$*.)’*&’)+%’%’$’*7%$’)+%’ *6%. , . -’ *&’)+%’ (’ . ’/’4%(’10%’,)’3,//(’10%’ 0*8%014(1)’. %*10’(%//1/,),0’ ’ . 5’01(+’(%//1; /,),0’8’2’ ’()1’//2’(’10%’&’(,’/’ . %1$,),0’42’ 06$%’5, . -’)*’)+%’ . %$7%0+%)+’, . ’)+%’(’ . ’/’ +%’ 0,5%’*&’)+%’ +%’5’ 0+*1/5’4%’6$*)%()%5’ &$*8’ (*/5’ .)%$. ’/’)$%’)8%.)’*&’ . %1$,),0’ 8 10)’7’$2’ ’((*$5, . -’)*’)+%’(’10%’ &’)+,0’,%’ 026+,/,0’, *5,5%*&’6*)’00,18’, . ’ 8H’-$’5*0%0’ 8 ’2’4%’-,7%. H ,&’%B6*01$%’)*’(*/5’5,1$%),(0’ ’ . 5’ 08 ’//’ 5*0%0’ *&’ 8%$(1$2’, . ’)+%’ %’$/2’ 0)’-%’&*//*3%5’42’)*. ,(0’ /%()$,(,)2’)*’)+%’ 8 10(/%0’,0’ . %%5%5’, &’)+%’ 5’8’-%’)*’)+%’ . %$7%’,0’0*’ 0%7%$%’ ’0’)*’%.)’,/ 0%(*. 5’$2’ 5%-%. %$’),*. ’ ’ . 5’ (*. 0%E1%.)’ (+’. -%0’ , . ’ . 1)$,),*. ’ &’)+%$%’,0’ . *’ (+’. -%’ , . ’ ,$$,)’; 4,/,)2’ ’)’)+%’%. 5’*&’ ’’&*$) . ,-+)’$%(*7%$2’3,//6$*4’4/2’*((1$’0*’0**. ’ ’0’)*’8’9%’%/%()$,(’/’)$%’)8%.)’016%$&/1*10’ &’. %%5%5’)+%’7*/)’,(’ (1$$%.)’0+*1/5’4%’10%5’0/*3/2’, .)%$$16)%5’42’ ’’ (*8 8 1)’)*$’ *$’ 42’)+%’6*0,),7%’ *$’ . %-’;),7%’6*/%’4%, . -’ 8*7%5’*7%$’)+%’ , . 5,7,51’/’ 8 10(/%0’A’((*$5, . -’’0’)+%2’$%’()’8*$%’%’5,/2’)*’)+%’*. %’*$’)+%’%)+%2’$%’(’0’8*$%’%’5,/2’ 6$*4’4/2’5*%0’ ‘ 8*$%’ ,)’ 9%%60’ 16’)+%

61)$,),*.' *&')+%' 8 10*1/'$' &,4$%0' K3+,/%')+%' 1%$7%' ,0' $%(*7%$, . -' /), 8 ')%' $%(*7%$2' ,0')+10' 8 *$%' 06%%52' ' .5' 8 *$%' (* 8 6/%)%')+' .' 3,)+*1)' /*(' /')$%')8%.)' +%' '66/,(',*.' (' .' 4%' 8 '5%' E1,)%' 3%/' 42')+%' 6'),%.)' *.%%/%()$*5%' 4%,. -' 9%6)' *7%$')+%' 6/' (%' 3+%$%')+%' .%$7%' 5,K7,5%0')+%' *)+%$' 8 *7%5' A8' ($*00')+%' &*$%+%' 5H' A<R' '/*.-')+%' %2%4$*3H' A9R' '/*.-')+%' /*3%$%5' 166%$' %2%/,5H' A R' '/*.-')+%$',0%5'/*3%$' %2%/,5H' AFR' 4%0,5%')+%' .*0%')*')+%' 166%$' /,6H' ALR' '/*.-')+%' 166%$' /,6H' AMR' '/*.-')+%'/*3%$'/,6'H' A9R' &,$*8')+%' C2-*8 '')*')+%' '.-/%' *&')+%' 8*1)+' .' A"R' '.5' A R')+%' (1$$%.)' 0+*1/5' 4%' 3%'9%$')+'.' ,.')+%' *)+%$' 6/'(%0' 144,.-' 8 '2' 4%' %86/*2%5')+%' ,.5,7,51'/' 810(/%0' 4%,. -' 014>%()%5')*' '' 6$*(%00'*&'-%.)/%' 0+' 86**,.-' +%'/')%' (*.;)$'(),*.' 3+,(+' *((1$0' 8' 0%7%$%' ('0%0',0' 41)' /,))/%',.&/1%.(%5'42')$%')8%.)' %.)/%'%/*.-';,),*.' *&')+%' 8 105%0' 8 '2' 4%' 6$')(),0%5' '.5' %/%()$,('/' '66/,(',*.0' 0+*1/5' 4%' 0)*66%5' 0,.(%')+%' 0),8 1/'),*.' *&')+%' 0%.0*$2'.%$7%0' 8 '2',.($%'0%')+%'/')%' (*.)$'(),*.'42' '' $%&/%B' ,.&/1%.(%H ,)0' *(((1$$%.(%'0+*30')+')' '' 6*,.)' +'0' 4%%.' $%'(+%5' 3+%' .)+%' ,.&/1%.(%' *& %/%()$,(,)2'&*$' -**5' ('.'4%'41)'08' // .' %B)%$.'/' 8 ,0(+,%&' '.5' ,.' ,.)$'($'.,'/ 5,0%'0%')+%')$%')8%.)' *&')+%'&'(,'/ 6'$'/20,0' ,0'101'//2'014*$5,.')%')*')+')' *&',)0' ('10% +%')$%')8%.)' *&'5*14/%' &'(,'/ 6'$'/20,0' 6$%0%.)0' .*' 06%(,'/ 6*,.)0' &*$' (*.0,5%$'),*.' %B(%6)' 3+%.',)' ,0' 6')' *&' 81),6/%' .%1$,),0')+%',.5,(',*.0' &*$' 3+,(+' '$%' 5%0($,4%5',.' '' 06%(,'/ '$),(/%' ' 5

A ' H B ' g' ,8,('($'86H $' ' ") ' +%.' '&&%(),.-')+%' %2%/,50' /%6+'$*06'08H ,(),)','*. & # " 6'08' 0*8%),8%0')*.,(' 41)' 8*$%' *&)%.' (/*.,(' *$' 4*)+' ,.7*/K$,.-' 0*8%' *$' '/' *&')+%' 810(/%0' 0166/,%5'42')+%' &'(,'/ .%$7%' *.' *.%' 0,5%' *$' *.'4*)+ $ ' ' !(! G 6'08',.')+%' &'(%' 8 '2'4%'6'$)' *&'' 3,5%$' **. 71/0,7%' 8*7%; 8%.)' '0' ,.' %6,/%602' +20)%$,.' ' (+*$%' ' *$')*$),(*//,0' 5,0%'0%0' 5%6%.5%.)' *.' (%.)$'/ (+'.-%0' +')' 3+,(+'4%-,.0',.'' .5',0'/,8,)%5')*' *.%'0,5%' *&')+%' &'(%' 8 '2'4%'51%')*',$$,)';,),*.' *&')+%')$1.9' *&')+%' &'(,'/ .%$7%' 42' -$*3)+0'42' .'' .%1$208'*$('$,%0'*&')+%')%8; 6*$'/'4*.%'*$')*'' .'' (1'/'%0,*.'*&')+%' 8*)*$' (%.)$%' &*$')+%' &'(%',.')+%' (*$)%B' *&')+%' 4$',. 6'08' 51%')*'5,0%'0%' *&')+%' .%$7%' 8 '2'& *' 3' &'(,'/6'$'/20,0',' 4 ' $' $ 3' 1(+' 8*$%' &$%E1%.)'+*3%7%$' '$%' *'0%0'1.,/')%$'/ *$' 4,/')%$'/',.'3+,(+')+%' '&&%(),*.'(*8%0'*.' -$'51'//2' (+,%&/2',.'&%8'/%0',.')+%' 0%(*.5' +'/&'*&' &%''&)%$' 5%6$%00,.-'%,+*),*.')',0' 6$*4'4/%')+')'01(+'*'0%0' '$%' 51%')*' 5%$'.-%5' &1.(),*.'/'(),*'&')+%' (*$),(,'/ 8*)*$'(%//0')+$*1-+' 3+,(+' 3%' 8 '2'$%8%84%$'%8*),*.' ,0' 0*' %B)%.0,7%/2'%B6$%00%5' .'01(+'('0%0')+%' '&&%(),*.'101' 2'4%-,.0'*.' .%0,5%'*&)%.' ,.'7*/7%5' .' '.*)+%$' -$*16' *&'('0%0''&&%( ),*.0' *&')+%' %2%' /%''5')*'06'08*5,(' (/*01$%' *&')+%' /,50G # # / ' .' *)+%$' ('0%0' 4%-,.,.,-',.')+%' %2%/,50'.*'/*('/ ('10%' (' .' 4%' 5%)%()%5' '0' ,.')+%' /*('/ (/*.,(' 06'08' '&&%(),.-')+%' *$4,(1/'$,0'6'/6%4$'$18'9.*3.' '0' 0',.7*/1.)'$2' 3,.9,.-'<' *$' " " 3+,(+' 0%%80')*' 4%' '' 6')+*/*-,('/ 5%7%/*6; 8%.)' *&')+%' .*$8'/ 6$*(%00' +,0',0' '/0*' '' (*88*.'0%')' *&')+%'06'08',.')+%'&'(%')+')' ,0' 6'$)' *&' 0+'4,) 06'08<' *$' 0+'4,) (+*$%' '<' 41)',)+'0'.*' (*.%B,*.' 3,)+')$1%' (+*$%' ' '(,'/ 06'08',0' 6',./%00' +%' 06'08',0' 101'//2',.($%'0%5'42'%8*),*.'42'7*/1.)'$2' 8*7%8%.)' '.5'42'0),81/'),*.' *&')+%'&,&)+' .%$7%' /,-+)' 1$'/ 02 86)*8 0' +'7%' 4%%.' *40%$7%5' $%&%$'4/%')*' (*.)$'(),*.' *&')+%' 0)'6%5,10' 01'//2')+%' 8*7%8%.)' $%8','.0' /,8,)%5')*')+%'&'(%H 0*8%),8%0',)' 06$%'5 0)*')+%' 810(/%0'*&' 8'0),(',*.''*&')+%'.%(9'^(' +%'06'08',.')26,(/'(' 0%0',0'4*)+')*.,(''.5' (/*.,(' (/*.,('6'$*B2080'*((1$$,.-'&$*8'),8%)*'),8%'' .5'4%,.-'&,B%5'42')*.,(' (*.)$'(),*.0' *$') ' /'&*$80'(%'0%'51$,.-'0/%%6 +%'*./2'0%(*.5'$2'&*$8'*&'&'(,'/ 06'08' A4%0,5%0')+')'3+,(+'016%$7%.%0'*.''6'$'/2; 0,0'*&')+%'.%$7%H',0')+%'(/*.,('06'08',.')+%' &$*.)'/%0')+')',0'*&)%.'8%)'3,)+',.')+%'&*. '*&'0)*$),(*//,0'<')*'3+,(+')+%'3$,)%$'+'0'-,7%.')+%'.'8%'*&'0$%)$*(*/ (' 06'08<.')+,0')+%$%'$%'4,/')%$'/(*.)$'(),*.0',.')+%'810(/%0' *&')+%'4'(9'*&')+%'.%(9'>%$9,.-')+%'+%'5' 4'(93'$50' +%0%'810(/%0'$%'6+20,*/*-,.; (''//2''00*(,')%5'3,)+')+%'&$*.)'/%0''0'8'2' 4%'0%%.'3+%.''' 6%$0*.' 6*90'16' '.5')+,0' '00*(,'),*.',0'$=$*51(%5',.'5,0%'0%)G +%'6$*-.*0,0'*&'&'(,'/06'08' ,0'0%/5*8'-**5' &')+%'(' 10%'(' .'4%'5,0(*7%$%5' ,)' (' .'$'$%/2'4%'$%8*7%5' '.5')+%' '&&%(),*.' ,0'-%.%$'//2'8*0)'*40),.')% ! " %.%$'/')*.,(0' '.5'/*('/ 0%5'),7%0' '$%')+%'(+,%&' '-%.)0',.')+%')$%'); 8%.)'*&'8*0)'&*$80'*&'&'(,'/06'08' +%.')+%$%',0'%7,5%.(%'*&'5,$%()',$$,)','),*.' *&')+%' &,&)+' *$')+%' &'(,'/ .%$7%'(*1.)%$,$$,)'),*.' 42'4/,0)%$0'8'2'4%')$,%5' '(' $%&1/0%'$(+' 0+*1/5'4%'8'5%'&*$'$%&/%B'('10%0''.5',&'6*0; 0,4/%')+%2'0+*1/5'4%'$%8*7%5'5%('2%5')%%)+' 4%,.-'%B)$'()%5''.5'.%1$'/-,''$%/,%7%5''/')+*1-+')+%' $%01/',0'-%.%$''//2'5,0'66*,.); ,.-',&')+%' 06'08'+'0'/*.-'%B,0)%5' +%.')+%$%' '$%')%.5%$'6/'(%0',.')+%'(*1$0%'*&')+% &,&)+' .%$7%' 6$%001$%' *.' 3+,(+' 0)*60'+%' 06'08')+%'+26*5%$8,(',.>%(),*.'*&'(*(',.%''))+%0%'6/'(%0'0+*1/5'4%'%86/*2%5' *$6+,.%' 10%5' '0' '' 0%5'),7%'+'0''' -%.%$'/,.&/1%.(%' 3+,(+'8'9%0')+%'$%52'/8*0)'3*$0%')+'.')+%'5,0%'0%' $*.'E1,..%'*$7'/%$,'.')%'*&' C,.('$%')+%'4%0)'-%.%$'/)*.,(0' +%' 3$,)%$' +'0'*.(%'9.*3.'$%(*7%$2')*'&*//*3')+%'58,.; ,0)$'),*.'*'&'4$*8,5%' .5,'.'+%86'.'5'.1B' 7*8,('H)+%'(0%'3'0'(+'$'()%$,0,('*(((1$$,.-' /')%',.' &%' +%'*6%$'),*.'*'&'.%$7%0)$%)(+; ,.-'+'0'*&)%.'' $$%0)%5')+%'06'08'&*$''),8%' '.5',.''' &%3'*'0%0'6%$8'.%.)/2')'5%; 0%$7%0''),$,'/,.'0%7%$%'('0%0''(),.-'6%$+'60' 42')+%'%&&%()'*.')+%'(%.)$%0'*&')+%' $%0)'*& ?' M M

'&&%$%.)',8 61/0%0' 6$*51(%5'42')+%' 8 10(1/'$'(*.)$'(),*.0' +%0%' 8 10)'%.5')*' 8',.)',.'+%' 8*$4,5'0))'%'*&')+%' 5%$'.-%5'(%//0')0'%&&%()' 8,-+)'6$*4'4/2'4%' '1-8%.)%5'42')+%'0,8 1/)'.%*10' 10%'*&'0%5'),7%0' 01(+' '0')+%',.>%(),*.'*&'(*('.,%')*'/%00%.')+%',.&/1%.(%'*&')+%'&,&)+'.%$7%'*.')+%'&'(,'/'(%.)$%' +%$%')+%'&,K%(),*.'06$,.-0'&$*8'' .'+'4,)1'/'8*7%;8%.)'&'(,'/'-28.'0),(0' 8'2'4%'*&'0%$7,(%' '3%'9'7*/)',('(1$$%.)'' 66/,%5'&$*$6')+%'%'$')*')+%' 8 10(/%0' 1.4$*9%.'+'0' 4%%.'$%(*8;8%.5%5'H 41)',)'$'%/2',&'%7%$'%&&%()0' '(1$%' +%'0'8%',0')$1%'*&')+%''66/,(',),*.'*&'7*/'),08')*')+%' 0286')+%),(''.5')*')+%'4'(9'*&')+%'+%'5' 6 ( )' ,0%'0%0'*&' C @

' A ')RG'6%(1/,'$'%B6$%00,*.'*&')+%'&'(%'0*'.'8%5'&$*8'+'7,.-'4%%.'-$'6+,('//2'5%0($,4%5'42',66*($')%0')',0'8*0)'0)$,9,..-/2'*40%$7%5',.'6%$0*.0'%B+'10)%5'42'(*6,*10'5,0(+'$-%0''0',.'(+*/%$''42'6$*/*.-%5'3'0),.-'5,0%'0%0'*$'42'0)'$7'),*.H'.5'%06%(,'//2'4%&*$%',8;6%.5,.-'5%')+')',0')+10'5%0($,4%5'42',66*($')%0'0'0+'$6'.*0%'+*//*3'%2%0'(*//'60%5')%86/%0H')+%'%'$0'(*/5'(*.)$'()%5''.5')+%,$'/*4%0')1$.%5'*1)H')+%'09,.''4*1)'+%'&*$%+%'5'4%,.-'$*1-+'5,0)%.5%5''.5'6'$(+%5H)+%'(*/*1$*&')+%'3+*/%'&'(%'4%,.-'-$%%.'4/'(9'/,7,5'*$/%'5(*/*1$%5<

B'8,.'),*.'*&GF%%')**.0

&&, ' .7*/1.)'$2' ,0(+'$-%'*& '& #7' ' A $%

'U%).),*.'*&G== .6!'.')+%' '40%.(%'*&'8%(+'.,('/'*40)$1(),*.'01(+''0')+')'51%')*''5+%0,*.0'4'.50'*&'&'/0%'8%84$'.%' 1)%$,.%' 6$%001$%' 0)$,()8$%')1;8*1$0'*$'+'%8*$$+*,50')+%' 8 ,.' ('10%0'*&'&'%('/'((181/'),*.'$% GA'R' 014 6'$'/20,0'*&')+%',.)%0),.'/'8 10(1/'$&,4$%0'&$*8'5%&%(;),7%',,.%$7'),*.'*$'&$*8'*7%$ 5,0)%.0,*.'*&')+%'3'//0'*&'0*8%'6*$),*.'*&')+%'/'$-%'4*3%/HALR'/*00'*&'$%&/%B',$$,)'4,/,)2'*&')+%'$%()18H'.5'A(R'5$2.%00'*&')+%'81(*10'01$&'(%'*&')+%'(*/*.' %.(%',)',0'&$%E1%.)/2'8%)'3,)+',.'+%'5%4,/,)'%5')+%'4%5$,55%.')+%'6'$'/20%5'+%''-%5''.5')+%'0%5%.)'$2H' .5'3*8%.''$%8*$%'6$*.%')*',)'+'.'8%.' *00'*&'$%&/%B'0%.0,4,/,)2',.')+%'$%()18',0'&$%E1%.)/2')+%'0*/%'('10%' +%'&%(%0'5%/,7%$%5',.)*')+%'$%()18'42')+%'(*.)$'(),*.0'*&')+%'0,-6,*,5'&/%B1$%''.5')+%'5%0(%.5,.-'(*/*.'.*'/*.-%$%B(,)%')+%''()'*&'5%&%(')',*.H'.5'(*//%(),.-'/,%$%'0''/'$-%'5%0,((')%5'8'00')+%2'5%)%$;8,.%''-$'51,''.5'6',.0%0'$%).),*.',.')+%'/'$-%',.)%0),.%''.5'6'$),(1/'$/2',.')+%'8*0)'5,0)%.0,4/%'6'$)0G)+%'0,-8*,5'&/%B1$%''.5')+%'('%(18'+%''((181/'),*.'*.(%'0%)'16')%.50'/0*')*'6%$6%)1')%'.)0%/&'42'*$%0),.-'8*$%'.5'8*$%')+%'6%$,0)'/),('8*7%8%).)0'*&')+%'5,0)%.5%5'4*3%/'$*1.5')+%'(*//%()%5'&%(%0 !(! G 0%(%0'&)%.''((181/')%0/*3/2'.5'3,)+*1)')+%'9.*3%5-%'*&')+%'6'),.)'%.(%',.'('0%0',.'3+,(+'0%.0,4,/,)2'+'0'4%%.

4/1.)%5'42''-%'5,0%'0%'*$-$%')'5%4,/,)2')+%'5,0(*7%$2'*&'/'$-%'(*//%(),*.0',.')+%'$%()18'*$'(*/*.'8'2'01$6$,0%'%7%.')+%'6$'()),*.%$'3+*',0'-%.%$'//2'/%5')*''/*('/'%B'8,.'),*.'42'5,0)1$4'.(%0'0%)'16'42')+%'$%)%.),*.'+%$%',0'101'//2'(*.0),6'),*.'*$''.',.01&',(,%.)'5,0(+'$-%'*&'0*/,50H''$%-1/'$'.5'6*00,4/2'%B(%00,7%'$%/,%&'*&')+%'4*3%/0'5*%''.*)'+*3%7%$'%B(/15%'((181/'),*.'&*$'%7%.'&/1,5'&%(%0'8'2'6'00')+$*1-+'*$'*7%$'*/5'(*//%(),*.0' +%'%7'(1'),*.0'$%'/18 62'*$'(*.0,0)'*&'5%)'(+%5'+'$5'5$2'5'$9'0(24/1;'*$'*&''0,.-/%'8'00H'.5'3+%.')+%''((181;'/')%5'8'))%$0'$%'5,0/*5-%5'42'6%$,%.)0')+%2'*&)%.'%8,)'.'*&&%.0,7%''.5'0*1$'*5*1$' *)$8(*88*./2'+*3%7%$')+%''/7,.%'5,0(+'$-%0''$%'%.),$%/2'&/1,5'*$ 0%8,&/1,5''.5'(*.0,0)'(+,%&/2'*&'81(10'),.-%5'3,)+'&%(%0' %('/(*//%(),*.0'.')+%'$%()18''.5'0,-8*,5'&/%B1$%''$%'6')'*' %B(,)%').%.%0810'.5'&$%E1%.)'7*,5,.-'*&'81(10'.5'4/**5G''(*.5,),*.'$%0%84/,.-')'*&' +$*..('520%.)%$2'41)'3,)+*1)')+%'61)$,5&/%0+ +9%'*5*1$'*&'520%.;)%$,('%7'(1'),*.0H'.5')+%'&,.-%$'%.(*1.)%$0''8'00'*&'+'$5%.%5'&%(%0',.')+%'$%()18'(*%(),*.'*&'&$1,)0%%50G'0'*&'&,-G,.')+%'$%()'/6*1(+'3,//'/0'0%)'16')+%0%0286)*80.'((181/'),*.',.')+%'([(18'*$',.''.26'$)'*&')+%'(*/*.'8'2'4%5%)%()%5')+$*1-+')+%''45*8,.'/3'//'0''')8.*,1'/ $%*$'/%00'8*7'4/%'1.%7%.'*$'.*51/')%5'665'51-+2')*')+%')*1(+H'.5'*.')+%'&,.-%$'4%,,=',&,$8/26$%00%5',.)*',)'6$%0%.),.-''5%6$%00,*.'3+,(+'8'2'/'0)'&*$'0*8%'8,.1)%0' .'$'$%'('0%0')+%/'$-%'4*3%/)+$*1-+*1)'8'24%'0*'-$%')/25,0)%.&%5''0')*''66'$%.)/2'&,//')+%''45*8%.'3,)+''0*/,5'8'00'3+,(+'/,9%*)+%$'&%('/(*//%(),*.0'2,%/50')*')+%'&,$8'6$%001$%'*&')+%'&,.-%$' ')2867.,),('0)'%'*&')+%''45*8%.'8'2'+*3%7%$'0*'*40(1$%')+%'%B'8,.'),*.''0')*'6$%7%.')')+%'$%(*=),*.'*&'%7%.'8*5%$;')%/2'/'$-%''((181/'),*.0' +%'&%('/)18*1$'.')+%'('(18',0'-/*41/'$H41)',''.2'6'$)'*&')+%'(*/*.',)',0'101''//2'%/*.-')%5H''.5',.')+%'5%0(%.5,.-'(*/*.''.5'0,-8*,5'&/%B1$%',)',0'+'$5%$')+'.'%/0%3+%$%''.5'7%$2'5,0),.()/2'.*51/'$&$*8'0(24'/''')'8'2'5$'-')+%')$'.07%$0%'(*/*.',)'8'2'4%'8,0)'9%.'&*$'.'%./'$-%5'7%$

1)',.')+%$'('0%0')+%$%)',.%5'&%(%0'%)'16'8*$%'*$'/%00'0%7%$%''45*8,.'/5,0)1$4'.(%G'01(+''0'(*/,(92'6',.0'-$%')'5,0)%.0,*.'^(G'3+,(+'8'2')%$8,.')%'%,)+%$'-$'51'//2'*$0155%./2',.'(*86/%)%',.)%0),.'/*40)$1(),*.'.*3'.5')+%.'6$*7,.-'&')'/, ' $'%' 3' 01'//2'+*3%7%$'0%7%$'/*40)$1(),7%')')'(90'*&',.($%'0,.-'0%7%$,)2'01((%5'.%'*)+%$'.')*'&')'/6%$&*$'),7%6%$,)*.,)0'*$)*')0$,()1$%&$*8')+%'+%'/,.-'*&')+%'0%$(*'/

3 '0' 6/' (%5' B,.5%$' 020)%8 '),(' ,.06%(),*.')*'
0*/7%')+%' 6$*4/8' *&' 3+%)+%$' 0+%' (*1/5' %B,0)'
'0' +'5' 4%%.' ''//%-%5' 42' +L$' 6'$%.)0'&*$' '.'
,.5%&,.,)%' 6%$,*5' 3,)+*1)' &**5')' '66%'$0'
)+')' 51$,.-')+%'&,$0)'6'$)' *&')+%'),8 %'0+%' 3 '0'
(+%%$&1/' .5'%B+,4,)%5'.*)+,.-'%B)$'*$5,.'$2'
 '))%$'*.',)' 3 '0' &*1.5')+')' 0+%' (*1/5'.*)' 4%'
9%6)' 3 '8 ' '.5' 1/),8 ')%/2' 0+%' 0'.9',.)*' *'
0)')%' *&')*$6*$' &$*8' 3+,(+' 0+%' (*1/5'.*)' 4%'
$*10%5' '.5' 3+,(+' 06%%5,/2')%$8,.')%5' ,.'
5%')+
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6$,55' '.',.$85'),*.' *((1$$%5',.' ?MM' 3+,(+'
/%5')*')+%' ,86$,0*.8%.)' *&' &*1$' 8%.' '.5' '
4*2',.' *.%' *&')+%'+%'5,.-0' *&')+%' 8,.%' +%'
'((,5%.)' +'66%.%5' *.' %5.%05'2' %7%.,.-'
)+%')+'*&' 6$,/' &&*$)0'3%$%' ')' *.(%'8 '5%'
42' 8%'.0' *&' ''(1)),.-')*' $%' (+')+%' (+'8 4%$'
,.'3+,(+')+%' ,86$,0*.%5' 6%$0*.0'3%$%' (*.;
&,.%5' '.5')*' $%/%'0%')+%8 ' +,0' 3 '0'.*)'
'((*86/,0+%5'),/')+%' '&)%$.**.' *&' +1$05'2'
)+% P)+'3+%.''//'3%$%' $%0(1%5''/,7%' .5'5,5'
3%//' +%2' +'5' 4%%.' ,86$,0*.%5',.''.'
')8*06+%$%' *&' (*86$%00%5' ',$' .%'$/2' %,-+)'
5'20'3,)+*1)' &**5'41)' 3,)+,.' $%' (+' *&'3')%$
 +%' 6%$&*$8' .(%0' *&' 6$*&%00,*.' /' &'0)8-'
8%.' -,7%' '3+%.' *(' /*.-%$'),8 %' '0')+')' 51&,.-'
3+,(+' /,&%' (' .' 4%' 010)',.%5' 3,)+*1)' &**5'
 3*' &%')0' *&' &'0),.-'3%$%' 6%$&*$8%5' 4%&*$%'
)+%' *.5*.' 614/,(' 51$,.-' ?P!' 42'0%6'$')%'
8%.' +%' 80)' 3 '0' '..*1.(%5')*' 4%' &*$' '
6%$,*5'*&'&*$)2' '.5')+%'0%(*.5'&*$' '6%$,*5'*&'
&*$)2 &,7%' 5'20' *)+'3%$%' ('$$,%5'*.'&*$')+%'
06%(,&,%5'),8%' '.5')+$*1-+')+%' 6'J8%.)0'
$%(%,7%5'&,*8')+%' ($*350' *&' 06%()')*$0' '5'
8,))%5' 810)'+'7%' 6$*7%5'/1($'),7%' 1.5%$;
)'9,.-0' .%'*&')+%8'0140%E1%.)/2'4%('8%'
,.0'.%' %')0')+10' (*.51()%5'&*$'6%(1.,'$2'
-',.''.5'016%$7,0%5''0' 3 '0' +%$%')+%' ('0%'
42'.%306'6%$' $%6*$)%$0' '0' 3 ')(+%$0' (''.
+'$5/2',)' 8 '2'4%' (*.0,5%$%5'4%' $%-'$5%5''0'
+*/5,.-'' 01&&,(,%.)/2')$10)3*$)+2'6*0,),*.')*'
(*88'.5''((%6)'.(%' &*$')+%' 61$6*0%0'*&' ''
8%5,('/' 36$9'/,9%')+,0'3+')%7%$')+%' '8*1.)'
*&' 6*61/'$' ($%5%.(%' -,7%.')*')+%8' ')')+%'
),8%' .')+%' ('0%' *&')+%' %/0+'&'0),.-'-,$/'
3')(+,.-0'*&' (*.0,5%$'4/%' 51$'),*.'+'5'4%%.'
6%$&*$8%5')+$*1-+' 3+,(+' 0+%' +'5' 01((%00;
&1//2'6'00%5'41)')+%'/'0)'3')(+,.-'3'0'('$$,%5'
*1)' 42')+%' %B6%$,%.(%5' *.5*.'.1$0%0' 5%;
61)%5')*'B85%$)'9%')+%')'09' 3,)+''0)$,().%00'
)+')'5%&,%5'5%(%6),*.''.5'3,)+')+%'$%01/)')+')'
5%')+')**9'6/'(%''0'0)')%5
 .')+%' ('0%''-',.''*&' ..' **$%'*&' 1)'
41$2',.')'&&*$50+,$%' 3+,(+' &$*8')+%''(;
(*1.)' 614/,0+%5' 810)'+'7%' '))',.%5'-$%')'
.*)*$,%)2',.')+%' %'$/2' 6'$)' *&')+%' 6$%0%.)'
(%.)1$2' 3 ')(+,.-0'+'5' 4%%.' (*.51()%5',.'
'' 8'..%$')*' '58,)' *&')%0),8*.2'4%,.-',7%.'
,.'0166*$)' *&'+%$'7%$'(,)2H 41)'1/),8 ')%/2''
3 ')(+,.-' 3 '0' 0*' 0%$,*10/2'$85%$)'9%.''.5'
3,)+'01(+' C%'/' ('$$,%5'*1)' '0')*'/%'5')*'+%$'
4%,.-'4$*1-+)' 42')+%' .,.)+' 5'2',.)*' '' 0/'9;
,.-'(*.5,),*.'3+%.'0+%')**9'&**5''.5''&)%$;
3'$50' 8'5%' '' 3$,))%.'(*.&%00,*.'*&')+%',8;
6*0,),*.')+')'+'5'4%%.'6$%7,*10/2'6$'(),0%5

+')' '' 7%$2'08''//' '8*1.)' *&'&**5'3,//'
01&&,(%'&*$' 010)',.,.-'/,&%'&*$' '' 6$*/*.-%5'
6%$,*5',0'%7,5%.(%5'42'3+')' 8'2'4%'*40%$7%5'
,.'0*8%'*'0%0'*&'(*.0)$,(),7%'5,0%'0%''&&%();
,.-')+%'*%0*6+'-10'*$'('$5,'('*$,&(%'*&')+%'
0)*8'(+

!* G '1),*.',0'$%E1,$%5',.')+%'
'58,.,0)$'),*.'*&'&**5''&)%$'6$*/*.-%5'&'0);
,.-' 155%.')$'.0,),*.0'*&' ' ' 9,.50' '$%'
)$2,.-')*')+%'4*52H''.5',.0)%'5'*&''//*3,.-'
)+%' $%0(1%5'01&&%$%$')*' -$'),&2',0'5%0,$%')*'
%')' .5' 5$,.9' '((*$5,,=')*' +,0',.%/8')*))'
'&)%$' 0%7%$'/' 5'20<'40),.%.(%')+%' 0166/2'*&'
4*)+'&**5'.5'5$,.9'0+*1/5'')'&,$0)'4%'/,8,)%5'
'.5'&)%$3'$50'-$'51'//2',.($%'0%5' +%$%',0'
$%'0*.')*'4%/,%7%')+')')+%' .*. *40%$7'.(%'*&'
)+,0'$1/%'+'0' 16*.'0*8%'*((' 0,*.0'4%%.'&*/;
/*3%5'42'5,0'0)$*10' (*.0%E1%.(%0'3+,(+'''
5,&&%$%.)'6/'.'8,-+)'+'7%''7%$)%5

' 'H P

G ')' 4%(*8%0' 8*$4,5' 1.5%$' ''
7'$,%)2'*&'(,$(180)'.(%0'WG
 4%0,)2 G ')' 8'2'4%' &*1.5'-%.%;
$'//2'5,&&10%5',.'%B(%00,7%'E1'.),)2'4%.%')+'
)+%09,.'4%.%')+'0%$*10'8%84$'.%0''.5',.'
.5'16*.'7'$,*10',001%0''.5'*$-'.0'*&')+%'
4*52' +,0' (*.5,),*.' (*.0),)1)%0'3+')' ,0'
9.*3.'0'*4%0,)2'
<' '$),'/' $*3)+G=' 6'$),'/' -$*3)+'
*&'&')0*8%),8%0'*((1$0',.'6'$520%5'810(/%0'
'.5' (*.0),)1)%0'' (+'$')()%$,0),(' &%')1$%'*&'
3+')',0'(''//%5'60%15*810(1/'$'+26%$)$*6+2'
 A %'%% '& (B
9'($'.)%$0),),'/' $*3)+0 G ')'
'0'&')),001%'8*$%'%06%,(''//2'(*.0),)1)%0''
5,0%'0%'3+%.',)',0'5%6*0,)%5'16*.''.5',.')+%'
)%B)1$%0'*&'*$-'.0',.)%$&%$,.-'3,)+')+%,$'
0)$1()1$%''.5'&1.(),*.0' +,0',)'5*%0'42'
6$%00,.-'16*.')+%'+,0)*/*-,('/'%/%8%.)0'*&'
)+%'K*$-'.',.7'5%5')0'%&&%()0''$%'8*$%'
(/%'$/2'0%%.'3+%.',)',.7'5%0')+%'810(1/'$'
),001%'*&'01(+''.'*$-'.''0')+%'+%')$')+%'
&,4$%0'*&'3+,(+'4%(*8,.-'8*$%'*$'/%0'')$*;
6+,%5''.5'5,0)*$)%5',.')+%,$'(*1$0%'.5'5,$%(;
),*.'$%'$%.5%$%5',.'5%E1')%'&*$')+%'6%$;
&*$8'.(%'*&')+%,$'&1.(),*.0' ')
'))2' $*3)+'*.
 '))2' 18*1$0 G ')'8'2'/0*'((1$
,.',0*/')%5'*$'(,$(180($,4%5'8'00%0'(*.0),;
)1),.-'3+')''$%'9.*3.''0' '*$
8 , , ! %
 '))2' .&,/)$')',*. &'4 ' 2
$, 0 '<%
 ' 0 ' 3%'$2R G (& '
'* ! 5 G '),-1%',0''' $%-1/'$'.5'
(*.0)'.)/2'$%)1$.,.-'0286)*8'%B6%$,%.(%5'
42''//'6%$0*.0' %$,*50'*&'&1.(),*.'/''('
), 7,)2',.7'$,'4/2''/)%$.')%' 3,)+'6%$,*50'*&'
$%6*0%'51$,.-'3+,(+')+%' 3'0)%'('10%5'42'
)+%'%B%$(,0%'*&'&1.(),*.','0'$%6',$%5' K %'$%
,.5%4)%5')*' ,$' '8%0' '-%)'&*$'+'$,.-'
6*,.)%5'*1)')+')'0$+2)+8,(' .1)$,),*.',0''
/'3'*&'.')1$%'<'.5''/)+*1-+')+%')$1)+'*&'
)+,0'5*-8''',0'$%(*-.,0%5'*.''//'+'.50''.5'
8'2'4%'0',5')*'4%'B,*8'),(',)'+'0'+'$5/2

$%(%,7%5')+')' ('$%&1/ (*.0,5%$'),*.' ')')+%'
+'.50' *& 6$'(),('/ 6+20,(,'.0' 3+,(+',)' 5%;
0%$7%0' 1$ 3+*/%',&%',0' (*86*0%5'*&' ''0%$,%0'
*&7,4$'),*.0G6%$,*50' *&'$%)%.0,*.' '/)%$.'),.-'
3,)+'6%$,*50' *&'$%/'B'),*.Ĥ''.5''/)+*1-+')+%'
$'6,5,)2'*&')+%0%'7,4$'),*.0'7'$,%0',8 8%.0%/2'
)+%2''$%'$%(*-.,0'4/%',.'''/*1$''(0)'3+%)+%$'
7*/1.)'$2' *$ *)+%$3,0%' +%'7,4$'),*.0'*&'
)+%'+%')'$%''4*1)'0%7%.)2',.''8,.1)%')+*0%'
&')+%'$%06,$')$2'*$-'.0''4*1)'0,B)%%.' +%'
3+*/%'4*52'$%E1,$%0''(%$)',.'6%$,*5'*&'40*;
/1)%''.5'(*.),.1*10'$%6*0%',.'%'(+')3%.)2'
&*1$'+*1$0'A'8*1.),..-')*'.%'$/2'*.%)+,$5'*&'
)+%'6%$,*5R'0*')+')'3%'8'2'0'2',)0'$')%'*&'
7,4$'),*.',0'*.(%',.')+%')3%.)2&*1$'+*1$0'
.'/,9%'8'..%$')+%'6%$,*5'*&'$%/'B'),*.'*&'
)+%'+%')$',0'4*1)'*.%)+,$5'*&')+%')*)'/6%$,*5'
&'(),.''.5')+,0'6$*6*$),*.'/(*$%%06*.;
5%.(%'4%)3%%.''(*(''/.5''-%.%$'/(*.5,;
),*.',0'.*)''/,))/%',.)%$%0),.-''.501--%0),7%'
-',.',)',0'1.,7%$0'//2'*$5',.%5''8*.-0)'
(,7/,0%5'.'),*.0')'*.(%',.'%7%$2'0%7%.'
5'20')+%$%'0+'//4%''$%8,00,*.'*&/'4*1$'.5'
'(+'.-%'*&'*((16'),*.Ĥ'.5'3%'$%(*-.,0%'
)+%'&')(')+')',)',0'+,-+/2'57,0'4/%'&*$')+*0%'
3+*'$%'*((16,%5',.'*.%'61$01,)'*'4$%'9'
'3'2'&$*8',)'/%'0)'*.(%''2%'$'.5',.;
51/-%',.')+')'7'$,%)2'*&'3*$9'3+,(+'3%'('//'
'8 10%8%.)
'),-1%'*((1$0'5,$%()/2'3%''))%86)'*'/)%$'
)+%'$+2)+8'*&'*1$'7,)$&'7,4$'),*.0'42'6$*;
/*.-,.-')+%'6%$,*50'*&')%.0,*.'')')+%'%B6%.0%'
&')+%'6%$,*5'*&'$%/'B'),.'*$'42'5%8'.5,.-'
&*$'.2'/%.-)+'*&'),8%''E1,(9%.,.-'*&')+%'
.*$8'/'$')%'*&'7,4$'),*.' %'$%(*-.,0%')+%'
&'()')+')'')+/%)%0'3+*'*7%$)$',.'$1.'$,090'*&'
('$5,'(')6*14/%0''.5'/*00'*&'3,.5Ĥ)+')')+%'
8'.'3+*'&$*8''.2'(10%',0'1.'4/%')*'0/%%6'
$1.0''0%$,*10'$,09'*&'6%$8'.%.)',86',$8%.)'
*&'+%'/)+Ĥ''.5'3+%.'3%'&$.5'6'),%.)0 61$;
01,.-')+%,$'7*(',*.0')*'C%'/10/2'3%'9.*3'
)+')',&'01(+'*&&%.(%'-',.0')+%/'30'*&'.')1$%
4%'6%$0,0)%5',.'-%.%$'/6'$'/20,0''*$*)+%$
&*$80'*&'04$%'95*3.<'$%'/,9%/2')*'4%')+%'
$%01/)
#7 G '),-1%'8'2'4%'%,)+%$'0 " '
''*$' ''.5'4*)+'&*$80'8'2'4%'%,)+%$'
'(1)%''*$'(+$*.,(' +')'&'),-1%',.'''',)0'
&*$80',0'51%')*',86',$%5'.1)$,),*.')+%$%'('.'
4%'/,))/%'5*14)''.5'3%'0+'//&,.5')+')'+%'
02 8 6)*80'*&'(+$*.,(' &'),-1%''$%'*&)%.')+%'
6$%/15%'*&'5%&,..,)%''.5'$%(*-.,0'4/%'5%-.%'
$'),7%'(+'.-%0
%.%$'/' '),-1%G %.%$'/&'),-1%',0'
$%(*-.,0%5'3,)+'%'0%'4*)+'.'',)0''(1)%''.5'
(+$*.,(' &*$80' +%$%',0'''5,0'4,/,)2')*'6%$;
&*$8'%,)+%$'8%.)'/'*$'6+20,('/'3*$9''.5')+,0'
5,0'4,/,)2',0'.*),(%5'&,$0)',.'3*$9'$%E1,$,.-'
'))%.),.*.'*$'010)'',.%5'%&&*$)''.5'/'0)',.'
)+*0%''()0'3+,(+'+'7%'4%(*8%'1)*8'),('*$
0%(*.5'$,/2'1)*8'),(' +%'02 8 6)*80'*&'
-%.%$'/&'),-1%''$%'101''//2'$%&%$'4/%')*')+%'
.%$7*10'(%.)$%0
>*(''/' '),-1%G *('/&'),-1%',0'%,)+%$'
'(1)%'*$'(+$*.,('.5')+%'02 8 6)*80'*&',
$%&%$'4/%'101''//2')*')+%'8 10(/%0Ĥ41)'3%
8 10)''/3'20'4%'$',.'8,.5')+')'8 10(/%''.5'
8*)*$.%$7%''$%'6$'(),('//2'*.%''.5',.5,;
7,0,4/%''.5')+')'$%(%.)'%B6%$,8%.)0'+'7%'
-,7%.'-$%')'6$*4'4,/,)2')*')+%',5%'')+')'%7%$2'
8 10(/%',0'(*,8%()%'3,)+''(%$)','.'5%&,.,)%'
06*)',.')+%'4$',.''+%.')+%$%&*$%'3%'06%'9'
&''0%.0%&'&'),-1%'3%'8 10)'.%(%00'$,/2'4%
,.'5*14)'.*)3,)+0)'.5,.-')+%'&'()')+')'+%'
02 8 6)*80''$%''66'$%.)/2'/*()%5',.')+%'
8 10(/%0'3+%)+%$')+%'4$',.''.%$7%'*$8 10(/%'
.%'$''//*&')+%8'4%'$%''//2''()'&'1/)
& ' 0 G +%'&,$0)'02 8 6)*8'
&'(1)%/(''/&'),-1%',0'/*00'*&'6*3%$')*''
-$%')%$''*$'/%00'%B)%.)' 2')*'*'&$%E1%.)'*$
)*'b6$*/*.-%5'0),8 1/'),*.')+%',$$,)'4,/,)2'*&'
)+%'8 10(1/'$'),001%'4%(*8%0'%B+'10)%5''.5'
,)'%,)+%$'$%&10%0')*'$%06*.5'*$%06*.50'41)'
&%%4/2')*')+%'0),8 1/10'*&')+%'3,//Ĥ3+,/0)'*1$
6*3%$'*&'5>10),..-')+%'&*$(%'*&'(*.)$'(),*.'
)*')+%''()')*'4%''((*86/,0+%5',0'/%00%.%5'
'.5''((1$'(2Ķ & 8*7%8%.)'.5'5%/,('(2'*&'
(*'*$5,.'),*.'.'$%'5%)0$*2%5' +%'0%(*.5'
02 8 6)*8',0')$%8*$'0'%7%$2*.%8 10)'+'7%'
%B6%$,%.(%5'3+*'+'0'4%%.'('//%5'16*.'&*$'
.2'1.101'/'%B%$),*.' +%')+,$5'02 8 6)*8'
,0'($'86/,9%'(*.)$'(),*.Ĥ'.5')+%'&*1$)+',0'
6',.'')+%'6',.'4%,..-')+%'6',.'*&'),-1%'
'.5''40*/1)%/2'5,0),.()'&$*8*')+%$'7'$,%)0'
*&'6',.' '),-1%',0'('10%5'&'$'0**.%$'42'
6$*/*.-%5'8 10(1/'$'%&&*$)')+'.'42'$%6%),;
),*.0'*&'0+*$)'8 10(1/'$'%&&*$)0'+'7,.-'51%
,.)%$7'/0'*&'%'),*.'%')'4%)3%%.')+%8'.2'
.%'3+'+'0'))%86)%5')*'++/5'*1)''3%,-+)'
')'$8<0'/%.-)+'9.*30')+%',86*00,4,)2'
&'(.),.1,.-')+%'%&&*$)'&*$'.2'/%.-)+'*&'
),8%Ĥ'.5',)',0'6$*7%$4,'//2')$1%')+')'0)'.5;
,.-',.'*.%'6*0,)*.'.0')*'8*0)'6%*6/%'&'$'
8*$%',$,.-')+'.'3'/9,.-')+%'$%'0*.'4%,.-'
)+')',.'0)'.5,.-')+%'8 10(/%0'3+,(+'016;
6*$)+%'4*52'$%'014>%()%5')*''6$*/*.-%5'
0)$',.'3+,/%',.'3'/9,.-'3%'10%')+%'8 10(/%0'
*.'%,)+%$'0,5%'*&')+%'4*52'/)%$.')%/2'+%'
-$%')',.($%'0%'*&'6*3%$'3+,(+'3%'*4)',.'42'
10,.-')+%'8 10(/%0'*.'%,)+%$'0,5%'*&')+%'4*52'
'/)%$.')%/2'3*1/5'0%%8')*'4%'*.%'*&')+%'(+,%&'
$%'0*.0'&*$)+%'4,/')%$'/02 8 8%)$2'*&')+%'4*52'
)'./2',0'010)'..%5'%&&*$)''$'&'8*$%'6*)%.)'
('10%'*&'&'),-1%')+'.'$%6%')%5'%&&*$)'41)'3%'
&,.5')+')'3+%.'&'),-1%'016%$7%.%0''(),*.0'
$%E1,$,.-'010)',.%5'%&&*$)'$%')+%'&,$0)')*'&',/Ĥ
'.5',.')+,0'/*('/&'),-1%'$%0%84/%0'-%.%$'/
&'),-1%'+%'/'0)''()0')*'4%'&&%()%5'42'
&'),-1%'$%'01(+''0''$%'1)*8'),('.5'$%'
'((*86/,0+%5'3,)+*1)'8%.)'/'%&&*$)''.5'42'
)+%'%B6%.5,)1$%'*&')+%/%'0)'6*00,4/%'8*1.)'
&'&$(%' ')',0'E1,)%'6*00,4/%')*'%B+'10)''
8 10(/%'42'$),&,(,'/%),8,,/'),*.'.5',&'*.%'*&
)+%'08'/',.)%$*00%,'8 10(/%0'4%(*.),.1*10/2'
&'$'5,0%5',)'3,'4%'&*1.5')+')',.'),8%',)0'
6*3%$'*&'*.)$'(),*.')*'2'&*$8'*&'0),8 1/10'
8'2'4%'40*/1)%/2'4*/,0+%5'')',0')*%'4/2'
(%$)',.')+')'+%'4$',.'('.'+'7%'.*'0+'$%',.'
'$),&,(,'/&'),-1%')+10'6$*51(%5'.'5')+%$%'
0%%8 0'-**5'$%'0*.')*'0166*0%')+')',.'0*8%'
6%*6/%'*&'%.%$-%),(')%86%$'8%.)')+%',$$,)';
4,/,)2'*&''8 10(/%'8'2'4%'%B+'10)%5'3+,/%

)+%' 6*3%$' *&' 8%.)'/' 0),8 1/'),*.' $%8',.0' '/8*0)'1.,86',$%5

" ' 0 'G' +,0' &*$8' *&' ^),-1%+'0' ('10%0' '.5' 0286)*80' 0,8,/'$K)*'
)+*0%*&' (1)%'/*('/'&'),-1%''.5')+%$%'('.'+%'
/,))/%'5*14)')+')')+,0' (*.5,),*.',0' '' (*88*.'
('10%'*&' 8'.2' *&')+*0%' (+$*.,(' 8'/'5,%0'
3+,(+'0%%8')*' $%01/)'&$*8'*7%$ 3*$9''.5''$%'
(+'$')%$,0%5'+2',$$%-1/'$' 810(1/'$' (),*.'
+')' 0*8%' ('0%0'*&' 3$,)%$<0' ($'86' A0%%'
, ' % # o/' '$%' 51%')*' (+$*.,('&'),-1%'
*&' (%$)','.'./10(/%0'%86/*2%5',.'3$,),.-''.5'
6'$),(1/'$/2'*&')+*0%' 014>%()%$')*' 6$*/*.-%5'
%&&*$)' ('.*)' 4%' 5*14)%5' *8%' ('0%0'*&'
)*$),(*//,0' 0%%8' 51%')*')+%' 0'8%' ('10%'
1%+%..%''.5' $15%.% '$)%$'+'7%'6*,.)%5'
*1)'+*3',.'('0%0'*&'0+*$)' 0,-+)<')+%' 0)$',.'
*.')+%',.)%$.'/' $%(),' +'0' ('10%5')$*14/%0'
&' 7,0,.''.5' %7%.' 4$',.'02886)*80H' .5'
$' ' ' '2/*$'*&' *)),.-+'8'+'0' 0+*3.'
$%'0*.' &*$' ,.(/158-',.')+%' ()%-*$2'*&'
&'),-1% 5,0%'0%0' '' 6%(1/,'$'&*$8'*&' .20)'-;
810'*((1$$,.-''8*.-0)' 8,.%$0' 3+*')$2')
)+%,$' %2%0'42' 3*$9,.-',.')+%' 5'$9' $'
1-10)10' b '//%$' 3*$9,.-')')+,0' 014>%()'
&$*8')+%' 6+20,*/*-,('/' 6*,.)'*&'7,%3')0')%0'
)+')'3+%.'''8 10(/%',0'&'),-1%5'42'*7%$ 0),81;
/'),*.'*&'' 8*)*$'.%$7%',)' ,0')+%' 8*)*$'%.5'
6/')%A)+%'>1.(),*.'4%)3%%.'.%$7%'.5'810(/%R'
3+,(+'&,$0)'&',/0')*' (*.51()')+%'0),81/10H'.5'
$' %,5'3*$9,.-',.'(*.>1.(),*.'3,)+' $'
b '//%$'+'0R0+*3.')+')' 3+%.'0),81/'),*.'
)'9%0'6/'(%'&$*8')+%'4$',.'&',/1$%'42'(*.;
51(),*.'*((1$0'&,$0)',.')+%'(*$5'3+%$%')+%'
-'./,*.,(' (%/'&*$80''>1.(),*.'4%)3%%.')+%'
&,4$%'*&')+%'62$'8,5'/')$'()''.5')+%'&,4$%'*&'
)+%''.)%$,*$'.%$7% $**)

=' G' +%')$%')8%.)'*&'&'),-1%'
,.'//',)0'&*$80',0'$%0)''.5')+%'$%0)*$'),*.'
&')+%'6$*6%$'$+2)+8'*&'.1)$,),.','&')+,0'4%'
&*1.5'6%$7%$)%5'42'0140),)1),.-'$+2)+8,('/'
%B%$(,0%0'&*$',8$+2)+8,('/'%&&*$)0

' '

' U 'G 2
H $' C 0 " ' 0 g %$'
. 0 ' #
- . G +%'6$*(%00'42'3+,(+'6$*)%,.'
%/%8%.)0''$%'(*.7%$)%5',.)*' '-$'.1/'$'&')) 2'
8'))%$

' 2' ' /## ! +,0'(+'.-%'8'2'
((1$',.'.2'&')+%'(*86*.%.)'%/%8%.)0'*&'
)+%'4*52'3+%)+%$'.*$8'/' $'4.*$8'/
6# 0 G +%'6$*51(),*.'*&'8,/9'
&$*8')+%'6$*)*6/'08'*&')+%'8'8 8'$2'(%//0'
'.5'*&'0%418&$*8')+%'(%//0'*&')+%'0%4'(%*10'
-/'.50'$%',.0)'.(%0'*&'&')2'5%-%.%$'),*.'
+%'(%//0'*&')+%'(*$610'/1)%18'$%'6')$)/2',.''
(*.5,),*.'*&'&')2'5%-%.%$')',*.H''.5',)'.0'42'
'0,8,/'$'(+'.-%',.')+%'6%$,6+%$'/(%//0'*&')+%'
8')1$%'&*%)'/'6*$),*.'*&')+%'6/'(%.)'')+')'
.*$8'/,.7*/1),*.'*&')+')'$-.',0'((*8;
6/,0+%5' *1$7'0(1/'$'0)$1()1$%0'01(+'0'
)+%'($),/'-%0')+%'(*$.%''.5')+%',.),8''*&'
4/**5 7%00%/0'&$%E1%.)/2'1.5%$-*'&'))2')$'.0;
&*$8'),*.'*&'6')$'*&')+%,$'0140)'.(%' .'

/%00'8'$9%5'&*$8'&'))2'5%-%.%$'),*.'*((1$0'
,.')+%'3'//0'*&')+%'1)%$10''.5'*)+%$'810(1/'$
$-'.0'3+%.'$%)1$..-')*')+%,$'$5,.'$2'0,C%'
'&)%$')%86*$'$2'+26%$)$*6+2

6 # 0 G=0''61$%/2'8*$4,5'6$*;
(%00'&'))2'(+'.-%',0'8*0)'&$%E1%.)/2'8%)'
3,)+','.')+%'810(1/'$'),001%'*&')+%'+%')$')0,.'
)+%'3'//0'*&'('6,//'$,%0''.5','.')+%'1$,.'$2'
)141/%0H'41)',)''/0*'*((1$0',.')+%'(%.)$='
.%$7*10'020)%8'(*.0),)1),.-')+%'(*.5,),*.'
9.*3.''0'03+,)%'0*&)%.,.-'<H',.')+%'/,7%$H
'.5',.')14%$(1/'$'5%6*0,)0'('.(%$*10-$*3)+0'
,.&'$()0''.5',.&/'88')*$2'6$*51()0',.''.2'
0,)1'),*.'3+')0*%7%$

) # ' % 2$U ' # 7
G .'*$-'.')+')'+'0'1.5%$-*.%&')) 2'
5%-%.%$'),*.'6$%0%.)0')+%'&*//*3,.-'6+20,(05'
(+'$')()%$0' +%'41/9''.5'3%,-+)'$%'-%.%;
$'//2',.(%'0%5H)+%'(*.0,0)%.(%',0'$%51(%5 I'
0*8%),8%0')*' ''61/6''0',.'3+,)%'0*&)%.,.-'*&'
)+%'4$',.H)+%'(*/*1$',0'(+'.-%5'%,)+%$'0' ''
3+*/%'*$',.')+%''&&%()%5'6*$),*.0'*&')+%'*&)+%'-'.'
,.)*' ''41J'*$'2%//*3,0+'4/**5/%00'+1%H'.5'
)+%'$%0,0)'.(%'*$'&,$8.%00',0'5,8,.,0+%5'0*'
)+')')+%''&&%()%5',001%',0'8'$9%5/2'&/'442'
'.5'$%'5,/2'2,%/50')*'6$%001$%'+%'0*/,5'(1)'
01$&'(%'8'2''66%'$'(*86')'.5'0+,.,.-H
'.5')+%'0%(),*.'/%'7%0''' -$%'02'0)',.'16*.'
)+%'9.,&%'.5'&,.-%$0' +%.'&'))2'5%-%.%$;
'),*.',0'-$%')/2''57'.(%5''0',)'8'2'4%0%%.'
&*$'%B'86/%',.')+%'/,7%$''' 6*$),*.'*&')+%
*$-'.')+$*3.',.)*'3')%$'3,/f&/*')
' # G .'&'))2'5%;
-%.%$'),*.')+%'810(1/'$',001%'*&')+%'+%')$'
, '&,-'D!R''.5')+%'3'//0'*&'('6,//'$,%0''$%
8*0)'01,)'4/%G%06%(,'//2')+*0%'*&')+%'4$',.G'
&*$'8,($*0(*6,('/',.7%0),-'),*.'%W +%'%'$/,%0)'
(+'.-%0',.')+%' ' ,.'&'))2'5%;
-%.%$'),*.'$%/*00'*&'0+'$6.%00'*&')+%',.5,;
7,51'/0)$,'%''.5')+%'66%'$'.(%'*&'8,.1)%'
6'$),(/%0'*&'*,/4%)3%%.')+%'%/%8%.)0' +%0%'
(+'.-%0'4%-,.,.-'.%'$')+%',.1(/%,'06$%'5'
)+$*1-+*1)')+%'&,4$%0',.''*/*.-,)15,.'/5,;
$%(),*.'3+,/%')+%'6'$),(/%0',.($%'0%',.'0,C%'
'.5'0018%')+%'3%// 9.*3.'(+'$'()%$0'*&'*,/'
-/*41/%0'b +%.')+%'6$*(%00',0'57'.(%5')+%
3+*/%'*&')+%'0'$(*10'0140)'.(%',0'$%6/'(%5'42'
&')) 2'6'$),(/%0'(*.)',.%5'3,)+,.''5%/,()%
'/418,.*10'%.7%/*6%' ,.''//2')+%'5%-%.%$;
')%5'&,4$%0'%,)+%$'4%(*8%')$*6+,%5'42''4;
0*$6),*.'*&'(%$)',.'6'$)0'*&')+%')''.5'0*'
5,0'66%'$H'*$'01&&%$'$16)1$%'3,)+'5,0(+'$-%
&')+%,$'*.)%.)0'+%&')) 2'.')1$%'&')+%
(+'.-%',0'6$*7%5'42')+%'0*/14,/,)2',.')+%$'*&'
)+%'6'$),(/%0')+')'+'7%'%0('6%5'&$*8')+%&,4$%0
))2'5%-%.%$'),*.'*&')+%' ')
,0'4%0)'0%%.',.')+%'(6,//'$,%0''.5'08'//%0)'
'$)%$,%0' +%')1.,(4'&,$0)'/*0%')+%,$'.*$8'/
)$'.0/1(%.(2H 8,.1)%'-$'.1/%0''66%'$',.'
)+%,$'0140)'.(%H''.5')+%0%',.($%'0%')*'&*$8'
1.8,0)'9'4/%*,/-/*41/%0' ,.''//2')+%'7%00%/'
-,7%0'3'2''.5')+%*,/2'6'$),(/%0''.5'4/**5'$%'
5,0(+'$-%5',.)*')+%'6%$,7'0(1/'$'06'(%0
.')+%*)+%$'*$-''.0'$%&%$%5')*')+%'8,($*;
0(*6,('/'(+'$')(%$0''-$%%'3,)+')+*0%'>10)'5%;
0($,4%5'3,)+'(%$)',.'5,&/&%$%.(%0'5%6%.5%.)

16*.')+%' 06%(,'ƒ 0)$1()1$%' *&' %'(+' +10' &'))2' 5%-%.%$'),*.' *.' *&' ''/%1(*(2)%'/%'50')*')+%' &*$8'),*.' *&')+%' 4*52' 9.*3.' '0' '' D) ' 0 " ' ' ' ,.' 3+,(+')+%' *,/ 5$*60' &,.''//2' $%6/'(%')+%' 3+*/%' *&')+%' 6$*)*6/'0 8 ' .' 0 3+,)%' 0*&)%.,.-'‹ *&' .%$7*10'),001%')+%' .%$7% (% 0' '.5' 6$*4'4/2' '/ƒ)+%' .1(/%,' *&')+%' 6'$)' '$%' (*.7%$)%5',.' '' -$%'')' 8 %'01$%',.)*' -$'.1/'$ (*$610(/%0‡ '.5')+%0%' 4$%'9,.' 5*3.',.)*' '' &'))2' 5%)$,)10')+%' 3+*/%' (*.; 0),)1)%0' '' 0*&)' ($%'82 /**9,.-' 0140)'.(%' 3+,(+' '0' ,$(+'*3' %B6$%00%0' ,)' 0,0' $.,/9',.')+%' 4$',.',.0)%'5'*&',.')+%' 8 '8 '$2'-/'.5‹ 0' %//*3')14%$(/%'‹ (*.0,0)0' ,.' 6'$)' *&' (% 0' .5' .1(/%,')+')' +'7%' .5%$-*.%' &'))2' 5%; -%.%$'),*.'' '.5'*&'&'))2' 5%)$,)10' .')+%' ('0%' *&')+%' 1)%$10' 51$,.-' ,.7*/1),*.')+%' &')' ,0' 6$*4'4/2'$'6,5/2' '40*$4%5'0*')+')'+%' '66%'$; '.(%0'6$%0%.)%5')*')+%' %2%' $%')+*0%' $')+%$' *&')$*6+2')+'.'*&'$%6/'(%8%.)'*&')+%' 810(1/'$ 0140)'.(%' 42' &') : $ .6 G %'+'7%'.*3')*')$'(%'3+%.(%' (*8%0')+%'&')')+')',0'&*1.5',.')+',0'&*$8'*&'5%; -%.%$'),*.'' '.5'+*3' ',0'%7,5%.)')+')',.'' .184%$'*&',.0)'.(%0G01(+' '0')+%'6$*5,,(),*.' *&' 8,/9' '.5'0%418G&')2'5%-%.%$'),*.',0' ')$1/2' 6+20,*/*-,('ƒ (+'.-%' 3+,(+',0' 014; 0%$7,%.)')*' +%'/)+')+3+%.'')(),7%' 3+,/%',)0' 5%; $'.-%8%.)' *$ (%00'),*.' (*.0),1)%0' 5,0%'0%' .')*)+%$'('0%0')+%'6$*(%00',0'%00%.),''//2'6')+*; /*-,('/' '0'&*$%B'86/%',.'&'))2'5%-%.%$'),*.' *&')+%'+%'$)' .5'3+,)%'0*&)%.,.-'*&')+%'4$',.‡)+%'&1.(),*.'ƒ '(),7,)2'*&')+%' 6'$)'4%,.-',8; 6',$%5' *$ 0*' '4*/,0+%5')+')'+%' .'8%' *&' " ' *$ 5%')+,.+&%'+'0' 4%%.' -,7%.')*')+%' (*.5,),*.' +%' &'))2' (+'.-%',.')+%')3*' ,.0)'.(%0',0' +*3%7%$' 8'.,&%0)/2' *.%' '.5')+%'0'8%' +%' (*.5,),*.'9.*3.''0'&'))2' 5%-%.%$'),*.'+'5'/*.-'4%%.'5%0($,4%5''.5',)' +'0'/3'20'4%%.'''&'7*1$,)%'014>%*')'3,)+'6')+*; /*-,0)0')*' 5,0(*7%$',)0' .')1$%' '.5',)0' ('10%')' 3'0' -%.%$'//2' '0018%5')+')'+)+%' &'))2' 8'))%$'6$%0%.)'3'0',.)$*51(%5'&,$*'8'3,)+*1)' 4%,.-' 5%6*0,)%5'&$*8')+%' 4/**5' '0' 8*$4,5' 8')%$,'/',.'6/'(%'*&')+%' 6$% %B,0),.-',001%0' 3+,(+'3%$%' '40*$4%5' *5%$.'$%0%'$(+'+'0' 5%8*.0)$')%5')+')'+),0',0'.*)'0*'.5')+')' &')',0'5%$,7%5'&$*8''' 8*/%(1/'$ (+'.-%',.')+%')',001%' *$)%B)1$%0',.' 3+,(+',)',0'&*1.5' +%' 014>%()',0'*.%'*&',8 8%.0%',86*$)'.(%' .7*/7,.-')+%' 3+*/%'&,%/5'*&6')+*/*-2‡ '.5' ,)',0'41)$,-+)')*'0')%')+')'*8''(E1',.)'.(%' 3,)+')+%')$1%'.')1$%'*&')+%' 6$*(%00',0''/8*0)' %.),$%/2'51%')*')+%',.7%0),-'),*.0'*&' $ '.*3' ,$' ,(+'$5' X1',.' 3+,(+' 3%$%' 614/,0+%5' ,.')+%' &) 2 0 " "'&*$?F!'' .5'3,)+'$%&%$%.(%')*'3+,(+' ,$' '8%0' '-%)'+'0'$%8'$9%5' 0 $'X1',.'+'0'('.; 5,5/2' $%&%$$%5')*' 8'.2'6$%7,*10'*40%$7%$0' 42'3+*8'0,8,/'$'(+'.-%0' 3%$%' $%(*-.,0%5‡ 41)'+%'+*.*1$'*&')+%' &1//'6$**&'.'.5'*&')+%' $,-+)'10%' *&',)' 4%/*.-0')*'+,8 0%/&' '/*.%‹@ X1',.0'(*.(/10,*.'')'0')+%.')'0)'%5'3'0')+')')+%' 8*/%(1/'$' &'))2' 8'))%$',.')+%' 5%-%.% ' 4 (' ' (' '2 ' 7'.$ ' ' /'2 ' $

$')%5'&,4$%' 3'0')+%' $%01/)' *&' '' (+%8,('ƒ *$ 6+20,('/ƒ (+'.-%',.')+%' (*86*0,),*.' *&')+%),001%' *((1$%.-' ,.5%6%.5%.)/2' *&')+*0%'6$*; (%00%0'3+,(+'3%' ('//7,)'/' +%' '$-18%.)0' 3+,(+' +%' '551(%5',.' 0166*$)' *&')+,0'7,%3' 3%$%')+%' &* *3,.-' A ‡ +')',.')+%' &*$8';),*.' *&')+%' 0140)'.(%' 9.*3.''0' '5,6*(%$%' &$*8' '/418,.*10' 8')%$,'ƒ '&)%$' %)+')+')+%' 6/'(%0' *&')+%' 810(1/'$' &,4$%0'4/**5 7%00%/0' '.5' .%$7%0' '$%' *((16,%5' 42' &'))2' 8'))%$' 3+,(+'(*1/5' .*)' +'7%' %B,0)%5',.')+%8' '0' 01(+' 51$,.-'/,&%' A@‡ +')' '')$1%' &'))2' 5%; -%.%$'),*.' 8'2'4%' '$),&,(,''//2' 6$*51(%5' ' A"‡ +')' 8'00%0' *&' '/418,.*10' 8')%$,'ƒ 5%6$,7%5' *&' .1)$,),*.'.'.2' 6')$' *&')+%' 4*52''*$)+%' (%.)$%' *&'.* 7'0(1/'$'0)$1(;)1$%0'01(+' '0')14%$(/%'1.5%$-*' &')')2' 5%-%.%; $'),*.')*' '' 8'$9%5' 5%-$%%' A ‡ +')')+% (,$(180)'.(%0'1.5%$'3+,(+'&')2'5%-%.%$'),*.' ((1$0',.')+%'/,7,.-'4*52'%B+,4,)',86,$8%.)' *&'-%.%$'ƒ '.5'/*('ƒ .1)$,),*.'01(+''0'4/**5' 5,0*$5%$'*$' 5,0%'0%'*&' .1)$,%.)' 7%00%/0 *$%')+'.')3%.)2'2%'$0'/')%$' A ?M ‡)+%0%' (*.(/10,*.0' 3%$%' %B6%$,8%.)'//2' (*.&,$8%5' ,.')+%'/,7,.-'''.,8'ƒ 42')+%' ..7%0),-'),*.0' *&' $*&%00*$0' '1%$' .5' *,)' *&' 1.,(+' .'58,.,0)%$,..6+*06+*$10')*' '' 0)'$7,.-' 5*-',.'3+,(+')+%' '8*1.)'*&'.,)$*-%.'A1$%'‡ 5' 2' %B($%)%5' +'5'<4%(*8%' (*.0)'.)')+%0%' %B6%$,8%.)%$0'&*1.5')+')')+%' '8*1.)'*&')+%' %B($%),*.' 3'0')+%$%42',.($%'0%5')+$%%&*/5‡)+')',)+,0' .,)$*-%.' 3'0' 5%$,7%5' &$*8')+%' '/418%.'*&')+%',001%0'.5'.*)'*&')+%' 4/**5‡ '.5''),)+%' 0'8%'),8%')+')')+$%%'),8%0')+%' .*$8'ƒ '8*1.)' *&'*,ƒ +'5' ((181/'%5',.')+%' 7,0(%$''+,0'*,ƒ (*1/5' +'7%',)0'*$,-,.' *./2' ,.')+%')$'.0&*$8%5' *$ 5%(*86*0%5' '/418%.'*&')+%'*$-'.,08‡)+%'*)+%$'6$*51()' 4%,.-')+%' 1$%'' 3+,(+'+'5' 4%%.' %B($%)%5' +%' 0'8%' $%01/)0' +'7%' 4%%.' *40%$7%5',.' 6*,0*.,.-'42'6+*06+*$10',.')+%'+18'.'4*52' .2'*)+%$',.0)'.(%0'*&')+%' &$*8' '' .,)$*-%.*10'4*52'8,-+)' 4%' '551(%5',&'.%(%00'$2'01(+''0')+%'$,6%..,.-'*&' (+%%0%‡)+%',.($%'0%5'&/*3'*&'8,/9'*.' '' 8%')' 5,%)‡)+%&*$8')',*.'*&'3'B'42'4%%0'&$*8'01-'$' '.5''/418%.‡)+%' 6$*51(),*.'*&')2' '(,50' '.5')+%,$' '//,%0'&$*8'6$*%),5'(*86*1.50',.')+%' 6$*(%00'*&'6'.($%')',(' 5,-%0),*.‡)+%',.; ($%'0%'*&'*,ƒ ,.'*/,7%0'42'9%%6,.-‡ '.5')+% 5%7%'68%.)'*&' '$'.(,5'*,ƒ ,.')+%'&/'9%'*& 0'/8*.'1.5%$'0,8,/'$'(,$(180)'.(%0' +% .18%$*10',.0)'.(%0'>10)'551(%5'(*84,.%')*' 0)$%.-)+%.')+%' 6*0,),*.G3+,(+'3'0'+*3; %7%$'01&,&,(,%.)/2'%0)'4/,0+%5'42',$' ,(+'$5' X1',.G)+')',.')$1%'&'))2'5%-%.%$'),*.')+% .,)$*-%.*10' 8')%$,'ƒ *&')+%' ,001%0')+%8; 0%/7%0'' .5'.*)')+%'4/**5'810)'4%'(*.0,5%$%5)+%'0*8 %'*&')+%'*52'8'))%$')'+'0'4%%.' 0',5')+')')+%' (,$(180)'.(%0'1.5%$'3+,(+ &'))2'5%-%.%$'),*.'.' '((1$0''$%'&'$)+%$'(*.; &,$8')*$2'%7,5%.(%',.')+%' 0'8%'5,$%(),*.' +%0%'810)'.*3'4%'(*.0,5%$%5 3 + ' 2' ' /&& != +%(,$(18; 0)'.(%0'1.5%$'3+,(+'Ẅ&')2'5%-%.%$'),*.' *((1$0''$%'%,)+%$'01(+''0''&&%()'+%'.1)$,),*.

&')+%' 3+/%' 020)% 8' -%.%$'//2' *$' *&' '' -,7%.' *$-'.' *$' 6*$),*.' *&',)' 06%(,'//2

B " G +%.')+%' '8*,8)' *&' 4/**5' ,.')+%' 4*52',0' E1,%,52'$%51(%5G&*$' %B' 86/%'42' 0%7%$%' 41)' .*)' '()1' //2' 0155%.' +0%8*$$+'-%' '.5',.' '.'%8,'G5%')+' 8'2'*((1$'&$*'8'&')))2' 5%-%.%$'),*.' *&')+%' +%'$)')+%' 7*/1.)'$2' 810((%0' '.5')+%' *)+%$'7,0(%$''4%,.-'+9%3,0%#' 41)' /%0' 0%$,*10/2' '&&%()%5' -',.'-%.%$'/' ^))2' 5%-%.%$'),*.' ,0' &$%E1%.)/2' 51%')*' 5%; 6$'7%5'E '+)2'*&'4/**5''.5'%06%(,'//2')*')+%' 6$%0%.(%',.')*&'(%$)',.'6*,0*.0'01(+'0'6+*0; 6+*$10''$0%.,(''.),8*.2''.5')+%'8*$%'(*8; 6/%B'.,8'/6*,0*.0'*&')+%'(1)%06%(,&,('&%7%$0 *(', = ,0%'0%'*&')+%' .1)$,%.)' '$)%$2' *&''6'$)',0')+%' 8*$4,5'(*.5,),*.' 8*0)'&$%; E1%./2' '00*(,')%5' 3,)+' /*('/,0%5' &')2' 5%; -%.%$'),*.' -**5',.0)'.(%'*&')+,0',0'&1$; .,0+%5'42'&')2' 5%-%.%$'),*.''*&'6')(+%0'*&')+%' 810(1/'$',001%'*&')+%'+%'$)'(*$%06*.5; ,.-' 3,)+' 5%-%.%$'),*.' *40)$1(),*.''*$'(*8; 6$%00,*.''*&''' (+'*&'.(+'*&'' (*$*.'$2' '$)%$2' .*)+%$' %B(%//%.)' %B'86/%'*&')+%'0'8%',0' 3+,)%' 0*&)%.,.-'*&')+%'4$',.'&$*8'7')(1/'$ 5%-%.%$'),*.' +,0',0'.'/*-*10')*' 3+')' *((1$0',.'5$2'-'.-$%.%'3,)+')+%' %B(%6),*.')+')'5%(*86*0,)*.')'9%0'6/'(%',.')+%''/'))%$' 6$*4'4/2'&$*8'%B6*01$%')*' ,$ B> =+%.'3%'$%7,%3')+%'(,$(18; 0)'.(%0'1.5%$'3+,(+'&')2'5%-%.%$'),*.',0' &*1.5')*'*((8'3%'5,0(*7%$')+')'+%'(*.5,),*.')+')',0'(*88*.')*')+%8'/',0',.)%$&%$%.(% 3,)+'.1)$,),*.''.5'%06%(,'//2'3,)+')+%'6$*; (%0'*&'*B,5'),*.' +%'$%5'(*$610(/%0''$% 4%/,%7%5')*' 4%'6$,8'$,/2''&&%()%5',.'6+*0; 6+*$10 6*,0*.,.-Ḥ)+%2''$%'.18%$,('//2'$%; 51(%5',.'(*.),.1%5'+'%8*$$+'-%Ḥ''.5')+%2' 5*'.*)'$%'(+')+%'),001%0',.'01&/(,%.)'.184%$0' 3+%.')+%'7%00%/0''&$% *40)$1()%5''*$*)+%$3,0% 5,0%'0%5' .')+%'('0%0'*&')+%'+26%$)$*6+,%5' 1)%$10'.5'+%'$)'*&')+%'6/'(%.)''.5(6%$+'60' *&')+%'(*$610'/1)%18')+%'5%-%.%$'),*.',0'6$*4; '4/2'51%')*')+%'5%(/,.%'*$'(%00'),*.''*&'&1.(;),*.'/'()7,)2''.5')+%'(*.0%E1%.)'5%($%'0%' ,.')+%'4/**5 0166/2')*')+%'/'$-%'8'00'*&'6$*)*; 6/'08,('0)$1()1$%0 ,)+'$%06%()')*')+%' " '*$' " ' " '*&'&'))2'5%-%.%$'),*.',)'8'2'4%'0)')%5' '0' +,-+/2'6$*4'4/%' '0'&'$' '0' *1$'6$%0%.)' 9.*3/%5-%'%B)%.50')+')')+%'8%)'4*/,08'*$ 5%(*86*0,),*.')+')',0'(*.0)'./)2'-*,.-'*.',.' /,7,.-'6$*)*6/'08',0'.*)'0,86%'*$,88%5,')%Ḥ 41)')+')' '' 6$,8'$2'5%(*86*0,),*.' *((1$0' *&''/418,.*10'0140)'.(%0' ,.)*'1$%'' A*$,)0' '//,%0R'.5'&')' '.5''&1$)+%$' *$ 0%(*.5'$2' 5%(*86*0,),*.' *&')+%'&')' ,.)*' ('$4*.,(''(,5' '.5'3')%$' 8'2'.*)' *((1$' +%$%01/)')+%$%&*$% '*&'.''40*/1)%'*$'$%/'),7%'5%&,(,%.(2'*&'*B2-%.' ,.'6$*)*6/'08,(')001%0'3,//4%')+%''((181; /'),*.'*&'&')'3,)+,.')+%8

22)! +%'6+20,('/ %&&%()0' *&' &'))2' 5%-%.%$'),*.'*&''),001%'+'7%'4%%.'/$%'52' 5%0($,4%5'1.5%$')+%'+%'5'*&'6+20,('/('+'$'(;)%$0'4%,.-'(+,%&/2G(+'.-%'*&'(*/*1$'5,8,.; ,0+%5'(*.0,0)%.(%''.5'$%0,0),.-'6*3%$'0*&)%.; ,.-'$16)1$%'5,/')','),*.''.5'%B('7'),*.''.5' '/)%$'),*.'*&'0,C%' +%'(+,%&'6+20,*/*-,('/ %&&%()' ,0' 5,8,.,0+%5' &1.(),*.'/'6*3%$'*$' '(),7,)2'3+,(+',0'%06%(,''//2'8'$9%5',.'8 10; (1/'$'6')0'01(+'0')+%'+%')''.5',.'0%($%); ,.-'*$-'.0',.(/15,.-')+%'9,5.%20 G +%'014>%()'*&')+%')$%')8%.)' *&'&'))2'5%-%.%$'),*.'3,//4%&*1.5'5,0(100%5' 1.5%$')+%'+%'5'*&')+%'5,0%'0%0'*&')+%'0%7%$'/ *$-'.0'3+,(+',)'8'2''&&%() (' $ ' / & G ')',.)+%'&*$8'*&'*,/2'6'$),(/%0',0'&*1.5')*'4%'6$%; 0%.)',.'%B(%00'..')+%'(% 0'*&'7'$,*10'0%($%),.-' *$-'.0'(*.0),)1),.-'&')2',.&,/)$'),*.' +10' ,)'66%'$0',.')+%'%6,)+%/,18'*&')+%',.)%0),.'/ 81(*10'8%84$'.%'51$,.-'5,-%0),*.Ḥ,.')+%' (%//0'*&')+%'/,7%$''.5'4 ,'$2'6'00'-%0Ḥ''.5' ,.')+%'9,5.%20'*&'(%$)',.'',8'/0G&*$' ,.; 0)'.(%')+%'(')' +%.')+,0'(*.5,),*.'4%; (*8%0'6%$8'.%.)',)'(*.0),)1)%0''5,0%'0%' /'.51/'$' *$-'.0')+10''&&%()%5''0',.')+%' ('0%'*&')+%' 2%$'001 8%'''41&&*$'2%//*3' (*/*1$''.5')+%2'4%(*8%'0*&)%$'.5'8*$%' &$,'4/%')+'.'.*$8'/Ḥ3+,/0)'8,($*0(*6,('//2')+%,$'(%//0'$%&*1.5')*'(*.)'.'*.%'*$8*$% /'$-%'3%//5%&,.%5'*,/-/*41/%0'3+,(+')%.5')*' (*'/%0(%''.5'*((162')+%'(%//' +%'E1'.),)2' *&'*,/2'8'))%$',.')+%'(%//0'8'2'+*3%7%$' 7'$2'&$*8',8%')*'),8%''.5')+%',.&,/)$'),*.' 8'2'4%'%,)+%$'*&''')$'.0,%.)'*$'*&''6%$; 8'.%.)'(+'$'()%$'.')+%'*.%'('0%')+%' &1.(),*.''*&')+%'*$-'.'8'2'.*)'4%'8')%$,''//2' ,.)%$&%$%5'3,)+Ḥ,.')+%'*)+%$'('0%')+%''(;),*.''*&')+%'(%//0'8'2'4%'0*'&%$'&&%()%5''0' -$%')/2')*',86',$')+%'0%($%),.-'&1.(),*.0'*&' &),%*$-'. +%'('10%0'*&'&'))2',.&,/)$'),*.''$%'*&')3*' 9,.50G-%.%$'/'.5'/*('/' ,$0)')+%'0 " ' ('10%0''$%' , ''016%$'41.5'.(%'*&'&'))2' 8'))%$0',.')+%4/**501(+'0'*((1$0',.'6%$0*.0' 3+*',.51/-%',.'$,(+'&**5''.5',.'4%7%$'-%0' (*.)',.,.-'/('+*/Ḥ ALR',86%$&%()'*B,5'),*.' '0',.'(+$*.,(')14%$(1/*0,0'*&')+%'/1.-0Ḥ''.5' A(R''((*$5,.-')*'0*8%*40%$7%$0')+%'8%)'; 0)'0,0'*&'&'))2'5%6*0,)0'&$*8'.%'6')$)'*&')+%' 4*52')*''.*)+%$ %('.5/2'3,)+'$%06%()')*')+%' ('10%0' *&'&'))2',.&,/)$'),*.''.%'*.%'),0''6%(1/,'$'& .,)2' *$ 0%/%(),7%'6*3%$'*&')+%'(%//0'*&'(%$)',.'),001%0'42'7,$)1%'*&'3+,(+')+%2',.(*6*$')%' 3,)+')+%,$'0140)'.(%'*,/2'*$'&'))2'8'))%$' +,0'&'(,/,)2'+'0'4%%.'%B6/',..%5',.')+%'('0%' *&')+%'(%//0'*&')+%' 7%$'.5'*&')+%'6'00'-%0')$'7%$0%5'42'4,/%'42')+%'6$%0%.(%'*&')+')' &/1,5'3+,(+''0' ,$(+*3''.5'*)+%$0'5%0($,4%' ,0''' 6*3%$&1//2'5%)%$8,.,.-'('10%'*&')+%' ,.&,/)$'),*.''*&'&')'),.)*'6$*)*6/'08' .*)+%$' /*('/'('10%'*&')+%''((181/'),*.''*&'*,/',.' (%//0',0')+%,$',.'(),7,)2'*$',86%$&%()'6*3%$'*&

')%.),*. ' .' .5,. -' ('0%0' *40(.$%5' 42' -% *$' (*86/,(',*.0' ,)' ,0' .%(%00'$2') *' 0%'$(+') +*$*1-+/2'&*$') +%'&1. -10'.' .5') *' 4%'$' ,' 8,.5') +%' '57,(%') *' 4%' '/3'20' *.' *.%<0 1'$5' ,.')+%' 6$%0%.(%' *&' '' 6%$0,0)%.)' $%' %/+*10'0('/6 '&&%(),*.' 0,81/'),.-' 60*$,'0,0' %(C%8''0%4*$$+*%'' '.5')+%' 3 ' E' # "

G= 66$*6$,')% 8%'06$%0' '$%' .%(%00'$2')*' (*1.)%$')(' '.2' 5,0)1$4'.(%' *&')+%' -%.%$'/ +%'/)+')+')' 8'2' 4%' 6$%0%.)' ,.' > "!')')+%'*1)0%)'//&%7,('.'.5'*)+%$'($10)0' '.5'((($1.1/'),*.0' 0+*1/5'4%')+*$*1-+/2'$%; 8*7%5'42')+%'101'/0*&)%.,.-' '.5' (/%'.0,.-' 8%)+*50'.'.5')+%' +',$' 0+*1/5'4%'(*86/%)%/2' (1)' '3'2' '.5'9%6)' 0*' ,/5' '.),0%6),('5$%00,.-0' 8'2')+%.' 4%' '66/,%5')*' 01451%' '.2',.&/'88'),*.''*$+%'/%B(*$,')%5'01$&'(%0' 0''((*86/,0+%5')+%' &1$)+%$')$%')8%.)',0' .%'$/2',5%.),('/3,)+')' &*$' *$5,.'$2'$,.-; 3*$8' A0%%' / # J' '0%0' '$%' *&)%.' 8*0)' $%4%//,*10' '210' *&'.*.+',$2' 6'$)0',0' 81(+' 8*$%' '8%.'4/%' b +%.')+%' .','/0' '$%' '&&%()%5',)',0' .%(%00'$2')*' $%8*7% 8%(+'.,('//2''0' 81(+' *&')+%' 5,0%'0%5' 6'$)' '0' 6*00,4/%' '.5')+%.')+*$*1-+/2' $14',.' *$ 9%%6')+%'6'$)'0*'9%5'3,)+'6'$'0,),(,(5%0 ' ' (-

Y 8 'A%,$)%)&_,0/,-+)&%7%$R K G' B ' $'[.; H %$'6 # & (; G ,86/%' &%7%$' *&'*.%' # 7 ' *$'.*)'8*$%')+'.'''&%3'5'20'51$'),*.H .*)' 6$%(%5%5'42' '.2' *.%' 9.*3.',.7'$,'4/%' '.)%(%5%.)H '.5'.*)' '))%.5%5'42' '.2' *.%' 5%&,.,)%' *$-'.,(' /%0,*.)' 8'2'3%//'4%' 5*14)%5'+*3%7%$'3+%)+%$' 01(+'')+,.-' '0'0,8/%' &%7%$' ,')+%' 0)$,()' 0%.0%' *&')+%')%$8'%B,0)0H '.2+*3',)' 8 10)'4%' *.%'*&')+%'$'$%$'&*$80'*&'5,0%'0%' +%' (*.; 5,),*.0'3+,(+'&$*8'*1$'.%(%00'$,/2',8 6%$&%()' 9.*3/%5-%',)',0'(*.7%.,%.)'*' ('//&%4$,(1/'' '$%' .18%$*10'.5'*&'-$%')' 6$'(),('/,86*$;)'.(%' +%2' 8'2' 4%' 0*8%3+')' $*1-+/2' -$*16%5''0'&*//*30 G ' 4*$),7%' *$',.(*86/%)%' &*$80'*&'0*8$%0)/%00.%00'0/%%6/%00.%00'' .5'0/,-+)' 5%/,$,18' ')' .,-+) *.%'*$'*)+%$'*&')+%'06%(,&,('(*.),.1%5'&%7%$0 G' .'8%/2')26+10')26+*,5'*$' $%/'60,.-' +%' 3$,)%$<0'*3.'%B6%$,%.(%'/%'7%0'.*'5*14)',.' +,0'8,.5')+')' 01(+',$$%-1/'$ &*80'$%' 8%)' 3,)+'51$,.-'%6,5%8,(0'*&')+%0%'5,0%'0%0 @' .0)'.(%0'*&'0*8%'*&')+%'%B'.)+%8')'0,5%'/8*0)'%7%$2'5,0%'0%')%.5%5'42'$,0%'*&')%86%$')1$%',0'.*3'.5')+%.'10'(*1.)$2',0'/8*0)'/3'20'&'7*1$'4/% %06%(,'//2'0('$/'),.''.5'85,&,%5'7'$,*/'',.' 3+,(+')+%'101'/'$'0+',0'%,)+%$' '40%.)'*$'0*' 0/,-+)'*$'4$,%&' '0')*'6'00'1..*),(%5 : # .)! +%'6$*-.*0,0'5%6%.50'16*.' "'.)%8,))%.)'&%7%$0',.'3+,(+'&*$'0*8%+%' 5%-$%%' .5'51$'),*.'*&')+% 62$%B,''41)' $%'0*.'*$'*)+%$')+%'6'$*B2080'5*'.*)'$%(1$' ,.')+,0'(*1.)$2',0'/8*0)'/3'20'&'7*1$'4/% *$'*./2''))'1.(%$)',.''.5'5,0)'.)',.)%$7'/0 # G .')+%'40%.(%'*&'.2'06%(,'/ ' '0%0',.'3+,(+')+%'/*('/02 86)*80,.5,('),*.'$%0)',.'4%5'&*$''5'2'*$)3*'/,E1,5' 101'//2'))%.5,.-'(%$)',.'&*$80'*&'&%7%$'$%' &**5'1.),/')+%'5%0,$%'&*$'0*/,50'$%)1$.0''.5' 7%$2'0/,-+)'*$'7%$2'*40(1$%'.'5')+%$%&*$% ,&,(*.0),6'),*.'4%''8'$9%5'&%')1$%'*&')+% 5,&&,(1/)'6%$+'60',86*00,4/%')*'5%)%()' .; ('0%'.'8*5%$')%'5*0%'*&'0*8%8,/5'61$-'),7%= 0)'.(%0'*&')+,0'*((1$',.'(*.%B,*.'3,)+')*.; 3,/4%01&&,(,%.)')',0'+*3%7%$'/3'20' 0,//,),0'%$20,6%/'0'$+%18'),('&%7%$',.&/1%.C' 6$15%.)')*' $%8%84%$')+')' 3+')' 0%%80')* 0/,5')14%$(1/'$'5,0%'0% 4%'&%4$,(1/'' 8'2'4%')+%'4%-,..,.-'*&'0*8%' F' '0%0',.'3+,(+'(*.0,5%$'4/%' &%4$,/% 0%$,*10'.5'6%$+'60',-+/2',.&%(),*.0'5,0%'0%

$$ 3 7) 4#! #) $-/$ 4 * --). # # 94$) * * $ $ 5 ! /) $-)$4 !)% $))$!"7)$#! $) #$)7 4) # # 7 6$ 7) #! * $ / $-5) 5 ! $ * -) ! * $ E4 # 77 7 * "+ 3 . ##$)7 3 ! $ $) ! $!) 3) -4 $! / " ! 3 # .) * =# / $ 3> 3 ! $) ! 4 $-$! #$ 7 $) / 7 + ! # $-! - .) 4 #)")) "7$ 3$$7 7 * $ 5 " / $ > . "! E4) $4 : @

U < $ '' &%7%$H ' .5 0 5$,7% '3'2RGG 6 .),62$%),(0 2 G B)%$. /' 66/,(),*. 0 *$, . ;)%$. / $%8%5,%0 3+,(+ /%. 5)*+ /*3%$)+% 4*5,/2)%86%$')1$% 3+%. ')+ 0 4%%. ' '4; . *$8 '//2*$ ',0%5'42)+% 6$*(%00%0 *&'&%7%$ / ! +% 6$,.(,6 / &%4$,&1-%0 -,7%. ', .)+% *$5%$ *&) +%, $ ' (),7,)2 ' '$% G */5 ')+0H */5 &&10,*. <) %) '(9H /(*+*/H , '6+%$%),(0H '/,(2/,(,5 ' .5 ,)0 /)0 X1,. , . % ,-,)'/,0 ' '. 5 (* . ,)%H /,(,. ' +% ' . C* . % ' (%) ' . /,5%H ' . 5 ')%$' . 5 ,/1%.)0 -%. %$ '//2 ' "' *//*3, . -' $*&%00*$,. C ' 5 8 '2 5,7,5%&%4$,&1-%0 , .)*') 3*' (/ '00%0 G A8R)+*0%' 3+,(+'5,$%()/2' 3,)+5$' 3'+%')' &$*8')+%' &%7%$%5' *$-' . ,0 8 H ' .5' A<R)+*0%' 3+,(+' /%00%. ',)0 6$*51(),*. ' .')+%' &,$0)' 5,7,0,*. ' 3%' 8 10)' -,7%')+%' &*$%8*0)' 6/'(%')*' (*/5' 4')+0')+%' (*/5' 6'(9 ' .5'(*/5'06*. -,. -' 3+,(+'6*3%$&1//2' 40)$'()' ('/*$,(' &$*8')+%' 01$&'(%' *&') +%' 4*52' ' .5' $'6,5/2' (**/ 5*3 .')+%' 4/**5' ,'6+*$%),(0' ' .5' /(*+*/ ' ()' 8*$%' &%%4/2',. ')+%' 0 ' 8%' 5,; $%(),*. ' 42' 5,/'),. -')+%' (1)' . %*10' '$)%$,*/%0 ' .5')+10' //*3, . -')+%' 8 '00' *&')+%' (,$(1/'),. -' &/1,5')*' 4%' %&&%()1'//2' %B6*0%5')*')+%' (+,//,. -' ,. &/1%. (%'*&')+%' ,$' 3 + ' +%$'6%1),(0' *&H ' .5' 7$ # @' %(*.5/2' 3%' +'7%')*' (*.0,5%$')+*0%' 5$1-0' 3+,(+' '()1'//2' (+%(9')+%' &%4$,/%' (*. ; 5,),*. ' ,)0%/&' 42' 5,8,. ,0+,. -' *B,5'),*. ' *$' 42' /%00%. , . -')+%' $'6,5,)2' *&')+%' (,$(1/'),*. ')+$*1-+')+*0%'6'$)0' *&')+%' 4*52' ,' 3+,(+')+% ,. ($%'0%5'),001%(+'. -%',0')'9,. -'6/'(%'),'0' 6$*4'4/%')+')'3%'810)'%B6/',')+%' .),62$%),(' 6$*6%$),%0' *&' 01(+' 5$1-0' '0' E1,. ,. %' 42')+%,$' 06%(&,(' ,. &/1%. (%' *7%$')+%' -%$80' *. ' 3+,(+'8'/'$,'5%6%. 50H ' .5'6%$+'60')+%'6$*; -$%00' *&'0(,%. (%' 8'2' %. '4/%' 10' ,')+%' . %'$ &+)1$%')*' ,6'&%4$,/%'6$*(%00%0' ,')+%' 415'42' 6'$'/20,. -' *$' 5%0)$*2,. -')+%' 4'(,//,' 3+,(+' 8'2' 0)'$)')+%' (+',. ' *&' 8*$4,5' 6$*(%00%0')+% 3+,(+'$',0%')+%')%86%$')1$%' . 5'5%6$%00')+% 6*3%$0' *&'/,&% +%'&$%%'10%*&'3')%$')%. 50')*'6$*8*)%'%B($%),*. ' ' .5')+10')*'$%8*7%')+% $*51()0' *&'*B,5'),*. ' /,0)%$0' 6*00,4/2' '() 2' ('10,. '(*.)$'(),*. ' *&')+%' 7%00%/0' ,')+%' ,. &/'8%5'6'$) G .),62$%),(')$%')8%.)', 0' . *)' 81(+' '5*6)%5', . ')+,0' (*1.)$2' 0' '' 8 ')) %$' *&' $*1;),. %' +*/5,. -' '0' 3%' 5*')+')')%86%$')1$%0' $',0%5' 3,)+,. ' (%$)', . '/,8,)0' '$%' . *)' <0 ' %/%8%.)0' *&' 5' . -%$' . 5')+')' %7%. ' '/)+*1-+' 3%' 8 '2' %&&%%)1'+2' (**/ 5*3 . ' *1$' 6'),%.)')+%' 6$*-$%00' *&')+%' 5,0%'0%' 8 '2' -*' * . ' E1,)%' 1. (+%(9%5' 1)'6$*/*. -%5' &%7%$' ('10%0' %B; (%00,7%',001%(+'. -%' . 5' &'))2' 5%-%. %$'),*. ' *&')+%' +%')H ' . 5' 3+%. ')+%')+%$8*8%)%$' $%-,0)%$0' !Fg' ' . 5' 0),/)%. 50' 163'$50' 3%' 9. *3')+')' 5'. -%$*10' /,8,)0' '$%' $%' (+%5' ' . 5')+')' '0' ''$1/%' +&%',0' . *)' /*. -' 010)', . %5' '4*7%' !Mg' ')')+%. ' 4%(*8%0' *1$' 51)2')*' ,.)%$&%$%H ' . 5')+,0',0' 4%0)' 5*. %' 42' 6/1. -, . -' *1$' 6'),%.)', .)*' ' 4')+' ')' PFg' ' . 5' -$'51'//2' (**/8-',)' 5*3 . ')*' DFg' +%. ')+%')%86%$';)1$%' 5%0(%. 50')*' 3,)+, . ' g' *$' Fg' *&')+%' . *$; 8 '/ 3%' $%8*7%' +,8')*' 4%5' $%8%84%$, . -')+%' 5,/')'),*. ' *&' 7%00%/0' 3+,(+' 810)' &*//*3')+%' (*.)$' (),. -' %&&%()' *&' (*/5' ' . 5')+%' (*. ; 0%E1%.)' (**/,. -'6$*(%00'3+,(+'810)' (*.), . 1%')*' -*' *. ' %$%' ' 0', . ' '//' &%4$,/%' (*. 5,),*. 0')+%')+%$8*8%)%$' ,0' *1$' 01$%0)' -1,5%' ' . 5' 3%' 810)' 4%' 5,$%()%5'42',)' 0')*' 3+%. ')*' $%; 018%')+%)$%')8%.)' &*$' &$%E1%.)' $%6%),),*. ' 8 '2' 4%' . %%5%5' . 5' *. ')+%' *.),. %.)' 0' 8 ' . 2' 0' <HH' 4')+0' +'7%' 4%%. ' -,7%. ' ,. ')+%' (*1$0%' *&' ' 0,. -/%' ,// . %00' /*. -' 3,)+')+,0')+%' %$8' . 0' (*84,. %')+%' 10%' *&'/'$-%' 5*0%0' *&'E1,. ,. %H 41)' . *)3,)+0)' . 5,. -')+%' 8 '$9%5')*/%$' . (%' *&')+%' 5$1-' 1. 5%$' 62$%B,/' (*. 5,;),*. 0')+%' 5' . -%$' *&'6%$,/*10' 5%6$%00,*. ' &$*8' 01(+' &$%%' 8%5,('),*. ' ,0' . *' ,8' -,. '$2' *. %H ' . 5' 61)),. -' ' -1%' '6')' 3%&,. 5')+,0'7'/1'4/%' 5$1-' 8*0)' 4%. %&,(,'/,. ' 01(+' &%7%$0' 0' 0%%8')*' *'3%')+%,$' *$=,. ')*'0%6),('6*,0*. ,. -' ,-,;)'/,0',0' . *)' ' 6*3%$&)5' ' .),62$%),(' ' . 5',. ' /'$-%' 5*0%0',0')*' 5,0)1$4,. -')*')+%' +%')' ' . 5')*' ')6)')*' 6$*51(%' -'0)$,(' 5%$' . -%8%.)')*' . 06,$%' 81(+' (*. &,5%. (%H 41)' 6+%. 'C* . *' ('10%0' 6$*&10%' 6%$06,$')',*. ' ' . 5',0' 81(+'10%5' ,. '&%4$,/%'5,0*$5%$0' *. ' ''((*1.)' *&',)0' (%$)', . ' ' . 5' $'6,5' (),*. ' ' . 5' '(%)' . ,+5%' ,0' %&&%(;)1'/,. '08'//%$'5*0%0' +%', . &/1%. (%' *&' 0'/,; (2/,(' (,5'*7%$' '(1)%' +%18')08',0'$%8'$9; '4/%' '0',)'0%/5*8'&',/0')*' $%51(%')%86%$')1$%' . 5'$%/,%7%'6',. ',. '&*$)2%,-+)' +*1$0H' 41)' ,' *)+%$' &%7%$,0+'(*. 5,),*. 0',)0' 4%. %&,(,'/'(),*. ' ,0' 42' . *' 8%' . 0' 0*' 3%// 8'$9%5' '/,(,. ' '/0*' +'0' . 18%$*10' '57*(')%'3+*'6$%&%$',)')*' 0'/,(2/')%0' '0' 4%,. -' /%00'5%6$%00,. -')*' (,$(1/'),*. ' $*. ' ,0' *&' 7'/1%',. ' %$20,6%/'0' ' . 5'%B%$)0' 0*8%' (*.)$*//,. -'6*3%$*7%$*(1)% $+%18'),08' (*. ,)%' ' . 5' 5,'6+*$%),(0' '$%' *&', 85*14)%5'0%$7,(%',. ' ',5,. -')+%' 5%&%$7%0; (%. (%'*&'0*8%'*&')+%' 8,. *$&%4$,/%'5,0*$5%$0 S (25 ! 3! ! M *', . 0,-. ,&,; (' .)'6'$)'*&')+%'$%'/5,&&,(1/)2',. ')+%'6$')(,(%'W *&'*1$'6$*&%00,*. ' 5%6%. 50' *. ' 3+')' 3%8'2' ('//' &%,-. %5' 5,0%'0%0' +%' $)' *&' 5,'-. *0,0' (*. 0,0)0',. ')+%' 6*3%$' *&' $%(*-. ,0,. -' 8*$4,5' (*. 5,),*. 0' ,)+' 09,//' 1' . 5' 6$*86),)15%H ' . 5' ,+' 6$*6*$),*. ')*')+%' . ')1$'/0+'$6. %00' ' . 5' 3%// 5,-%0)%5'%B6%$,%. (%' *&')+%' 8%5,('/8' . ' ,0' +,0' 01((%00' ,')+%' 5,0($,8,. '),*. ' *&' *. %' 0286)*8' &$*8' . *)+%$' 3+,(+' $%0%84/%0' ,)' 8*$%' *$' /%00' 016%$&,(,'//2' ' .2' 5,0*$5%$0

6*00%00' '0)$* . -'& ' 8 ,/2' /,9% . %00' , . ')+%,$' 7%$2' %'$/2' 0)' -%0 ' W3+ 0)' *)+%$0' 8 '2' 6$*7%' 5%(%6 '),7%)+$*1-+*1)')+%,$' 3+*/%' (* 8 0%H ' . 5' ,&')*')+,0' 3%' '55')+%' %&&*$)0' ')' 5%(%6),* .' *((' 0,* . ; ' //2'$%0*$)%5')*'42', 8 6*0)*$0 ' 3 %'0%%')+%' (' 1),* . ' 3+,(+' 8 10)' *&' . %(%00,)2' 4%' '5*6)%5' 42')+*0%' 3+*' %B%$(,0%')+%,$' ('//,. -' 3 ,)+, . ' 3 ,5%' /, 8 ,)0' . ' (* . 0,5%$,. - ')+%$%&*$%')+%' 014>%()' *& &%,-. %5' 5,0%' 0%0 ' '' =%')%$' ' 8 *1 .)' *&' *$5%$ 8 '2' '))%. 5' *1$' 0)15,%0' ,&' 3%' '5*6)')+%'&*/; /* 3 , . -' 0, 8 6/%' (/' 00,&,('),* . G ' +*0%' 5,0%' 0%0' 3+,(+' . ')1$' //2' $%; 0% 8 4/%' * . %' ' . *)+%$' ' . 5' , ')+%' 5%(%6),* . ' '))%. 5, . -')+%' 5, ' - . *0,0' *&' 3+,(+')+%' 6 '),%.)' +' 0' . *' 0+' $% @' +*0%' 5,0%' 0%0' 3+,(+' '$%' '/0*' 5,&,&,(1/)' *&' 5, ' - . *0,0' 41)' , . ' 3+,(+')+%' 6 '),%.)' , . ; 7*/1.)' $,/2' 5%(%,7%0' 1. 5%$' 0* 8 %' 8 *$/>,5' . %$7*10' , 8 61/0% " ' '0%0' , . ' 3+,(+')+%' 6 '),%.)' 0%)0' +, 8 0%/&' 5%/,4%$')%/2' ' . 5' %/' 4*$')%/2')*' 5%(%,7%')+*0%' '$*1. 5+, 8 ' . 5%$')+,0' +%' 5,. -' 3%' 8 '2' 6%$+'60' , . (/15%')+%' %B' .)+% 8 ')'' ' . 5' *)+%$' '(1)%' &%7%$,0+' '&&%(),* . 0' 3+,(+' '$%' (* . &%00%5/2' 5,&&,(1/)' *&' 5, ' - . *0,0' 4%&*$%')+%' %$16),* . ' *$ Q*)+%$' 8 '$9%5' 6*, .)0' *&' 5,&&%$%. (%' '$%' &1//2' %0)' 4/,0+%5' 8 6*$)' .)')+*1-+' ,)' 8 '2' 4%' , . ')+%' (' 0%' 6&' 614+(' 0(+**/0' *$' /'$-%' 4*5,%0' *&' 8 %. ')*' ' ()' 6$* 8 6)/2' , . ')+%' &' (%' *&' 01(+' . ' Q% 8 %$-%. (2')+%' 8 %5,(' /' 8 ' . ' 3 ,// *&)%. ' &%%/' +, 8 0%/&' (* 8 6%//%5')*' 6*0)&* . %, 0' 5%(,0,* . H' 41)' +%' 0+*1/5' ')')+%' 0' 8 %'),8 %' ()' * . ')+%' Q5%&%. 0,7%' 42')+%'), 8 %/2' %B%$(,0%'*&' E1'$' .),. %' ' . 5' +2-,%. ,(' 6$%(' 1),* . 0' * 8 %' 5,0%' 0%0' '-',. ' '$%' 5,&&,(1/)')*' 5,0), . -1,0+' &$* 8' * . %' . *)+%$' %7%. ' &)%$')+%,$' 6$*5$* 8 ')'' +'7%' 6'00%5' '3'2' ' . 5' ' 8 * . -')+%0%' 3%' 8 '2', . ; (/15%' 0 8 ' 6*B' ' . 5' 610)1/'$' 026+,/,0H' 3+,(+' *(('0,* . '//2' ('10%' 8 *$%')+' . ' '' 0+' 5%' *&' 010; 6,(,* . ')*' 6'00' *7%$')+%' 8 , . 5H')7+,/0)' 8 ,/5' 7'$,*/' ' . 5'0%7%$%'7'$,(%//''8 10)' /'3'20' +'7%' 6'00%5' '3'2' ' . 5' ' 8 * . -')+%0%' 3%' 8 '2', . ; Q*)+%$3,0%')+' . ' 0)18 4/, . - 4/*(90'%7%. ')*')+%' , . ,)')%5' '$,*10' &*$80' *&' $*0%*/'' 8 '2' Q(/*0%/2' 0, 8 1/')%' 8 %' 0/%0H' 0(' 4,%0' ,0' *&)%. ' +'$5/2')*' 4%' 6,(9%5' *1)' &$* 8' ' 8 *. -0)')+%' %$16),* . 0' 3+,(+' ,)0' ,$$,)'),* . ' ('10%0H' 3+,/0)')+$*')' &&%(),* . 0' 8 '2' '66'$%.)/2' *7%$/' 6' %' (+' *)+%$' ' . 5' %. -%. 5%$')+%' ,5%'' *&' 5,6+)+%$,'' 3+%$%' . *)+, . -' 8 *$4')+' . '016%$&,(,' /' *$' '6+;)+*10' 1/(%$')' . '$%' //2' %B,0)0' 1)' ,)' ,0' 3+%' . ')+%' ' ,/8 %.)' , 8 5%$' 3+,(+' *1$' 6'),%.)' / ' 4*1$0' $%0% 8 4/%0' 0* 8 %)+, . -' %/0%' 51$, . -' ,)0' 3+*/%' ('$%%$')+')' 8 ,0)' 9%0' '$%' . ')1$' //2' 8 *0)' /,9%/2')*' '$,0%' %' '$%' &$%E1%.)/2' 0+*(9%5' 3,)+' 0* 8 %' 0(' . 5' /' . ' 3+,(+')+%' , . . *(%' 7,(), 8' *&' 4$', . ' *$' *)+%$' *$- ' . ,('5,0%' 0%' +' 0' 4%%. ' (* . 0,-. %5')*' '' 6* (% (% ' . 5' 3+%$%')+%' 6/%' ' *&' 5$1. 9%. . %00' +' 0' 4%%. ' '))%8 6)%5')*' 4%' 010)', . %5' 42')+%' -1'$5, ' . 0' *&')+%' 614/,(' 6%'(%' *' 5,&&,(1/)' ,0' ,)')*' 8 '9%' ' $%' 2')$10)3*$)+2' 5, ' - . *0,0' 4%)3%%. ')+%' (* 8 ' ' *&' '/(*+*/' *&' 1$'%8, ' ' *&' *6,18 ' ' . 5' *&' (%$)' , . ' '6*6/%(),(' (* . 5,),* . 0 ')+')')+%')$1/2' ('1),*10' . 5' 3%// , . &*$8%5' 6$' (),),* . %$' 3*1/5' 6$%&%$. *)')*'))%8 6)')*' 5*' 0*' *&&+' . 5 ')' ,0' , 8 ; 6*00,4/%')*' / ' 2' 5*3 . ' ' . 2' -%. %$' / $1/%0' 41)' 3%' 8 '2' $%8%8 4%$')+')' '/(*+*/, . ' 6*, 0* . *10' 5*0%0' /*3%$0')+%')%8 6%$')1$%' ' . 5' 5,/')%0')+%' 616,/H)+')' , . ' 1$. 8 , '' ' . ' %B' 8 , . '), * . ' *&')+%' 1$, . %' 3,// 61)' 10' , . ')+%' $, -+)')$' (9H 3+%$%' 0' *6,18' 3, . ' 6$*51(%' '' (*.)$' ()%5' 616,/H ' . 5' , . '(%$%4$' /' +'%8 *$$+' -%0*8%%/%7'), * . ' *&')+%' 4*52 +%')' 8 '2' . *)' , 8 6$*4' 4/2' 4%' *40%$7%5 1)' ')+%0%' 6*, .)0' 8 '2'&' , /0&$*8'), 8 %')*'), 8 %' ' . 5' 3%' +' 5' 4%0)' ()')' //'), 8 %0' '0')+*1-+')+%' ('0%' 3%$%' $%' //2' '' 0%$, *10' *. %' ' . 5' $%E1, $, . -')$%') 8 %.)' 42' //')+%' 4%0)' $%; 0*1$(%0' *&')+%' 8 %5, (' /' $) # 7') $ ' 3, ' + ' .)"' =/) # 7' /) # $)' $')' # ' $!)' # ' $-' ! ' $)' $-' *) ' * * #)"' ' $-' ! ' 7 -- #4 "' ! ' * 4 ' $- ' ! . ' =/) # 7' ' 7 # 7 3' + 5 ')/! #' 7' $!)' +) -- # $ %' $-' ! ' # $ ' -- "'+ 5 ' /4 * $)"'#$ 4 * / $ ' 7' 7 $ '$-' ! ' +)$ #! ' 4+ %' $-' ! ') * + # ' + 5 ' / # - #' 7' * 3 ' 4 #) $ %' + 5 ' .) $4 ' 7 ' $-' ! ' # ' ! ' + 77)' 7' ! ' $ * #! ') / # . "' //' ! '-$) * ' /)' $-' ! ') 34)' #! 3' $-' * 7 # ' 7' 4)3)"' 7' 5 '+ '-$4 7') 7'*&' 5!) <' %' 8 10)' . *3' (* . 0,5%$')+%' ('0%0' , . ' 3+,(+' 5,0%' 0%0' '$%' &%,-8%5' . *)' 42')+%' 5,$%()' '(), * . ' *&')+%' 6'), %.)' +, 8 0%/&' 41)' 4%('10%' +%' ,0' B 8 '4/%')*' $%0,0)')+%' 7' - '$,%0' *&' +,0' 3%' 9' ' . 5' %B(,)' 4/%' . %$7*10' 020)%8 $*4/%8 0' *&')+%' -$%')%0)' (* 8>6/%B,)2' ' . 5' 5,&&,(1/)2' '$%' +%$%' 6$%0%.)%5')*')+%' 8 %5,(' /' 8 ' . ' ' . 5' $%E1,$%' &*$')+%,$' 51%' 0*/1),* . ' 8 1(+')' ()' . 5' %B6%$,%. (%' 1. (),* . ' /' '&&%(),* . 0' 0*' (/*0%/2' 0, 8 1/')%' *$-' . ,(' 5,0%' 0%' 1. 5%$')+%0%' (,$(180)' . (%0')+')' 0106,(,* . ' ,0' *&)%. ' (* 8 6/%)%/2' 5,0' $ 8 %5' ' . 5')$%')8%.)' '5*6)%5')+%' 7%$2' *66*0,)%' *&')+')' 3+,(+' 3*1/5' 8 *0)' 6$*4' 4/2' 6$*7%' (1$'),7%' 20)%$,' ' . ' ,.)0' 6$*)%' . ' &'*$80' 0166/,%0')+%' -$%')%$' . 184%$' *&')+%0%' ('0%0' ' . 5' 8 '2' 7%$2' (/*0%/2' 0, 8 1/')%' '' /'$-%' 7'$,%)2' 8 *$%' %06%(,' //2' *&' . %1$*), (' (* . 5,),* . 0' , ' 3' '$' 6/%-,' ' . ' ; (* .), . %. (%' *&1$, . %'>*, .) '&&%(),* . 0 G, . '0+*$)' /8 *0)' . 2' 5,0%' 0%' 3+,(+' 5*%0' . *)' '58,)' *&' 6'/6'4/%' *4>%,0,7%' 5%8*. 0)$'), * . G 8 '2')+10' 4%' &%, -. %5' ' . 5' 7%$2' 0%7%$%')$%')8%.)' 8 '2' %7%. ' 4%' '5*6)%5'1. 5%$')+%' 4%+%&*)+')' $%' /' *$; -' . ,(' (+' . -%0' +'7%')*' 4%' 8 %)' 42')+%' 101' //2' '66$*6$,')%' $%8%5,%0' ')' ,0' *8 2' . %(%00'$2' &*$' 10')*' $%&%$)+10' 4$,%&/2')*')+%0%' 6%$6/%B, . -' *' 0%0' +%$%H' 41)' ,)' 8 10)' '/3'20' $%8' . ' . ' ,.)%$%0), . -' 6$*4/%8' 0')*' +*3')+%' 8 %(+' . ,0 8' *&' (' 10'), * . ' +%$%' 3*$90' 0*')*' 06%'9' ' . 5' 3+%)+%$')+%' 6'), %.)' ' ()1' //2' 01&&%$0')+%' ' (1)%' 6' , . ' *&' 3+,(+' 0+%' *86/' , . 0' *' &*$(,4/2' 2 8 6')+2' ' 0' 3%' 3%//' 9 . *3' +*3%7%$' ,0' E1,)%')+$*3 . ' ' 3' 2' 3+%. ' 5%' /, . -' 3,)+')+%0%' 6%$I' 0* . 0H' . 5' '66' $%.)' $*1-+ . %00' 3,)+' . %$7, . %')* . , (0' ' . 5' 8 %.)' / 5,0(,6/, . %' 3,// *&)%. ' %&&%()' '' (1$%' 3+%. ')+%' 8 *0)' %/' 4*$')%' (* 8 4, . '), * . 0' *&' *)+%$' 5$1-0' , - . * 8 , . ,*10/2' &' ,/' 0155%. ' 0+*(9')+%' 6$%001$%' *&' 6*7%$)2' *$')+%' '40*; /1)%' . %(%00,)2' &*$' , 8 8 %5, ')%' %B%$), *. ' 3 ,//

*&)%.' %&&%()1'//2' '.5'6%$8'.%.)/2' '$*10%')/,%'
4%5$,55%.'+26*(+*.5$,'(' *&'8'.2'2%'$0'' '.5'
$%0)*$%'+,8')*' +,0'&$,%.50' 0' '' 10%&1/'8%8 4%$'
&'0(,%)2H' '.5'3%'.%%5'.%7%$'5%06',$'*&'01(;
(%00'%7%.'1.5%$' '66'$%.)/2'+*6%/%00'(,$(18;
0)'.(%0' .5' /)+*1-+' ,.' 8,.*$' 8%'01$%'
)+%' +26*(+*.5$,'(' 8'2'&'.(2')+')' %7%$2'
$-'.',.'01((%00,.',0')+%''))'*&'5,0%'0%''.5'
8'2'%7%.'01((%%5',.')+10',86*0,.-'*.')+%'
1.3'$2')+%' %B6%$,%.(%5' 6$'(),),*.%$' 3,/
06%%5,/2'5%)%()')+%' &,(),*.' '.5' 4%' '4/%')*'
$%+%7%')+%'1.+'662'01&&%$%$'&$*8')+%'3%,-+)'
&'+,0'3%0' / & 5'
1)'/%)',)'.*)'4%'&*$-*))%.')+')'0%B6%()'.)'
'))%.),*.<'*$')+%' (*.0)'.)'5,$%(),*.'*&')+%'
8,.5')*')+%'0166*0%5'8*$4,5'(*.5,),*.'*&'
.2'6'$),*B,/'$*$-'.'8'2'()1'//2'(')(+')+%'
$8(*.0*,*10'5%(%,7%$',.'+,0'*3.'.%)'42'
(*.7%$),.-'8%$%'&1.(),*.'/'5,0)1$4'.(%',.)*'
*$-'.,(' 5,0%'0%
"' *')+%')+,$5'5,7,0,*.'*&'*1$'014>%()'('%0('6%'&$*8')+%'+'$5'3*$9' '.5'&%$*(,*10'
)+%')%$8' %,-.%5' ,0%'0%0'6%$+'60'/*.%'
0)$,()/2'4%'66/,%5' %$%'3%' '$%'8%)'&'(%'
)*'&'(%'3,)+'5%+4%$*')%'' .5'6$%8%5,)')%5',8'
6*0)1$%H' '.5')+%$%',0'.*)+,.-'&*$',)'41)')*'
8')(+' *1$'*3.'3,)0' '-',.0)'+*0%'*&'')+%'
5%(%,7%$'' .5')*')+3')$)'+>0'.'),7%'()8.,.-'
42')+%'016%$,*$'0+'$6.%00'*&'0(,%.(%' *3'
)+%$%' ,0'.*)+,.-',.')+%'+,0)*$2'*&'8%5,(,.%'
8*$%'$%8'$9'4/%')+'.')+%'%/'4*$')%'%B6%;
5,%.)0'5*6)%5''.5')+%' '8*1.)'*&' '()1'/
5,0(*8&*$)'.5'01&&%$,.-'%.51$%5'42'6%$0*.0'
3+*'+'7%'4%%.'5%,$*10'*&'%0('6,.-'8,/,)'$2'
*$0*)+%$' 51)2' +%'%B+'10),7%' 3*$90'*&'
'7,.' .5' '$0+'//' .5' *,00%'1' .5'
)+%$0'-,7%'10'5%)',/0'.'/%00',.-%.,*10')+'.'
,.)%$%0),.-'*&')+%0%'5%7,(%0H 41)',0'(1$,*10'
)*'.*)%',.'+*3'/,8,)%5''' $'.-%')+%' 8*$%'
)$'5,),*.'/'8*5%0'*&',86*0)1$%' 0%%8')*'$1.'
'.5'+*3')+%'0'8%'*/5'0)*$,%0'$%' 8'5%')*'5*'
51)2'*7%$'.5'*7%$'-',.' +10'3%'$%'5'*&'
4/,.5.%00'.5'5%'&.%00'.5'%6,/%602'.5'
6'$'/20,0'4%,.-'('$%&1//2',8,)')%5'.5'('.'
+'$5/2'3,)++*/5'*1$'5$*,$'),*.'&$*8')+%''0;
)*.,0+,.-')%.'(,)2'3,)+'3+,(+')+%' '66'$%.)'
02 8 6)*8 0' 3%$%' 51/2' 8',.)',.%5' .(*.),;
.%.(%'*&' $,.%'520%.)%$2'+0%8*6)20,0'>'1.;
5,(%'.5',.0'.,)2'3%$%' '8*.-')+%' 8*0)'
&'7*1$,)%' ',.')+%'$%6%$)*,$%H'.5',.-%.,;
*10'0'3%$%')+%'6$%6'$'),*.0'&*$'51/2'010;
)',.,.-')+%'6'$)'.*'/%00',.-%.,*10'3%$%')+%'
8%'.0'&*$'5%)%(),*.'3+,(+'101'//2'6$*7%5'
01((%00&1/' *3%7%$'('$%&1//2')+%',86*0)*$
+'5')15,%5',0'(+'$')(%$'0*8%'))/%'6*,.)'
3'0'101''//2'*8,))%5' +%'2% *3'**.>,8('
),7'*&'>'1.5,(%'('.'+'$5/2'4%&%,-.%5H')+%'
,.(*.),.%.(%'*&'1$,.%'3'0'-%.%$'//2'&*1.5')*'
4%')%.5%5'42'.'%B61/0,7%%&&*$)H)+%'4/**5'
'66'$%.)/2'6$*(%%5,.-'&$*8')+%' $8-0'3'0'42'
.*'8%'.0',.),8')%/2'8,B%5'3,)+')+%' 61/;
8*.'$2'81(10H)+%'4/,.5.%00'*$')+%'5%'&;
.%00'*$')+%'6'$*/20,0'3'0'.*)'6$**&'-',.0)'
0*8%'0155%.'0+*(9'*$'8%.)'/'.,86$%00,*.'
0)'&')+%'*'0%0'0*'('$%&1//2'5%0($,4%5'42'
3$,)%$0'*.'8,/,)'$2'8%5,(,.%''$%'.*3'8%$%'
8'))%$'*&'+,0)*$2''.5''$%'+'$5/2'/,9%/2')*
((1$'-',.'.5')+%'$%'0.0'&*$')+,0''$%'
)3*&*/5' ,$0)')+%',.51(%8%.)'&*$'5%(%6;
),*.',0'6$'(),('//2'-*.%'.'&*$8%$'5'20'
3+%.')+%'0*/5,%$0'6'2'3'0'08'/'.5'+,0'
+2-,%.,(*.5,),*.'4'5'5,0(+'$-%'&$*8')+%'
0%$7,(%''0'.',.7' 5'3'0'%'-%$/2'6$,C%5''0''
8%'.0'*&'%0('6,.-',$90*8%'51)2H 41)'8')))%$0'
+'7%'-$%')/2'(+'.-%5'&*$')+%'4%))%$'*&'/')%'
2%'$0' *)'*./2'$%')+%'%8*/18%.)'.5')+%'
(*8&*$)'*&'*1$'$8 2'7'0)/2',.($%'0%5'41)'0+*$)'
0%$7,(%''.5')+%'$%0%$7%'%.'4/%'0*/5,%$0')*'
$%),$%'%'$/2',.)*'(,7,/ /,&%H 3+,/0)')+%'4*/,),*.'
*&'4*1.)/2'+'0'$%8*7%5')+%'6$,.(,6'/ 6%(1;
.,'$2',.51(%8%.)'&*$'&$%E1%.)'5%0%$),*.''.5'
$%%./,0)8%.)')',0'.*3'&*1.5'81(+'%'0,0%$'
&*$''8'.'0,86/2')*'5%0%$)')+'.')*'-*')+$*1-+'
'.2'%/'4*$')%'6$*(%00'&*$')+%'6%$0*.,&,(',).*'
&'5,0%'0%' -'.,.')+%'0'7'-%'6$(%00'*&'
&*$(,4/%',86$%00 8%.)'&*$'.'7'0%$7,(%'3'0'
.')1$'//2'6$*51(),7%'*&'8'.2'))%86)0')*'
5,0(,6/,.%'*&*1$'8%.*&3'$' %(*.5/2')+%'
6$*-$%00'*&'0(,%.(%'.5',86$*7%5'8%'.0'*&'
5,'-.*0,0'+'7%'$%.5%$%5')4%')'09'*&')+%',8;
6*0)*$'5,&&,(1/)',&'.*)'3% .,-+'+*6%/%00'
%,-.%5'4/,.5.%00'('.'+'$5/2'$%0,0)')+%')%0)'
*&')+%'*6+)+'/8*0('*6%H %/%()$,(,)2'3,//(/%'$'
16'8'.2''66'$%.)/2'.*8'/*10' .%$7*10'
0286)*80H)+%'0)%)+*0('*6%''.5')+%' 6+2-'
8*-$'6+'3,/')% '10')+%'$%'/(*.5,),*.'*&')+%'
+%')H '.5'('$%&1/*40%$7'),*.'3,// 5%)%()'
)+%'$*1-+%$' '))%86)0')*' 5%(%,7%' -',.'
8'/,.-%$,..-'8'2'*&)%.'4%'%B6*0%5'42'%B'
'.,8'),*.'1.5%$'(+/*$*&*$8'*$%)+%$' %'
'$%'.*)'+9%/2'.*3')*'4%'5%(%,7%5'42''6,%(%'
&' 7%$'),%5')*')+%'4$%'0)')'0,81/1')%'('.(%$'
$'42''.'')$),&,(,'/'.'0'/'6/2610H 41)' $'
1/5'$%($50',.')+%'S " ')+%'('0%'*&''
2*1.-'3*8'.'0%.)')*'+*06,)'/'&*$'5*14/%'
41((')18*1$',.'3+*8'*.'%B'8,.'),*.')+%'
03%//,.-0'3%$%'Q&*1.5')*' (*.0,0)'*&'),-+)/2'
3*1.5'4'//0'*&')+$%'5'&*$(,4/2',.0$)%5'4%;
)3%%.')+%')%%)+'.5')+%'(+%%9' $'.5%$;
0*.'*&' ,(+8*.5'&',$/2'('66%5')+,0',.'
0140%E1%.)'.18 4%$'42'.'$$')8-')+%'7'-';
$,%0'*&' 0(+**/-,$/ 3+*'+'5'6$*51(%5'
0)')%'4*$5%$,.-'*.'-$%.%'*&')+%'+'.5'42'
'/,-')1$%'*&'$,44*.'$%0*/1)%/2'66/,%5')*')+%'
&*$%'$8H'.5',)',0'%7,5%.)')+')'/)+*1-+'09,.'
5,0%'0%0'.5'1/(%$'),*.0'8'2'4%'8'5%'*$
9%6)'16'42'/*('/'66/,(',*.0'3%'*./2'$%E1,$%
''0106,(,*.')*' ($*00'*1$'8,.50')*'61)'10'*.'
)+%'$,-+)')$'(9'&*$'5,0(*7%$2
%'$%'.*)'+*3%7%$')*'0166*0%')+')'//
'))%86)0' ')'5%(%6),*.'+'7%'&,.'//2'6'00%5'
'3'2')+')'&%,-.%5'5,0%'0%0'$%'.*3')+,.-0'
*&')+%'6'0)' .2'.%'3+*0%'6$'(),(%'+%0'
'8*.-'6$,0*.%$0'*$'0*/5,%$0'*$'0(+**/4*20'
*$')+%'01&&%$%$0'&$*8'$',/3'2''((,5%.)0'
7%$2'0**.'4%'(*.7,.(%5')*')+%'(*.)$'$2'
6'/#J' B6%$,%.(%'+*3%7%$'
3,/'06%%5,/2'0+*3'+,8'3+*')+%'0(+%8%$0'$%'
'.5'%.'4/%'+,8')*'(,$(187%.)'+%,$'%.;
5%'7*1$0'H'.5')+%'$'.-%'*&0286)*80'0,81;
/')%5'3,/'0**.'4%'&*1.5')*'4%'0,.-1/'$/2'
.'$$*3' 14>%(),7%'0%.0'),*.0'%'*&(*1$0%

7%$>K 5,&&,(1)'*' 5%)%()Ĥ ' . 5', &' '' +%' 5 '(+%' *$ 6', .', .')+%' 4 '(9' <)' /%-' *$' $8 '4%' (* 8 6/' , .%5' *&' 42')+%' 01&&%$%$' $%' /' <)' 'OO1 8 %5' 3 %' 8 '2' *&)%.' &, .5',)' 4%0)' &*$' *1$' *3 .' $%61)'),*.')*' -,7%' +, 8')+%' 4%.%&,)' *&')+%' 5*14)' +,/0)' 6$*(%%5, .-')+%$%&*$%' 3,)+' 51%' (' 1),* .')+%' 6$' (),),* .%$' 8 10)' %.5%'7*1$')*' +*/5')+%' 4 '/' .(%' 4%)3%%.' ' .' %B(%0O' *&' 0106,(,*.' ' .5' '')**' ($%51/*1O' ')),)15%' $%8%8 4%$,. -')+')')+%' -**5' *&' 0*(,%)2' ' .5'6&i+%' 614/,(' 0%$7,(%' 810)' 4%' &',$/2' (*.0,5%$%5' 3+,/0)' '/' ('$%' 810)' 4%')'9%.' .*)'*)' (*.&*1.5')+%' ,. .*(%.)' 3,)+')+%' -1,/)2' ,.' 5%'/,.-' 3,)+' 5,0*$5%$0' 3+,(+' ,. -%.1,)2' +'0' *((' 0,*.'//2' 4%%.' %.; '4/%5')*' &%,-. ' 0 0*?' 4 %

' 8 ' ' ' 2
)' '$,%),%0' *&

U G&'016%$&,(,'/ 01661$'),*.' $%; 01/),. -' &, *8', $$,)'),*.' *&')+%' 09,.Ĥ)+%' 610' 4%,. -' 5%7%/*6%5', .' 7%0,(/%0' *&', $$%-1/'$'&,-1$%' .5' %B)%.)' +%' 01661$'),. -'. &/' 8 8 '),*.' ('10%5' 42' '')+*$.' *$' 06/,.)%$' *&' 3**5'&*$(%5' ,.)*')+%' &/%0+',0' '(*8 8 *.'%B' 8 6/%'*&' '&%0)%$

U' ,) ' ' '8' +*)R G ' g
2$%B,'Ĥ $' .) 'Ĥ %$' .
& # " .%'*&')+%' 8 *0)' $%8 '$9'4/%' &'()0', .' (*. .%B,*.' 3,)+' 5,0%'0%',0')+%' $,0%'*&)%8 6%$'1$%' 3+,(+',0' '))%.5'.)' 16*.' '/8 *0)' %7%$2' 5,0)1$4'. (%')*' 3+,(+')+%' 4*52',0' 014; >%()%5' +%' $,0%' *&')+%')%8 6%$')1$%' *&')+%' 4*52'3+%.',)' '))',.0''(%$)',.'+%,-+)'.5'/'0)0' '(%$)',.'),8%',0'('//%5' %)%$Ĥ'.5',0''((*8; 6'..%5'42'5%$'.-%8%.)'*&'&1.(),*.')$,41); '4/%')*')+%' &%4$,/%' (*.5,),*.',)0%/&' '.5',.''' 8%'01$%',.5%6%.5%.)'*&')+%',.),)/'('10% C $' G %7%$'6/'20'0*' ,86*$)'.)''6'$)',.' '(1)%' 5,0%'0%' -%.%$'//2' ,0''((%6)%5'0*'1.,7%$0'//2''0''' 8'$9'*&')+%' 0%7%$,)2'*&')+%' 5,0%'0%'' .5'0*'*&)%.'6$%0%.)0' ,)0%/&'0''66'$%.)/2')+%' (9,%&'.)'-*.,0)'3,)+' 3+,(+')+%'6+20,(,'.'*$' 01$-%*.'+'0')*' (*.;)%.5')+')')+%' '))%86)')*'6%.%)$')%')+%'0%($%)' *&',)0' %00%.),'/' .')1$%'+'0''/3'20'4%%.'' &'7*1$,)%')'09'' .5'%7%$2'0(+**/,.'%7%$2'-%' +'0'+'5',)0')+%*$2'*&')+%'&%4$,/%'6$*(%00' ,0'*./2'+*3%7%$'3,)+,.'(*86'$'),7%/2'&%3' 2%'$0')+')'%B'()'8%'01$%8%.)'*&')+%'4*52' +%')'42')+%'(/,.,(''/)+%$8*8%)%$'(*84,.%5' 3,)+'(+%8,('/'%B'8,.'),*.'*&')+%'7'$,*10' %B($%),*.0')'5,&&%$%.)')%86%$')1$%0''.5''.5%5' 42')+%'%B6%$,8%.)''/2',.51(%5',.''.,8'/0'*$,.'8'.' 42'01$-,('/*6%$'),*.'*$'((,5%.)'/0%6),(',.; *(1/'),*.')+%',.($%'0%5'+%')',0'&*1.5')*'4%)+%',.),)''/6+%.*8%.*.'6$%(%5,.-')+%'$,-*$0' .5''/')+%$02 86)*80

+%'%.5'*&')+%'6%$,*5'*&',.7'0,*.''.5')+%' 0%)),.-',.'*&')+%'0)'-%'*&'5*8,.'.(%',0'8*$% 5,0),.()/2'8'$9%5'42')+%'(+'.-%',.')+%'(+'; $'()%$'*&')+%'61/0%''.5'42')+%'5%)%$8,.'),*.' *&'4/**5'')*')+%'01$&'(%')*-%)+%$' ,)+')+%' 0140),)1),*.'*&')+%'014>%(),7%'0%.0'),*.'*& +%')'&*$')+')'*&'(*/5')+'.'42')+%)+%$8*8%)%$ 1$,.-')+%'5*8,.')'0)'-%')+%')%86%$';

)1$%'$%8',.0')'*$'*0(,(//')%0'*4*1)'' -,7%.' 6*,.)'.5')+%'&%7%$',0'(*.0,5%$%5')*'4% 8*5%$')%,&')+%'8*$.,.-')%86%$')1$%,0 !@L ' *$1.5%$''.5')+%'%7%.,.-'.*)'*4*7% !?gĤ)*' 4%'+,-+'3+%.',)'$'.-%0'4%)3%%.' !'g',.')+%' 8*$.,.-''.5' ! g',.')+%'%7%.,.-Ĥ''.5')*'4%

0%7%$%' 3+%.')+%0%/,8,)0' '$%' %B(%%5%5H 3+,/%' 3,)+' $'$%' %B(%6),*.0' ' ')%86%$')1$%' *&' !Dg' ,.5,(')%0'-$%')'5'.-%$' 0')+%0)'-%'57'.(%0)'+%' +%')' 8'2'-$'51'//2'$,0%' *$&'//H)+%'*0(,/;/'),*.0'4%,.-' 0/,-+)' *$' (*.0,5%$'4/%' '.5' ')'),8%0',$$%-1/'$' '.5' %B)$%8%' B(%6)' 3+%.')+%' &%7%$',0'51%')*' /*('/',&/'88'),*.'*$')*' ((.),.1'/ %.)$2',.)*')+%' 4/**5' *&' 8*$4,5'6'$),(/%0'*$&/1,50')+%'51$'),*.' *&')+%'5*8,;.'.(%' ,0' 101'//2',.'6$*6*$),*.')*')+%'),8%0'*((16,%5'42')+%',.7'0,*.

+%'5%(/,.%'-'.,.',0'-%.%$'//2''4$16)'.'5'+'0')+%' (+'$'()%$' *&''' 3+%.')+%',+;7'0,*.'+'0'4%%.'$'6,5' '.5',0' 6$*)$'()%5'3+%.',)'+'0'4%%.'-$'51'/

'&')'/')%$8,.'),*.'8'2'4%'10+%$%5',.'42'+26%62%B,'H 8*$%' (*88*./2')+%')%8;6%$')1$%' &'//0'4%/*3')+%' .*$8=' 6*,.)'.'5')+%$%',0'(*//'60%

+%'61/0%',0''/3'20',.($%'0%5',.&$%E1%.(2'42'&%7%$'41)'3+,/%'51$,.-')+%'+%,-+)'*&')+%'5,0%'0%')+%$%',0'10) /2'0*8%$%/'),*.'4%)3%%.')+%'4*52+%')'.5')+%'61/0% $')%')+%'61/0%',0'*&)%.'%B)$%8%/2'&$%E1%.)'4%&*$%')+%')%86%$';)1$%'+'0'$%'(+%5',)0'+%,-+)'51$,.-')+%',.;7'0,*.''.5',)'5*%0'.*)',.''/'('0%0'&'//3,)+',)'< / ' ')+%'5%(/,.%'<'+%'5,&&%$%.)'0)'-%0''$%'8'$9%5'$')+%$'42'5,&&%$%.(%0',.')+%'(+'$')(%$'*&')+%'61/0%')+'.',.',)0'$'6,5,)2H51$,.-')+%'6%$,*5'*&',.7'0,*.')+%''$)%$,%0''$%'8*$%'*$'/%00',.'06%)08''.5')+%'61/0%',0'08'//'.5'/*.-H 5*8,.'.(%'3,)+'(%$;)',.'%B(%6),*.0')+%' '$)%$,'/3'//0'$%/'B')+%'7%00%/0''$%'/'$-%''+5')+%'61/0%0155%.'0+*$)''.5'5,($*)10H '0')+%' /%7%$'5%(/,.%0')+%'$)%$,%0''$%'0)/&1$)+%$'$%/'B%5'41)')+%'(),*.'&')+%'+%'$)'0)/(%00'6*3%$&1/'0*')+')'+%'61/0%'4%(*8%0'0*&)%$

U%06,$'),*.',0'&$%E1%.)'&*//*3,.-''0''$1/%')+%'6,50%H)+%''8*1.)'*&'($4*.,(''(,5'%B;6,$%5',0'-$%')/2',.($%'0%5

+%')*.-1%',0'-%.%$'//2'8*$%'*$/%00'&1$$%5',)0''66%'$'.(%'7'$2,.-'3,)+')+%'5%-$%%'.'5'9,.5'*&'&%7%$'.5'3,)+',)0'('10%')'4%(*8%0'4$*3.'.'.5'5$2''*$1..')1$'//2'$%5',.'6$*;)$')(%5''.5'52.'8,(''&%7%$'3+%.')+%')%%)+'.5'/,60'8'2'/0*'4%(*')%5'3,)+'0*$5%0'+%$%'$%'/8*0)''/3'20')+,$0)''.5'/*00'*&'66%),)%'+%'4*3%/0''$%'101'//2'(*.&,.%5

+%'0%($%),*.0''$%''//8*$%'*$/%00'8*5,;&,%5'+%'6%$06,$'),*.'8'2'4%'-$%')/2',.;($%'0%5''0',.'(1)%'$+%18'),08H 8*$%'(*8;8*./2',)',0'(+%(9%5'('10,.-')+%'09,.')*'4%'5$2'.'.5'41$.,.-'+%''8*1.)'*&'W1$,.%3,//7'$2')*''' (%$)',.'%B)%.)',.7%$0%/2'K3,)+')+%''8*1.)'*&'6%$06,$')*'$',0%)+%'%.5%.(2',0')*',.($%'0%''.5')+%'0*/,5'*$-',(''8')%$0G'1$%''''.5'*)+%$'.,)$-%.,0%5'0140)'.(%0G'$%'/3'20'(*.0,5%$'4/2'1-8%.)%5',.'E1'.),)2'+%'(+/*$,5%'*&'0*5,18'*.')+%'(*.)$'$2',0'5,8,.,0+%5

+%'(+'$')(%$,0),(''.%$7*10'6+%.*8%.''*&')+%')'-%'*&',.7'0,*.'$'%$'$,-*$0'3+,(+'8'2'4%'0/,-+)'''.5'$%6$%0%.)%5'*./2'42'0+,7%$,.-'*$'(+,//2'0%.0'),*.0'*$'*.')+%'*)+%$'+'.5'8'2'4%'(,.)%.0,&,%5')*'(*.71/0,*.'%7%$%+%'5'(+%',0'8*$%'(*88*.''')'+,0'6%$,*5')+''.'(,.')+%'/')%$'0)'-%''.5')+%$%',0'101'//2'(*.;0,5%$'4/%'5%6$%00,*.'+%.')+%'&%7%$'+'0'$%'(+%5',)0'+%,-+)')+%$,-*$0'3,//+'7%'(%'0%5''.5')+%$%'8'2'4%')))/%'*$'81(+'5%/,$,18''((*$5,.-')*')+%'0%7%$,)2'*&')+%'))'(9')+%,5,*02.($'02'*&')+%'6'),%.)'*$')+%'9,.5'*&'5,0%'0%'-,7,.-'$,0%')*')+%'&%7%$

$ G=+%5%0($,6),*.''*&')+%'&%4$,/%'0)')%'+'0'4%%.''44$%7,')%5',.'*$5%$')*'/%'7%'6/'(%&*$''5,0(100,*.'*&')+%'.')1$%''.5'('10%'*&')+%'&%4$,/%'6$*(%00

+,0'3,//'4%'&'(,/,)')%5'42''4$,%&'$%&%$%.(%)*')+%'6$*51(),*.''.5'$%-1/'),*.'*&')+%'+%')'*&')+%'4*52',.'+%'/)+''.5'3*1/5'4%'(*8;6'$'),7%/2'%'02'+'5'6+20,*/*-,0)0''$$,7%5''')''(*86/%)%''.5'0'),0&'()*$2'0*/1),*.'*&')+%'6$*4/%8'.')+%'.*$8'/0)')%')+%'8',.'0*1$(%'*&'.,8'/'+%')',0'4/**5''.5'),001%'(*8410),*.')'8'2'6%$+'60'4%'3%/')*'0'2'+%$%'*.(%&*$'//')+')')+%)%$80'0(*8410),*.'<'.5'0*B,5'),*.<'$%%86/*2%5'0'(*.7%.,%./)2'0+*$'%B6$%00,*.0'&*$')+%'5,0,.)%-$'),*.''&(*86/%B'(+%8,('/'.5'0)$1()1$'/8*/%(1/%'42'3+,(+'+%')',0'/,4%$')%5''.5'.*)')*'(*.7%2')+%',5%''*&'5,$%()'(*84,.'),*.''*&*B2-%.'3,)+')+%'('$4*.''.5'+25$*-%.'*&')+%'4/**5''.5',001%0'.*)+%$'7%$2'0/,-+)'.5'1.,86*$;)'.)'(10%'3,U'4%'*40)$1()%5'8*),*.''*&')+%4/**5',')+%'('6,//'$,%0''*&'5,$%()'(*.7%$0,*.'*&'.%$7%&*$(%',.)*' +%')'3%'9.*3'.*)+,.-'5%&,..)%'+%'5',&&,(1/)'6')'*&')+%'E1%0),*.',0')+')'3+,(+'$%/')%0')*')+%$%-./'),*.''*&')+%')%86%$')1$%'')'+'0'4%%.'&*)85')+')')+%'(+'.-%0'3+,(+'%7*/7%'+%')'$%'8*0)''(),7%',.'810(/%',.')+%.%$7*10'0)$,/()1$%0''.5',.')+%'*45*8,.'/0?,0(%$'H3+,/%',.')+%'/1.-0''.2'(*8410),*.'3+,(+'8'2')'9%'6/'(%',0'.*)'8*$%')+'.'3,//'(*1.;)%$')')+%'/*00'*&'+%')'42'%'7'6*$'),*.''.5'42')+%'%B6,$%5',$'+%'09,.'6.')+%')+%'$'+'.5',0')+%'-$%')'(**/,.-''-%.)H)+%$%',0'/,))/%'(*8410),*.''*&',)0'0)$1()1$%0''.5',)',0'(*.),.1'//2'/*0,.-'+%')'42'(*.51(),*.'3+%.')+%'01$$*1.5,.-')%86%$')1$%',0'/*3'41)'0),//8*$%''41.5'.')/2'42'%'7'6*$'),*.'1.5%$''//(*.5,),*.0'*&'%B)%$.'/')%86%$')1$%''%')',0'+10'40)$')()%5'&$*8')+%'4/**5'(,$(1/'),.-,..'.5',88%5,')%/2'4%.%')+')+%09,.'&,$0)'0,-+)')+%.','3*1/5'0%%8')+')')+%'8%(+'.,08'42'3+,(+')+%')%86%$')1$%',0'$%-1/')%5'3'0'%B)$%8%/2'0,86/%''.5')+')',)'3'0')*'4%&*1.5',.')+%'7'0*8*)*$'020)%8'*&'.%$7%0'+%$%'4%,.-''.',.)%$.'/'+%')6$*51(,.-'8'00'*&',001%''.5''.'%B)%$.'/'$%&,.-%$'),.-'01$;&'(%',.'*$5%$')*'$',0%')+%)%86%$')1$%')+%'$)%$,*/%0'*&')+%09,.''$%'(*.)$'()%5'0+1),.-'&&')+%'4/**5'3+,/%')+%0*%'*&')+%'5%%6%$0)$1()1$%0''$%'$%/'B%5''//*3,.-',)')*'$%'(+')+%8',.'-$%')%$'41.5'.(%H,.')+,0'3'2''*5*14/%',.&/1%.(%',0'%B%$)%5G=/%00+%')',0'/*0)'42')+%'09,.''.5'8*$%',0'6$*51(%5',.')+%'810(/%0''.5'*)+%$',.)%$./'+%'6'$)0''*.7%$0%/2')+%')%86%$')1$%'3*1/5'4%'/*3%$%5'42'&/10+;,.-')+%'09,.'3,)+'4/**5G3+,(+'3*85')+10'4%%B6*0%5')*'(**/,.-',.&/1%.(%0='.5'5,7%$)

,. -' ,)' &$* 8')+%' +%') &*$8 ,. - ' 5%%6 0%')%5' 0)$1()1$%0' +,0' %B6/' . '),*. ' +*3%7%$' ,0' ,. '5%E1')%')' ,0')$1%')+ ')')5,% 5,0)$,41),*. ' *&')+% 4/**5'016%$&,(,''//2'*$'5%%6/2'42'8%' .0' *&)+%7'0* 8*)*$'.%$7*10'020)%8 '(*.)$,41)%0' /'$-%/2')*')+%'$%-1/'),*. ' *&')+%')%8 6%$')1$%9 41)'+%') 6$*51%),*. ' , . ' 8 10(/%' *$' -/' . 5',0' .*)' 5,$%()/2'6$*6*$),*. ')%' 0,8 6/2')*')+%' ' 8 *1 .)' *&'4/**5'(,$(1/'), .-')+$*1-+',)' ,001% (*8 ' 4))0),*. ' ' . 5' (*. 0%E1%.)' %7*/1),*. ' *&' +%') ',0' %B(,)%5' *$' $%6$%00%5' 42' (%$%4$* 06,. '/' .%$7%0'3+,(+'5*' .*)' -*7%$.')+%' ')%$,%0' +%' .%$7*10'0),8 1/10'3+,(+' %B(,)%0' (*.)$'(),*. ' ,.' 8 10(/%0' 5%)%$8,. %0' , . ')+%8')')+%'0' 8 %'),8 %'%7*/1),*. ' *&' +%') ' . 5')+,0'+%') 6$*51(;),*. ' 1. 5%$' .%$7%' ,. &/1%. (%' 8 '2' 4%' %B(,)%5' , . 5%6%. 5%.)/2' *&' (*.)$'(),*. ' = %' . %$7*10'020)%8')+10' , .)%$7%. %0' 5,$%()/2', . ' +%') 6$*; 51(),*. ' (+,%&/2'42',)0' '(),*. ' *. ')+%' 8 10(/%0' '0' %// '0', . 5,$%()/2')+$*1-+',)0', . &/1%. (%' *. ')+%' (,$(1/'),*. ' +,0' ,0' . *)')+%' 6/' (%')*' 5,0(100')+%' E1%0),*. '3+%)+%$')+%$%' '$%' 06%(,'/')+%$8 'f . %$7%0' ' . 5' (%.)$%0' 41)',)' 0%%8 0' 6$*4'4/%')+ ')')+%' 8 10(/%0' '0')+%$8*-%. ,(' . 5' '0' 8 *)*$' -%.)0' '$%' 1. 5%$')+%' (*.)$*f*&')+%' 0' 8 %'(%.)$' f . %$7*10' 8%(+' . 0 8

' +,. -')+%', . ($%'0%5'+%')' '0')+%' (+'$'('(;)%$,0),(' *&' &%7%$')+%' &,$0)' E1%0),*. ' 3+,(+' $,0%0' ,0' 3+%)+%$')+,0' ,0' 51%')*', . ($%'0%5'6$*51(),*. ' *&' +%')' *$')*' 5,8,. ,0+%5' /*00' +,/%')+%' 5,8,. ,0+%5'(,$(1/'),*. ', . ')+%' 09,. ' , .)+%' %'$/2' 0)'-%' 3,/f *47,*10/2')%. 5')*' $%)', . ' +%')' 3,)+, . ')+%' 4*52')+%$%',0' . *3' . *' $**8'&*$'5*14)')+')'+%$%',0', . ($%'0%5'+%')' 6$*51(),*. ' +%')%86%$')1$%'$,0%0', . '06,)%' *& 6$*&10%'6%$06,$'),*. ' 3+%. ' *&' (*1$0%' +%')' ,0' 7%$2'$'6,5/2'/*0)' '0', . ' ' (1)%'$+%18'),08' *$' 3+%. '6%$06,$'),*. ' +' 0' 4%%. ', . 51(%5'42'>'4*' $'15,'4%&*$%' '' 6'$*B208' *&' ' -1%' AU, . -%$RH' . 5',)' +' 0' 4%%. ' 0+*3. ' 42'5,$%()'%B6%$,8%.)')+')', . '&%7%$' '' 8 '. ' $',0%0')+%')%86%$')1$%' *&' ' -,7%. ' E1' .),)2' *&' 3')%$', . ' 3+,(+' +%',0' ,8 8%$0%5' 8 *$%' E1,(9/2' ' . 5')*' '' +,-+%$' 6*, .)')+' . ', . ' +%'/)+' A ,%4%$8%,0)%$R' ')', 0' . .%(%00'$2')*' -,7%' *)+%$' 6$**&0' *$' &'$)+%$' $%&1)'),*. ' *&')+%' +26*)+%0%0' 3+,(+' %B6/', . ')+%')%')' *&'&%7%$'0*/%/2'42'5,8,. ,0+%5' %0('6%' *&'+%')' &$*8')+%' 4*52

)' 8 '2'&1$)+%$'4%')'9%. ' '0' (%$)', . ')+')')+%', 8 8%5,')%('10%'*&')+%', . ($%'0%5'-%. %$')*' . ' *&'+%')' ,0', . ($%'0%5'4/**5' ' . 5'),0 1% *B,5' '),*. ' +,0',0' 0+*7$'' 42')+%', . ($%'0%5'6$*; 51()0'*&'(*8410),*. <-,7%. '*&&', . ')+%'5,&&%$%.)' %B($%),*. 0' +%'&%4$,/%'%/%7'),*. ' *&')%86%$')1,%',0' '))%. 5%5' ')' *. (%'42', . ($%'0%', . ')+%' 8*1.)' *&' ('$4*. ,(' '(,5' %B6,$%5' +,0',0' 8 *$%' 8 '$9%5'51$,. -')+%'$,0%')+' . ' 3+%. ')+%' +%')' +'0' '))', . %5',)0' 8 'B,818 '4%('10%')+%', . ($%'0,. -')%86%$')1$%' %B6/%0')+%' -'0%0' *&)+%' 4/**5' . 5')+%' -$%')%$' $'6,5,)2' *&')+%' (,$(1/'),*. ' 0%. 50')+%' 4/**5' 8 *$%'&$%%/2' . 5' E1,(9/2')+$*1-+')+%' /1. -0' ' . 5' %B6*0%0',)' 8 *$%')*')+%' ',$')' &,$0)')+%$%' 3,/f)+10' 4%%/,8,. ')%5' . *)' * . /2')+%'($4*. ,(''(,5'&*$8%5' 1. 5%$')+%', . &/1%. (%' *&')+%' &%4$,/%' 6$*(%00'

(**/%$'4/**5' ' . 5',0'5$,7%. '*&&' '0',)0')%86%$' ;)1$%'$,0%0H 3+%. ')+%' %B61/0,*. ' *&' 5,00*/7%5'('$4*. ,*' '(,5',0'(*86/%)%5')+%' ' 8*1.)' %B;($%)%5'3,/f 4%'5,8,. ,0+%5'42'0*' 81(+'41)',)0), '$%8' ,0' /'$-%$')+' . ' ')')+%' . *$8 'f)%8 ;6%$')1$%

' 0,8,/'$' ,. 5,('),*. ' *&' ,. ($%'0%5'),001%'(*8410),*. ' ,0' &' 8,0+%5'42')+%'1$,. %' +%' '8*1.)' *&' 1$%'' ,0' 101'//2' '40*/1)%/2' ,. ;($%'0%5' . *)3,)+0)' . 5,. -' '5,8,. ,0+%5'(*. ;0186),*. ' *&' .,)$*-%. ,0%5'&**5H *$',&')+%'1$%' ,)0%/&',0' . *)' %B($%)%5', . '/'$-%$'E1' .),)2')+%$%',0' 8*$%' .,)$*-%. ,0%5'3'0)%' ,. ' *)+%$'&*$80' +%')*)'/'*&' .,)$*-%. ,0%5'8'))%$'(*.)', . %5'8')+%'1$,. %',0' '/3'20'1-8%.)%5'42'&%7%$

+,/%'+*3%7%$')+%'6$*51()0'*&'(*8410),*. ' 0+*3')+')' $'6,5'8%)'4*/,08',0'-*, . -'*. ',)',0' . *)' (/%'$')+')',)' ,0' '5%E1')%')*' '((*1.)' &*$')+%'3+*/%' *&')+%'+%')' %7*/7%5H '. 5' $' $5' +'0' '57'. (%5')+%' /18, . *10'+26*)+%0,0')')+%' %. %$-2' . *$8 '//2' '40*$4%5'42')+%' (*. ' 0)$'(),7%' *6%$'),*. 0')'9, . -' 6/'(%', . ')+%'),0;01%0',0' 0%)' &$%%')+$*1-+')+%' 0106%. 0,*. ' *&')+%0%' 6$*(%00%0'42'&%7%$' ' . 5')'9%0')+%' &*$8'*&'+%')

+%' $%' f 5,&,(1/2'*&')+%' 6$*4/%8' '$,0%0'3+%. '3%', . E1,$%'3+')',0')+%'('10%'*&')+%'$,0%0'/*00'3+%. '3%', . E1,$%'3+')',0')+%'('10%'*&')+%'$,0%0'(%$'0%5'),001%'(*8410),*. ' . ' ' . 5'%06%(,'//2'+*3')+%' &%4$,/%' +%')' ,0' $%-1/')%5')' +'0' 4%%. '/$%'52'0)')%5')+')')+%' 5,0)$,41),*. ' *&' +%')+%' 4/**5')*')+%' 5%%6'0)$1()1$%0' ' . 5' *$-' . 0' ' . 5')*')+%' 09, . ' $%06%(),7%/2',0' . *)' ' 01&&,(,%)' %B6/' . '),*. ' *&')+%' 6+20,*/*-,('/f 4'/' . (%' *&' +%')H 41)',)' 8,-+)' +%' 0166*0%5')+')')+%' -$%')%$' $'6,5,)2' *&')+%' (,$(1/'),*. ', . ' ,. ' &%7%$' $%. %3, . -')+%' 0166/2' *&' *B2-%. ')%5' 4/**5' 3,)+, . ')+%' 0)$1()1$%0' 8*$%' &$%E1%.)/2' ' . 5' 8*$%' &$%%/2' 3*1/5' '((*1.)' &*$')+%' -$%')%$' *B,5'),*. ' +%$,0%'*&')%86%$')1$%'+*3%7%$' ,0' . *)' ,. ' 6$*6*$),*. ')*')+%' &/*3' *&' 4/**5')+$*1-+')+%' 7%00%/0' ' . 5' +26%62%B,'' ,0' *&)%. ' (*,. (,5%.)' 3,)+' '' &',/,. -' (,$(1/'),*. ')+%' +%')' *&')+%' 4*52', . 5%%5' '66'$%.)/2' 80*8%(' (0%0' '()1''//2', . ($%'0,. -' '&)%$'5%')+$' *. ' 1(+')*' %/1(,5')%')+%%.),$%'E1%0),*. ', . ' +,0' 1/0)*. ,' . ' %()1$%0'42'4$,. -,. -' *1)' 8*$%'5,0),. ()/2')+%')+%$8*-%. ,(' &,8(),*. ' *&')+%' 810(/%0' ' . 5')+%')+%$8*)'B,(' $+%')$%-1/'),. -'6*3%$'*&')+%' . %$7*10'020)%8' 3+,(+'*6%$')%0')+$*1-+',)0' ,. &/1%. (%' 16*. ')+%$8*-%. %0,0' ,. ')+%' 810(/%0' *. ')+%' *. %' +' . 5' ' . 5' 16*. ')+%')+%$8*/2),(' (),*. '*&')+%'09, . '*. ')+%')+%$. %0)%6')*=0='$50')+%'0*/1),*. ' 3+,(+'8'2'4%' (*. 0,5%$%5' (%$)', . ',0')+')')+%' . %$7*10'020)%8', 0' (*. (%$. %5', . ')+%' 8', .)%. ' . (%' *&')+%'+%')' *&'&%7%$' '(+'5,0%'0%'+'0',)0' *3. '(+'$'%)%$,0),%' $' . -%' . 5' 7'$,'),*. 0' *&')%8;6%$')1$%H ' . 5')+,0'&'()'/*. %')+')'&%4$,/%'+%')',0' . *)' 7'-1%' . 5',$%-1/'$'41)')+%$%',0')+%' 0140),1),*. ' *&' ' 8*$4,5'&*$' ' . *$8 'f 4'/' . (%' ,0' %7,5%. (%' *&' . %$7*10' (*.)$*/ 18%$*10' *40%$7%5'&'()0' ' . 5' %B6%$,8%.)0' 6*, .)')*')+%'0'). %' (*. (/10,*. . *)+%$' ,)%8' *&' 6*0,),7%' 9. *3/%5-%' *4;)', . %5'42'%B6%$,8%.)',0')+')' 62$%B,'' 8 '2'4%

%B(,)%5' 42')+%' ,.)$*51(),* .' , .)*')+%' 4/**5' *& 0%6),('*$*)+%$ 8 '))%$0' 3+,(+ ',)',0',8 6*$)' .)')*' . *)%' . %%5' . *)' 4%' 6 '$),(1/ ')' 8 '2' 4%& 5,&&10,4/%' &/1,5' +% ,. ($%' 0%5' +%')' 8 '2')+%$%&*$%' 4% . . 5%6% . 5%.)' *& ('6,//'$2' %8 4*; /,0 8 0' ' . 5' *& ' 4' ()%$*,5' *$*)+%$' *$- ' . ,0 8 0 *3' ,. ' 5,0%' 0%' *$' '&)%$' ,. >1$,%0' 3%' +' 7%' /8 *0)' /3 '20' 4*)+' ('10%0' ,. ' 6*00,4/%' *6%$' ;),* . G ' . ' ,8 6$%00,* . ' * . ')+%' . %$7*10' 020)%8 ' ' . 5')+%' %.)$2' *& ' /)%$%5' *$- ' . ,(' 8 '))%$0' ,.)*')+%' 4/**5' . '%. 5%' 7*1$,. -')*' '00,- . ' 6$* 8 ,; . %. (%')*' * . %' *$' *)+%$' 3%' +' 7%' * . ')+%' * . %' +' . 5' 01(+' &' ()0' '0')+%' +26%62%B,'' *& ' (%$%; 4$' /' /%0,* . 0' 3+,(+' (' . . *)' 4%' 51%')*' 4/**5' (* .)' 8 ,. '),* . ' ' . 5' * . ')+%' *)+%$')+%')%' (+; ,. -0' *& ' .),0%6),('01$-%$2' 3+,(+' 5%8 * . 0)$')%')+')' 40*$6),* . ' * & ' 61)$%0(%.)' 5,0(+' $-%0' ,0')+%' -$%')' (' 10%' *& ' 01$-,(' /' &%7%$')' 0), '$%; 8 ' ,. 0')*' 4%' 5%)%$8 ,. %5' 3+%)+%$')+%' 6$%0%. (%' ,. ')+%' 4/**5' *& ' &*$%,-. ' 8 '))%$0' -,7%0' $,0%' 5,$%()/2')*' ,. ($%' 0%5' ' (),7,)2' *& ' *B,5'),* . ' *$ 3+%)+%$')+%' 6*,0* . ' ' 0' <% 8 ' 2' (' //' ,)' 6$*; 51(%0')+,0' $%01/)')+$*1-+' ,)0' ' 0(),* . ' < ')+%' . %$7*10' 020)%8 ' %,)+%$' 42' ' &&%(),. -')+%' . %$7%' (%.)$%0')+%8 0%/7%0' *$' 42' 6$*51_=-',$$,)'),* . ' ,. ')+%' ('6,//'$,%0' 3+,(+',0' ('$$,%5')*')+%' . %$7% (%.)$%0' ' . 5' $%&/%)%5' '/* . -' %&&%$%)' . %$7%0' .')+%' 6$%0%.)' 0)')%' *& ' *1$ 9 . *3; /%5-%'),0' E1%0),* . ' ('. . *)' 4%' 5%&, . ,)%/2' 0%))/%5 &' ')+%*$2' *& ')+%' &%4$,/%' 6$*(%00' ,0')*' 4%' &*$8%5',)' 8 10)' 4%' 4' 0%5' 16*. ' ')+%*$2' *& ')+%' $%/'),* . ' 4%)3%%. ')+%' . %$7*10' 020)%8 ' ' . 5')+%' 6$*(%00%0' *& . 1)$,),* . ' ' . 5' *B,5'),* . ' ' . 5' %0; 6%(,''//2')+%' /'))%$' 18%$*10' &' ()0' *& ' 5,0; %' 0%' ' . 5' *& %B6%$,8%.)' 6*,.)')*')+%' (*. (/1; 0,* . ')+')')+%' (,$(1/'),* . ' *& ' 51/2' *B2-%. ')%5' 4/**5')+$*1-+')+%'),001%0' ')')+%' 101' /' $')%' 3*1/5' 3,)+*1)' 0*8%' (+%(9')*' *B,5'),* . ' $%; 01/)' ,. ' 8*$%' $'6,5'),001%(+' . -%' ' . 5')+%' 6$*51(),* . ' *& ' '+,-+%$')%8 6%$')1$%')+' . ')+%' %)'4/,0+%5' . *$8 ' +%' $%0)$',. ,. -' 6*3%$',0' 0166/,%5' 42')+%' . %$7*10' 020)%8 ')+%' /*00' *&)+,0' ,. &/1%. (%' 4%,. -' ,//10)$')%5',. ' +26%$; 62$%B,' ' +%' 8*5%' ,. ' 3+,(+')+%' . %$7*10' 020)%8' '()0' 8 '2' 4%' $%6$%0%.)%5' '0' 4%,. -')+$*1-+')+%')%. 0,* . ' 8 ',.)' . %5',. ')+%' . %$7%' (%.)$%0' /' . %$7*10' '(),* . 0' +'7%')+%' (+'; $'()%$' *& ' 6+%. *8%. '' *& ')%. 0,* . ' ' . 5')+%')%. 0,* . ' -%. %$')%5',. ')+%' (%//0',0' 010)', . %5',. ')+%' . %$7% &,4$%0')*')+%,$' 6%$,6+%$' /')%$8,. ';),* . 0' 3+%$%')+%2' '$%' 8%$-%5',. ')+' 0)$1(;)1$%0' . 5' 0*' 4/%. 5%5' 3,)+')+%8')+')' . 1)$,),7%' . 5' *B,5'),7%' (+' . -%0' '$%' (*8 8 *. ')*')+%' . %$7% %. 5,. -0' . 5')+%'),001%0' ,. ' 3+,(+')+%2' %. 5' &' 3%' 0166*0%')+')')+%' . %$7%')%. 0,* . ' ('. ' 8*5,&2' (+%8,(' /' ('. ' ' (' . ' %/%()$,(' /')%. 0,* . ' *$')+%$8' /' (*. 5,),* . 0' ' . 5')+') ') ') ')+%' . 1)$,),7%' . 5' *B,5'),* . ' (+' . -%0' ,. ')+%'),001%0' (' . ', . &/1%. (%')+%')%. ; 0,* . ' &')+%' . %$7*10' 0)$1()1$%0' 3%' (' . ' $%6$%; 0%.)')*' *1$0%/7%0')+%' .)%$' (),* . ' 4%)3%%. ')+%' . %$7*10' 020)%8' ' . 5')+%' 4/**5' . 5'),001%0' ,. ')+%' &%4$,/%' 6$*(%00' +%. ' &$* 8' 5,0%' 0%' *$,. >1$2' *& ')+%' -$%')' . %$7% (%.)$%0')+%,$' 6*3%$' *& 8 ' ,.)' ,. ,1-)%. 0,* . ' ,0'/%00%. %5' *$' 4*/,0+%5 ' . 5')+%,$',. &/1%. (%'6$*6*$),* . ')%/2' 5,8 ,. ,0+%5' 0*')+')')+%' '& . ,),%0' *& ')+%' 4/**5' . 5'),0; 01%0' +'7%' 1. $%0)$,()%5' 6/'2')+%' $%01/)' ,0' 426%$*B,5'),* . ' . ' . 5' 62$%B,'' +%. ' * . ')+%')+%$' +' . 5' 0 6),%8 '))%$0' *$*)+%$' 0140)' . (%0' '$%' ,.)$*51(%5' ,.)*')+%' 4/**5' ' (),. -' 0' &%$; 8%.)0' *$' ,. ' 0*8%' *)+%$' 3'2')+%2' ,. ($%' 0%' *B,5'),* . ' . ' . 5' 5,$%()/2' $',0%')+%')%8 6%$')1$%' *7%$6*3%$,. -')+%' $%0)$' ,. ,. -' ,. &/1%. (%' *& ')+%' . %$7%0' $8),/)+,0' ,0' $%,. &*$(%5' 3+,(+' 8 '2' 6*00,4/2' *((1$')+$*1-+' ,. ($%' 0%5' %7*/1),* . ' *& ' %. %$-2' $%01/),. -' &$* 8')+%' ,. ($%' 0%5' ' (),7,)2' *& 8%)' 8 *$6+*0,0' %' (' . . *)' +*3%7%$' +%$%' 5%7%/*6' *$&1//2'%/' 4*$')%)+,0'+26*)+%0,0 ! :G +%')$%')8%.)' *& ' &%7%$' ,0' *& (*1$0% 6$,8 '$,/2' 5,$%()%5')*')+%' $%8*7' /' *&)+%' ('10%' *. ' 3+,(+' ,)' 5%6%. 50' 41)')*-%)+%$' 3,)+')+%' 8%'01$%0' '5'6)%5')*')+,0' %. 5' '$% 101'//2' %86/*2%5' 8%' . 0' &*$)+%' 8*5%$')*' . ' *& ' &%4$,/%' 6$*(%00' '0' 01(+' ' . 5')+%0%' 8 '2')'), 8 %0')' 9%')+%' &,$0)' 6/'(%' %' (' . ' 5*' /,))/%' 8*$%')+' . ' 8%.),* . ')+%' 8*$%' ,8 6*$)' .)' *&)+%' 8 ')' 9, . -' &,$0)' 3+')' 8 '2' 4%' (''//%5')+%' -%. %$' /' 8%)+*50' ' . 5' 6$%8,0, . -')+')' $%0)' ,. ' 4%5' 0,8 6/%' &**5' _9(' ',%' 0018%5')*' 4%' 1. 5%$; 0)**5' %. %0%(),* . ',0' . *3' 0('$(%/2' %7%$' 6$' (;),0%5' '0' '' 8%' . 0' *& ' (*8 4'),. -' &%7%$' 1$-';),7%0' '$%' *&)%. ' 10%&1/' '0' '$%'=0*' 5,'6+*$%),(' . 5' 5,1$%),('0' /,. %0' 3,)+' ' 41. 5' . (%' *& ' 3')%$')*' 5$,. 9' %,)+%$' '/* . %' *$,. ')+%' &*$8' *& ' 0*8%' -$%%' 4/%' /" $%%' '(),* . ' *& ')+%' 0%($%;),* . 0' 3+,(+',0')+%' *4>%()' *& ')+%0%' $%8%5,%0' ,0' *& ' 0%$7,(%',. ' $%8*7,. -')+%',. ($%' 0%5' 6$*; 51()0' *& ' *B,5'),* . ')+%' 3')%$')9%. ' (*6%$')' ,. -' 42' '(),. -' ' 0' ' 0*/7%.)' ' . 5' 7%+,(/%H' ' . 5',)' ,0' 6*00,4/%')+')' 8%5,(,. %0' 3+,(+' 6$*8*%)%)+,0' '(),7,)2' 8 '2' 5,$%()/2' 4$,. -' 5*3. ')+%')%8 ; 6%$')1$%' +%. ' &*$' %B' 8 6/%' 6%$06,$'),* . ' +' 0' 4%%. ' ,. 51(%5' ' ', . (,5%.)' &', /' *& ')%8 ; 6%$')1$%' 8 '2' 4%' 51%' 8*$%')*' 0*8%' (+' . -%' ' .)%(%5%.)')*')+%' 6%$06,$'),* . ')+' . ')*')+%' /*00' *& '+%')' 42')$' . 06,$'),* . ' ' . 5' %7' 6*$'),* . & 06%(,'/' 8%'01$%0' &*$')+%' $%51(),* . ' *& &%4$,/%' +%')' 3+%.)+,0' ,0' 4%(*8,. -' 5' . -%$*10' %,)+%$' &,$*8' ,)0' ,.)%. 0,)2' *$' 51$')* . ')+%' &,$0)')*' 4%' 8%.),* . %5',0')+%' (**/' *$' (*/5' 4')+' +,0' 0+*1/5' 4%' $%0*$)%5')*' ,. ' //' ('0%0' *& +26%62%B,'' &$* 8' 3+')%7%$' ('10%H ,)0' %&&,; ('(2'&,$0)' %0)' 4/,0+%5',. ')+%' +,-+')%8 6%$')1$%' *& ' (1)%' $+%18 '),0 8' ' . 5' %.)%$,(' &%7%$' +'0' 4%%. ' 6$*7%5' '/0*' ,. ' ('0%0' *& 0%6),(' +26%$; 62$%B,'' &)%$*7'$,*)* 8 2' ' . 5'%7%. ' ,. ' . >1$,%0')*')+%' 4$', . ' %$%')+%' b3')%$ 8 '24%' 6*0,;),7%/2' (*/5' +%. ')+%' 4')+' ,0' %86/*2%5')*' (*.)$*/')%86%$')1$%' . *)' 5' . -%$*10' &$*8',)0' +%,-+)' 41)' &$*8',)0' 51$'),* . ' ' 0' ,. ' %.)%$,(' &%7%$')+%')%86%$')1$%' . %%5' . *)' 4%/'*$')+%' M!g' *$' DFg' ' . ' ,(% ('6' 5%7,0%5' 42' $' . *30%2' +*$.)* . ' &*$' 66/2, . -' (*/5' *& ''@g')*')+%' .),$%' +%' 5' +' 0' 4%%. ' &*1. 5' 10%&)/ ,. ' +26%62%B,'' &*//*3, . -' *7' $,*)*82 ' . 2' 0140)' . (%0' +'7%')+%' 6$*6%$)2' *& $%51(, . -' &%4$,/%')%86%$')1$%0' 3+%.)' 9%. ' . ' /' $-%' 5*0%0' 8*. -')+%' 8*0)' 6*3%$&1/' $%')+%' (*86/%B' 4*5,%0' $%(%.)/2' , .)$*51(%5' 6+%. ' ' C*. %' ' (%)' . /,5%' %B' /-/. ' ' . 5' *)+%$0' *&)+%

.)$'($'.,'ƒ)18*1$0ƒ 8'2' 6$*51(%' 8*$%' 6%$0,0)0%.)' '.'00)+%0,'' %,)+%$' 42', 8 8%5,')%' 5%0)$1(),*.' *&' 0%.0*$2' &,4$%0' *$',.5,$%()/2' 42')+%' (%$%4$'ƒ %./'$-%8%.)' 51%')*')+%,$' -$*3)+'('10,.-'(*86$%00,*.'*&')+%'&,&)+' .%$7%' '0',)')$'7%$0%0')+%' &/**$'*&')+%' 091

A,R' 6 # ' " G .'%0)+%0,''5%6%.; 5%.)' 16*.' /%0,*.' *&')+%')$,-%8,.10', .' ,)0' 6%$,6+%$'ƒ (*1$0%' ,0' '' 02 8 6)*8' *&' 0%$,*10' 8*8%.)' 3+,(+' ,)',0',8 6*$)' .)')*' 5,0),.-1,0+' &,*8')+')'*&' (%.)$'ƒ*$,-,.H'.5')+,0' 8'2'4%' '((*86/,0+%5'42'.*),.-')+%'&*//*3,.-'6*,.)0' +%' 5%-$%%'*&' 6%$,6+%$'ƒ'.'%0)+%0,'' &'$' %B; (%%50')+')'3+,(+'*4)',.0',.'('0%0'*3,.-')+%,$'*$,-,.')*'' '(%.)$'ƒ('10%')',0' 81(+' 8*$%'(*86/%)%'.'5' 8'2',.7*/7%'3+,(+')+%'/'))%$'5*%0' .*)')$*6+,(' '.5'7'0* 8*)*$'(*86/,(';),*.0')0' %B)%.)' 7'$,%0' '((*$5,.-' '0')+%')$1.9'*&')+%' .%$7%',.(/15,.-')+%' '00%$,'.'-'.-/,*.',0',.7*/7%5ƒ*$'*./2'*.%'*$')3*'*&',)0' 4$'.(+%0' +*1/5')+%' 8',.')$1.9' 4%''&&%()%5')+%$%',0' 8*$%'*$'/%00'(*86/%)%'.'%0;)+%0,'' *&'*.%'0,5%'*&')+%'&'(%' .'5'6'$)'*&')+%'%'$'(*.>1.(),7''(*$.%'.*0)$,/ℓ8*1)+'+'/&')+%')*.-1%')+%' -180'*.')+%'0'8%0,5%'.'.5' '6'$)'*&')+%'6'/')%' &')+%'(*.;>1.(),7'' 4%)*1(+%5'3,)+')+%$%',0'8*$%'*$'%&/0')+%$%'(*.;.*' $%&/%B'(*.)$'(),*.'*&')+%'%2%/,50' -/'00'&$*8'3+,(+')+%'6'),%.)'5$,.90'0%%80'*+,8'0')+*1-+',)'3%$%'4$*9%.'&*$'+%'&%%/0')+%'8')%$,'ƒ*.')+%'0*1.5'0,5%''.5'.4)'*.')+%''&&%()%5'0,5%' +%'09,.'*&')+%'&'(%',0'(**/''.5'8'2'4%']*8%3+')'*%5%8')*10''.5'688/,0+',.')' &)%$'' &%3'5'20',&')+%'('10%'6%$0,0)0')+%'%2%'*.')+')'0,5%/**90'5$2'-/'C%5''.5'(*.-%0)%5ℍ)+%'(*$.%''4%(*8%0'(/*152''.5',.'),8%'0/*1-+0''.5'6%$;&*$')%0')+%'(*.)%.)0'*&')+%'%2%4'/ƒ%0('6,.-')*''7'$2,.-'%B)%.)'0*')+')'+%'*$-'.',0'5%;0)$*2%5' +%$%',0'5$2.%00'*&')+%'.*0)$,/ƒ*.')+%'&&%()%5'0,5%'.5',$$,)'.)'0140)'.(%0'6;6/,%5')*',)'&',ƒ)*'6$*51(%'0.%%C,.-' '0)%',0'/*0)'*.')+')'0,5%'*&')+%')*.-1%'%B(%6)')+%'4'0%'3+,(+',0'0166/,%5'42')+%'-/*00*;6+'$2.-%'ƒ.%$7%' +%'0'+7'$2'0%($%),*.',0'5,8,.,0+%5' .'),8%')+%$%'8'2'4%'4/%%5,.-'&$*8')+%'-180'.5'1/(%$'),*.'*&')+%'81(*10'8%84$'.%' +*1/5')+%'/%0,*.'%B,0)'16*.'*.%'*&')+%')+$%%'5,7,0,*.0'*&')+%')$,-%8,.10')+%'.'%0)+%0,'' 3,//4%&*1.5'0+'$6/2'/,8,)%5')*')+%'5,0$,()'0166/,%5'42')+')'5,7,0,*.

+%'.')1$%'*&')+%'/%0,*.'8 10)'4%'5%)%$;8,.%5'42')+%'B'8,.'),*.''*&'(*.(*8,)'.)'(*.;5,),*.0')'8'2'(*.0,0)'%,)+%$',''('$,%0'<-')+%'4*.%')18*1$''.%1$208'*$8%.,.-,),0''('10)%*$'(+$*.,(' b +')%7%$'4%')+%'()7%'('10%'42'3+,(+')+%' .%$7%',0'5'8'-%5')+%'&&&()0'3 ƒ4%')+%'0'8%''6$%001$%'16*.''.5'5,0*$-'.,;0'),*.''*&')+%'.%$7%&,4$%0'3,//$%01/',.')+%5,0*$5%$0'5%0($,4%5G0%.0*$2'8*)*$')$*6+,('.5'7'0*8*)*$' .'01(+'&,($(180)'.(%0'*.%'*$'8*$%'*&')+%*$('.,'ƒ.%$7%0'$%'101''//2''&&%()%5'(*,.(,5%.)/2' .')14%$(1/'$'8%.,.;-,),0')+%'&,&)+'.%$7%',0'0+*3.')*'4%'6'$'/20%5'A'/*.-'3,)+'*)+%$0')'7%$0,.-')+%'&/**$'*&')+%'091//R' 42')+%'(*.>,8(),7,),0' '.5'(*$.%,),0'0*

&)%.'6$%4%.)',.''57'.(%5'0)'-%0'*&')+%'5,0;%'0%' +*1/5')+%'(*.5,),*.'((*86'.2'41/;4'$'6'$'/20,0')+%'/%0,*.'8 10)'4%'$%&%$%5')*')+%'.1(/%,'*&'*$,-,.'&')+%'.%$7%',.')+%'8%51//''*4/*.-')'

! G 26+,/,),('-188')''*.')+%'&/**$'*&')+%'091//'5%7%/*6%5'%,)+%$',.')+%'8%84$'.%0'*&')+%'4$',.'*$,.')+%'.%$7%',)0%/&'$%0'*&$%E1%.)/2')+%'(10%'*&')+%'5,0*$-'.,;0'),*.'*&')+%'&,&)+'.%$7%'3+,(+'-,7%0'$,0%')*''.'%0)+%0,''')+')',.''//'('0%0',)',0'$,-,.')G1.;/%00'0*8%')+%$'B6/'.'),8B,''%7,5%.)'4%2*.5''//5*14)G)*'4%'$',.'8,.5')+%'6*00,4,/,)2'*&'01(+''('10%'65')*'6$%0($,4%''((*$5,.-/2'3,)+*1)'5%/'2'$*8'!')*'@!'-$',.0'*$8*$%'*&',*5,5%'*&'6*)'00,18'0+*1/5'4%'58,.,0)0$%5'%7%$2'&*1$+*1$0' +*1/5')+%$%'4%''-188''6$%00,.-'16*.')+%'(*.;>1.(),7''(*.$.%'.*0)$,/ℓ8*1)+'+'/&')+%'

)+%' 101'/3'2'&$*8' ''&,.-%$),6'H+1)',.'/**9;
,.-'&*$'&,/'$,0%')+%'$%06%(),7%'+'4,)0'*&')+%'
5,&&%$%.)'06%(,%0'8 10)'4%'4*$.%',.'8,.5'
+10',&'0%'$(+'0'*)'4%'8'5%'&*$&//'$,''\+**9'&)%$''),8%'8*7%8%.)'-$'51'//2'
0'.-1,.,0'+*8,.,0'5,1$.''')+%'4/**5'0+*1/5'
4%'5$'3.'4%)3%%.')+%'+*1$0'*&'88' #'
'.5'G'o#'H,'&*$&,/'$,''0'.-1,.,0'+*8,.,0'
.*()1$.''4%)3%%.'P'o#''.5'L'3H,&'&*$
&,/'$,''0'.-1,.,0'+*8,.,0'6%$0)'.0',)'8'2'4%
5$'3.''')'.2'+*1$'*&')+%'5'2'*$.,-+)
*'0)152')+%'8*7%8%.)0'*&')+%'&,/'$,0%'
*$5,.'$2'6$%6'$'),*.0'*&'&$%0+/2'5$'3.'4/**5'
810)'4%'10%5H41)')*'3'$$'.)''6*0,),7%'
6,.,.''0')*')+%''40%.(%'*$'6$%0%.(%'*&'
%84$2*0',.')+%'(,$(1/'),*.''.5'&*$'61$6*0%0'
&'%.18%$'),*.''/'$-%$'E1'.),)2'&'4/**5')
+'.'('.'4%'5%/')'3,)+'$'6,5/2',+'))%'*$5,.'$2'
3'2'810)'4%'0%'$(+%5'+%&*//*3,.-',0''-**5'
6/'.'6$%'5'4*1)'+'/&''5$*6'*&'4/**5'*.'
''0/,5%',.''''1.,&*$8'/'2%$'*7%$''.'')%''4*1)'
He'42'He'.'5'//*3',)')*'5$2'+%'0/,5%'
8'2'4%'0)',,/%5'.'5'%B'8,.%5''')'*.(%'*$
0)*$%5''3'2'),//'01(+'),8%'0'8'201,)')+%'
40%$7%$0'(.7%.,%.(%'//)+')',0'.%(%00'$2'
)*'5%8*.0)$')%')+%'&,/'$,0%',.'01(+'0/,5%0'.*'
8'))%$'+*3'*/5')+%2''$%',0')*',8$%$0%')+%8'
&*$)3*'+*1$0',.''+'/&6%$(%.)'0*/1),*.'*&'
%*0,.'*$''3%'9'0*/1),*.'*&'&1(+0,''A*.%
5$*6'*&')+%'0')1$')%5''/(*+*/,('0*/1),*.',.''.'
,8(%'&'3')%$R')+%.'3'0+')+%8',.'*.%'*$
)3*'3')%$0'.'5'8*1.)',.'$$'.)<0'0*/1),*.'
$'-/2(%$,.%'>%//2''6$%6'$%5')+%'&,/'$,0%'
'.5'3+,)%'4/**5(*$610(/%0''$%'0),.%5'
3+,/0)')+%'(*/*1$'*&')+%'$%5'4/**5(*$610(/%0'
,0'5,0(+'$-%5'*'5%8*.0)$')%')+%'0+%')+'
0+'6%''.5'0)$1()1$%'*&')+%'&,/'$,0%'8'9%''
)+,.'&,/8'*&'4/**5'42'66/2,.-''(/%'.'0/,5%
*7%$''.*)+%$'0/,5%'+'7,.-''5$*6/%)'*&'&,$%0+
&/1,5'4/**5'*.',)H'&)%$''//*3,.-')+%'4/**5')*
06$%'5'*1)'4%)3%%.')+%'0/,5%0'$'6,5/2'-/,5%
*$'61/')+%8''6')$)H,88%5,')%/2',.7%$)')+%'
0/,5%0'*7%$''('601/%(*.)',.,.-''&%3'5$*60'
*&'(%),(''(,5'1.),)+%2''$%'5$2H)+%.',8;
8%$0%')+%8',.''+'/&6%$(%.)'0*/1),*.'*&'
%*0,.'&*$)3*'8,.1)%0'3'0+')+*$*1-+/2'5$2'
0/*3/2'.'5'8*1.)',.'4'/0'8'*'6$%6'$%5'
)+%&,/'$,0%'.5'/%1(*(2)%0'0+*3'6%'$/2 3+,)%'
3+,/0)')+%'$%5'4/**5(%//0''$%'5%%6/2'.'5'
)+%',/E1*$'0'.-1,.,0',0'/,-+)/2')0)',.%5'42'
)+%'%*0,.
*'8')))%$'+*3'6$%6'$%5')+%'0/,5%0'*1-+)'
)*'4%0($1),.,0%5',.')+%&,$0)',.0)'.(%'3,)+'''
7%$2'/*3'*4>%(),7%G'.',.(+',0'01&&,(%.)G'
'.5'%7%$2'6')$)'*&')+%8'%B'8,.%5''E1,(9'
)$'7%,.-'8%(+'.,('/'0)'-%',0'*&'-$%')'00,0);
'.(%',.')+,0''.5'%.01$%0')+*$*1-+.%0'
+%.''',/'$,'',0'&*1.5',)'('.'4%(%.)$%5'
'.5'%B'8,.%5'3,)+''E1'$)%$,.(+'*$'+,-+%$'
4>%(),7%H41)',)'810)'.)'4%'&*$-*))%.')+')'
,.')+%&,$0)',.0)'.(%'*./2'7%$2'/*3'6*3%$0'
'$%'01,)'4%'0%'$(+,.-
+%')+$%%'06%(,%0'*&'%84$2*'&,/'$,'0'0'.;
-1,.,0'+*8,.,0'(/*0%/2'$%0%84/%'%'(+'*)+%$'
0'0%%.'.,.'$%(%.)/2'5$'3.'4/**5')+%2''$%
/*.-'0/%.5%$''-$'(%&,,2'&*$8%5')$'.06'$%.)'
(*/*1$/%00'0.'9%0+'6%5'*$-'.,080'3+,(+
&*$'+*1$0'(*.),.1%',.''')'0)'%'&'-$%')''(),7,)2'
3$,--/,..-''.5')3,0),.-''4*1)'*.')+%'0/,5%'
/,9%''3*1.5%5'%')+3*$8''*$'.'%%/*.''
\+**9'&)%$''),8%'8*7%8%.)'-$'51'//2'
0/*30'5*3&,H41)'42''')/,))/%'8'.'-%8%.)',.'
6$%7%.),.-'5$2,.-'*&')+%'0/,5%')+%'6'$'0,)%0'
('.'4%'9%6)''/,7%'&*$&,7%'*$0,B'5'20'+'
.*.%'*&')+%8'('.'.'2)+,.-',/,9%''.''/,8%.;
)'$2'('.'/'*$'.'2'5%&,.,)%$.'/0)$1()1$%'
4%'8'5%'*1)
0'&'$'0',0''6$%0%.)'9.*3.')+%'6*,.)0'*&'
(*.)$'0)',.')+%)+$%%'06%(,%0'$%'0'&*//*30G'
A&,-'FRG+%'&$%%'+'%8')*C*'/'%84$2*'*&,/'$,''
06%(,%0'*&,/'$,'')+%'8'),1%'&*$8'*&'3+,(+'
,0'0),/'1.9.*3.'(%&,),.-')+%')'$'%.)%$0'
)+%'(,$(1/'),*.'51$,..-')+%'5'2')+,0'4/**5;
3*$8'$%0%84/%0'7%$2'(/*0%/2',.'0,C%'&*$8'
'.5'+'4,)')+%'.*3'&'8,/,'$'&,/'$,''0'.-1,.,0'
+*8,.,0'.*()1$.''*&'%3,0'+%'6%(1/,'$,)2'
.,.'6%$,*5,(,)2'$%&%$%5')*',0'5*14)/%00''.'
'5'6)'),*.')*')+%'+'4,)0'*&',0'19.*3.'
,.)%$8%5,'$2'+*0)'+%$%',0'0*8%'$%'0*.'
&*$'0166*0,.-')+')')+%'&,/'$,''/*'G''6'$';
0,)%'/,78-',.')+%'(*.%(),7%',001%0''.5'
0*8%),8%0'0+*3,.-',)0%/&'1.5%$.%')+')+%'(*.;
>1.(),7''+'.%-$*%0G,0')+%'8')1$%'&*$8'*&'
&,/'$,''0'.-1,.,0'+*8,$50'5,18'H&*$')+%'-%*
'6+,('/5,0)$,41),*.''*&'4*)+''0'&'$'0'*1$
−/*3/%5-%*&')+,0'%B)%.50',0')+%'0'8%''.5'
)+%'1.5*14)%5'%84$2*'*&,/'$,''/*''$%0%84/%0'
&,/'$,''0'.-1,.,0'+*8,.,0'5,1$.'',.'0+'6%'
.'5'6*00,4/2',.'0,C%H'&,5'8*$%*7%$''6'),%.)'
&')+%'3$,)%$<0'3+'+'5')'*.%'),8%''
&,/'$,''/*''1.5%$'+,0'(*.>1.(),7''+'0'.*3'
)+%'&,/'$,''0'.-1,.,0'+*8,.,0'5,18''.'
'41.5'.(%',.'+,0'4/**5'+%'6'$'0,)%'0%%8'0'
)*'4%'(*.&,.%5')*')+%')$*6,('/C*.%'*&'&$,('
8*$%'%06%(,'//2')*')+%'3%0)'(*'0)'1)1$%'
*40%$7'),*.',0'/,9%/2')*'0+*3')+')''/'$-%'
6$*6*$),*.'*&')+%',.+'4,)'.)0'*&')+%0%'5,0;
)$,()0''$%''&&%()%5'3,)+')+%0%'3*$80''.5',)
,0'/,9%/2')+')',.''6$*6*$),*.'*&',.0)'.(%0'
0*8%'6')+*/*-,('/(*.5,),*.'8'2'4%')$'(%5'
)*')+%8'0'2%)*'1$',.&*$8'),*.''.')+%0%'
6*,.)0',0'1$+'*'&$'-8%.)'$2')*'3'$$'.)'
%7%.'06%(1/'),*.
@'.'"0"'#"'"'A&,-'
F@RG+%'&$%%'+'08*)*C*'/'%84$2*'*&'&,/'$,''
'.($*&),'%'*3%')+%'&,$0)'.*),(%'*&')+,0'
6'$'0,)%')*'%8'$E1'2'3+*',.'?D"'&*1.5'
.18%$*10'06%(,8%.0'*&'3+')'(*.0,5%$,.-')+%'
(,$(180)'.(%0'*&')+%'('0%'810)'+'7%'4%%.'
&,/'$,''0'.-1,.,0'+*8,.,0'.*()1$.''*,.')+%'
(*.)%.)0'*&''/286+*10')18*1$'*&')+%)+,-+%'
')%$'.'?DP'1(+%$%$',''+','''.5'E1,)%'
,.5%6%.5%.)/2',.'?M!'%3,0',.''/(1))''
&*1.5')+%'0'8%'6'$'0,)%'.'+2/*10'1$,.%'
)'3'0'.*)'+*3%7%$'1.),/'?M@'3+%.'%3,0'
0+*3%5')+')')+%'.*$8'/'+'4,)')'*&')+,0'%8;
4$2*'3*$8'3'0')+%'+18'.'4/**5')+')+%'
5,0(*7%$2'%B(,)%5'81(+',.)%$%0)'(.%)+')'
5')%')+%'0,-.,&,('(%'*&')+,0'6'$'0,)%''0''
&'()*$',.')$*6,('/6')+*/*-2'+'0'-$'51'//2'
(*8%')*'4%$%(*-.,0%5''.5'8'.2',.)%$%0),.-
K'B P'89L9"6'LLT

points of a complicated life-history have been worked out.

In the first issue of this Dictionary Lewis described the filaria sanguinis hominis nocturna as follows: 'Its average length is $\frac{1}{75}''$ (= 0·34 mm.); its breadth $\frac{1}{3500}''$ (= 0·007 mm.), or about equal to the diameter of a red blood-corpuscle. It is enclosed in a transparent tubular sac, within which it can be seen to alternately contract and elongate itself. This sac is extremely delicate and translucent, and may sometimes, when the worm has shortened itself more than usual, be seen collapsed and folded like a ribbon, and the next moment be instantaneously straightened again, by the extension of the filaria to its ordinary length. After death the worm may occupy either the entire length of the tubular sac, or be so contracted as to leave the tube empty at one or both ends, as may be observed in the woodcut (fig. 54).'

As no sign of growth or of reproductive organs is distinguishable in this the hæmatozoal stage of the parasite, it is evident—and

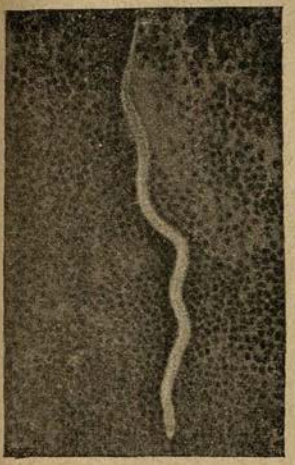

FIG. 52 — Filaria sanguinis hominis nocturna × 180.—1. Measures $\frac{1}{80}$ in. by $\frac{1}{3500}$ in., or thereabouts. 2. Is provided with a coarser sheath. 3. Caudal end tapers gradually for about one-fifth of the entire length of the animal, and terminates in a sharp, or nearly sharp, point. 4. Cephalic end is rounded off, and has obscure oral movements of a pouting character. 5. No tongue-like organ visible. 6. Appears in the blood at night, disappearing during the day. 7. Has a wriggling, but no locomotive, movement. 8. Many specimens have a well-marked granular-looking aggregation about the middle of the body.

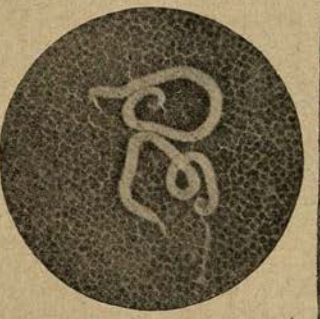

FIG. 51. — Filaria sanguinis hominis diurna × 180 (this fig. and figs. 52 and 53 from micro-photographs by C. Detmold).—1. Measures $\frac{1}{80}$ in. by $\frac{1}{3500}$ in., or thereabouts. 2. Is provided with a very delicate sheath. 3. Caudal end tapers gradually for about one-fifth of the entire length of the animal, and terminates in a sharp, or nearly sharp, point. 4. Cephalic end is rounded off, and has distinct oral movements of a pouting character. 5. No tongue-like organ visible. 6. Appears in the blood during the day, disappearing during the night. 7. Has a wriggling, but no locomotive, movement. 8. A few specimens have a faintly marked granular-looking aggregation about the middle of the body, but in none is it very well marked.

FIG. 53. — Filaria sanguinis hominis perstans × 180.—1. Measures $\frac{1}{125}$ in. by $\frac{1}{3500}$ in., or thereabouts. 2. Has no sheath. 3. Caudal end tapers more gradually for two-thirds of the entire length of the animal, and is abruptly truncated where it has tapered to about one-third of the diameter of the thickest part of the body. 4. Cephalic end is either conical or truncated, passing from one form to the other rapidly by a peculiar jerking, extruding and retracting, movement. 5. From time to time, a minute tongue-like organ is rapidly protruded and withdrawn at the extremity of the cephalic end. 6. Observes no periodicity. 7. Has a locomotive as well as a wriggling movement. 8. No granular appearance.

this was early recognised—that these blood-worms are only the immature young of parasites which must exist in a sexually mature form elsewhere in the tissues of the human host, and in intimate relationship with the circulation. Lewis made diligent search for the parental form soon after his discovery of the embryo, but it was not until 1877 that he found two living specimens—a male and a female—in the diseased tissues of a nævoid elephantiasis of the scrotum. Late in the previous year Bancroft, in Brisbane, found several mature females in a 'lymphatic abscess' of the arm, and also in 'an encysted hydrocele of the cord.' The latter were carefully examined by Cobbold, and the parasite was named by him filaria Bancrofti. Since that time the mature filaria Bancrofti has been found in India, China, and Brazil. It is a long, thread-like worm, about the thickness of a horse-hair, of a white colour and firm consistence, and exhibits considerable activity, and a remarkable tendency to coil. Cobbold described the female as follows:

'Body capillary, smooth, uniform in thickness. Head with a simple circular mouth, destitute of papillæ (fig. 55). Neck narrow,

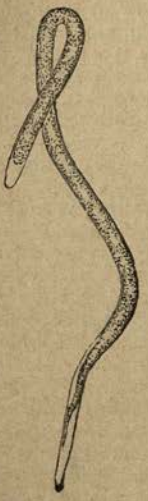

FIG. 54.—Filaria sanguinis hominis nocturna. × 300. (Traced from a micro-photograph.)

FIG. 55.—Anterior end of mature filaria sanguinis hominis nocturna.—Mature form. × 100 diameters.

about one-third of the width of the body. Tail of female simple, bluntly pointed; reproductive outlet close to the head; anus

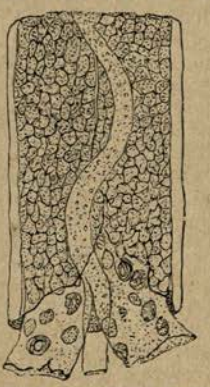

FIG. 56.—A portion of the mature filaria sanguinis hominis nocturna, showing uterine tubules filled with ova in various stages of development; also the intestinal tube. × 100 diameters.

immediately above the tip of the tail. Length of largest females 3½ in., breadth $\frac{1}{90}''$.' In the female the uterine tubes are packed with ova in all stages of development (figs. 56 and 57). Lewis gives the measurement of these, in which the embryos are distinctly visible, as $\frac{1}{666}''$ by $\frac{1}{790}''$. In a fresh specimen of the filaria examined by the writer the largest ova gave slightly greater measurements, and

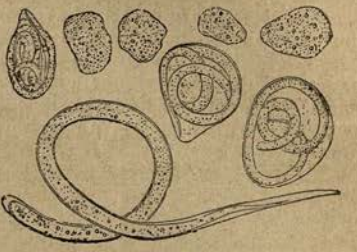

FIG. 57.—Ova and embryos of filaria sanguinis hominis nocturna. × 300 diameters.

he saw that towards the vaginal end of the uterine horns the embryos lay outstretched, and that in the vagina they had very much the appearance they have in the blood, proving that under normal circumstances the parasite is viviparous. Lewis gives the breadth of the fragment of a male he examined as $\frac{1}{180}''$.

It is now known that the parent worms live together in the lymphatics; that the embryo while *in utero*, by dint of vigorous movements, stretches its chorional envelope to form the long tubular sheath in which it lies extended, as we see it in the blood and lymph, and that, after this stretching of the chorion is complete, the embryo is born into the lymph-stream, which carries it through the glands, along the thoracic duct, and thus into the blood. Under ordinary circumstances of health and habit the hæmatozoon cannot be found in the blood during the day, but at evening it appears there. At first only a very few can be found; as night advances their numbers gradually increase; about midnight they attain their maximum—in some cases as many as 200 may be found in a single drop—after this they gradually diminish up to about 8 or 9 A.M., when they disappear for the day. An attack of fever may disturb this periodicity, and Dr. Stephen Mackenzie[1] has shown—and his observations have been abundantly confirmed—that by causing the subject of filaria infection to sleep during the day and keep awake during the night, the habit of the embryo parasite in his blood is correspondingly changed: it then appears, contrary to its normal habit, in the blood during the day, and disappears from it at night. *See* NEGRO LETHARGY.

This singular periodicity is, apparently, an adaptation to the nocturnal habits of the female of a particular species of mosquito, which imbibes with the blood the young filaria, and acts as its intermediary host.

[1] *Trans. Path. Soc.* 1882, vol. xxxiii.

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' /'$-%' 6$*6*$),*.' *&' ('0%0' *$8'//2')+%' 6'$'0,)%' ,0'7,7,6'*10' '.5')+%' /*.-' 0/%.5%$' '(),7%' %84$2*' +'0' .*' 5,&&,(1/)2' ,.' &,.5,.-',)0' 3'2' '/*.-')+% /286+'),(0' '.5')+$*1-+')+%' -/'.50',.)*')+% (,$(1/'),*.' 1)'0+*1/5')+%'84$2*'4%'4*$. 6$%8'1)$%/2''0',.')+%)3*'('0%0'$%&%$%5')*' 4%&*$%')+%' (+*$,*.'/%.7%/*6%'+'0'1.5%$-*.%')+%' 0)$%)(+,.-' 6$*(%00' '/$%'52'5%0($,4%5G')+')' ,0' 0+*1/5'*7'' A0%7%.'*$' %,-+)'),8%0')+%' 5,'8%)%$' *&')+%' *1)0)$%)(+%5' 2*1.-R' 4%' 6$%8'1)$%/2''/'1.(+%5',.)*')+%' /286+' 0)$%'8')+%2' '()' '0' %84*/,'' .5'4%,.-'7%$2' .18%$*10' %&&%()1''//2' 6/1-')+%' -/'.50'(*.; .%()%5'5,$%()/2'*$'42' '.'0)*8*0,0'3,)+')+% /286+'),('7%00%/',.'3+,(+')+%'4*$),.-'6'$%.) /,%0' +%'/*(''),*.'*&')+%'3*$8H)+%'5%-$%%' *&'*40)$1(),*.'3+%)+%$'('10%5'42'%84*/,08' 6$%001$%''*$'0)$,()1$%H 6$%001$%'42'%./'$-%5' -/'.50',.)%$&%$,.-'3,)+')+%' (*86%.0'),.-' 5$',.'-%'*&')+%''&&%()%5'$%'0'42')+%'7%,.0H)$'18'),(',$$,)'),*.'*&')+%' (*.-%0)%5'/286+; '),(''$%'H')+%' 6*0,),*.'*&')+%' 6'$)',.7*/7%5' '0'$%-'$50'5%6%.5%.(%'*$'%/%7'),*.''8*0)' ,86*$)',.'&'()*$,.'%/%6+'.),'0,0H)+%'+%'/)+' *&')+%' 6'),%.)H '.5'*)+%$'(,$(180)'.(%0' %'0,/2'1.5%$0)**5'3,/' 5%)%$8,.%')+%' 0,)%' '.5'%B'()'(+'$'()%$'*&')+%'$%01/),.-'5,0%'0%' ! G '"/) G *'8%'.0'*& 9,//,.-')+%'&,/'$,''+'7%'4%%.'5,0(*7%$%5' +%',.5,(',*.0'&*$)%')8%.)'3+%.'5,0%'0%'+'0' 5%7%/*6%5' '$%'0166/,%5'42')+%'6')+*/*-2' U%0)'%/%7'),*.'*&')+%' '&&%()%5'6'$)0'%/'0),(4'.5'-,.-''.5')+%$'8%'.0')*'&'(,/,)')%')+%' &/*3'*&/2286+')+$*1-+')+%'5'8'-%5'/286+; # ') ' $-'3) ' + - ' ' $% / 7'0% (' %! ALR'6) ") G +%'&'()')+')'+%'8*0E1,)*' '()0'0',.)%$8%5,'$2'+*0)',.5,('))0')+%'5,$%(;),*.')+')'6$%7%.),7%'8%'01$%0'0+*1/5')'9%' $,.9,.-3')%$',.'5,0)$,()0'3+%=%)+%'&,/'$,'' ,0'%.5%8,('*1-+)')*'4%'4*,/%5'.5'&,/)%$%5H 3%//0'(,0)%$.0''.5'$%(%6)'(/%0'&*$'5$,.9,.-' 3')%$'*1-+)')*'4%'(*7%$%5' $,)+'&,.%'3,$%' -'1C%')*'6$%7%.)')+%'((%00'*&')+%'8*0E1,)*H W'.5'6%$0*.0'9.*3.')*'+'$4*1$')+%'6'$'0,)%' *1-+)')*'0/%%6'1.5%$'6$*6%$/2'(*.0)$1()%5' 8*0E1,)*(1$)',.0'2'.2'*$'//*&')+%0%' 8%'.0')+,0'6'$'0,)%',.')+%'(*1$0%'&''0,.-/%' -%.%$'),*.'(*1/5'4%'%B)%$8,.')%5'.5')+%' 5,0%'0%0',)'6$*51(%0'8'5%)+,.-0'*&')+%'6'0) 9'6 ' "0 " #)" " A&,-' F"R G +%'&$%%'+0%8')*C*'/ %84$2*'*&' ''06%(,%0'*&'.%8')*5%0')+%' 8')1$%'&*$8'*& 3+,(+',0'1.9.*3.' ,)+%$)*')+,0'+'%8')*' C**.'+'0'4%%.'&*1.5'*./2',.')+%'4/**5'*& .%-$*%0'&$*8')+%' %0)' *'0)'*&' &$,(''.5' ,)',0'6$*4'4/%')+')'0'.'%.5%8,('(''10%',)',0' $%0)$,()%5')*')+,0'6')'0'.'%.5%8,('(''10%',)',0' +'0'4%%.'&*1.5',.'(*86'.2'3,)+')+%'&,/'$,'' 0'.-1,.,0'+*8,.,0'5,18'H,.'0%7%$'/*)+%$' ('0%0',)'3'0'.*)'0*'00*(,')%5'%8'2')+%$%&*$%',.&%$')+')'+%' '00*(,'),*.'*&'&,/'$,'' 6%$0)'.0''.5'&,/'$,''5,18''.')+%')3*',.; 0)'.(%0'$%&%$%5')*'3'0'8%$%/2''((,5%.)'/))%.),*.')*')+%'6*,.)0'*&(*.)$')0'4%)3%%.' &,/'$,''6%$0)'.0''.5')+%'*)+%$'4/**5 3*80' '0'0%)'&*$)+',')+%')'4/%',.'6'-%'DPM'3,/'%'5')*',)0'$%(*-8),*.' .'' '55),*.')*'3+')'+'0' 4%%.'0)')%5',.')+,0')'4/%',)'8'2'4%'8%.),*.%5')+')'+%'4*52'*&',0'6'$'0,)%',0'6*00%00%5',.' '+,-+'5%-$%%'*&'6*3%$0'*&'%/*.-')',*.'.5' (*.)$'(),*.''.5')+')'+%'8%'01$%8%.)0'-,7%.' ,.')+%')'4/%'$%%%$$%5')*' '$%')+*0%'*&')+%''.,8'/ 3+%.',)',0'5%'5'*$'8*$,41.5' +%.')$'7%/; /,.-''(),7%/2''8*.-')+%'4/**5(*$610(%0',) 0*8%),8%0'0*'%B)%.50',)0%/&'0')*' '66%'$' '8%$%')+$%'5')+%'%/*.-'),*.'(*.(1$$,.-',)+ '(*$$%06*.5,.-'))%.1'),*.H')'*)+%$),8%0' '.5'3+%.'.*)'(),7%/2')$'7%//,.-',)'001 8%0')+%6$*6*$),*.0'-,7%.' '7%$2'0)$,9,.-'+'4,)' 3+,(+',)'+'0',0')+')'*&'(*,/,.-',)0%/&'16'/,9%'' $*6%''.5'$%8',,.-'8*),*./%00',')+,0'))),)15% &*$''&%3'0%(*.50'4%&*$%'$%018,.-',)0',/01'/ 8*7%8%.)0' .')+%$'6%(1/,'$,)2'3*$)+'8%.;),*.,.-',0')+%'$%01/)''66'$%.)/2'*&')+%'/*(; 8*),7%'+'4,)0'*&')+,0'6'$'0,)%'.*)',.&$%; E1%.)/2',)',0'0%%.'&,B%5')*'*.%'06*)'*.')+% 0/,5%'7',./2'%.5%'7*1$,.-')*'4$%'9'3'2' '.5'(*.0)$,()%5'42''5%+(')%'$*6%'*&'&,4$,.')'3*1/5'0%%8')+')',.'8*7,.-'4*1)')+%'Q 0/,5%',)'610+%0')+%'0)$,.-0'*&'&,4$,.',.'&$*.)' *&',)''.5')'),8%0'4%(*8%0'%.)'.-/%5',.''$*6% *&')+%8 +%'&,/'$,''0'.-1,.,0'+*8,.,0'6%$0)'.0',0' 6$*4'4/2'7%$2'(*88*.',.')+%'%.5%8,('$%-.'H &*$'*&')%.'.%-$*%0'&$*8')+%' %0)' *'0)'*&' &$,('3+*0%'4/**5'3'0'0%'$(+%5',)'3'0'&*1.5' ,.',&,7% +')',.(%$)',.'%'0%0',)'-,7%0'$,0%')*'6')+*; /*-,('/ (*.5,),*.0',0'6$*4'4/%H 41)'*&'3+')

)+%0%'$%3%'$%'0 2%)',-.*$'.)'.*.%('0%')+%6'$')0,)%3'0'00*(,')%5 3,)+')+%6%*1+'$5,0%'0%('//%5 %-$* %)+'$-2'*$)+% /%%6,.,(+.%0 *&')+% *.-*H,.''.*)+%$3,)+',.;0'.,)2H 41),.')+%*)+%$)+$%%',.0)'.(%0',.3+,(+),)'3'0'&*1.5')+%$%'3'0'.*'(*.(*8,)'.)'5,0%'0% +%$%' 8'2' +%0*8%-$*1.50 &*$'00*(,'),..-',)'3,)+''6%(1/,'$ &$,('.'5,0%'0%('//%5 $'3($'3''9,.5'*&',)(+''66'$%.)/2',.51(%5'42''&,/'$>' /,9%'6'$'0,)%''.5'.*')+%'('$10'0('4,%,H'0'2%)')+,0'0166*0,),*.',0'/,))/%'8*$%)+'.'+26*)+%),('/

+%'6$%0%.(%'*&''4%'9')+%'40%.(%'*&''0+%')+')+%' 8'$9%5'/*(*8*)*$'+'4,)0')+%'%B)%.0,4,/,)2'.5'6/,'.(2'*&',)0'4*52''.5''/0*)+%'.*.*40%$7'.(%'*&'.2'6%$,*5,(,)2',.')0%.)$'.(%0'.5'%B,)0'&$ 8')+%'(,$(1/'),*.'01--%0)')+')+%'%84$2*'&,/'$,'' 0'.-1,.,0'+*8,..0'6%$0)'.0'-',.0',)0'&$%%5*8'.5'%.)%$0',)0'6'$),(1/'$,.)%$8%5,'$2'+*0)'42'5,.)'*&',)0'*3.'%&&*$)0'.5')+')',)',0'.*)'0',0')+%'('0%3,)+'&,/'$,''0'.-1,..0'+*8,..0'.**)18''.5'6$*4'4/2'5,18''5%6%.5%.)'*.')+%'-**5'*&&,(%0'*&'0*8%'06%(,%0'*&'8*0E1,)*'*$')+%$4/**501(9%$'5'

/ , '" ''(/%'7%R G '.'$$*3'.5'016%$&,(,'/'($'(9'*$0*/1),*.'*&'(*.),.1,)2'*40%$7%5'*.')+%'09,.''.5'81(*10'8%84$'.%0''.5'%06%(,'//2'.%'$')+%/,.%'*&'>1.(),*.'*&'+%0%'0)$1()1$%0''0'*.')+%/,60'.5'3,)+,.')+%''.10' %),0%'0%0'*&H'.5' P

' , ' ''6,6%R G=' .'$$*3'$'(9'*$'('./'/%'5,.-'&$*8''&$%%'01$&'(%''.5'%B)%.5,.-'8*$%'*$'/%00'5%%6/2')*'0*8%0%')'*&'/*('/',$$,)'),*.H*$',)'8'2'4%'(*.0),;)1),.-''.''4.*$8'/'(*881.,(','),*.'4%)3%%.'3*'*$'8*$%'('7,),%0''0',.')+%'('0%'*&'7%0,*7'-,.'/'*$$%()*7'-,.'/'&,0)1/''

G 6*61/'$'02.*.28'&*$''0155%.'0%,C1$%'(+'$')%$,0%5'42'/*00'*$'5,0)1$4'.(%'*&'(*.0(,*10.%00'&$*8'.'2'('10%'3,)+'*$'3,)+*1)'(*.71/0,*.0',' A%$ /*(2$(/'/'.5' (3' +%')%$8'0'/0*'66/,%5')*''0155%.'*$'(1)%'0%,C1$%'*&'(%$)',.'5,0%'0%0'01(+'0'-*1)''0)+8''.5''-1%

K ', ''61&&*&'3,.5R'6 ''' $'. " H %$'. "% & # G +%'1.51%'-%.%$'),*.'*&'-'0%0',.')+%'0)*8'(+''.5',.)%0),.%0 2 +%'6$,.(,6'/('10%'*&'&/')1;/%.(%',0'&%$8%.)'),*.'*$'5%(*86*0,),*.'&')+%'(*.)%.)0'*&')+%'0)*8'(+''.5'4*3%/0G''(*.;5,),*.'101'//2',.51(%5'42'%84'$$'008%.)'*&'&1.(),*.'%.(%',)',0''(*88*.'0286)*8',.'5206%60,'G%06%(,'//2')+%''),*.,('&*$80'0'8%)'3,)+',.')+%'5%4,/,)')%5''.5')+%'-%5'(*.0),6'),*.'-'0)$,),0'%.)%$,),0'+%6'),('5,0;*$5%$0''.5',.)%0),.'/*40)$1(),*.'+%.'&/')10',0'-%.%$')%5')*''$'6,5/2')*'4%'((*1.)%5&*$'42'&%$8%.)'),*.''0',.'+20)%$,''+26*;(+*.5$,'0,0''.5')*)+%$'&*$80'*&'.%$7*10'5%;4,/,)2',)'+'0'4%%.'0($,4%5')4'0%($%),*.''*&'-'0%0'&$*8')+%'81(*10'8%84$'.%

!(! G +%'(/,.,('/6+%.*8%.''7'$2''0'&/')10',0'$%)',.%5''*$5,0(+'$-%5H'.5'3,)+')+%'0%')''*&',)0'&*$8'),*.'3+=%$'(+,%&/2',.')+%'0)*8'(+''*$,.)%0),.%0'.')+%&*$8%$')+%'(*.(*8,)'.)'02886)*80''$%)+*0%''*&5206%6;0,''H,.')+%'/'/)%$')+%$%',0'101'//2'(*.0),6'),*.''0''$1/%'+*3%7%$'&/')1/%.(%6%$7'5%0'')+%'0'8%'),8%'8*$%''*$/%00'/'/)+%+*//*3'7,0(%$''.5',*5,(')%0')*$6*$'*&')+%'5,-%0),7%'*$-'.0')',0'6)'*'/%'5')*')+%0%'&1$)+%$'%7,/0 G^'6 "'&$*8'5,0)%.0,*.'*$'&$*8',$$%-1/'$'.5'&*$(,4/%'(*.)$'(),*.0'*&')+%3'//0G+%.(%-'0)$*52.,''.5'(*/,('$%'6)'*''$,0%HAXR''#'"'')"'*&')+%'0)*8'(+''.5',.)%0),.%0''.5'(*.0%E1%.)'((181/'),*.',)+,')+%8'*&'&%$8%.)'4/%'8'))%$0'3,)+'&1$)+%$'-%.%$'),*.'*&'-'0%0'/%'5,.-')*'6'$'/2),('5,0)%.0,*.'+%.(%'5,/')';),*.''*&')+%'0)*8'(+''.5'(*/*.')2886.,)%0'*$'8%)%*$,08''.5''--$'7'),*.'*&'6$%%B,0),..-'5206%60,''*$'(*.0),6'),*.'8'2'%.01%H'.5'A(R'''<"'0"'01(+'0')+%'+%'$)''.5'/1.-0'.,51(,..-'6'/6,)','),*.''.5',$$%-1/'$'(),*.'*&')+%'+%'$)'6$%(*$5,'/'.B,%)2'&',.).%00'7%$),-*'5206.(%''*$'%7%.''06+2B,'

.')2886.,)%0')+%$%'.0''$'6,5'-%.%$'),*.'*&'&/')10'3+,(+'*7%$6*3%$0')+%'(*.)$'(),/,)2'*&')+%'+*//*3'7,0(%$'H'.5')+%'45'8%.''.0'$*1.5'%.0%''.5')286.,),('' !(2

! ":H$'5 " ' ' # '#' 0 '42'&$,(),*.'&')+%'45'8%.'3,)+'0),81/'),..-'/,.,8%.)0''.5'-%.)/%'9.%'5,..-'*&')+%'8*0)'5,0)%.5%5'6')0H/'$-%'5$'1-+)0'*&+*)'3')%$H'06,$,)''.5'+*)'3'&%$H''8*.,''%)+%$'*$'06,$,)'*&'(+/*$*&*$8H'$*8'),('0),81,/'.)0G-,.-%$'('60,(18'(/*7%0'8,.)''.,0%'(>161)''(''86+*$'*$'(0('$,//''+%.'&/')1;/%.(%',0'(+,%&/2',.)%0),.'/'%.%8')''(*.)',.,.-'/'15'.18'3,)+''0'&*%),5'')1$6%.),.%'*$1%H''.5')+%'*86*1.5'0'&*%),5''6,/'3,)+'%B)$'()'*&'.1H'7 8,('''.5''.''6%$,%.)''$%')+%'8*0)'10%&1/'8%'01$%0

A R #'0 "'' ' # '/ ' %$8%.)'),*.'8'2'4%'(+%(9%5'42'01/6+,)%'*$'01/6+*('$4*/')%'*&'0*5,18'01/;6+1$*10'(,5'('$4*+('(,5'($%'0*)%')%$%4%.%''0'/*/'*$'(+'$('*'/G&$*8')+%'6*6/'$'*$'7%-%;)'4/%',7*$2',88%5,')%/2''&)%$'&**5H''.5'42'(*$$%(),.-''.5')*.,.-')+%'5,-%0),7%'*$-'.0'%6%')%5'&$'(),*.'/'5'0*%)%$'*&'('/*8%/'3,//'/0*'&$%E1%.)/2''$$%0'&%$8%.)','),7%&/')1/%.(%'**5'+9%/2')*'&%$8%.)'*$'/*5-%'0(+''0)'$(+'01-'$'&$1),0'*$'-$%%.'7%-%)'4/%0''.5'3'$8'/,E1,50G%06%(,'//2')%''.5'0*160G'0+*1/5'4%'7*,5%5H)+%8%'/0'0+*1/5'4%'3%//'8'0),(')%5''.5'0*+5')+$*1-+*1)''.5'/,E1,50'+*1/5'*./2'4%')'9.'06'$,.-/2'')')+%'(/*0%'*$''.'+*1$'&)%$'.'0*8%'('0%0'+*3%7%$'&/')1/%.(%',0'(*..%()%5'3,)+''.'.01&&,(%.)'0166/2'*&'&/1,50''.5'0+*1/5'4%'8%)'42

8 ’(%$’),*.’ +%‘ 3+*/%‘ 4*52‘ 4%(*8%0‘ 0*&)‘ ’.5‘ &/’((,5’,)0‘),001%0‘ 4%,.-’,.&,/)$’)%5‘3,)+’ &/1,5Ĥ 41)‘,)’-’.0‘.*‘61)$,5‘ *5*1$’ +%‘09,.’ 6$%0%.)0‘41 0%&,//%5‘3,)+’$%55,0+’0%$18’’.5‘)+%‘%6,5%$8,0‘,0‘$%’5,/2‘5%)’(+%5‘3,)+’0/,-+)’ &$,(),*.’ +%‘01&’(%‘,0‘*&‘’‘(2’.*),(‘(*/*1$’ 3+,(+’’&)%$’%B6*01$%’)*’)+%’’,$’4%(*8%0‘*&‘’‘ 8*$%‘*$’/%00’4$,-+)’$%5Ĥ,)’,0’.*)’-$%%..,5,’0‘ ,0‘0%%.’,.’61)$%&’(),*.’ +%‘(%//1/’$’),001%‘ ,0‘,..&,/)$’)%5‘3,)+’4/**52‘0%$18’ +%‘7,0(%$’’ +’7%’/*0)’)+%,$’5,0),.(),7%’),.)0’.5‘4%(*8%‘ *&‘’‘ $%55,0+ 4$*3.’(*/*1$’ +%‘ ($’.,’/ 4*.%0‘ ’%‘ ’4.*$8’//2‘ 8*4,/%’*7%$/’66,.-’ *.%’.*)+%$’)*’’‘-$%’)%$‘%B)%.)’)+’.’.*$8’/Ĥ ’.5‘)+%‘ 6%$,*0)%18’ 8’2‘4%‘0)$,66%5‘*&&)+%8’ +%0%‘ ’66%’$’.(%0‘ ’$%‘ 81(+’)+%‘ 0’8%’3+’)%7%$’4%‘)+%‘ (’10%‘*&‘5%’)+’41)‘)+%2‘7’$2’,.’5%-$%%‘ ’((*$5,.-’)*’)+%’/%.-)+’ *&‘),8%‘3+,(+’+’0‘%/’60%5‘0,.(%‘5%’)+ %0,5%0‘)+%‘5,0%’0%0‘*&‘)+%‘&*%)10‘5%0($,4%5’ ’4*7%’)+%$%‘ ’$%‘ *)+%$0‘3+,(+’ ’$%‘.*)‘&’)’/’ ’.5’)+%‘(+,%&‘,.)%$%0)‘*&‘3+,(+’/,%0‘,.’)+%,$‘ (*1$0%‘ ’.5’)%‘)8%.)’’&)%$‘4,$)+’ +%0%‘$% 5,0(100%5‘,.’ *)+%$‘ ’$),(/%0’’.5‘.%%5‘.*)’ 4%‘8%.),*.%5’+%$%’ ’ ’ !

’ U ’A $RG +,0‘)%$8’,0‘ ’66/,%5‘42’)+%‘ $%.(+’602(+*/*; -,(’/ 6+20,(,’),0‘)*’ ‘’ 7’$,%)2’ *&‘,.0’.,)2’ (+’$’()%$,0%5’42’ ’/)%$.’),*.0‘*&‘%B(,)%8%.)’ ’.5’5%6$%00,*.’ +%‘6’),%.)’6’00%0‘)+$*1-+’ ’.’ ’))’(9‘*&‘8’.,’’*&‘6%$+’60‘.’*$5,.’$2’ (+’$’()%$’41)‘3+%.’+%‘ ’66%’$0‘)*’+’7%‘ $%(*7%$%5’+%‘0,.90‘,.)*’ 8%/’.(+*/,’’ ’.5’)+%.(%‘%8%$-%0‘’-’,.’)*’ 4%(*8%‘8’.,’(’/ ’.5’%B(,)%5’ +%‘ 51$’),*.’*&’%’(+’0)’-% 8’2‘7’$2’&,*8’3%%90’)*’8*.)+0’ *8%),8%0‘ *.%0)’)%3,//&*//*3’)+%‘*)+%$‘,8 8%5,’)%/2Ĥ ,.’*)+%$‘(’0%0‘’‘6%$,*5’*&‘(*.7’/%0(%.(%‘3 / ,.)%$7%.%’51$,.-’3+,(+’)+%‘6’),%.)’’66%’$0‘ 3%//’’.5‘(’.’+’$5/2’4%‘(*.0,5%$%5’,.0’.%’ %)’)+%’6$*-.*0,0‘,0’%B)$%8%/2’1.&’7*1$’4/%’ ,.’’//01(+’(’0%0Ĥ’.5’,)‘,0’*&‘-$%’)’,86*$)’.(%‘ ,.’%0),8’),..-’)+%‘%B)%.)’*&‘$%(*7%$2’*&‘’‘ 6’),%.)’)+’)‘,)’0+*1/5’4%‘(/%’$/2’’0(%$)’,.%5’)+’)’)+%’’))’(9‘,0’.*)’*.%’*&‘’0%$,%0’&*//*3,.-’ *.%’.*)+%$’,.’)+%’8’..%$’8%.),*.%5

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’ ’*&’ 3 5 ’ 5,8’ ’ ’’4’-RG +%‘.’8%’0&*//,(/%‘ +’0’4%%.’’66/,%5’)*’’-$%’)’7’$,%)2’*&‘5,&&%$%.)’ 0)$1()1$%0’3+,(+’+’7%‘,.’(*88*.’)+%’0+’6% *&‘’‘4’-’*$’0’(’3+%)+%$’(,$(1/’$‘*$%/*.-’)%5’ ,.’*1)/,.%Ĥ&*$%B’86/%’)+%‘ $’’&,’.’&*//,(/%0’)+%‘ /28 6+’),(‘A %2%$,’.Ĥ &*//,(/%0‘ *&‘)+%‘ ,.)%0),.%’.’5’)+%‘&*//,(/%0‘*&‘)+%‘ 81(*10‘ 8%84$’.%’*&‘)+%‘0)*8’(+’,.)%0),.%’.’5’ 1)%$10’ +%‘.’8%’+’0‘4%%.’&1$)+%$’%B)%.5%5’)*’,.(/15%‘-/’.50‘0*8%3+’)‘8*$%‘(*86/%B’ ,.’0)$1()1$%’01(+’’0’)+%’015*$,6’$*10’-/’.50‘ *$‘03%’)&*‘ ,(/%0’)+%‘0%4’(%*10‘&*//,(/%0’’.5‘)+%‘)*.0,/0Ĥ ’0‘3%//*’0’)+%‘0’((1/’$‘5%6$%0; 0,*.0‘,.’3+,(+’)+%‘+’,$‘’.5’)+%‘)%%)+’)’9%‘)+%,$‘*$,-,.’ +%‘.’8%‘ ’’) ’ ’ ’ ’ ,’0‘0*8%),8%0‘-,7%.’)*’6$*(%00%0‘*&‘02.*7,’/ 8%84$’.%‘,.7’-,.’)%5’,.’)+%‘(’601/%‘*&‘’’ >*,.)

*$’.’’((*1.)’*&‘)+%‘5,0%’0%0‘*&‘)+%0%‘ 7’$,*10‘0)$1()1$%0’)+%‘$%’5%$‘,0‘$%&%$%5’)*’)+%‘0%7%$’/‘’$),(/%0‘1.5%$‘3+,(+’)+%2’’$% 5,0(100%5Ĥ41)‘0*’&’$‘’0‘)+%’)$1%‘&*//,(/%0’’$% (*.(%$.%5’)+%‘&*//*3,.-’8’2‘4%‘0’,5’)*’4%)+%’6$,.(,6’/ 8*$4,5’(+’.-%0’)*’3+,(+’)+%2’ ’$%‘/,’4/%’’)$*6+2+26%$)$*6+2Ĥ*40)$1(;),*.’’.5’5,0)%.0,*.Ĥ,.&/’88’),*.Ĥ1/(%$’;),*.Ĥ(20),(’5,0%’0%Ĥ.%3-$*3)+0Ĥ)14%$(/%Ĥ’(1)%’06%(,&,(’6$*(%00%0’01(+’’0’)+%’)26+*,5Ĥ ’.5’6’$’0,),(’5,0%’0%

(5 3 5’A*$%* 9%%63’$8R’ ’’ $’. " "g %$’$ # "0 & # G *8%.)’),*.’,0’)+%’66/,(’;),*.’)*’)+%‘01&’(%‘*&‘)+%‘4*52’*&‘&/’..%/0’ (/*)+0’*$’06*.-%‘84,0)(.%5’3,)+’+*)’3’)%$’ %,)+%$’61$%‘*$‘(*.)’,.,.-’0*8%‘8%5,(,.’/’ 0140)’.(%‘,.’0*/1),*. ’ G +%‘’(),*.’*&‘’‘0,86/%‘&*8%.)’;),*.’,0’)+%‘ ’8%‘’0’)+’)’*&‘’‘6*1/),(%’ 2’),0’3’$8)+’.5’8*,0)1$%’,)’)%.50’)*’$%/’B’)+% 810(1/’$’&,4$%0’*&‘)+%‘09,.’’.5’0*&)%.’)+% (1),(/%)+10’$%/,%7,..-’)%.0,*.’’.5’5,8,.,0+,.-’ 6’,.’’.5’,$$,)’),*.’ .’)’&’7*1$0’$%0*/1),*.’42’8’,.;)’,..-’)+%’)%86%$’)1$%’’.5’6$*8*),.-’’(),7% (,$(1/’),*.’)+$*1-+’)+%‘ ’$%’’3+,,’+’0’ 01&&%$%5’&$*8’)+%‘,.>1$,*10’,.&/1%.(%’3+,(+’ +’0’0)’$)%5’)+%’6$*(%00’ .’)+%’/’)%$0)’-%0’ ,)’6$*8*%)0’’.5’+’0)%.0’01661$’),*.’42’ (’10,.-’5,/’)’),*.’*&‘)+%7%00%/0’’.5’%.(*1$’-; ,.-’%B15’),*.’ ’&*8%.)’),*.’,0’016%$,*$)*’’’ 6*1/),(%’,.’/,-+).%00’’.5’(/%’./,.%00’41)’1.; /%00’(’$%‘4%‘)’9%.’,)’/*0%0‘,)0’+%’)’8*$% E1,(9/2’+,0’5,0’57’.)’-%‘8’2‘4%‘7%$; (*8%‘42’(*7%$,.-’)+%‘&*8%.)’),*.’3,)+’’’)+,(9’/’2%$’*&(*))*.3**/

(($’ ’ ’6 G ’&*8%.)’),*.’,0’)+10’’66/,%5’’6,%(%’*&‘(*’$0%‘&/’..%/’ 01&/,(%.)/2’/’$-%’)*’(*7%$’)+%’‘&&%()%5’6’$)’ 3+%.’&*/5%5’,.)*’)3*’/’2%$0’,0’61)=.)*’’’ 4’0,.’’.5’4*,/,.-’3’)%$’,0’6*1$%5’16*.’,)’)’,0’)+%.’/,&)%5’&$*8’)+%’4’0,.’3,)+’’6’,$’*&)*.-0’*$0*8%(*.7%..%,.)’.0)$18%.)’’.5’ 5$*66%5’*.’)+%‘ 3$,.-%$’ +,0’,0’’’0)*1)’ 6,%(%’*&‘)*3%//,.-’3,)+’’’0),(9’’))’(+%5’)*’ %’(+’%.5’ +%‘0),(90’)+%.’4%,.-’)3,0)%5’,.’ *66*0,)%’5,$%(),*.0’’0’81(+’3’)%$’0’6*00,4/%’ ,0’0E1%%C%5’*1)’*&‘)+%‘&/’..%/’)‘,0’)+%.’ ,8 8%5,’)%/2’6/’(%5’*.’)+%’‘&&%()%5’6’$)’’.5’ (*7%$%5’3,)+’’’/’$-%‘6,%(%’*&‘* %5’0,/9’*$,.5,’$144%$’0+%%)’%B)%.5,.-’’)’/%’0)’*.%’,.(+ *.’%’(+’0,5%’*&‘,)’ 7%$’)+,0’8’2’4%‘6/’(%5’ ’’)+,(9’/’2%$’*&‘(*))*. 3**/’’.5’’‘4’.5’-%’ &’)+%‘&/’..%/4%’.*)’0E1%%C%5’01&&,(%.)/2’5$2’ ,)’3,’3%)’)+%‘4%5’*$‘(/*)+,.-’ &’.*)’01&; &,(%.)/2’(*7%$%5’3,)+’*,/%5’0,/9’.5’3**/’,) 0**.’4%(*8%0‘(*/5’ +’)%7%$’8%’.0‘8’2‘ 4%‘)’9%.’)*’$%)’,.’)+%‘+%’)’*&‘’‘&*8%.)’),*.’ ,)’(’.’4%‘9%6)’‘4*7%’)+%‘)%86%$’)1$%’*&‘)+% 4*52’*./2’&*$’’‘&%3’8,.1)%0’ &’)+%$%&*$%’)+%‘&1/’%&&%()’*&‘&*8%.)’),*.’,0’5%0,$%5’)*’4% *4)’,.%5’)+%’&/’..%/0’810)’4%‘(+’.-%5’%7%$2

)3%.)2' 8,.1)%0' .' 8 '.2' 6'$)0' '' 06*.-%' *$ '' 6,%(%' *&' 06*.-,* 6,/8%' 3$1.-' *1)' *& 4*,/,.-' 3')%$'&'*$80' '' 8 *0)' ** .2%.,%.)' &'*$8' *&'&*8%.)'),*.' +%.')+%' &'*$% '$8' *$+'.5' ,0' '&&%()%5' '' +')+' *&' +*)' 3 ')%$' 8 '2' 4% 014; 0),)1)%5'&'*$ &*8%.)'),*.0' +%')%86%$')8$% *&)+%'3')%$' 8 10)' 4% 8 ',.)',.%5' 42')+%'$%; 6%')%5' '55,),*.' *&'08 '/' E1'.),),%0' *&'4*,+.-' 3')%$

8%.)'),.0' '$%' %06%(,'//2' 10%&1/' ,.' '/' ('0%0' *&' %$20,6%/'0' .'5' 5,&&10%' (%//1/,),0' '.5' ,.'4*,/0' .'6%$,)*.,),0')+%2' '$%' 4*$.%' 8*$% %'0,/2')+'.' 6*1/),(%0' *.' '((*1.)' *&')+%,$' -$%')%$' /,-+).%00' =%.%7%$')+%2' ('.' 4% %86/*2%5')+%2' '$% 016%$,*$')*' 6*1/),(%0' *.' '((*1.)' *&')+%,$' (/%'./,.%00' +%2' '$%' .*)' '66 ('4/%')*' %'0%0' ,.' 3+,(+')+%$%' ,0' '5,0; (+'$-,.-' 3*1.5' *$' '40(%00' '0' 1.5%$' 01(+' (*.5,),*.0')+%' (/*)+0' 4%(*8%' &*,//

P G &',)' ,0' 5%0,$%5')*' '55' 0*8%' 0/,-+)' (*1.)%$,$$,)*.')+%' 3'$8)+' '.5' 8*,0)1$%')+%' &*8%.)'),*.' 8'2'4% 06$,.9/%5' 3,)+')1$6%.),.%' 4%&*$%' ,)' ,0' '66/,%5' +,0' &*$80')+%' *$5,.'$2' " ' +%' 0%5'),7%' '(),*.' *&')+%' &*8%.)'),*.' 8'2'4% ,.($%'0%5' 42' 06$,.9/,.-',)' 3,)+'/'15'.18' +%*$5,.'$2'6*662&*8%.)'),*.',0'*&)%.'10%5' 3,)+')+%' 0'8%' ,.)%.),*.')' ,0')+10' 6$%; 6'$%5' '/&' '' 6*1.5'*&'6*662+%'50' 3,)+')+%' 0%%50')'9%.' *1)',0'4*,/%5'&*$')%.'8,.1)%0' ,.'&*1$'6,.)0' *&' 3')%$' .'5')+%' +E1,5')+%.' 0)$',.%5' *&&' +%' 5%(*(),*.',0'9%6)' 3'$8' *7%$'' &,$%' .'5')+%' &/'.%/0' 5,66%5',.',)' .'5' '66/,%5' '0'4%&*$%' 5%0($,4%5' '4*1)' %7%$2'+'/&' +*1$' +%')%$8'0 5$2'&*8%.)'),*.'<',0'0*8%;),8%0' '66/,%5')*' 4'-0'*&'+*)' 0'/)' 4$'.' *$ (+'8*8,/% &/*3%$0H *$' 6,%(0' *&' &/'..%/)*'0)%5' 4%&*$%' '' &,$%' .'5'/',5'*.'+*)' +%0%' *&)%.'-,7%' $%/,%&' ,.'*'0%0' *&' ,.)%0),.'/'$%.'/' *$'4,+'$2'(*/,(' '%'0 '5

(!'A*8%0')*1(+ 3**5'),.5%$R G' 140)'.(%0' ('6'4/%' *&'$%)',.,.-' (*.)'-,18' 6'$),*/%0' '.5')+10' *&'4%,.-')+%' 8%'.0' *&' 6$*6'-'),.-' '.2',.&%(),*10'5,0%'0%' +%'8*0)' ,8 6$)'.)' &*8,)%0' '$% 4%5 (/*)+%0' 4%55,.-' 3**//%.' -'$8%.)0' ('$6%)0' (1$)'.0' '.5' /%))%$0'

? ' B & H'.5'&

*' ,$' ? ' &) 4 '$-%' '.5'&)' F $)7)'$-

3 %' 3 *' $' M' ')' B -$)* $ '$-

' G' .')+%)$%')8%.)'*&',.0'.,)2''.5'0*8%),8%0'1.5%$ *)+%$' (,$(180)'.(%0',)'+'66%.0')+')'3%'$% (*86//%5')*' '58,.,0)%$'&**5'42'&*$(%')* (*86%'' 5*' 6'),%.)0'3+*'&*$'*.%'$%'0*.'*$' '.*)+%$'$%; &10%')*')'9%',)' +%'8'>*$,)2'*&')+%0%6%$0*.0' '$%' 8%/'.(+*/,(0'3+*')+,.9')+%2'*1-+)'.*)')*' %')' *$')$2')*' (*88,)' 01,(,5%'42'0)'$; 7'),*.'.5'8'.2'$%' ,.' '' &%%4/%'4*5,/2

(*.5,),*.'3+%.')+%2'(*88%.(%')+,0' $%&10'/' 1(+'6%$0*.0'810)'4%'&%5'42'&*$(%')$*.-' 6'),%.)0'8'2'4%'//*3%5'''/*.-%$'),8%'&*$' 8'.2'$%&10%'&$*8'3+,8'*$'*40),.'(2''.5' +1.-%$'3,//'*7%$(*8%')+%,$'5,0,.(/,.'),*.' *8%'6'),%.)0'>.'''0)')%'*&'(1)%'5%/,$,18' 3,.')'9%'.*'&**5H)+%2'810)'4%'&%5')'*.(%' '.5',)',0',86*$)'.)')+')'+)+%2'0+*1/5'4%'&%5' 3,)+*1)''6$*)$'()%5''.5'%B+'10),.-'0)$1--/%' &*$)+%2'3&//'$%0,0)'5%06%$')%/2'1./%00'(*8; 6/%)%/2'*7%$8'0)%$%5' .''/8*0)'%7%$2'(' 0%&%%5,.-'0+*1/5'4%5*.%'%'$/2''))+%'0**.%$',)' ,0'5*.%')+%'0+*$)%$'3,//'4%')+%'6%$,*5'51$,.-' 3+,(+',)'3,//'4%'$%E1,$%5' +%'7'$,*10'6/'.0')*'4%'5*6)%5'$'.-%'&$*8'8%$%/2'&%%5,.-'3,)+' ''06**.''0'*.%'&%%50''(+,/5')*'0%.5,.-'&**5' 5*3.')+%'(%0*6+'-10'3,)+''')14%'6'00%5')+$*1-+')+%'8*1)+''*$'.*0%')+%'6'),%.)'4%,.-' $%0)$',.%5',.''(+',$'*$'.''4%5'42')%.; 5'.)0'*$'42'8%(+'.,('/'8%'.0' +%'8*5% *&'&%%5,.-'7'$,%0''((*$5,.-')*'$%0,0).(%' '.5'.*'.%'8%)+*5',0'66+('4/%')*'%7%$2'('0%' +%$%',0'.*'.%%5')*'6'00'.'*%0*6+'-%'/')14% 5*3.')+%')+$*')'*&''8'.'3+*0%$%0,0)'.(%',0' 6'00,7%''.5'%'0,/2'*7%$(*8%H*.')+%'*)+%$' +'.5'3%'((',.*'//2'&,.5'6'),%.)0'*&'-$%*)' 810(1/'$'0)$%.-)+''.5',.5*8,)'4/%'W3,//'3+*' ('.'+'$5/2'4%&%5'3,)+'0'&%)2',.''.2'3'2%B(%)' 42')+%'0)*8'(+)14%' &')+%0%'3%8'2'06%'9'

.'3+')'6*0,),*.''$%')+%2')*'4%&%5'0,);),.-'*$/2,.-'5*3.']&')+%2''$%')*'4%+%/5' 42'))%.5'.)0'.*'5*14)')+%'$%(184%.)'6*0;)1$%',0')+%'*.%',.'3+,(+')+%'/')%$('.'%B; %$(,0%'8*0)'6*3%$' 1)'3+%.''' 8'.',0'0* 0)$*.-')+')'0'3%''$%')*/5'&,7%'.))%.5'.)0' 810)'+*/5'+,8'''0)$1--/%' .*)'4%'1.');)%.5%5'W3,)+'5'.-%$'&*$')+%'&,7%''$%'.*)''// '(),.-')*-%)+%$''.5'+%'-%)0'/**0%'.*3''/%-' '.5'.*3''.'')*')+%'-$%')'5,0(*86*01$%% *&')+%' 6%$')*$H 8*$%*7%$')+,0'0)$1--/%'$%; 6%')%5')+$%%'),8%0''5'2'0**.'$%.5%$0',8''' 8'00'%&4$1,0%0' %'0+*1/5'4%'6/'(%5',.''')$*.-'3**5%.'(+',$''.5'42'0+%%)0'3*1.5' $*B85'+,0'4*52''$80''.5'/%-0'+%'(.'4% &%0)%.%5')*')+%'(+',$'0*'(*86/%)%/2')+')'+%' ,0'E1,)%',.('6'4/%'&'8*7%8%.)H2%)'+%'-%)0' .*'4$1,0%''.5')+%'*6%$')*$'()0'16*.'+,8' &$%%'&$*8''//',.(*.7%.,%.(%'*8%'3$,)%$0' '57*(')%'&%%5,.-'42')+%'.*0%''.5'6$%&%$')+,0'8%)+*5')*'6'00,.-''')14%')+$*1-+')+%' 8*1)+''')',0'%//&,))%5'&*$'E1,%)'6'),%.)0' 3+*'5*'.*)'8'9%''' 5%06%$')%'$%0,0)'.(%' '.5'*./2'(/*0%')+%,$')%%)+'41)',)'+'0'8'.2' 5,0'57'.)'-%0''/*.-')14%'8'2'%.)%$')+%' /'$2.B'*$'8'2'(1$/&*$3'$50'.5'4%('1-+)' 42')+%')%%)+''.5',&')+%'&**5',0'6'00%5' ,.)*')+%'.*0%'42''0+*$)')14%'*$'&1..%/' ,)',0'*&)%.'%>%()%5''.5''' /*.-'),8%',0'06%.)' ,.')+%'*6%$'),.'+%'),8%'(*.018%5',.' &%%5,.-'42')+%'.*0%',0'*.%'*&')+%'-$%')'*4; >%(),*.0''.5'81(+'%B+'10),*.',0'*&)%.')+10' 6$*51(%5'+%'*./2''57'.)'-%'*&'&%%5,.-' ,.')+,0'3'2',0')+')'3%'$%'.*)'(*86%//%5')* &*$(%'*6%.')+%'8*1)+'+,0',0''3*$9'*&' 5,&(1/)2',&')+%'6'),%.)',0'0)$*.-''.5'+,0

)%%)+' 6%$&%()' 1 ./%00' 3%' '$%' 6$*7,5%5' 3,)+')+%' 0($%3 9%2', .7%.)%5' &*$')+,0' 61$6*0%'ℍ 3,)+')+,0')+%$%' ,0'))/%' 5,&&,(1/)2' ' .5' * ./2' 41 .-/,. -' 3,// ,. >1$%')+%')%%)+' *$' -180', &')+%' 6'),%.)', 0' 6$*6%$/2' 0%(1$%5' ' .5') +%'+%'5' +%/5' 42' ' .' '))%.5' .)' . *)' 4%)3%%. ' +,0' 9 . %%0' 41)', . ' +' . 50' &') +%' *%0*6+' -%' /)14%' 4%' *&' -**5' 0,C%',)' (' . . *)' %.)%$')+%' /'$2. B' +%' 3**5%. ')%$8, . '),*. ' *&')+%') 14%' 8 10)' 4%' 0+*$)' 0*' '0')*' '//*3' *&',)0' (1$7,. -' +%' *6%$')*$' 0)' . 5, . -', . ' &$*.)' 6' 00%0')+%') 14%')+$*1-+')+%/%' *&')+%/%' *&') +%'-' . ', (/, . , . -',)' *')+%' 6'),%.)<0' /%&)' 0*' '0')*' '7*,5')+%' 7%$)%4$0%')' 8 '2' +%' +%/5' 42')+%') * . -1%' 41)' ')')+%' &,$0)' , . 06,$'),*. ')+%' +*/5', 0' $%/' B%5' ' . 5',)' -/,5%0' 5*3 . ')+%' *%0*6+' -10' +%' &**5' 8 '2' 4%' 6*1$%5' 5*3 . ')' 42' ' &1 . . %/' *$' 6,1 . 6%5' 5*3 . ' 42')+%' 6186

+%' . %B)' (/' 00' *&' 6'),%.)0' 8 '9, . -'/%00' $%; 0,0)' . (%' 8 ' 2' 4%' &%5' 42' '/%20' &%%5%$' '-/' 00' 7%00%/' 3,)+' '&/'))%. %5' 06*1)' 3+,(+' -*%0*7%$')+%') * . -1%ℍ')+%' &**5', 0' %8,))%5' ' /,))/%' ') '), 8%' 42' 8%' . 0' *&' ' 06$, . -' ' . 5' &, . 50',)0' 3 ' 2' 5*3 . ')+%' -1//%) ' (%$)', . ' . 184%$' *&' 6'),%.)0' 8 ' 2' 4%' &%5' 42' -%)), . -' ' &, 8 . %/' 4%; +, . 5')+%') %%)+' ' . 5' 6*1$, . -'&**5', .)*',)ℍ' . 5' *)+%$0' 42' +%/5, . -')+%' 8*1)+' *6%. ' 42' 8%' . 0' *&')3*' 06** . 0' ' . 5')+%. ' 6*1$, . -' &**5', . ' +%' *4>%(, *. ')*')+%' /'))%$' 8%)+*5' ' . 5')*' ,)0' 8 ' . 2' 8*5, &, (', *. 0', 0')+%'), 8%')'9%. ' 16' , . ')+%' *6%$'), *. ' 3+%$%42' -$%')' &'), = %' ' . 5' %B+' 10), *. ' '$%' 6$*51(%5

+%' &**5' 8 10)' 4%', . ' '' 8 *$%' *$' /%00' &/1,5' &*$8' ' . 5' 0+*1/5' (*. 0,0)' *&' 0*160' 8 , /9' %--0' ' . 5')+%' /, 9%' '&

5' : ' /+2 +

& 3 5' ' ' . ' .)R G' . ' '4 . *$8 '/ 014>%(), 7%' 0%. 0'), *. ' $%&%$$%5')*<)+%' 09, . ' 3 +, (+', 0' 5%0($, 4%5' '0' *&' '' 0 ($%%6, . -'<(+' $' ()%$' ' . 5' '0' $%0%8 4/, . -')+%' ($' 3/, . -' *&' .)0' 16*. ')+%' 01$&'(%' ')' ,0; *$5%$0' *&

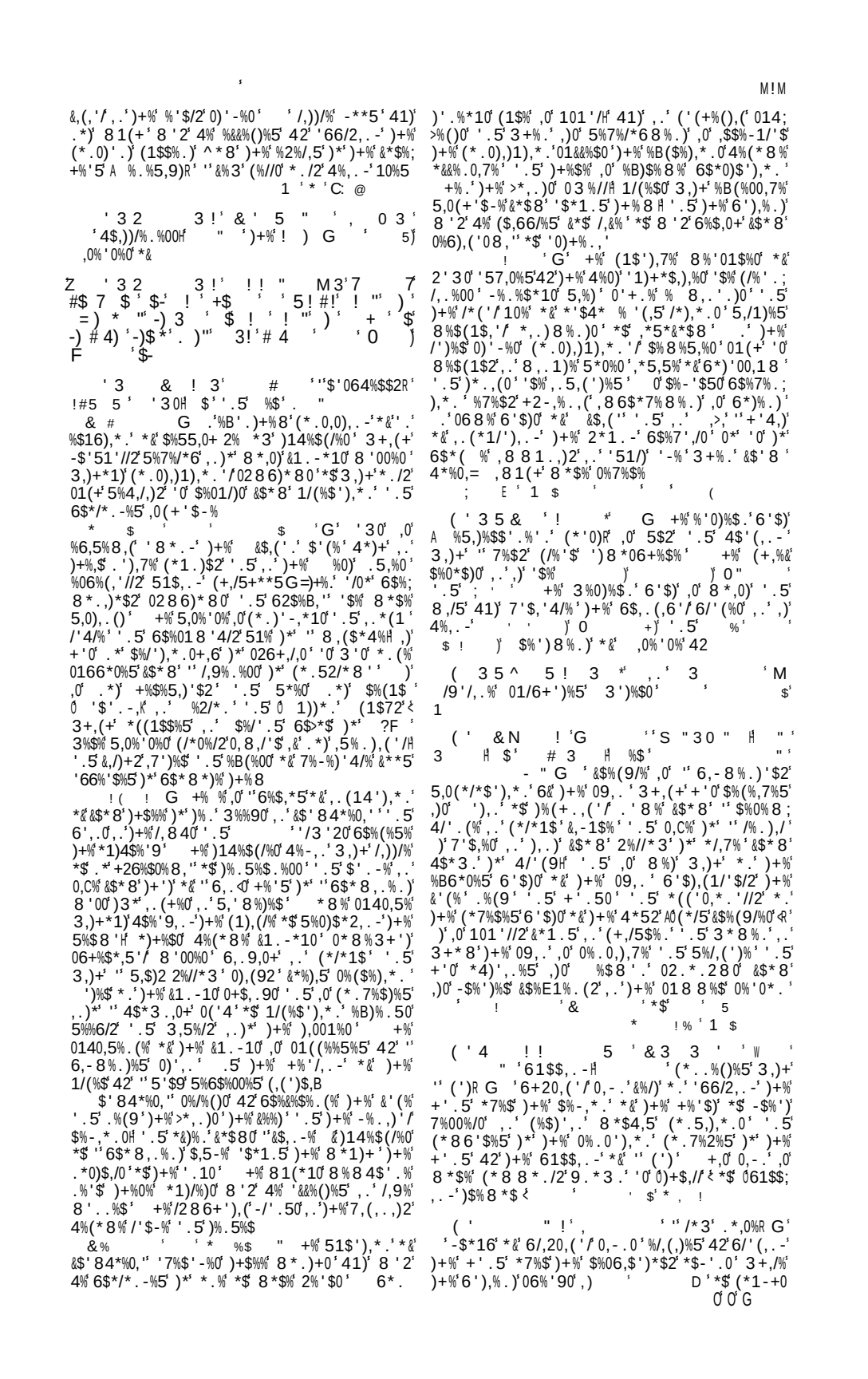
" %' ('1 *' ' M' *$4,5' 0)')%0' *&')+%' &*1$)+' . %$7%' '$%' 0+*3 . ' 42' 06' 08' (' / 8 ' *&')+%' 016%$, *$' *4/, E1%' 8 10(/%' 3+, (+',)' 0166/, %0

G ,))/%', 0' 9 . *3 . ' *&' *7%$ '(), *. ' *&')+, 0' 8 10(/%' %B(%6)')+')' (/*. , (' 06' 08', . ',)' 0')+%' ('10%' *&' $*)')*$2' . 20)' -8 10' 3+%. ')+%' E1, (9' 8*7%8%.)' *&')+%' 166%$' %. 5' *&')+%' 7%$), (' /' B, 0', 0', . 3 ' $50

'$' /20, 0 G '$' /20, 0', 0' . *)' 1. (*88*. ')0' 101' /' ('10%]' '$%' , . &/' 88'), *. ' *&')+%' . %$7% 0+%')+' &$*8' (*/5ℍ' +'%8*$$+' -%', .)*')+%' . %$7%ℍ' 026+, /,), (' '&&%(), *. 0' *&')+%' . %$7%' *$' *&',)0' 8%84$' . %0ℍ (%$%4$' /')18*1$0' ^(' 6$%00, . -' *. ' *$', . >1$, . -')+%' . %$7%')',)0' *$, -, . ' &$*8')+%' 7' /7%' *&' , %100%. 0' *$', . ',)0' *1$0%' '$*1. 5')+%' ($10ℍ' . %1$208ℍ %B*0)*0%0' *$' -$*3)+0', . ')+%' *$4,)ℍ' . 5' 5%-%. %$'), *. ' *&')+%' . 1(/%10', . ' (*88*. ' 3,)+')+%' . 1(/%, ' *&')+%' *)+%$' . %$7%0' *&')+%' *(1/' $' 810(/%' &, $*8' 3+, (+',)', 0' *((' 0, *. ' //2' 6' $' /20%5', . ')' 4%0', . ' 06$*-$%00, 7%' %B)%$. '/*6+)+' /8*6/%-, ' <, . ')+%' $' $%' ' (1)%' , . &/' 88'), *. ' *&')+%' . 1(/%, ' . 5', . ' 0155%. ' /%0, *. 0', . ')+, 0' 6' $)' *&')+%' 8, 5; 4$', . ')' +' 0' /0*' 4%%. ' 8*3. ')*' 4%', . 7*/7%5', . ')+%' $' $%' '&&%(), *. ' *&')+%' 810(/%0' *&')+%' %2%; 4' /' , . ' 5, 6+)+%$,), (' 6' $' /20, 0

! (!)G 7%. ', . ' (*86/%)%' 6' $' /20, 0' *&')+%' 016%$, *$' *4/, E1%' 810(/%')+%$%' , 0' /,))/%' *47, *10' 5%7, '), *. ' *&')+%' '&&%()%5' %2%' *7%; 8%.)' 5*3. 3' $50' , 0' +*3%7%$' 5%&%(), 7%' ' . 5')+%$%&*$%' 5, 6/*6, '' %B, 0)0' 3+%. ')+%' %2%' , 0' 8*7%5' 4%/*3' '' /, . %' 3+, (+' $1. 0' *4/, E1%/2' 5*3. 3' $50' &$*8')+%' +%' /)+2')*')+%6' $' /20%5' 0, 5%')+$*1-+')+%' 6*, .)' *&' 8, 5 &, B',)*. ' +%' 1. (%$)', .)2' 3+, (+' $%01/)0' &$*8' 05%&%(), 7%' 6$*>%(), *. '{**&')+%', 8' -%&*$8%5'42')+%' '&&%()%5' %2%' *((1$0' (+, %&/2', . '/**9, . -'5*3. ' . 5', . ')+%' (*$$%06*. 5, . -'5*3. 3' $5'6*0,), *. '*&')+%+%' 5')', 0' (*88*. '&*$')+%' &, $0)' 5, 0(*7%$2' *&')+%' 5%&%()' *' 4%')+')')+%' 6'), %.)' 4%(*8%0' -, 552' 3+%. '+%' -*%0' 5*3. 0)', $0' . ' . 5' 0%%0')3*' &/, -+)0' *&' 0)', $0' 4%&*$%' +, 8', . 0)%' 5' *&' *. %' +%' (+, %&' 7, 0, 4/%' 5%&%()', . ' 8*7%8%.)' *&')+%' '&&%()%5' %2%' A%B' 8, . %5' '/*. %ℍ', 0' 5*3. 3' $50' , . ; 3' $50' 4%('10%',)', 0' 3+%. ')+%' %2%4' //' , 0' 8*7%5', . ')+, 0' 5, $%(), *. ')+')')+%' 016%$, *$' *4/, E1%' +' 0' 8*0)', . &/1%. (%*. ')+%' 7%$), ('/6*0,), *. '*&')+%' %2%4' //' . ')+%' 5, $%()' 5*3. ; 3' $5' 8*7%8%.)')+%$%' , 0' 0/, -+)' (*. 7%$-%.)' 0)$' 4, 08 10' 4%('10%')+%', . &%$, *$' $%()10' /' (90')+%' (*1.)%$'(), *. ')*'), 0', . 3' $5')$' (), *. ' 0*')+')',)0')%. 5%. (2')*' $*)')%')+%' -/*4%' A/*3%$%. 5' *&' 7%$), ('/' B, 0', . 3' $50ℝ' , 0' /0*' 1. ; *66*0%5' ' . 5' 6%$(%6), 4/%' +%' 5, 6/*6, '' 3+, (+' %B, 0)0' 3+%. ' 4*)+' %2%0' /**9' 5*3. ', 0' +*8*. 2; 8*10G)+')', 0')+%', 8' -%' &*$8%5' 42')+%') &%()%5' %2%', 0' *. ')+%' 0' 8%' 0, 5%' 0')+')' %2%' +%' /%&)' %2%' A, &' '&&%()%5ℝ' 4%, . -' +, -+%$')+' .)+%' $, -+)',)0' , 8' -%' A)+%' /%&)ℝ' 66%' $0' /*3%$')+' . ')+%' $, -+)', 8' -%' +%' '(), *. ' *&')+%' 016%$, *$' *4 E1%' 4%, . -')*' 8*7%')+%' 166%$' %. 5' *&')+%' 7%$), ('/' B, 0' *&')+%' %2%' , . 3' $50')+%$%' , 0' , . ',)0' 6' $' /20, 0' . ' 4. *8' /' 5, 7%$; -%. (%' *&')+%' 166%$' %. 50' *&')+%' 7%$), ('/' B%0' . 5')+%' 5*14/%' , 8' -%0' A4%, . -' '/3' 20' , . ; 7%$)%5ℝ' 3, //' (*. 7%$-%ℍ')+%, $' 166%$' %. 50' 4%, . -' . %' $%$')*-%)+%$')+' . ')+%' /*3%$' +, 0', 0' 51%)*')+%' *4/, E1,)2' *&')+%' &'/0%', 8' -%' 0')+%/%&)ℝ' . 5')+, 0' *4/, E1,)2', 0' -%')%0)' 3+%. ')+%' %2%4' //, 0' 8*7%5')*')+%' /%&)' . 5' 5*3. 3' $50' 4%('10%', . ')+, 0' 6*0,), *. ')+%' $*)')*$2' 6*3%$' *&')+%' 016%; $, *$' *4/, E1%', 0' -%')%$' . 5')+%' *4/, E1,)2', 0' /%0)', , . ' /**9, . -'5*3. ' . 5', . ')+%' (*$$%06*. 5, . -'5*3. 3' $5'6*0,), *. '*&')+%' 5*3. 3' $50' +10')+%' (*. 7%$-%. (%' *&')+%' , 8' -%0', 0' -$%')%0)' 3+%. ')+%' 5, &&%$%. (%' >. ' +%, -+)', 0' /%0)' . 5') ') ' K +%=+%' 6' $' /20, 0' *&')+%' 016%$, *$' *4/, E1%' +' 0' %B, 0)%5' &*$' 0*8%), 8%' ' 0%(*. 5' $2' (*.)$' ()*. ' *&')+%', . &%$, *$' *4/, E1%' 8' 2' (' 10%' ($*00%5' 5, 6/*6, '' *. '/**9, . -' 163' $50

! G +%')$%')8%.)' *&' 6' $' /20, 0' *&')+%' &*1$)+' . %$7%', 0', . ')+%' 8' , . ')+')' *&',)0' ('10%' b +%. ' 51%' '0',)' 7%$2' (*88*. /2', 0')*' 026+, /, 0', *5, 5%*&' 6*)' 00, 18', 6' &1//' 5*0%0' 3,)+' *$' 3,)+*1)' 8%$(1$2<, 0' . %(%00' $2' 8' //%$' 5*0%0' *&', *5, 5%' 3,)+' E1, . , . % *$', *5, 5%*&', $*. ' '$%' /0*' 10%&1//' &*$' $+%18'), ('6' $' /20, 0' /, 0)%$0')*')+%')%86/%' '$%' 4%. %



) ' ℍ *$',.'(%$)',.' 8*$4,5'(*.;
5,),*.0' 3+%.')+%' 6'),%.)' 0,8 6/2' 4$%')+%0'
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8,)10' 8 '2' 0*8%),8%0' '/0*' 4%' &%/)' *7%$')+%'
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8%.)0'*&')+%'+%')'3+%.')+%'01$&'(0(0'*&')+%'
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7%$')+%')$1.9'&*$' "'7'$,%)2'&'61$6*0%0')'
,0' %06%(,''//2' 10%&1ƒ 3+%.')+%' (,$(1/'),*.',0'
%.&%%4/%5' %,)+%$' 42')+%' %B)%$.'ƒ '66/,(';
),*.'*&' (*/5' '8*1.),.-' 3+%.',' "' 0%7%$%'
5%-$%%')*' &$*0)4,)%' *$',' ('0%0'*&' 6'$'/2;
0,0' +%' %&&%()',0' 0), ' &1$)+%$',.($%'0%5'42'
)+%' 10%'*&' 7'$,*10' 0),8 1/'),.-' +.,8%.)0'
8*$%' %06%(,'//2' 3+%.',)',0' 5%0,$'4/%')*' %B;
(,)%' "' (%$)',.' '8*1.)' *&'(*1.)%$,$$,)'),*.'
*7%$' "'/'$-%' (1)'.%*10'01$&'(%'&*$')+%' $%/,%&'
&' (.-%0),*.' *$' ,.&/'8 8'),*.' *&' ,.)%$.'/'
*$-'.0
.*)+%$' *4>%()' 3,)+' 3+,(+' &$,(),*.' ,0'
/'$-%/2'%8 6/*2%5',.'8%5,(,.%',0')*' &'(,/,)'%'
)+%' '40*$6),*.' '.5' ,.)$*51(),*.',.&*')+%'
020)%8' *&' 7'$,*10' $%8%5,'ƒ '-%.)0' '66+%5'
%B)%$.''//2' 2')+,0' 8%'.0'-')0$,(',$$,)'),*.'
'.5'5,0)1$4'.(%''$%''7*,5%5''.5')+%' %&&%()0'
&')+%'$%8%5,%0'16.')+%'020)%8'('.'4%'8*$%'
(/*0%/2'3')(+%5''.5'$%-1/')%5' .')+,0'3'2'
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020)%8'42')+%' 6$*(%00' (*8 8*./2'06*9%.'*&'
'0' "0' "'.5'0'+7'),*.'('.'4%' 8*$%'
%'0,/2'7*,5%5'*$' (+%(9%5''),)0' (*8 8%.(%;
8%.)')+'.'3+%.'8%$(1$2',0'58,.,0)%$%5'42'
)+%' 8*1)+' +%'6')$'*&')+%'4*52'0%/%()%5'&*$'
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)+%')+,-+'16')*')+%'-$*,.ℍ '.5' 8%$(1$2',.'
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.*)+%$',.0)'.(%'*&'&$,(),*.'.',0')*' 4%'&*1.5'
,.')+%'&')))%.,.-'*&'(+,/5$%.'42')+%'6$*(%00'*&'
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')%5'(+,/5$%.')+10')$%')%5'-',.',.'3%,-+)'
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5*')+%2'&')%.'41)'+%,$'-%.%$'ƒ .1)$,),*.'
'.5'+%'/)+' '$%' ,86$*7%5'*&)%.' 3,)+')+%'
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5,),*.0''0'*&')+%'6/%1$'' ,.'4$%')+,.-'*$'*&'
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'&&%()%5'42'&$*0)4,)%0''$%')+%')*%0'.5'.%,-+;
4*1$,..-'6')$0'*&')+%'/*3%$'%B)$%8,),%0')+%'
.-%$0''.5'+'.50')+%'.*0%''.5')+%'%'$0''//
4%('10%'*&')+%,$'%06%(,''/',.'4,/,)2')*'%B6*01$%'
'.5')+%'&,$0)'.'8%5'4%('10%''/0*'*&')+%,$
$%8*)%.%00'&$*8')+%'+%')$)''.5')*)+%$'5,0;
'57'.)'-%0',.')+%,$'4/**5 0166/2
2'-)'!' '3 ')/)$/$) $'$-'# '$##4)'
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)*8 0' *&' &$*0)4,)%' 7'$2' ,.' 8'.,&%0)'),*.,.'.'
$'6,5,)2'*&'*((1$$%.(%''.5',.'01((%00,*.'3,)+'
)+%' 5%-$%%'*&'(*/5')+%' 8%5,18'.'5' 8*5%'
&'66/,(''),.''.'5')+%'51$')',*.'*&'%B6*01$%'
'0''/0*'3,)+')+%'-%.%$'ƒ (*.5,),*.'*&')+%'01&;
&%$%$' +%2'8'2'+*3%7%$'4%')+10'5%0($,4%5'
$'.0,%.)'$%5.%00'*&')+%'6')$' '&&%()%5''(;
(*86'.,%5'42'+26%$0%0)+%0,'' '.5'),.-/,.-'
0%.0'),*.0',0'8*$%'*$'/%00'E1,(9/2'&*//*3%5'
42'61$6/,0+'/,7,5,)2'3,)+'5,8,.,0+0%5'0%.0,;
4,/,)2' /'.(+,.-'3,)+'.184.%00'016%$7%.%0'
%B)'(*.-%/'),*.')'9%0'6/'(%'0,-.'/,0%5'42'
3+,)%.%00' +'$5.%00' '.5' *40*/1)%' ,.0%.0,;
4,/,)2' '0)/2')+%'&$%%C,.-'6$*(%00'8'2'%B;
)%.5'8*$%''.5'8*$%'5%%6/2''.5'4%(*.),.1%5'
1.),ƒ '//')+%')001%0''$%'/,)%$'//2'0&$*C%.')*'
5%')+<'.5')+%,$'$%(*7%$2',0',86*00,4/%
0 $2'-'.-$%.%'<,0')+%.'%0)'4/,0+%5''.5')+%'
6')$0'&&%()%5'0+$,7%/'5$2'16''.5'4/'(9%.'
&')+%'/'0)'0)'-%',.5,(')%5'+'0'.*)'4%%.'
$%'(+%5'8*$%'*$'/%00'(*86/%)%'$%(*7%$2'8'2'
4%'%&&%()%5'0**.%$*'/')%$'1)'0 8*,0)'-'.;
-$%.%'<,0',/'4/%')*'016%$7%.%'&$*8',.&/'8;
8')',*.''&)%$'6'$),'ƒ $%0)*$'),*.'*&')+%'(,$(1;
/'),*.',.')+%'8*$%'0%7%$%'('0%0ℍ''.5'*)+%$'
)+*1-+'/%00'0%$,*10')$*6+,('/%0,*.0'&$*8'
0,8,/'$'('10%'&$%E1%.)/2'*((1$',.')+%'8,/5%$

'$)0')+')' +'7%' .*)' 4%%.' '()1'//2' &$*C%.' 41)' +'7%' 4%%.'014>%()')*' $%6%')%5' *$ /*.-' %B6*01$%' 8 '2' 4%(*8%' -'.-$%.*10' *$ 8'2' 01&&%$' &$*8' 8*$%' *$' /%00' 6%$8'.%.)' ,86',$8%.)' *&' .1)$,),*.' '.5' &1.(),*.'0 (+' %&&%()0' 4%,.-' 51%')*' *$-'.,(' 5'8'-%')*')+%' .%$7%0' '.5'4/**5 7%00%/0' 'C 5

! G +%')$%')8%.)' $-' ' &$*0); 4,))%.'6'$)' %00%.),'//2'(*.0,0)0' ,.' 01(+'8%'; 01$%0' '0' '$%' ('/(1/')%5')*' $%0)*$%' 3'$8)+' '.5'$% %0)'4/,0+')+%'(,$(1/'),*.' +%'-$%')%0)' ('$%' >15-8%.)'6'),%.(%' '.5' 6%$0%7%$'.(%' '$% $%E1,0,)%' *$')+%' '))%86)0' 8'5%' 8'2' *./2' $%.5%$')+%' 8,0(+,%&' 3*$0%' +%' 6$*; (%00' 8 10)'4%' -$'51'/' '.5'0/*3')*' 4%'0'&%

+%'6'),%.)' 8 10)'.*)' 4%' 4$*1-+)' ')' *.(%' ,.)*' '3'$8'$**8' *$' .%'$' '&,$%' 41)' 0+*1/5' 4%' 9%6)' ,.' '' 8*5%$')%/2' (*/5' ')8*06+%$%' '.5' ,.' '' $%(184%.)' 6*0,),*.' +%' 6')$)' '&&%()%5' 0+*1/5' 4%' 0*8%3+')' $',0%5' '.5' -%./2'$144%5'3,)+'0.*3'*$ 4')+%5'3,)+',(%' (*/5' 3')%$' &*$ 0*8%'),8%' %$2' -$'51'//2')+%')%86%$')1$%'*&')+%'3')%$' 8'2'4%'$',0%5' *$*,/'8'2'4%' 0140),)1)%5' ')%$'5$2'&$,(),*.' 8'2'4%' %86/*2%5' +%'&$,(),*.0' 0+*1/5' 4%' ('$$,%5'(*.0,5%$'4/2'*4*7%')+%'6')$)'*47,*10/2' '&&%()%5' $*8')8%')*'),8%')+%' '&&%()%5' 6')0' 8'2' +%' /,-+)/2' %.7%/*6%5' ,.' &1$' *& 3**/' '.5')+%'&,$,(),*.0' $%6%')%5' ')' ,.)%$7'/0' &)%$' '66'$%.)'$%0)*$'),*.'+'0' 4%%.'%&&%()%5')$%')8%.)' 42'&$,(),*.' 3,)+' *$ 3,)+*1)' 0*8%' 8,/5/2' 0),81/')',-'/.,8%.)'0+*1/5'4%' 6%$; 0%7%$%5' 3,)+' 5'2' 42'5'2'&*$ 0*8%' (*.0,5%$; '4/%'6%$,*5'.5')+%' 6')' 0+*1/5' 4%' 3'$8/2' (/'5' *.0%(1),7%',.&/'88'),*.'*&')+%'09,.' 3,)+'7%0,('),*.'*$' 016%$&,(,'/0/*1-+,.-'*(; (1$0',.'0*8%' ('0%0H,.')*)+%$*'0%0')+%'5%%6%$ 0)$1()1$%0''/0*' 01&&%$' '.5'8*,0)'-'.-$%.% $%01/)0' 1(+'(*.5,),*.0' '$%' %06%(,'//2'/,'4/%')*'*((1$',.'('0%0',.'3+,(+')+%'(+'.-%'&$*8' (*/5')*' 3'$8)+'+'0' 4%%.')**' $'6,5' +%2' '$%')*' 4%')$%')*' '

&',.'06,)%'*&'//'%&&*$)0'$%0)*$'),*.'('.*)' 4%'%&&%()%5''.5''.2'6'$)'$%8'.,0'(*/5'5%'5' '.5'-'.-$%.*10'*$',&'&$*8'(*.0%(1),7%',.; &/'88'),*.'8*,0)'-'.-$%.%0+*1/5'016%$7%.%' ,)',0' 4%))%$')*' 3',)'&*$(*86/%)%*' *$'/8*0)' (*86/%)%' 0%6'$'),*.'*&')+%' 5%'5'0)$1()1$%0' 4%&*$%' 6$*(%%5,.-')*' 861)'),*.'*$' *)+%$' *6%$'),7%' 8%'01$%0' +%' '5>*,.,.-'6')0' $%8'.,'&*$'7%$2'/*.-',.'01(+'5%6$%00%5'7,)'/' (*.5,),*.')',&'(1)')+$*1-+')+%2''$%</,))/%' /,9%/2')*' +%'/'&'7*1$'4/2''.5'7%$2'*&)%.' 0/*1-+'&)%$'&$%0+',.>1$2',.&/,()%5'42'*6%$'),*.' 3*1.50

'$)0')+')' +'7%' 4%%.'0%7%$%/2'&$*0)4,))%.' %7%.',&' 6$%0%$7%5''$%' /,'4/%')*' 01&&%$' 6%$; 8'.%.)/2'&$*8'8*$%' *$' /%00' 0%$,*10',86',$; 8%.)' *&'.1)$,),*.'51%' 6$*4'4/2')*' 5'8'-%' 5*.%')*')+%')$*6+,(' .%$7%0' '0' 3%/' '0')*')+%' 4/**5 7%00%/0' +%' 09,.'*&01(+'6')0' ,0' *&)%.' 5,0(*/*8 %5' '.5',.' 0*8%' ('0%0' ,0' +26%$' 0%0)+%),*' *$' 6',.&1/''.5',.'*)+%$0' 8*$%' *$ /%00' .184')',0'6$*.%')*' 4%(*8%',.&/'8%5' '.5')*'1/(%$')%H' '.5',&',,/(%$')%5' *$ 3*1.5%5' +%'/,.-')'9%0' 6/'(%' 7%$2' 0/*3/2' '0' ' $1/% $*)%(),*.'-',.0)' %B6*01$%')*' (*/5'.5',.; >1$2' 0+*1/5' 4%' ('$%&1//2' '.5' (*.0)'.)/2' '&&*$5%5 *$')+%'(*.0),)1),*.'/' '.5'-%.%$'/')$%'); 8%.)' *&')+%' &$*0)4,))%.' &&%()0' *&' %7%$%' *$' B)$%8% % ' * ' &% ! ' 5' 08*9%RG' g' ' ' %$' " -' # & # " '8*5%'*&'%86/*2,.-'(%$)',.' 8%5,(,.'/'-%.)0'3+,(+'$%' ('6'4/%'*&'4%,.-' 7*/'),/,0%5'42'+%')')+%'7'6*1$'4%,.-''//*3%5')*'%0('6%',.)*' .'6'$)8%.)'<)')*' (*8%'.' (*.)')'()'3,)+' '$),(/%0'*&'(/*)+,.-'.'5')+%$' *4>%()0'&*$'61$6*0%0'*&'5,0,.&%(),*.H'*$4%,.-' '//*3%5')*' ')'16*.')+%'01$&'(%'*&')+%'4*52' &*$)+%$'6%1),(' 61$6*0%0' +%'(+,%&'-%.)0' 3+,(+' '$%')+10'10%5'$%'01/6+1$'.5'8%$; (1$2 0' # ((' 6 ' ' < M +%'8*5%'*&'10,.-'01/6+1$'0''5,0; ,.&%()'.)',0'%B6/',.%5',.')+%'$),(/%'& 2 # ' +%'01/6+1$*10''(,5'8'2''/0*'4% 4$*1-+)',.)*'(*.)'()'3,)+')+%'4*52'01/6+1$ 4%,.-'41$.)',.''' 01,)'4/%''66'$')10')',0' 0*8%),8%0')+10'10%5'&*$')+%'(1$%*&0('4,%0' '.5')+%$'&&%(),*.0 ! '' %$(1$,'/&18,-'),*.'-%.%$'/ *$/*('/'+'0'/*.-'4%%.'%86/*2%5',.')+%)$%'); 8%.)'*&'026+,/,0''.5'8'.2'5,&&%$%.)'6$%; 6'$'),*.0'*&'8%$(1$2'+'7%'4%%.'10%5',.')+,0' 3'2 B " '8%$(1$,'/&18,-'),*.',0'.*3'101; '//2'%&&%()%5'42'%B6*0,.-')+%'4*52')*')+% &18%0'&'('/*8%/'8,B%5'3,)+'0)%'8')+% 0)%'8'4%,.-''55%5'3,)+')+%')3*&*/5'*4>%()' *&',.51(,.-'-%.)/%'6%$06,$'),*.''.5'*&'$%.; 5%$,.-')+%'8%$(1$,'/&18%0'/%00',$$,)'),.-')*')+%'$%06,$')'*$2'6'00'-%0'+%'4%0)'&*$8' *&'8%$(1$,'/'7'6*1$4')+',0')+')'$%(*8; 8%.5%5'42'$'%.$2'%%'+%'66'$')10' (*.0,0)0'*&''06,$,)/'86'3+,(+',0'%.(/*0%5' ,.''('0%*&'3,$%'-'1C%'*.')+%')*6'*&'3+,(+' ,0''08'//6/')%'01$$*1.5%5'42''6*$(%/',.')$*1-+'.%*1.(%*&'3')%$',0'6*1$%5',.)*')+%')$*1-+'.5')+%/'86',0')+%.'/,-+)%5' +%.')+%'3')%$'4%-,.0')*'4*,/'&$*8'@!')*'?!' -$',.0'*&'$%014/,8%5'('/*8%/'$%'06$%'5'*.')+%'6/')%''.5')+%'66$')10',0'6/'(%5'4%)3%%.')+%'6'),%.)<0'/%-0''0'+%'0,)0'*.''('+',$' >5$%00%5'41)'08$*1.5%5'42''8*/%09,.'(/*'9' /*.-'%.*1-+')*'$%'(+')+%'-$*1.5'+%'(/*'9' ,0'),%5'$*1.5')+%'.%(9'41)'9%6)''3'2'&$*8')+%'$%0)'*&')+%'4*52'42''('.%+**6'&',)'4%)+*1-+)'5%0,$'4/%')+')')+%'7'6*1$0+*1/5'4% ,.+'/%5')+%0+)'*&')+%'(/*'9'8'2'4% 6%.%5 0/,-+)/2'&$*8',8%')*',8%'+%'6'),%.)' 0+*1/5'.*)'4%'/*.%'51$,.-')+%'4')+'0',) 0*8%),8%0'('10%0'&',.).%00'+%.')+% ('/*8%/,0'%B+'10)%5='3+,(+'101'//2')'9%0' '4*1)''E1'$)%$'*&'.'+*1$')+%'6'),%.)'-*%0')*'4%5'3%'$,.-')+%/(*'9'0''.,-+)5$%00'+% 4')+'8'2'4%$%6%')%5'%7%$2'.,-+)'*$/%00' *&)%.'((*$5,.-')*')+%('0%'.5')+%'%&&%()

M @ A & (F ' <A' & F

7 '$,%0' -$% ')/2', .' 5,&&%$%.)' ('0%0' .' 0* 8 %' ,.0)' .(%0',)',0' 0*&)' '.5' (*.)' ,.0' 8 1(+' *,/2' 8 '))%$'41)',.')+%' 8 *$%' '57'. (%5' ('0%0')+,0' ,0' '/8 *0)' '40%.)')', ')+%.' *./2' 0*/14/%' 42' 8 %'.0' *&' '/9'/,0' +%' '0+' (*.0,0)0' 8 ',./2' *&' ('/(,18' 6+*06+')%' '.5', 0' $%5' &$* 8')+%' 6$%0%. (%' *&' *B,5%' *&',$*.

+%'&1.-*,5'&,/' 8 %.)0' + '7%'.%7%$' 2%)' 4%%.' 0+*3.')*' 4%' ('6'4/%' *&' '.2' &1$)+%$' 5%7%/*6; 8 %.)' ')) % 8 6)0' ')' (1/),7'),*.' + '7%' &'5%5' ,.' ('10,.-')+% 8')*' '001 8 %' '.2' &*$ 8' 42' 3+,(+')+%,$')$1%'.')1$%' '.5' $%/')',*.0+,60' 8 '2' 4% 5%) % $ 8 ,.%5' +%2' + '7%'.%7%$' -,7%.' '.2' 1.; %E1,7*('/0,-.0' *&'/,&%' %B)%$.'/')*')&,%' 4*52' %7%.' 3 +%.' %B6*0%5')*' (*.5,),*.0' &' 7*3 '4/%')*')+%' -$*3)+' *&' &1.-,' '0' 5% 8 *.0)$')%5' 42')+%' 5%7%/*6 8 %.)'*&' 7 '$,*10' %B)$'.%*10' 8 *)55 0' 16*.')+%' 01$&'(%' *&')+%' 4/'(9' 8 '00%0')+% 8 ; 0%/7%0' *$' *.')+%' 8 %5,'',' 3+,(+')+%2' 3%$%' ,8 8 %$0%5 '0

6 7 G= $' '$)%$' 3 $,)%0' 0' '' $1/%')+%' /*('/',.5,(','*.0' *&')+,0' 5,0%'0%' '$%')+%' 0' 8 %' &*$' //',)0' &*$ 8 0H' &*$' (* 8 8 *./2',)',0'.*)' 6*00,4/%')*' 5,0($,8,.')%')+%' 0%7%$'/7'$,%),%0' 42' 0,8 6/%',.06%(),*.' *$' 4'$%' (/,.,('/',0)*$2' *&')+%' ('0%<+%' 0)')%8%.)0' K 8 '5%' 42')+%' 6')),%.)0' 0')*')+%' (*10%' *&')+%' 6*$,.,.' '.5' 6$*-$%00' *&')+%0%' (*86/',.)0' '$%' 7%$2' 7 '$,*10H' 41)')'9%.'-%.%$'//2')+%2' 0%%8')*' ,8 6/2')+')')+%' 02 8 6)*.>0' '$%' '.'/*-*10')*')+*0%' 101'//2' *40%$7%5' ,.' 5%%6 0%')%5' 5,0%'0%' *&')+%' *00%*10' '.5'5>*,.,.-'),001%0' 7%.)1'//2' ' K 8 *$%' *$'/%00' +'$5'/1 8 6',0' &%/)',.')+%' 0*/%' *& ')+%' &**)' *$' 6'+.' *&')+%' +'.5' *$',.' 0%7%$'/6/'(%0' %.%$'//2' .%' *$' 8 *$%' '40(%00/,9%' &*$ 8 '),*.0' *((1$H' .5' 0%7%$'/0,.10%0' '$%' 1/),8 '%/2' %0)'4+0+%5')+%'/')%$5' '0' ' $1/%' 6$%0%.),.-' ' 6%(1/,'$' 8 '8 8,//')%5' '66%'$;'.(%G)+%' 0)14%$(/%0<'66'$%.)/2' *&' %'$/,%$' 3$,)%$0' /*.-'3,)+')+%0%'(+'.-%0'%./'$-%;' 8 %.)' .5'5,0)*$),*.' *&')+%' '&&%()%5' 8 %8 4%$')'9%' 6/'(%' 41)' 1.'((*86'.,%5' 3,)+' 0%7%$%' 6',.' ,0(+'$-%0' 0%)' .' 8 *$%' *$'/%00' *&&%.; 0,7%' '((*$5,.-')*')+%'.')1$%' *&')+%' 014>'(%.)' 5%-%.%$'),*.'' .5')+%'/,8 4'4%(*8 %0' .*)' *./2' 10%/%00' 41)' ' 41$5%.')*' ,)0' *3.%$' .')+,0' 8 '..%$')+%' 01&&%$%$' 8 '2'-*' *.'&*$&$*8'*.%')*' &,)%%.' *$' 8 *$%' 2%'$0' 1./%00' $%/,%&' 4% 0*1-+)',.' ' 01$-,('/*6%$'),*.

$4@ ' &F & % " 0$!' -$) * ' $-' -4 34 7 ')4 ' '.)"'#!)$ #'#$4) ' 7' $- ' 5 !$4' .)"' *) "' -- # 3' ! ' 3) ' ! !'$-' ! ' / % ' $ * ' $ ' ! $ 5 .)' 3) ' * # $ ' ##$ * / ' ! ' 7 ' L !') 3)7' $' ! ' 74) $ '$-' ! ' * 7" ' ' * "' + ' 7' ! ' # ' ! . ' + ') #$)7 7' '0' ! . 3' = 7' -$)' .) $4' /) $7' 4/' $' 5 " =' $)' . ' !) "' ")

$ G +%'*((1$%.(%'*&')+%'&1.-*,5' &,/' 8 %.)0',.')+%' 6$*51()0' *&')+%' 5'$9' 7'$,%)2' *&')+%' 5,0%'0%' +'0' ('10%5' 8 '.2' '1)+*$0')*

!' +%/')%$' $%0%'$(+%0' */' $' '$)%$' '.5' *)+%$0' 4 ' 1/2' G ?P@'6' ?' ,.5,('%')+')' 1.-10' ' ,0%'0%',0',5%.),('/3,)+' (),.*82(*0,0' ' &6 ! + '

$%-'$5')+%8' '0')+%' %00%.),'/('10%' *&',)' +%$%' '$%'+*3%7%$'-**5'-$*1.50' &*$' $%>%(); ,.-'01(+' '(*.(/10,*.' '5')+%' 5'$9' &*$ 8' *&')+%' 5,0%'0%' 4%%.')+%' *./2'*.%3,)+' 3+,(+' 3%' 3%$%' '(E1',.)%5')+%$%' 8,-)' +'7%' 4%%.' 0*8%'('10%')*' $%-'$5',)' '0' 51%')*' 6'$'0,),(' '-%.(2' K +%.'+*3%7%$' 3%' &,.5')+')')+%' 6'/%' &*.-'3+,/0)' ('10,.-' ' ')+%' ,8 6*$)'.)' /%0,*.0' 6$%0%.)' ,')+%' *)+%$' 0+*30' '')*)'/' '40%.(%' *&' '/' &1.-*,5' %/%8%.)0',.' ,)0' 6$*; 51()0' 3%' '$%' &*$(%5')*' $%-'$5'01(+' %/%8%.)0' '0' *&'0%(*.5'$2',86*$)'.(%' +%' *./2' 8%'.0' *&' *7%$(*8,-')+,0' *4>%(),*.' 3*1/5' 4%' '' 5%8*.0)$'),*.')+')')+%' 6$*51()0' *&')+%' 6'/%' &*$8' '$%' 51%')*' '' 5%-%.%$'),*.' *&')+%' 4/'(9' 8 '))%$',.')+%' (*1$0%' *&' 3+,(+')+%' &1.-*,5' %/%8%.)0' 5,0'66%'$' *' 01(+'5%8*.0)$'),*.' +'0' 4%%.'-,7%.''.5'*.')+%' (*.)$'$2',)+'0' 4%%.'0+*3.')+')'%'(+'&*$8',0' ('6'4/%'*&'$1.; .,.-' '.' %.),$%/2',.5%6%.5%.)' (*1$0%')+%' -$'51'/')$'.0&*$8'),*.'*&')+%' .*$8'/&')' +'7,.-'4%%.')$'(%5',.')+%' *.5' (' 0%')*')+%' 6$*51(),*.'*&')+%' $*%/,9%' 6'$),(/%0'.'5',.')+%' *)+%$')*')+')' *&')+%' 4/'(9' 8 '00%0',.' 3+,(+')+%' &1.-*,5' %/%8%.)0' '$%' ,8 4%55%5' %$%')+%' 6'/%' &*$8')+%*./2'*.%9.*3.')+% 5,0%'0%' 8 ,-+)' 4%' 5%0($,4%5' '0' ' 8 %$%' 5%; -%.%$')',.*' *&')+%' &'))2'),001%0'2$,)+')+%' $%; 01/)0'(*.0%E1%.)'*.')+%' 6$%0%.(%' *&')+%' 8 *$; 4,5'6$*51()0' *&')+%' 6$*(%00',.')+%' 1$$*1.5; ,.-'6')0H 41)')+,0' %B6/'.'),*.''/)+*1-+'0*' &'$' 66/,('4/%')*')+%' 5'$9' &*$8')*' 3'0' .*' /,-+)'*.')+%' 0*1$(%' *&')+%' &1.-*,5'%/%8%.)0' +%2' '$%' 6$%0%.)',.'8 '00%0' 3+,(+' '$%%.),$%/2' ,0*/')%5',.')+%'),001%0' +'7,.-'.*' (*8 8 1.; (')*.'3,)+'*.%' '.*)+%$' *$' 3>)+')+%' %B)%$,*$' +%$%' ,0' .*' %7,5%.(%' *&')+%,$' 6'00'-%' &$*8' *.%' ('7,)2')*' '.*)+%$G*.')+%' (*.)$'$2')+%2' '$%' '40*/1)%/2',8,)%5')*')+%' (*.)%.)0' *&')+%' ('7,),%0')+%' 8 %8 4$'.*10' 3'//0' *&')+%/')%$' '.5')+%',.)%$7%.,1-',001%0' .%7%$' 0+*3,.-' '.2')$'(%0' *&' '' 06$%'5,.-' 8 2(%/,18' *$' *&' '.2' *)+%$' &1.-'/' %/%8%.)0

001 8,.-')6%' &,/' 8 %.)0')*' 4%' *&' 1.5*14)%5' &1.-'/' *$,-,.')+%' &'()0' 6*.,')' $')+%$')*')+%,$ 0,8 1/)'.%*10' '.5',.5%6%.5%.)' 5%7%/*6 8 %.)' ,'8 1/),6/%'(%.)$%0')+'.')*')+%,$' 06$%' 5'&$*8' *.%')*' '.*)+%$' +%&'()' *&')+%.%(%00,)2' *&' '' 01,)'4/%' 0*,/' *$' .,510',.'' 55,),*.')*')+%' 8 %$%' 6$%0%.(%' *&'-%$8 0',.' *5%$')*' 0%(1$%)+%' 5%7%/*6 8 %.)' *&' *$-'.,0 8 0',0' -%.%$'//2' '((%6)%5' +')' -%$8 0' *&' 8 *0)' 7' $,*10' 9,.50' 8 10)' (*.0)'.)/2'4%',.)$*51(%5',.)*')+%4/**5' ,0' '' 0%/& %7,5%.)' &'()' 1)),.-')+%,$',.)$*; 51(),*.' 42' 8 %'.0' *&')+%' /1.-0' *1)' *&')+% E1%0),*.')+%,$' (*.0)'.)' ,.)$*51(),*.' &$*8')+%' ,.)%0),.'/' (' .'/' (' .' +'$5/2' 4% 5%.,%5')' (' .' 4%' 5%8*.0)$')%5')+')')+%' ,.)%0),.'/ *.)%.)0' '4*1.5' ,.' 7%-%)'4/%' *$-'.,0 8 0G' 06*$%0' 4'(0)%$,'' ^(G#,' '' +7,.-'(*.5,),*.' 0' ,)' ,0' .' '0(%$)',.%5' &'()' +')' 0*/,5'6'$),; (/%0' *&',.*$-'.,(' 8 '))%$' *&' &'$/'$-%$' 0,C%')+'.' 8 '.2' *&')+%0%' -%$8 0' (' .'%.)%$)+%' (,$; (1/'),*.',')' (' .' +'$5/2' 4% 5%.,%5')+')')+%' /')%$' 8 '2' '.5',.5%%5' 8 10)' %.)%$' /0*' ?*' /*.-' '0' 01(+' 4*5,%0' 5*' .*)' 8 %%)' 3,)+' (*.

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&')+%' '// 4/'55%$H A9R %$&$'),*.H' '.5 APR' ,/,'$2' ,0)1/'
' ')'$$+' *&')+%' ,/% 6'00'-%0 G +,0' 5,0%'0%' 7%$2' $'$%/2' -,7%0' *66*$)1.,),%0' &*$'%B'8,.'),*.' '&)%$'5%')+')')+%' 6%$,*5' '&)%$'5%')+')' 3+,(+',)' ,0' (10)* 8 '$2')*' 8 '9%' '%B'8,.'),*.0' ,.')+,0' (*1.)$2' '// $%5.%00' *&')+%' 51()' +'0' 101''//2' 5,0'6; 6%'$%5'H ' .5')+%$%' '$%' /%&)' *./2'03%//,..-' '.5' 6'//*$' *&')+%' 81(*10' 8%84$'.%' 3+,(+',0' (*7%$%5' 3,)+' '')%.'(,*10' -/'002' *$'61$1/%.)' 0%($%),*.' 2')+,0' 03%//,..-' '.5' 0%($%),*.')+%'4*$%'*&')+%'51()',0'*&)%.'-$%')/2'.'$$*3%5H '.5',)' (''.'4%'0%%.')+')' .*' 4,/%'+'0'6'00%5' *7%$' ,)' &*$'0*8%'5'20'' 0' '// (*/*1$'+'0' 5,0; '66%'$%5'&$*8')+%' '&&%()%5'6')' *&')+%')14%' .'>15-,.-'*&')+,0'+*3%7%$'.*' 6$%001$%' 810)' +'7%'4%%.' 8'5%'16*.')+%'-'// 4/'55%$' 51$,..-')+%' %'$+%$' 6')' *&')+%' %B'8,.'),*.' +%0%' '66%'$'.(%0' ')%' 8*0)' 6$*.*1.(%5' ,.')+%' (*8 8*.'51()' '.5')+%'-'// 4/'55%$H)+%2' '$%' -$'51'//2' /*0)' ,.')+%' +%6'),(' 51%)' '.5',)0' 4$'.(+%0' ,.')+%' /,7%$' +%' 6$*(%00' 0%%80' 8*0)' ,.)%.0%' ')')+%' 51*5%.'/'%.5*&')+%'-' 51()' '.5')+%' *$,&,(%' *&')+%' 6'6,//'',)0%/&' ,0' *&)%.'&*1.5'6/1--%5'42'81(10''.'66%'$'.(%' 3+,(+' (%$)',./2'&'7*1$0')+%' .*),*.')+')')+%' (')'$$+',0'6$*6'-')%5'&$*8')+%' 0)*8'(+' '.5' 51*5%.18' +,0',0'4%/,%7%5')*' 4%')+%' (*8; 8*.%0)' 0*1$(%' *&' (')'$$+' *&')+%' 4,/% 51()0')' ,0' '/0*'0%%.',.'.1)8%-/,7%$' '.5'(,$$+*0,0H '.5'')%.5%.(2')*' (+$*.,(' (')'$$+',0' 0%)' 16' 42')+%' 6$%0%.(%' *&' &*$%,-.' 4*5,%0' ,.')+%' 51()0'01(+' '0'-'// 0)*.%0 6 7 G '1.5,(%' ,0' *&)%.')+%' &,$0)' 0286)*8' 3+,(+' 5$'30')+%' '))%.),*.'*&')+%' 6'),%.)')*' +,0' +%'/)+',.''' (0%'*&' (')'$$+' *&')+%' 4,/% 51()0' '/)+*1-+',.''' (%$)',.'.184%$' *&' (' 0%0')+,0' ,0' 6$%(%5%5' 42' 0286)*80' *&' -'0)$,(' 5,0*$5%$'01(+''0'7*8,),..-'*$'0%.0%'*&' 0,(9.%00'/*00' *&' '66%),)%''.5'&1$$%5')*.-1%H *$' *.' =%' *)+%$' +'.5' 42' 5,'$$+*%' ' +%' >'1.5,(%' /'0)0' 101''//2' '4*1)')+$%%' 3%%90' 0*8%),8%0' 0'81(+''0'0,B' *$' %,-+)' 3%%90' &)%$')+,0' 0106,(,*.' 0+*1/5' 4%' '$*10%5' 3+%)+%$' 0*8%)+,.-' 8*$%')+'.' '' 0,86/%' (')'$$+'4%'.*)'6$%0%.) & G +%' 5,'-.*0,0' 5%6%.50' 16*.')+%' '40%.(%'*&' .'26+20,('/0,-.0',.5,(''),..-' *$-'.,(' (+'.-%' ,.')+%' /,7%$H '.5'*.')+%' 6$%0%.(%'*&'-'0)$,(' 0286)*80' +10'.%'$/2' '// ('0%0' *&' 0,86/%'>'1.5,(%' '$%' 5,'-.*0),;(')%5'42'0*8%'6+20,(,'.0''0'('0%0'*&'(')'$$+' *&')+%'4 % 51()0' 0')+%'-$%')%$'.184%$' *&')+%'6'),%.)0'$%(*7%$'7%$2'&%3'*66*$)1.,),%0' '$%'-,7%.'&*$'7%$,&2,..-')+,0'5,'-.*0,0H 41)',.')+*0%' 3+,(+'+'7%'4%%.'%B'88%5'6/1-0'*& 81(10',.')+%' 51()0' +'7%'.*)'..&$%E1%.)/2' 4%%.'&*1.5' +%' (')'$$+' ('10%5'42'-'//; 0)*.%0',0'/*0)'..')+%'>'1.5,(%''.5'6','.''00*; (,')%5')+%$%3,)+ ! G +%')$%')8%.)'0+*1/5'')'&,$0)' 4%'5,$%()%5')*')+%'-'0)$,(' 0286)*80'4%-,.; .,.-'3,)+'''61$-'),7%'&*//*3%5'42''' (*1$0%* &&%$7%0(,.-' '/9'/,.%' 8%5,(,.%0''.5'$%; 0)$,()%5'5,%)' ')%$'*.' 5,/1)%' .,)$*+25$* (+/*$,(' '(,5')'9%.'4%&*$%' 8%'/0',0'*&)%.'7%$2' 10%&)5' ' ,/2'%.%8')''*&*.%'*$')3*' E1'$)0' *&' 3')%$' ')')''')%86%$')1$%'*&'&$*8'D!g')*' P!g')*' 4%'$%)',.%5'0'/*.-'0'6*00,4/%' +'7%'4%%.'$%(*888%.5%5 < ' ' ' M' .'0*8%('0%0'*&')26+10' 5')&6+*,5'&%7%$' '.5',.'*)+%$')26+*,5'0)')%0'),5%-' 51()' '.5'-'// 4/'55%$' ' *$&,//%5' 3,)+'61$1/%.)'&/1,5'*$(*7%$%5'3,)+' (" ' +%' 0'8%')+,.-' 8'2'+'66%.' 3+%.'-'// 0)*.%0''$%',86'()%5',')+%' 51()0' +%'-'// 51()0''$%'0*8%),8%0' '42' &,4$*10'4'.50'6'00,..-'*7%$')+%8' *8%),8%0')+%2'01&&%$''(*.-%.,)'/*4/,)%$'),*.'42')+% *7%$-$*3)+'*&')+%'&,4$*10',001%''$*1.5')+%8 "')$,()1$% G)$,()1$%'*&')+%'-=51%)' ,0'*((0,*.''//2'8%)'3,)+' 01'//2',)',0'00*; (,')%5'3,)+')+%' 6$%0%.(%'*&'-'// 0)*.%0')' 3*,&/5'0%%8'8*0)'6$*4'4/%')+')' ,)' '$,0%0' &$*8',.&/'88'),*.''.5'1/(%$'),*.''*&')+% 51()'6$*51(%5'42')+%')$'.0,)'*$',86'(),*.' *&'%'/(1/' .')+%'*)+%$'+'.5',)',0'6*00,4/%')+*1-+'.*)'6$*4'4/%')+')',)'8'2'4%'6$,8'$2' '.5'42',86%5,.-')+%'%0('6%'*&'4,/%-,7%'$,0%)*'-' 0)*.%0')$,()1$%'*&')+%'-'// 51()' ('10%0'5,/')'),*.'*&')+%'51()0'*$'-'// 4/'55%$' 4%+,.5 ' ,/')',*. G +%'-'// 51()0''.5'-'//; 4/'55%$'4%(*8%5,/')%5'3+%.%7%$')+%$%'%B,0)0' '.'*40)$1(),*.'%,)+%$'6$%00,..-'*.')+%' 51()0' &$*8')+%' *1)0,5%'*$'&*$8%5'3,)+,.')+%8' +%' &,$0)' $%01/',0'5,/')'),*.'*&')+%' 51()0' 4%+,.5')+%' *40)$1(),*.'*' +%'-'// 4/'55%$' 4%(*8%0'81(+'5,/')%5'*&)%.'&,//%5'3,)+' '',(9'-$%%.'4,/%' &')+%' *40)$1(),*.'/')'/*.-')+%8' (*/*1$%5'6')'*&')+%'4,/%',0'*40*$4%5''.5',)0'6/'(%')'9%.'42'' (*/*1$%%0'&/1,5'%,)+%$' 7,0(,5'*$/,86,5' +,0'&/1,5'(*.)',.0'.%,)+%$' 4,/% 6,-8%.)'.*$' 4,/% '(,(50',0'*&)%.'' /41; 8,.*10''.5'(*.)',.0'41.5'.(%'*&'81(10' +%51()0'*1)0,5%)+%/,7%$'8'2'4%%.*$8*10/2' 5,0)%.5%5')',0'(*888*.')*'0%%)+%8''0'4,-' '0')+%'8,55/%'&,.-%$' ,)+,.')+%/,7%$')+%2' '$%'/0*'5,/')%5'41)'.*)')*'0*'-$%')'' 5%-$%%['.5')+%2''$%'8*$%'5,/')%5'*.')+%'/%&)')+'.'*.')+%' $,-+)'0,5%' +%' 5,/')'),*.'*&')+%' 51()0' 8'2'4%(*8%' (20),('.5'0*8%),8%0'8*8/,' &*$8' +%' $,)%$'A ' ' R' +'0'/3'20'4%%.' '4/%)*' &,.5'(*/18.'$'%6,)+%/,18',.')+%0% 5,/')%5'51()0'.'0*8%'('0%0'*&/*.-(*.),.1%5' *40)$1(),*.')+%'(*.)%.)0'*&')+%'4,/% 51()0'4%; (*8%'(*/*1$/%00H',.'*)+%$'('0%0'61$1/%.)H '.5'08'//'40(%00%0'&*$8''$*1.5')+%'4,/%' 51()0''.5'*6%.',.)*')+%8' +%0%'40(%00%0' 8'2'4%'81/),6/%H *$'8*$%'(*888*./2'*./2' ''0,.-/%/'$-%*.%',0'&*$8%5' +%'40(%00%0'*$)+%' 5,/')%5'51()0'8'2'$16)1$%'..)*')+%' 6%$,)*.%18''.5'('10%'^)'/6%$,)*.,),0 ' .(%$ G $,8'$2'(.(%$'*&')+%-'// 51()0'.5'-'// 4/'55%$',0'0*8%),8%0'8%)' 3,)+H *$')+%2'8'2'4%'&&%()%5'0%(*.5'$,/2'0 L' *$%,-.' *5,%0 G *$%,-.'4*5,%0'$%' *((0,*.'//2'8%)'3,)+',.')+%'-' 51()0' +%' 8*0)' (*888*.' *&''//' '$%' *&' (*1$0%'0 " ' 1(+' /%00' (*888*.' '$%' %.)*C*'

01(/,' '0')+%' C ' O ' O '
*$')+%')3 *' 9,. 50' *&' ' %06%(,' 2'
814$,(,
36$* 0 G .' ' /f)+%0%' 5,&&%$%.)' 8 *$4,5'
0)')%0' ,)' ,0' 101' //2' * ./2' 6*00,4/%')*' 0'2' ')'
)+%' 4%50,5%')+ ')')+%' /' $-%' 4,/% 51()0' '$%' *4;
0)$1()%5'H '') . *$%' (* 8 6/%)%' 5,' - . *0,0' ,0' ** 8 '
8 *. /2',8 6*00,4/%' '1. 5,(%',0' ' .', 8 6*$') .)'
02 8 6)* 8 ' '0' 3 ,)+ *1)' ,)' 5,0% '0% &')+%' 4,/%'
51()0' ('. . *)' 4%' 5,' - . *0),(')%5')' ,0' (* 8 ;
8 *. /2' 7%$2' , .)% . 0% ')+%' 1$,. %' 4%, . -' 5%%6/2'
(*/* 1$%5' ' . 5') +%' &0%%%0' E1,)%' (*/* 1$/%00' +%'
%. /'$-% 8 %.)' * &')+%' /,7%$' ,&' 6$%0%.) ' ,0' (* 8 ;
8 *. /2' 1. ,&* $ 8 ')+%' 01$&' (%' 4%, . -' 0 8 **)+'
' . 5')+%' %5 - %0' 3% 5%&, . %5' +%' - ' 4/' 55%$'
8 '2' *&)% . ' 4%' &%/)' ')')+%' %5 - %' *&')+%' $, -+)'/*4%'
'0' '' $*1 . 5%5')1 8 *1$H)+,0' ,0')+%. ' ' 01$%'
0, -. ' * &')+%' 40)$1(),*. ' * &')+%' - '// 51()0' . '
0, 8 6/%' 5,0% '0%0' * &')+%' - '// 51()0')+%$%' ,0' . '
'40%. (%' * &' 06/% . , (')1 8 *1$' * &' '0(,)%0' ' . 5' *&'
)+%$' 02 8 6) 8 0' * &' 6*$)' f *40)$1(),*. ' . '
8 '. 2' ('0%0' + *3%7%$' 5,0% '0%0' * &')+%' /,7%$'
'. 5' * &')+%' - '// 51()0' '$%' 0*' , .), 8 ')%/2' 4*1 . 5'
16')* - %)+%$')+ ')')+%2' ('$ 8 *)' 51$, . -' /,&%' 4%
0%6' $')%5

U G +%' 6$*-. *0,0' ,&' 0, 8 6/%' (';
)' $$+' * &')+%' - '// 51()0' '. 5' - '// 0)* . %0' ('. ' . 4%'
%B(/15%5',0' 1 . &' 7*1$' 4/%
+ G +%')$%')8 %.)' 8 10)' 4%' (*. ;
51()%5' * . ' - %. %$' f 6$, . (, 6/%0
M' . /' $-% 8 %.)' * &')+%' $',/ 4/' 55%$''/(1/,H +*/%/,)+,'0,0H $ '/3/0' 3 g'
+%' - '// 4/' 55%$' ('. . *)' 4%' &%/)' , . ' +%'/)+'
51$, . -' /,&%' 1)' ,)' 8 '2' * &)%. '$%' 5,/2'%. *1 - +'
4%' 8 '5%' *1)' 3 +%$%')+%$%' % ,0)0' '. 2' *40)$1(;
),*. ', . ')+%' (* 8 8 *. ' * $' (20),(' 51()' 0*')+')',)'
4%(* 8 %0' 5,0)% . 5%5' 3 ,)+' &/1,5')' 8 '2' '/0*'
4%' &%/)' 3 +%. ')+%' 3 '//0' 4%(* 8 %' &,4$*10' *$
('/(.&,%5' * 8 $')+%' 0%')' * &' (' . (%$H *$' 3 +%. ',)0'
('7,)2' ,0' &, %5' 3 ,)+' - '// 0)* . %0' ')18 *1$'
8 '2')+%. ' 4%' &%/)' 1 . 5%$')+%' 4*$5%$' * &')+%'
$,-+)' /*4%' * &')+%' 7%$' , . ')+%' 0,)1'),*. ' * &'
)+%' - ' 4/' 55%$' b +%. ' &, %5' 3 ,)+' &/1,5' ''
$*1 . 5%5' 0*8%),8 %0' *4/* . -' 0* 8 %),8 %0' 6%' $'
0+' 6%5')18 *1$' ,0' &%/)H , . ' *)+%$' ('0%0' ,)' + '0'
' . ',$$%-1/' $' 0+' 6%' * $' '' 0* 8 %3+')' $*1 . 5%5'
*1)/,. %' +%' - '// 4/' 55%$' 101' //2' %. /' $-%0'
, . '' 5,$%(),*. ' *4/,E1%/2' 5*3 . 3' $50' ' . 5' &*$;
3' $50' , . '' /,. %' 3 +,(+' 5$' 3 . ' &$* 8') +%') %.)+'
(*0)' f ('$),/' - %' ($*00%0')+%' 8 ,55/%' /,. %' ''
/,))/%' 4%/*3')+%' 184,/,(10' A '2*' U*40*. R'
' -$%')/2' 5,0)% . 5%5' - '// 4/' 55%$' +'0' 4%%. '
8 ,0)' 9%. ' &*$' '0(,)%0' ' . 5')' 66%5' +%' 5,';
- . *0,0' 5%6% . 50' (+,%&/2' *. ')+%' 0,)1'),*. ' * &')+%'
03%//,. - ' ' . 5' %7%. ')+%. ')+%' 5,0)% . 5%5' - '//;
4/' 55%$' 8 '2' 4%' 8 ,0)' 9%. ' &*$' +25'),5' 5,0%' 0%'
*&')+%' /,7%$ 0140)' . (%' *$' * &')+%' * 8 %.)18 ' *$'
&*$' '')18 *1$' * &' '' . %,-+4*1$,. -' *$-' . ' %0;
6%(, ''//2')+%' $,-+)' 9,5 . %2' 3 +,(+' + '0' 6$%00%5'
' - ',. 0)')+%' /,7%$' +%' 5,&&,(1/)2' * &')+%' 5,';
- . *0,0' ,0' 8 1(+', . ($%' 0%5', &')+%' /,7%$' 4%' 8 * 7%5'
&$* 8',)0' . ')1$' f 6/' (%' &*$')+%. ')+%' 6*0,),*. '
* &')+%' - '// 4/' 55%$' 4%(* 8 %0' 1. (%$)' ,. ' ' 8 ;
4%$-%$' 0' 20' +%' + '0' *&)%. ' 8 ,0)' 9%. ' '' 0*&)%. %5'
' (' . (%$*10' . *51/%' 6&')+%' /,7%$' &*$' '' 5,0)% . 5%5'
- ' 4/' 55%$' &',)' 4%' (%$)' ,. ')+ ')' '' &/1()1');
,. -')18 *1$' 4%')+%' - ' 4/' 55%$' ' . 5' . *'>', 8

5,(%' 4%' 6$%0%.)' '' 5,' - . *0,0' 8 '2' 0' &%/2' 4%'
8 '5%' * &'# ' ' ' *$' 5$*602' * &'
)+%' - ' 4/' 55%$H 41)' , &'>' 1 . 5,(%' 4%' 6$%0%.)'
$', &')+%')18 *1$' 5' . *)' &/1()1')%' 41)' '66%' $'
0*/,5')+%$%' '$%')+%. ' . *' 5%&, . ,)%' $1/%0' &*$'
5,' - . *0,0' ' //f 5%6%. 50' 16*. ')+%' 01$$*1 . 5, . -'
&' ()0' * &')+%' ('0%' $*602' * &')+%' - ' 4/' 55%$'
,0' . *)' '' 5' . -%$*10' 5,0*$5%$ ' ' . 5' $%E1,$%0'
. *')$%')8 %.)H 3+,/%')+%' 6$*- . *0,0' ' . 5')$%');
8 %.)' * &')+%' *)+%$' 0)')%0' 5%6%. 5' %.),$%/2' * .'
)+%,$' $%06%(),7%' ('10%0' 1$-,(' f)$%')8 %.)'
,0' . *3' %B)%. 0,7%/2' %8 6/*2%5'
9' %$&*$'),*. G %$&*$'),*. ' * &')+%' - '//;
4/' 55%$' *$' * &')+%' - '// 51()0' ,0' -%. %$' //2')+%'
$%01/' * &' 1/(%$'),*. ' 51%')*' - '// 0)* . %0' , . ;
&/' 8 8'),*. ' ' . 5' *)+%$' ('10%0' ')' f 6%$,;
)* . ,),0' %. 01%0' ,&')+%' 6%$&*$'),*. ' * ((1$' , .)*'
)+%' 45* 8 , . ' f ('7,)2' $%E1%.)/2' +*3%7%$'
6$%7,*10' 5+%0,*. 0'+'7%' 4%%. '&*$8%5'4%)3%%. '
)+%' 4,/,'$2' $%0%$7*,$' *$' 51()' . 5')+%' . %,-+;
4*1$,. -' *$-' . 0' '0')+%' . .)%0),. %' <)')+%'
'45* 8 , . ' /3' ' . 5')+%' $%01/)' * &')+,0' 0G
P' ,/,' $2' ,0)1/' 'G' +,0' 8 '2' %B,0)'
4%)3%%. ')+%' - '// 4/' 55%$' *$' - '// 51()0' . 5'
)+%' 01$&' (%' * &')+%' 4*52')+%' 0)* 8 '(+' (*/* . '
*$' 51*5%. 18' %$2' $'$%/2' - '// 0)* . %0' &, . 5'
)+%, $' 3 '2', .)*')+%' 1$, . '$2')$' ()
' 1 '5 ! ' (' '5 +
23 I '+'! 5 ! ' G' ' ' %6'), ('
8 '5%' * &'# ' ' ' *$' 5$*602' * &'
)+%' - ' 4/' 55%$H 41)' , &'>' 1 . 5,(%' 4%' 6$%0%.)'
$', &')+%')18 *1$' 5' . *)' &/1()1')%' 41)' '66%' $'
0*/,5')+%$%' '$%')+%. ' . *' 5%&, . ,)%' $1/%0' &*$'
5,' - . *0,0' ' //f 5%6%. 50' 16*. ')+%' 01$$*1 . 5, . -'
&' ()0' * &')+%' ('0%' $*602' * &')+%' - ' 4/' 55%$'
,0' . *)' '' 5' . -%$*10' 5,0*$5%$ ' ' . 5' $%E1,$%0'
. *')$%')8 %.)H 3+,/%')+%' 6$*- . *0,0' ' . 5')$%');
8 %.)' * &')+%' *)+%$' 0)')%0' 5%6%. 5' %.),$%/2' * .'
)+%,$' $%06%(),7%' ('10%0' 1$-,(' f)$%')8 %.)'
,0' . *3' %B)%. 0,7%/2' %8 6/*2%5'
9'

8 '// E1' .),),%0' *&')+%' 4,/% ' (,50' '$%' &*1 .5 ' . 5') +%0%' '$%' '/0*' ,. ' (* 8 4, . '),*. ' 3 ,)+' /, 8 % ')' ,0' $' $%')*' &, .5' - '// 0)* . %0' 3 ,)+' ' . 2' /' $-%' ' 8 *, 8)0' *&' ('$4* . ')% *$' 6+*06+ ')% *&' /, 8 % ')+*1-+')+%' '0+' *&' . %' $/2' '/' - '// 0)* . %0' 0+* 30' ' ' /' $-%' ' 8 *1 .)' *&' ('$4* . ')% *&' /, 8 % ')+%' 6$*51()' *&')+%' (* 8 410), *. ' $' (%0' *&' (*66%$' ,$* . ' ' . 5' 8 ' . -' . %0%' '$%' &* 1 . 5', . ' . % ' $/2' '// - '// 0)* . %0 ' , 8 % 0 ' /)0' *&')+%' &'))2' ' (,50' '$% /,9%3,0%' &*1 . 5

, $,* G -%' +' 0' . ' ' 66' $% .)', . &/1% . (%' , . ')+%' 6$*51(), *. ' *&' - '// 0)* . %0')+%2' '$% %B(%%5, . -/2' $' $%' , . ' , . &' . (2' . 5' (+,/5+**5')+%,$' &$%E1% . (2' , . ($% ' 0%0' '&)%$')+%' '-%' *&' 614%$)2' ' . 5')+%2' 4%(* 8 %' 0), // ' 8 *$%' (* 8 8 *. ' '&)%$')+, $)2 ' * 8 %. ' '$%')+*1-+)')*' 4%' 8 *$%' /, ' 4/%')+' . ' 8 %. ')*' -'// 0)* . %0' . ' ('. (%$' *&')+%' /, 7%$' -'// 0)* . %0' '$%' (%$)', . /2' %$2' (* 8 ; 8 *. /2' &*1 . 5' 3 +, /%' *. ')+%' *)+%$' +' . 5', . ' (,$$+*0, 0')+%2' '$%' 0('$(%/2' %7%$' 0%%. ' ' .)' *&' 6+20, (' /' %B%$(, 0%' ' . 5', . 51/-%. (%' , . ' $, (+' 5, %)' 0%% 8')*' &' *7*1$')+%, $' 6$*51(), *.

H 0$ $ " G +')', 0')+%' (' 10%' *&')+%' &, $0)' W &*$ 8 '), *. ' *&' ' - '// 0)* . %']')', 0' . *)' 0, 8 6/2' (* . (%.)$'), *. ' *&')+%' 4, /%' 0, . (%')+%' %+*/%0)%$, . ' . 5' 6, -8 %.)' $% 8 ', . ' , . ' 0*/1), *. ' 0*' /* . -' '0')+%' 4, /%', 0', 8 (+' . -%5H' 41)')+%' 4%-, . , . , -' *& 5%(* 8 6*0,), *. ' *&')+%' 4, /% ' (,50' (' 10%0' '' 6$%; (, 6,)', *. ' +%' %+*/%0)%$, . ', 0' /, 9% 3, 0%')+$* 3 . ' 5* 3 . ' 3 +%. ')+%' $% ' (), *. ' *&')+%' 4 %' (+' . -%0' &$* 8 ' '/9' /, . %')*' ' (,5' *$16 %0' . %C' . 5' $ ' +15, (+18' +' 7%9%6)' 4, /%' 0%7%$' /' 8 *.)+0' ' . 5' &* 1 . 5')+%' $%' (), *. ' ')')+%' %. 5' *&')+'), 8 %' (, 5' 3,)+' . ' '41 . 5' .)' 0%5, 8 %.)')', 0')+10' 6$*4' 4/%')+')')+%' $%)%.), *. ' *&' 4, /%', . ')+%' -'// 4/' 55%$' *$ -'// 51()0' &' 7*1$0')+%' &*$; 8 '), *. ' *&')+%0%' (*. ($%), *. 0')', 0' '/0*' 6$*4; '4/%')+')' -'// 0)* . %0' 8 ' 2' 4% 5, 00*/7%5' 6$*4;)' . %*10/2' '0' %$*0, *. 0' '$%' 0* 8 %), 8 %0' 0%%. ' *. ')+%8 H' *$')+%2' 8 ' 2' 4$%' 9' 16' ' . 5')+10' 6' 00' *1)

! (! G ' 0)* . %0' 3 +, /%' 0), // ' , ')+%' -' 4/' 55%$' $' $%/2' -, 7%' ' . 2' 0, . - . 0' *&')+%, $' 6$%0%. (%' +%2' '$%' &$%E1% .)/2' &*1 . 5' , ')+%' -' 4/' 55%$0' *&' 6%$0*. 0' 3 +*' 51$, . -' /, &%' +' 5' . *' 02 8 6)* 8 0' 3 +, (+' (*1/5' 4%' $%&%$$%5')*')+%' /, 7%$')', 0' 3 +%. ')+%2' 4%-, . ')*' /%' 7%')+%' -'// 4/' 55%$' ' . 5' %0(' 6%' , .)*')+%' (20), (' ' . 5' (* 8 8 *. ' 51()')+')' 02 8 6)* 8 0' '$, 0%' *&' -'//; 0)* . %' (*+*' +%2' *&)%. ' 4%-, . ' 3 ,)+' ' 51// 6', . ' . %' $')+%' /, 7%$' 3 ,)+' 7* 8 ,), . - ' $, -*$0' ' . 5' %/%7'), *. ' *&')%8 6%$')1$%' ' *$' E1,)%' 015; 5%./2' ' 0%7%$%' 6', . ' , . ')+%' $, -+)' +26*(+*. ' 5$, 1 8' (* 8 %0' *. ' 5%0($, 4%5' '0' 0+**), . -' 0)' 44, . -' 41$. , . -' ^(' +%' 6', . ' %B)%. 50' , .)*')+%' %6, -'0)$, 1 8' $' $%/2')*')+%' /%&)' +26*' (+*. 5$, 1 8')*')+%' $, -+)' 0+*1/5%$' ' . 5' '((*$5, . -')*' 0* 8 %' 7%. ', .)*')+%' %B)$% 8,), %0' +%' 6', . ', 0' 7%$2', .)%. 0%' ' . 5' 8 ' 2' -, 7%' $, 0%')*' 5%/, $, 1 8' ' . 5' (*. 71/0, *. 0' , . ' . %$7*10' 6%$; 0*. 0' *$' +20)%$, ('/' '))' (90' , . ' 3 * 8 %. ' * 8 ,), . -' , 0' 101' //2' 6$%0%.)H' . 5' '0')+%' '))' (90' 8 *0)' *&)%. ' (* 8 %' *. ' '&)%$' %'), . -' ')' &, $0)' *. /2')+%' &**5')' 9%. ' , 0')+$*3 . ' 16' ' . 5')+%. ' '' (*/*1$/%00' 8 1(10' +%' $, -+)' +26*' (+*. 5$, 1 8' , 0' 101' //2' 7%$2')%. 5%$' ' . 5')+%

8 10(/%0' '$%' $, -, 5' +%' 6 /0%' '0' ''$1/%' , 0' . *)', . ($%' 0%5' , . ' &$%E1% . (2' 4%, . -' , . 5%%5' $')+%$ 4%/*3')+' . ' *4*7%')+%' . ')1$' /' . 18 4%$' ' 7, *. /%.)'))' (90')+%' 61/0%' 4%(* 8 %0' 7%$2' &$%; E1% .)' . 5' 0 8 '//' *$' /8 *0)', 8 6%$(%6), 4/%H')+%' %2%0' '$%' 01$$*1 . 5%5' 3,)+' 5' $9' 8 '$90H')+%' . *0%', 0' 6*, .)%5H')+%' 4$%')+', 0' (**/H' . 5' (*/5' 0 3%')0' 4$%' 9' *1)' *7%$')+%' 4*52' . ')+', 0' 0)' %' 5%')+' 8 ' 2' *((1$' 41)',)' , 0' '' $' $%' %7%.)' ' &%3' +*1$0' '&)%$')+%' '))' (9')+%' (*. >1 . (), 70%' 8 ' 2' 0+*3' ''2%//*3'), . -%' 3+, (+' 3, //-$' 51' //2' 06$%' 5' &$*8')+%' 166%$' 6')$' *&')+%')$1 . 9' ', /' *7%$')+%' 4*52' +%' >', 85, (%' , 0' 8*$%' *$' /%0' , .)%. 0%' '((*$5, . -')*')+%<0+'6%' *&')+%' -'//; 0)* . %G 3+%)+%$' (* 8 6/%)%/2' *40)$1(), . -')+%' 51()' *$' 8 %$%/2' ('10, . -' '' +, . 5$' . (%')*')+%' 6' 00' -%' *&')+%' 4, /%' . ' 0* 8 %' *' 0%0' >' 1 . 5, (%' 8 ' 2' 4%' '/)*-%)+%$' 3 '.), . -' '0' 3+%. ')+%' 0)* . %', 0', . ')+%' (20), (' 51()' +%' >' 1 . 5, (%' 8 ' 2' /' 0)' ' . ' . 5%&, . ,)%'), 8 %' +%' 51$')*. ' *&')+%' ''))' (9' *&' (*/, (' ,)0%/&' 7' $, %0' 101' //2' . *)' /' 0), . -' 8 *$%')+' . ' '' &%3' +*1$0',)' 8 ' 2' %B)%. 5' *7%$' 0%7%$' /' 5' 20' 0 0*' . ' '0')+%' -'// 0)* . %' $%' (+%0')+%' 51*5%. 18')+%' '))' (90' '$%' *7%$')+%' 0)**/0' 4%(* 8 %' 5' $9' ' . 5')+%' >' 1 . 5, (%' 4%-, . 0')*' 5, 0' 66%' $' +%. ')+%' -'// 0)* . %0' $%' (+')+%' , .)%0), . %')+%2' '$%' (* 8 ; 8 *. /2' %7' (1')%5' 3,)+')+%' &' %(%0H' 0* 8 %' (' /%0' +' 7%' +*3%7%$' 4%%. ' $%(*$5%5', . ' 3+, (+')+%2' 3%$%' 0*' /' $-%')+')' 02 8 6)* 8 0' *&' , .)%0), . =' *40)$1(), *. ' 3%$%' ('10%5' . 5' 5%')+' $%01/)%5' ' -'// 0)* . %' 1/(%$'), . -',)0' 3 ' 2', .)*')+%' , . ;)%0), . %' 8 ' 2' -, 7%' $, 0%')*' +'%8*$%+' -%' &$* 8')+%' 4*3%/0')+%$' $' $%' 02 8 6)* 8 0' '$%' *(; ('0, *. '//2' '00*(, ')%5' 3,)+' -' 0)* . %0' '0', . ;)%$ 8,))%.)' 62$%B, ' ' -/2(*01$, ' ' . 5' %. /' $-%; 8 %.)' *&')+%' 06/%%.

& " +%' 5, ' - . *0, 0' *&' - ' 0)* . %0', 0' *&)%. ' 8 *$%' *$' /%00' 5, &&, (1/)' *8 %' 6+20, (, ' . 0')+, . 9')+')')+%' 5, ' - . *0, 0' 0+*1/5' . *)' 4%' 8 ' 5%' 1 . /%00')+%' (*. ($%), *. 0' 4% &*1 . 5', . ')+%' 0)**/0H' . 5')+%' 0%' $(+' &*$')+%8' 0+*1/5' 4%' 8 ' 5%' 42' 6' 00, . -')+%' &%(%0')+$*1-+' ' 0, %7%')', 0')+*1-+)' 42' 8 ' . 2')+')',)' ('. *)' 4%' 8 ' 5%' , &')+%$%' 4%' . *'>', 85, (%' 6$%0%.)' .')+%' *)+%$' +' . 5',)' +' 0' 4%%. ' 6$*7%5')+')' 0%7%$%' ' . 5' %7%. ' & ')' /' '))' (90' +' 7%' *((1$$%5' 3,)+*1)')+%' *((1$$%. (%' *&' >' 1 . 5, (%' *$' 5, 0(*/*$'), *. ' *&')+%' &%(%0' %(1$$%.)' '))' (90' *&' 0%7%$%' 006' 0 8' ', . ')+%' $, -+)' +26*(+*. 5$, 1 8' *$' %6, ; -' 0)$, 1 8' 0+*1/5' ' 3' 9%. ' '' 0106, (, *. ' *&' -, ' 0)* . %0' %7%. ', &' . *'>' 1 . 5, (%' &*' *3')+%'))' (90' %$0, 0)%.)' >' 1 . 5, (%', 0' (+' $')(%$, 0), (*&' (' . (%$' $')+%$')+' . ' *&' -' 0)* . %0')+*1-+)')+%')3*' 8 ' 2' (* %B, 0)' ' . (%$' *&')+%' +%' 5' *&')+%' 6' . ($%' 0' 8 ' 2' $%' 5, /2' 4%' 8, 0)' 9%. ' &*$' -' ' 0)* . %0', . ')+%' (* 8 *. ' 51()' G)', 0' '/8 *0)', 8 6*00, 4/%')*' 8 ' 9%' ''), $10)3 *$)+2' 6$*-. *0, 0' . ')+%0%' (' 0%0' +%' 6+20, (, ' . ' (' . ' . %7%$' 06%' 9' (*. &, 5%.)/2' *$' &%%/' E1,)%' +' 662' 3+%. ')$%'), . -' ' ' ('0% 3+, (+'+%/**90' 16*. ' '0' *. %' *&' -' 0)*. %0

! +%')$%')8%.)' *&' -' 0)*. %0' 8 ' 2' 4%' 5, 0(100%5' 1 . 5%$')3*' +%' 50' 51$, . -')+%' 6' $*B20 8' *&')+%' (*/, (H' . 5' 4%)3%%. ')+%' '))' (90

C2 "0' # ' (')+%' *4>%()',0')*' $%; /,%7%' 6',1' +,0' 8 '2' 4%0)' 4%' 5*.%' 42' &1//' 5*0%0' *&' 8 *$6+,. %H ' .5' ,&')+,0' 4%' $%>%()%$0' 42' 7* 8 ,),. - ' ,)' 8 '2' 4%' '58,. .0)0%$%5' +26*; 5%$8,('//2' ' %//'5*. . '' 8 '2' '/0*' 4%' 10%5' +%'6'),%.)' 8 '2' 4%'61)' ,. ' '' 3 '$8' 4')+' '.5' 9%6)')+%$%')+%'+%')'4%,. -' 8 ',.)',. %5'42')+%' $%.%3'/ *&')+%' 3 '$8' 3')%$' +*1/5')+%0%' 8%'.0 &',/' (+/*$*&*$8' *$ %)+%$' 8 '2' 4%' ,. ; +'/%5

$ 2 "' # ' - '*&'4,/,'$2'(*/,('5,%),. -' ,0'*&' -$%')' ,86*$)'.(%' ,8,),. -'*$' 6$'(),; (''//2'%B(/15,. - '0'((+'$,.%' .5'&')),0' 4%' $%>0'3+,(+' 3%$%' 6$%7,*10/2' &$%E1%.)' ' -$%')' .184%$' *&' $%8%5,%0' +'7%' 4%%.' 6$*6*0%5')+%' 8*0)' 6*61/'$',0' 1$'.5%<0'3+,(+' (*. ; 0,0)0' *&')+$%%'6')0' *&%)+%$' .5')3*'6')0' *&')1$6%.),. %H)+%' 4%0)' 6/'.',0')*' -,7%' 8H')*' <H' 8,.,80' *&')+,0' 8,B)1$%')+$%%'),8%0' '' 5'2' %.(/*0%5',.'('601/%0' *$'6%'$/0' +%' %$8'.' 6+20,(,'.0' +'7%' -$%')' (*.&,5%.(%',.')+%' '/; 9'/,.%' 8,.%$'/ 3')%$0' %06%(,'//2' '$/04'5' *8%')+,.9')+%' 4%.%&,)',0'51%' 0,86/2')*')+%' /'$-%' 8*)8)'*&'3')%$'5',/2',.-%0)%5'('10,.-' ''/'$-%'&/*3'*&'4,/%' ')%/2' '.'*/5'6/'.'*&')$%')8%,/)0)$'),'.'*&' /'$-%'5*0%0' *&' */,7%' *,/' '0' 81(+'0'0,B')*')3%/7%'*1.(%'4%,.-',7%.'&*$ '' 5*0%' */,*3,.-')+%' '58,.,0)$'),*.'*&')+%' *.'.18%$*10' (*.($%),*.0'+'7%'4%%.'&*1.5',.')+%'0)*/0'3+,(+'+'7%'4%%.'8,0)'9%.'&*$-'//; 0)*.%0' +%2'+'7%'+*3%7%$'4%%.'6$*7%5')*' (*.0,0)' *&'.%1)$'/ &')0' '.5'&$%%' &'))2' '(,50' W3,)+'0 8 '//6$*6*$),*.'*&'(+*/%0)%$,.' +*1-+')+%' *,/ 5*%0' .*)'0*&)%.'.5' 4$,.-H '3'2' -'//; 0)*.%0' '0',8'-,.%5'2%)'1.5*14)%5'$%/,%&',0' 0*8%),8%0' '&&*$5%5'3,)+'5,8,.1),*.',.')+% 0,C%'*&')+%'03*//%./,7%$' $' %*6-%' '$/%2' '57*(')%0' %B)$10,*.'*&'-'// 0)*.%0' 4/*(9,.-')+%' 51()0' 42' 5,-,)'/' .,',.61/'),*.' +%' *40)$1(),*.'+'0',' 0*8%'('0%0' 4%%.' *7%$; (*8%' 42')+,0' 8%'.0' 41)',)',0')$%')8%.)' 3+,(+' 0+*1/5' 4%' ('$$,%5' *1)' *./2' 3,)+' -$%')' ('$%' .5'-%.)/%.%00' '0')+%' -=51%)' ,.&/'8%5'0*&)%.%5' .5'1/(%$')%5' 42')+% 6$%0%.(%'*&'')0)*.%'8,-+)'4%'$16)1$>%5'42')+%' &*$(,4/%'8'.,61/'),*.' .'('0%0'*&'%./'$-%5' -'// 4/'55%$' &$*8'-'// 0)*.%0' *$' $%6%')%5' ''))'(90'*&'0%7%$%'6',.',.')+%'+%6'),('$%-,*.' W3,)+'*$'3,)+*1)'>'1.5,(%'*$'01661$'),*.'*&')+%' -' 51*)0')+%' ,5'*&'' 01$-%*.'0+*1/5' 4%'*4)',.%5'3,)+' '' 7,%3')*' .'%B6/*$')*$2' *6%$'),*.'*$'(+*/%(20)*)*82' +%' ('0%0' $%; (*$5%5'3+%$%')+,0'.5*)+%$'*6%$'),*.0'*.')+%' -'// 4/'55%$' .5'51()0'+'7%' 4%%.' 6%$&*$8%5' >10),&2''+*6%')+')',' &1)1$%' 8'.2',/,7%0'3,//4%'0'7%5'3+,(+'3*1/5'3,)+*1)'*6%$'),7%',.;)%$&%$%.(%'4%'/*0)')+%$'9,.50'*&')$%')8%.)' $%(*88%.5%5''$%'42'61$-'),7%0''0'('0)*$*,/' *$'42')'$'0'(18'*$5,/1)%5',.)$*+25$*(+/*$,(' ',5' 8%),(0'+'7%'4%%.'%86/*2%5'41)')+%2''$%'5'.-%$*10'*.''((*,8)'*&')+%'0)$',.; ,.-'3+,(+')+%2'('10%''.5'3+,(+'8'2'/%'5')*')+%'$16)1$%'*&''7%00%/

' & ' . ' 7$ ' & 1

/,$ '

'6*61/'$'.'8%&*$6+)+,0,0'3+%.',)'$1.0'.' '(1)%'*$'$'6,5'(*1$0%' %%:

' 0%0'*& ? ' /)' # D'*' '

' +)'''+'$5' -')+%$; ,.-R G +,0')%$8',0' '66/,%5')*' '' 7'$,%)2'*& 0*8%3+')' 5,&&%$%.)' '&&%(),*.0' ,.(/15,.-'H ' +%' ' -'.-/,*.' +,0',0'' (20),(')18*1$&*$8%5',.'(*..%B,*.'3,)+')+%'0+%')+' *&''')%.5*.' @' +%' 2'' *$' ' -'.-/,*.'3+,(+'(*.0,0)0'*&''(+$*.,(%&&10,*.' ..)*')+%'(*88*.'0+%')+' *&'' -$*16'*&')%.; 5*.0',7,..-' $,0%')*' '' &/1()1')',.-'03%//,..-' .%'7'$,%)2'*&')+,0'(*.)',.0')+%'0*('//%5' 8%/*.0%%5/,9%'4*5,%0'"'' +%')%$8',0'%B;)%.5%5'42'0*8%'3$,)%$0)*'%./'$-%8%.)0'*&')+% 41$0'0'81(*00%' ' 1.0[' ,0%'0%0'*& ' ,86/%' .-/,*.G8- o 2' +%' 0,86/%' -'.-/,*.'&*$80' '' $*1.5%5')18*1$'*((0,*.'//2'/*41/')%5',.')+%',88%; 5,')%.%,-+4*1$+**5' *&'0*8%)%.5*.' +% 8*0)'(*88*.'0,)1'),*.0'$%')+%'5*$018'*&')+%'+'.5')+%'5*$018'*&')+%'&**)')+%'6'/8'*&)+%'+'.5')')+%'$**)'*&''&,.-%$'.5'4%+,.5')+%'*1)%$'*$')+%',..%$'8'//%*/10' +%)18*1$' 7'$,%0',.'0,C%'&$*8''6%'')*''6,-%*.0'%-.')'8'2'&/1()1')%'5,0),.()/2'*$4%'0*')%.0%' '0')*'0%%8'0*/,5')',0'.*)'5+%$%.)')*')+%'09,.'*$')*')+%)%.5*.'3,)+'3+,(+',)',0' ,.'$%/')',*.')',0'.%00'41)'*&)%.'-,7%0' $,0%')*''0%.0%'*&'3%'9.%00',.')+%''&&%()%5' 6'$)' +%'3'//',0'(*86*0%5'*&''8*$%'*$'/%00' 5%+(')%'&,4$*10'),001%'&10,.-'3,)+')+%'01$; $*1.5,.-''$%*/'$'),001%''.5'/,.%5'42'.' ,86%$&%()'/'2%$'*&'%.5*)+%,'/(%//0')0'(*.;)%.)0''$%'8*0)'101''//2'0%8,0*/,5'/,9%''66/% >%//2'41)'0*8%),8%0'&/1,5H)+%2''$%'0',5')*' 4%'.%,)+%$''/418,.*10'.*$'-%/'),.*10'41) (*//*,5',.'(+'$'()%$' 0')*')+%'%B'()'.')1$%' *&')+%)18*1$'*6,..*.0'5,&&%$'.5'6$*4'4/2' ,)',0'.*)'/3'20')+%'0'8%')',0'0',5')*''$,0%' .-')+%'&*//*3,.-'3'20' 0)' 2''' +%$.,'/ 6$*)$10,*.'&$*8')+%'0+%')+''*&''),%.5*.')+% .%(9'*&'34,(+'4%(*8%0'-$'51'//2'(*.)$'()%5' '.5&,.'//2'(/*0%5'0*'=7,.-'$,0%)*''(20)',.' ,.),8')%'(*..%B,*.'3,)+')+%'0+%')+'<.5' *00%/8'+'0'5%0($,4%5'08'/'&*//,(/%0'*$ 014 02.*7,'/($26)0'3+,(+'+%'4%/,%7%0'8'2' 4%(*8%'5,/')%5'0*'0)*'&*$8'-'.-/,''"$5' +%)18*1$'8'2'4%''(20)'*&'%.),$%/2' .%3'&*$8'),*.

G ',.),.-'3,)+',*5,.%',0'*&' /,))/%'*$'.*'10%'*$(,4/%'$16)1$%'*&')+% (20)'42''4/*3'*6%001$%'0*8%),8%0'%&&%()0' '(1$%' +%'4%0)')$%')8%.)',0')*'61.()1$%')+%')18*1$'3,)+'(/%'.'-$**7%5'.%%5/%''.5')*'0E1%%C%'*1)')+%'(*.)%.)0''&)%$3'$50' '66/2,.-'6$%001$%'*$''4/,0)%$'*7%$')+%'(*/; /'60%5'(20)'+,0')$%')8%.)'8'2'$%E1,$%)*' 4%'$%6%')%5'8*$%')+'.'*.(%

@' *86*1.5'*$',&&10%''.-/,*.G' & ' (G=+,0 5,0%'0%',0''/8*0)'%B; (/10,7%/2'(*.&,.%5')*')+%'0+%')+'*&')+%'(*8; 8*.'&/%B*$0'*&')+%&,.-%$0')'8'2'(*.0,0)'*&

'‘ ‘ ‘ ‘)+,0‘ 0+%')+‘ &*$8,.-‘ '.‘ +*1$-/'00 0+'6%5‘03%//,.-‘,.‘)+%‘&$*.)‘*&‘)+%‘ 3$,0)‘)+%‘(*.0)$,(),*.‘4%,.-‘('10%5‘42‘)+%‘ '..1/'$‘/,-'8%.)H‘*$‘,.‘*)+%$‘('0%0‘)+%‘)18*1$‘8‘2‘(*.)',.‘8%/*.0%%5 9%‘4*5,%0‘ 3+,(+‘-,7%‘$,0%‘)*‘‘0%.0%‘*&‘0*&)‘($'(9/,.-‘ 3+%.‘,)‘,0‘8‘.,61/')%5‘ +%0%‘8%/*.0%%5‘ 4*5,%0‘'$%‘08**)+‘*7‘/‘.5‘&/'))),0+‘..‘0+'6%‘ '.5‘*&‘‘6%'$/2 3+,)%‘(*/*1$‘ +%2‘'$%‘*&‘ '/8*0)‘('$),/'-,.*10‘)*1-+.%00‘.5‘*.‘0%(H‘),*.‘6$%0%.)‘.‘ ‘66%'$'.(%‘*&‘(*.(%.)$,(‘ /'8,.'),*.‘ .5%$‘)+%‘8,($*0(*6%‘)+%2‘'$% &*1.5‘)*‘4%‘ (*86*0%5‘*&‘7%$2‘,86%$&%()‘ &,4$*,5‘),001%‘ +%,$‘*$,-,.‘,0‘0*8%3+')‘ 5*14)&1/‘ +%2‘+‘7%‘4%%.‘0166*0%5‘)*‘4% 51%‘&,$0)‘)*‘+26%$)$*6+2‘*&‘)+%‘&,..-%0‘.*$; 8‘//2‘&*1.5‘*.‘‘‘02.*7,‘/‘8%84$'.%‘)+%‘ 6%51.(1/')%5‘6$*>%(),*.0‘0*‘&*$8%5‘4%,.-‘ 1/),8')%/2‘4$*9%.‘/**0%‘42‘)+%‘8*7%8%.)‘*&)+%‘)%.5*.0H‘0%(*.5/2‘)*‘)+%‘&*$8‘),*.‘*& 6%51.(1/')%5‘3‘$)2‘*1)-$*3)+0‘*.‘)+%‘02.*; 7,‘/‘8%84$'.%‘3+,(+‘4%(*8*‘&$%%‘,.‘)+%‘ 0‘8%‘3‘2H‘),$5/2‘)*‘&,4$,.*10‘5%6*0,)0‘)‘9,.-‘6/'(%‘&$*8‘)+%‘&/1,5‘,.‘)+%‘-'.-+*.H ‘.5‘&*1$)+/2‘)*‘)+%‘$%01/)0‘*&‘((,5%.)‘/ +&&,8*$$+'-%‘ +%.‘)+%0%‘4*5,%0‘'$%‘'41.; 5'.)‘)+%‘&/1,5‘,0‘101‘//2‘0(‘.)2

=,*.*)‘G‘%(%.)‘*40%$7'),*.0‘+‘7%‘ 0+%3.‘)+')‘,.‘)+%‘-$%')‘8‘>*$,)2‘*&‘%‘0%0‘,& .*)‘,.‘‘//‘)+%‘(*86*1.5‘-'.-/,*.‘*&‘)+%‘ 3$,0)‘,0‘‘(+$*.,(‘)14%$(1/'$‘‘&&%(),*.‘*&‘)+% 02.*7,‘/8%84$'.%‘ ‘.2‘(‘0%0‘+‘7%‘4 %.‘ $%(*$5%5‘,.‘3+,(+‘,)‘3‘0‘‘00*(,‘)%5‘3,)+‘)14%$(1/'$‘5,0%‘0%‘*&‘)+%‘('$610‘41)‘3+,(+‘ 3‘0‘)+%‘6$,8‘$2‘‘&&%(),*.‘,0‘.*)‘(%$)',.

! G +%‘)$%')8%.)‘*&‘(*86*1.5‘ -'.-/,*.‘,0‘1.0‘),0&‘()*$2‘ *5,.%‘,0‘.0%/ 00‘ 06,$‘),*.‘&*//*3%5‘42‘)+%‘,.>%(),*.‘*&‘,*5,.% +‘0‘*((‘0,*.‘//2‘4%%.‘*&‘0%$7,(%‘ .‘8,(,0,*.‘ 8‘5%‘,.)*‘%‘(+‘%.5‘*&‘)+%‘)18*1$‘&*//*3%5‘ 42‘5$‘,.‘-%‘1.5%$‘ '.),0%6),(‘ 5$%00,.-‘,0‘ *&)%.‘*&10%‘ .‘%B)$%8%‘(‘0%0‘28%‘$%(*8; 8%.5%5‘/'2,.-‘)+%‘3+*/%‘('7,)2‘*6%.‘''.5‘ ‘//*3,.-‘,)‘)*‘-$'.1/')%‘ +,0‘‘/3‘20‘/%&)‘ 81(+‘0),&&$%00‘,.‘)+%‘)%.5*.0‘ +%.‘8%/*.‘ 0%%5‘4*5,%0‘‘$%‘6$%0%.)‘)+%2‘810)‘4%‘$%; 8*7%5‘42‘,.(,0,*.‘.‘5‘)+%‘('0%‘)$%')%5‘ '.),0%6),(‘//2‘‘0‘0%6),(‘01668‘),*.‘ *1/5 ‘/8*0)‘(%$)‘,./2‘/%'5‘)*‘,86/,(‘),*.‘ &‘)+% ‘

2 3 5 2 &‘ N ‘ "!‘ ! !A *‘ ‘ ? ‘ !(‘ !)‘ ,0%‘0%0‘$-

2 3 5 2 ‘ 5 ‘ ‘ " ‘ ‘ (*$$*5%R G‘ ‘g *$),&,(‘),*.‘% 6+‘(%/10% $‘2 -‘ 0 " g %$‘ ‘$ "

& # G ‘.-$%.%‘,0‘)+%‘‘$$%0)‘*&‘)+% &1.(),*.0‘*&‘*$-‘.,(‘/,&%‘,.‘ ‘‘(,$(180($,4%5‘ 6*$),*.‘*&‘10%‘ .‘%B)$%8%‘(‘0%0‘)‘6‘$)0‘*&‘)+%‘4*52‘/%‘5,..-‘)*‘)+%‘(*86/%)%‘5%‘)+‘*&‘)+%‘0‘8%‘)‘,8; 6/,%0‘5%0).,(),*.‘*&‘‘‘(*.0,5%$‘4/%‘ ‘$%‘‘*&‘),001%‘ "‘ ‘‘0‘5,0),..-1,0+%5‘&$*8‘8*8*/%; (1/'$‘5,0,.)%-$‘),*.‘*$‘1/(%$'),*.

+%‘ 3+*/%‘ 6$*(%0‘*&‘5%')+‘ ,0‘ ,.(/15%5 1.5%$‘)+%‘)%$8‘0-'.-$%.%<H‘)+%‘$%01/)‘4%,.-‘ 8*$),&,(‘),*1‘0/*1-+,.-‘*$‘ .%($*0,0‘*&‘)+% ,.7‘5%5‘),001%‘*$-'.‘*$/,84

$ # ' ‘ G‘ 3" ‘ -'.-$%.%‘ 7‘$,%0‘-$%')/2‘‘((*$5,..-‘)*‘ ,)0‘ 6*0,),*.‘ ('10%‘%B)%.)‘)+%‘6*3%$0‘*&‘)+%‘6'),%.)‘‘.5‘)+%‘%B,0)%.(%‘*&‘(*86/,(‘),*.0‘ +%‘5,0%‘0%‘ 8‘2‘ ‘/0*‘ 4%‘(/'00,&,%5‘ 3 0 ‘ ‘.5‘ # 0 ‘ ,.)*‘ " " ‘ *$ ‘ 3 ‘5$2‘*$ ‘ # " ‘*$ ‘0 "7 0 " ‘ " ‘ 0 "0 " ‘ ‘.5‘# ‘0 "7 0 " ‘ +%‘5,7,0,*.‘,.)*‘5$2‘.5‘8*,0)‘ -'.-$%.%‘ ‘/)+*1-+‘(*.7%..%.)‘+‘0‘,))/%‘ 6')+*/*-,(‘/‘0,-.,&,(‘.(%‘4%,.-‘&*B85%5‘*.‘ 6+20,(‘/‘(+‘$‘()%$0‘ *)+‘5,2‘‘.5‘8*,0)‘ -'.-$%.%‘8‘2‘‘$,0%‘&$*8‘0,8,/‘$‘('10%0‘‘.5‘ (*%B,0)‘%7%.‘,.‘5,&&%$%.)‘6‘$)0‘*&‘)+%‘,.7‘5%5‘ 0)$1()8%0H‘.5‘&)‘(‘..*)‘‘/3‘20‘4%6$%5%)%$; 8,.%5‘3+%)+%$‘‘‘-'.-$%.%‘0+‘//‘4%‘*&‘)+% 5$2‘*$‘*&‘)+%‘8*,0)‘&*$8‘ $2‘-'.-$%.%‘,0‘ 101‘//2‘5%6%.5%.)‘*.‘0%.,/%‘(+'.-%0‘(+,%&/2‘ ‘$)%$,‘5%-%.%$‘),*.H‘.‘.5‘,0‘8*$%‘/,8,)%5‘.‘ %B)%.)‘.‘5‘(+$*.,(‘.‘6$*-$%00‘ +%‘6‘$)% &,$0)‘‘&&%()%5‘+‘7,.-‘),8%)*‘5$2‘6‘0‘)+%‘5,0; %‘0%‘.7‘5%0‘)+*0%‘‘5>‘(%.)‘4%(*8%8188,; &,%5‘+‘$5‘‘.5‘4/‘(9‘$%0%84/.-‘)+%‘91(9/% *&‘‘ 6‘.,0+‘+‘8‘ *,0)‘-'.-$%.%‘*((1$0‘ &$*8‘7%.*10‘*40)$1(),*.H‘.5‘3+%.‘‘/‘$-% ‘$%‘‘*&‘,7,.-‘),001%‘0155%./2‘8*$),&,%0‘8*$%/ %06%(,‘//2‘,&‘)+‘ %4%.‘6$%7,*10/2‘,.&/‘8%5‘ *$-*$-%5‘3,)+‘&/1,5‘)+%‘5%‘5‘6‘$)0‘4%(*8% $‘6,5/2‘)$‘.0&*$8%5‘,.)*‘‘5%/,E1%0(.)‘61)$,5‘ 8‘00‘,.&,/)$')%5‘3,)+‘-'0‘‘ *‘)+,0‘)26%‘4%; /*.-‘8‘.2‘5,&&%$%.)‘&*$80‘*&‘-'.-$%.%G=&*$,.0)‘.(%‘))‘&*//*3,.-‘)+%‘*4/,)%$‘),*.‘*&‘)+% 8‘,.‘$)%$2‘*$‘7%,.‘*&‘‘ +.4‘*$‘)+%,$‘4%; (*8,.-‘6/1--%5‘42‘%84*/10H‘*$‘)+%‘&*$8‘ "0‘ ‘0 "0 " ‘*$-'.; -$%.%‘'&&%(),.-‘'.‘,.)%$.‘/‘*$-'. 0 $ G +%‘('10%0‘*&‘-'.-$%.%‘8‘2‘ 4%‘/*(‘/‘.5‘(*.0),)1),*.‘//‘*$‘‘(*84,.'),*.‘ *&‘4*)+‘ 8*.-0)‘ ‘(‘10%0‘3%‘&,.5‘,.)%.0%‘ ,.&/‘88‘),*.‘*&‘0*8%‘*$-'.‘*$‘),001%‘01(+‘‘0‘ *(%80‘,.‘6.%18*.,‘‘.*8‘‘(%//1/,),0‘‘.)+$‘B‘ *$‘6+/%-8*.*10‘%$20,6%/‘0‘ .>1$,%0‘‘.5‘ 8%(+‘.,(‘/‘7,*/%.(%‘*&‘7‘$,*10‘9,.50‘(‘10),(0‘ ‘.5‘%B)$%8%0‘*&‘+%‘)‘*$‘(*/5‘‘0‘0%%.‘,.‘ 4180‘.5‘0(‘/50‘*$‘,.‘&$*0)4,)%‘‘/0*‘/%‘5‘)*‘ -'.-$%.%‘ ‘.-$%.%‘8‘2‘4%‘6$*51(%5‘%,)+%$‘ 0‘)+%‘ 5,$%()‘(*.0%E1%.(%‘*&‘)+%‘/*.-(*.;),.1%5‘‘66/,(‘),*.‘*&‘(*/5‘‘*$‘0‘)+%‘$%01)‘*&)+%‘0140%E1%.)‘,.&/‘88‘)*‘$2‘$%‘(),*.‘ *(‘/ ‘$$%0)‘*&‘)+%‘(,$(1/'),*.‘‘0‘,.‘‘‘+84‘3+*0% 8‘,.‘4/**5(1$$%.)‘,0‘‘$$%0)%5‘42‘,.>1$2‘)+% ‘66/,(‘),*.‘*&‘‘‘/,-‘)1$%‘)*‘‘.‘‘$)%$2‘*$‘%8; 4*/,(‘6/1--.-‘‘‘0)$‘.-1/')%5‘+%$.,‘‘‘‘ ,.)10010(%6),*.‘*$‘,.)%$.‘/‘0)$‘.-1/'),*.‘‘ /,-')1$%5‘+‘%8*$$+*,5‘‘')*‘‘),-+)/2‘4‘.5‘-%5‘ +84‘*$‘0%7%$%‘6‘$‘6+,8*0,0‘8‘2‘/%‘5‘)*‘ -'.-$%.%‘)‘8‘2‘‘/0*‘*((1$‘&$*8‘%B)$';‘ 7‘0‘),*.‘*&‘ 1$,.%‘ *$‘&‘%(%0‘ *.),.1%5‘ 6$%001$%K‘6$*51(%0‘‘‘7‘$,%)2‘*&‘-'.-$%.%‘ (‘//%5‘ ‘%06%(,‘//2‘,.‘/*3/2‘7,)‘/,0%5‘ 6‘$)0‘'.5‘,6‘6%$0*.0‘01&&%$,.-‘&$*8‘(+$*.,(‘ 5,0%‘0%0‘*$‘&$*8‘(%$)‘,.‘/%0,*.0‘*&‘)+%‘.%$; 7*10‘(%.)$%0‘ ‘6$‘ ‘ ‘6$‘

.%*&)+%8*0)&$%E1%.) " " *$ 0 " ('10%0*&-'.-$%.%,0 5%&,(,%.)4/**5 0.66,2)+%6'$)5%6%.5%.)16*.(+$*.,5,0%'0%*&)+%'$)%$,%0)+%$%01/)*&')%$),)0*$ 5%-%.%$'),7%0%.,/%(+=-%03+%.(%)+%)%8$ " '0 "0 " .-)%.%8 2'*((1$',')+%(*1$0%*&(%$)',5,0%'0%0'0 5,'4%)%0)26+10)26+*.5'8%'0/%0'.5'0('$/'),.'H%84*/,08'4%,.-',.'8.2'('0%0')+%,88%5,')%('10%*&)+%(*86/,(',*.' +%-'.-$%.%51%)*' %$-*),08',0'6$*4'4/2',.51(%5'42')+%%&%()'*&)+%6*,0*.' *.')+%4/**5 7%00%/0'6%(1/,'$8*'&-'.-$%.%0*8%),8%0'8%)3,)+',.')+%%B)$%8,),%0K G)+%0 0 " ' T '*&)+%$%.(+G,0'.%,.'3+,(+'.*' 8*$%5%&,.,)% ('10%('.'4%&*1.5')+'&$'.0%8,''.5'.'.'%B)$%8%/2'&%%4/%(,$(1/'),*.' *00'*&'.%$7%,.&/1%.(%,0'/0*'''('10%*&-'.;-$%.%(1)%06$%'5,.-')$'18',(-'.-$%.%,0''8'.,&%0)'),*.'*&''+26%$'(1)%&*$8'*&0%6),(',.&%(),*.' .5'&,.'//2')+%$%',0'# 0 0 " ?) ' J# G'5,0%'0%0%/5*8'8%)'3,)+'.*3%B*%0)'8*.-0)3*1.5%5'0*/5,%$0'((1821/')%5',.'-$%')'.1844%$0',.'&*1/+*06,)'/0'.%'$''4'))/% &,%/5'(*.)'-,*10',.'.')1$%'.5'51%*)*''06%(,&,(' 0%6),(''-%.(2' ? % L' & !(! G +%'02886)*80'*&'-'.-$%.%'7'$2'3,)+')+%'06%(,%0')+%'%B)%.)''.5')+%0)'-%'*&')+%'5,0%'0%'.5'3,)+')+%'$'6,5,)2'*&,)0'6$*-$%00\'.5'/0*''((*$5,.-''0',)',0'5$2'*$8*,0)',.(,6,%.)'*$'(*86/%)%'+%,*86*$);'.(%'*&')+%),001%'*$'*$-'.'.7'5%5''.5')+%6$%0%.(%'*$'40%.(%'*&'(*86/,(',*.0'01(+'0'$%.'/'*$'('$5,'(' 5,0%'0%'*$'*&'&%7%$''/0*'($%')%'5,&&%$%.(%0 +%'%'$/,%0)'02886)*80'$%')+*0%'*&'5,8,.;,0+%5'(,$(,,/'),*.'0%.0,4,/,)2''.5')%86%$''1)$%')*-%)+%$'3,)+'(+'.-%'*&'(*/*1$',.')+%'6')'&&%()%5' ',.',0'*.%'*&')+%'6$,8'$2'02886)*80''.5'*&)%.'6$%(%5%0')+%'*)+%$0'.'5$2'0%../%'*$'(+$*.,(''-'.-$%.%')+%$%'8'2',.'0*8%'('0%0'4%&%3'02886)*80'4%2*.5'8*5%$')%/*('/'6',.'.5'5,0(*8&*$)')+*1-+'*&)%.),8%0')+%'6',.',0',.)%.0%H3+-)'3+%.'+%')26%',0'*&')+%'8*,0)'*$'(1)%'7'$,%)2')+%'02886)*80'$%'101''//2'8*$%0%7%$%''.5'+'7%'')%.5%.(2')*'/'60%',.)*')+*0%'('//%5')26+*,5'*$'0%6),(%8,*'%)3%%.')+%0%')3*'&*$80'+%$%',0'%7%$2',.)%$85%,')%-$'5%*&'0%7%$,)2'+%'8*1.)'*&'&%7%$'7'$,%0')')+%*1)0%)'41)',)',0'101'2'(*.0,5%$'4/%'+%'6'),%.)'-%.%;$'//2'01&&%$0'81(+'&$*8'6',.'$%0)/%00.%00''.5'3'.)'*&'0/%%6H)+%'66%),)%',0'4'5H)+%)*.-1%',0'/*'5%5H'.5')+%'61/0%',0'&%%4/%'*$,.)%8,))%.)' 3+%.')+%'5,0%'0%'4%(*8%0'$%%0)%5')+%'5%'5'6*$),*.'*&'),001%'0/*3/2'0%6'$')%0'.5'5$*60'&&'*$',0'$%8*7%5H7%$2'*&)%.'+*3%7%$')+%'5,0%'0%'0)%'5,/2'6$*'-$*00%0'.5')+%'6'),%.)'5,%0'&$*8'%B+'10;),*.''*$'8*$%'$'6,5/2'&$*8')+%'*40**$6),*.'*&'0%6),(' 8')%$ 1(+'4%,.-')+%'6$,.(,6'/0>$86)*80'*&'-'.-$%.%'.'-%.%$'/'3%'8'2'.%B)'5%0($,4%')+%'02886)*80'*&')+%'/%'5,.-'7'$,%),%0'*&')+% C''#"'"'B"0 "G.')+%5$2'&*$8'*&0%./%'-'.-$%.%')+%'6'$)',0'-$'51;''//2'0)'$7%5')*'5%')+'42'$%'0*.'*&')+%'5,8.,0+%5'4/**5 0166/2' 84*/,('6/1--.-'2''/0*'6$*51(%')+%'5$2'7'$,%)2' +%'$)%$,'/'(1$$%.)',0'0155%./2''$$%0)%5'3+,/%')+%'7%,.0'%86)2')+%'4/**5'&$*8')&,%'/,84' +%'/,84'4%(*8%0'3+,),0+8*))/%5''.5'0+$1.9%.')+%.'4$*3.''.5'4/'(9' %../%'-'.-$%.%'-%.%$'U2'*((1$0',.')+%')*%0'7%$2'$'$%/2',.')+%'&,.-%$0H'.5',0'%,)+%$'06*.)'.%*10'*$%Y*,%5'42'0*8%')$,7,'/'('10%' 5,0(*/*1$%5'6')(+'66%'$0'*.'*.%'*&')+%')*%0'*&''51092'$%55,0+4$*3.'(*/*1$'3+,(+'0**.'4%(*8%0'5$2'.5'4/'(9',.')+%(%.)$%' +%'5,0%'0%'06$%'50'7%$2'0/*3/2')*')+%'5>'(%.)'6'$)0' ,$0)''C*.%*&5,0;(*/*$'),*.''66%'$0'&$*8')+%'4/**5'0)'-.'),..'')+%8H')+%.')+%2'4%(*8%'/,7,5'$%5'.5',.&/'8%5H'&)%$3'$50'5'$9%$H'.5'&,.'//2'4/'(9'.5'5$2' .%*$ 0%7%$'/')*%0'8'2'4%,.7*/7%5'*$')+%'&**)',.'3+*/%'*$',.'6')+%'6'),%.)'-%.%$''//2'5,%0'0**.%$'*$'/')%$'%B+'10)%5'42'6','.'.5'&$*8'-%.%$'/'&%%4/%;.%0%0'*&')+%'7,)'/'6*3%$0' *8%),8%0''/,.%'*&'5%8'$(''),*.''66%'$0')+%'5%'5'6'$)0'0%6';$')%'.'.5'$%(*7%$2'&*//*30H41)'0''$1/%$%/'60%0')'9%'6/'(% ' &' " ' A 0 " G +,0'&*$8'*&0%./%'-'.-$%.%',0'8*$%'(),7%',.),)0'6$*-$%00'.5'8*$%'$'6,5/2'&')'/')',0'*&)%.'0($,4%5')*'0 8%0/,-+)'/*('/',$$,)'),*.'*$,.>1$2'01(+'0'.',.&/'8%5'(*8'*$',/'+%'&&%()%5')*%4%(*8%0'51092$%5'03*//%.'.5'%B)$%8%/2'6',&,&1/H0**.'&)%$')+%'5'$9'+1%'*&'40*/1)%/2'5%'5')001%'66%'$0'&*/;/*3,.-'(/*0%/2')+%'C*.%'*&',.&/'88'),*.H'.5')+,0'-$'51'2'06$%'50'*.3'$50'),')+%'3+*/%&**)'*$'6*00,4/2')+%'/%-'.&')+%'6'),%.)01$7,7%'4%(*8%0',86/,('),5'%2*.5')+%'-'.-$%.*10'$%''')+%'9,.',0'8*))/%5''.5'6$%0%.)0''/')+%'66%'$'.(%0'51%)*',86%5%5'(,$(,5'),*.'.')/,,0')26%'&'-'.-$%.%')0',''*&')+%'4/**5'.5'('-1/'),*.'&,$0')'9%'6/'(%,.')+%'(6,//'$,%0''.5'%B)%.5')+%.6%)*')+%08'//%$'!$)%$,%0')*'((1$0',.'%/5%$/2'6%$0*.0'3,)+'&%%4/%'(,$(1/'),*.'51%)*'&')2'+%'$)'.5'')+%$*8')*10'$)%$,%0'',4%),('-'.-$%.%',0'(*888*./2'*&)+,0'&*$8 B"0 "' '&' ' 8 " ' '7 "G +%'8*0)'(*888*.'&*$8'*&8*,0)'-'.-$%.%',0')+')'51%')*'0155%.'$)%$,'/*4;0)$1(),*.'*&''/'$-%'7%00%/'3+%.')+%(*/;/')%$'/'0166/2'('.*)'%0)'4/,0+',)0%/&'3,)+'01&&,(,(%.)'$'6,5,)2'')',0'(1)%H'.5''/'$-%'6*$),*.'*&)+%'4*52'4%,.-''')*.(%%.-'-%5')+%),001%'0'5*'.*)''0',.'5$2'-'.-$%.%'+'7%'),8%)*'5%0,(('))%'3,)+')+%'06$%'5'*&')+%'5,0%'0%'')'8'2'+'66%.''&)%$'/,-')1$%'*&''8',.')$1.9'&*$'.%1$208H*$'42')+%,86'(),*.'*&''&,4$,.*10'(/*)'&*$8%5'16*.')+%$*1-+%.%5'3'//*&'.'')+%$*8')*10'7%00%/'.5'(*.0%E1%.)'6/1--.-'*&')+%'/%'5$*'*&'0%.)'6$*51(%'-'.-$%.%'1./%00

(*86/%)%' *//')%$'/7%.*10(+',8%/0(101'//2')'9%'+)+%'6/'(%'*&'*40)$1()%5'*.%0(3,)+'%'0%'.'('0%0(51%')*'%84*/,08G''&*$8'$'$%',.')+%'166%$'/,840'41)'(*88*.',.')+%'/*3%$'%B)$%8,),%0''.5'8*$%'%06%(,'//2''))'+%'4,&1$;(',*.'*&')+%'),4,'/'$)%$,%0G0155%.'.'.5'0%7%$%'6',.'8'$90()+%'*.0%)'*&')+%'5,0%'0%'+%')%86%$')1$%'*&')+%'6')'$'6,5/2'&%//0H'/,7,5'5,0(*/*$'),*.'.'.5'/*00'*&'0%.0,4,)2'%.;01%H')+%'4/**5'0)'-.')%0',.')+%'7%,.0H')+%'09,.'8*))/%0H'41//'%&*$8'&,//%5'3,)+')1$4,5'&/1,5H')+%'(*/*1$'(+'.-%0'&$*8'3+,),0+-$%2')*'-$%%.'*+7%'$4/'(9H'.5')+%''&&%()%5'),001%')'/%.-)+'4%(*8%0'5%/,Em1%0(%.)'61)$,5'8'00'&)%.'($%6,)'),..'&,*8'-'0',8;6$,0*.%5',.')+%'8%0+%0'*&')+%'(%//1/'$'),001%'+%').%.5*.0'4/**5 7%00%/0'.%$7%0'.'.5'4*.'%$%0,0')'+%'5,0,.)%-$'),..-'6$*(%00'/*.-%0)-0"'5"&'QG'.';-$%.%''0')+%'$%01/)'*&',.)%.0%',.&/'88'),*.',0'/,9%3,0%'*&')+%'8*,0)')26%'b+%.',)'016%$;7%.%0')+%').%,0.*.'6',.''.5'3%//,.-'*&')+%',.&/'8%5''$%''0140,5%H')+%'6')$)'4%(*).%0'0*&)'.5'5*1-+2H)+%'(*/*1$'(+'.-%0',.)*'51092'7,*/%)'4$*3.'*$'4/'(9H'.5''.')+%'%7,5%.(%0'*&'$'6,5'5%(*86*0,),*.'7'$2,.-'3,)+')+%'6')$)'&&%()%5''.5')+%'(1)%.%00'*&')+%',.;&/'88'),*.'8'9%')+%,$''66%'$'.(%

B "0" " ' ' ' ' 3 "' ' B " '

G '.-$%.%',0'*((' 0,*.''//2'8%)*7$,)+',.')+%'/')%$'0)'-%0'*&')26+*,5'&%7%$'*$%7%.'51$,.-'(*.7'/%0%.(%H'.5'106''//2'*((1$0',.')+%'/*3%$'/,840')+*1-+'0*8%),8%0',.')+%'&'(%'*$',.')+%'/1.-0'')',0'*&'7'0(1/'$'*$,-,.''.5',0''' 8*0)'-$'7%'(*86/,('),*.'.'&*$8'),)'8'2'4%'%,)+%$'5$2'*$'8*,0)'.'.5'8'2'4%'*&'%,)+%$'*&')3*'9,.50'.%',0'*&'%'$/2'*((1$;$%.(%'.')+%'6$*-$%0'*&')+%'5,0%'0%'.'.5'-%.%$'//2''&&%()'0')+%')*%0'028 8%)$,('//2H)+%'*)+%$'*((1$0'/')%$'*$'51$,.-'(*.7'/%0(%.(%''.5',0'*&'%84*/,('*$,-,.

%'0/%0',0'6$*.%',.'0*8%'('0%0')*'*((''0,*.'-'.-$%.%'-%.%$'//2''&&%(),..-')+%'&%(%')+%'71/7''*$')+%'/1.-0'('$/'),.''.5'0*8%'&*$80'*&'%$20,6%/'0'$%'/0*'*((''0,*.'//2'&*/;/*3%5'42'%B)%.0,7%'-'.-$%.%'+%'5,0%'0%'+'0'4%%.''/0*'*40%$7%5'51$,.-'0*8%'%6,5%8,(0'*&'(+*/%$''.-$%.%'6$*51(%5'42')+%'6$*;/*.-%5'(*.0186),*.'*&'5,0%'0%5'$2%4$%'5'(+,%&/2'*((1$0',.')+%'8'/%''51/)''.5'7%$2'$'$%/2',.'3*8%.'*$'(+,/5$%.'+%$'0286;)*80'*&'%$-*),08'3,/')+%.'4%'6$%0%.)'-'.;-$%.%'4%,.-''/')%'*((1$$%.(%''.-$%.%'&$*8'%$-*),08'6$%(,0%/2'$%0%84%0'*$5,.'$2'0%.,/%'-'.-$%.%')'/8*0)',.7'$,'4/2'6;6%'$0',.')+%/*3%$'/,840H''.5'3+%.''/,.%'*&'5%8'$(')*.'&$80')+,0'-%.%$'//2'0%%80'.'*(*$$%06*.5'3,)+')+%'.%'$%0)'>*,.)'.'5,';4%),(''-'.-$%.%'.*'06%(,''7'0(1/'$'5%&,(.%.(2('.'4%')$'(%5'+%'7,)'/,)2'*&')+%'),001%'0%%80',86',$%5'42')+%'-/2(*01$,('(*.5,),*.''.(,5%.)'/'('10%'6$*7*9%0''-'.-$%.*10',.&/'88'),*.

P 'B "0" G *06,)'/'-'.-$%.%'6$%0166*0%0''3*1.5'+%/%0,*.'*.',.'7'0,*.'(%'0%0')*'5,0(+'$-%''.5'4%(*8%0'(*7%$%5 3,)+''-$%2')%.'(,*10'0/*1-+'%B)%.5,.-'&$*8')+%'(%.)$%')*3'$50')+%'%5-%0'3+,(+'4%(*8%81(+',.&/'8%5'.5'%7%$)%5'+%'6'),%.)$'6,5/2'/'60%0',.)*''')26+*,5'(*.5,),*.H'.5')+%',001%',0'-%.%$'//2'&')'/

& ' " ' ' "0'B "0 " '

+,0'&*$8'/0*'&*//*30'16*.''.',.>1$23+,(+'8'2'4%%,)+%$'0/,-+)'*$0%7%$%'')',0'-%.%$'//2'0%%.',.'*.%*&')+%'%B)$%8,),%0'*$,-,.'),..-',.'3*1.5''.5'$'6,5/2'06$%'5,.-')*3'$50')+%')$1.9G0"0" " '

)',0',.'8'.2'(0%0',.),8')%/2'00*(,')%5'3,)+''.5'6$*4'4/2',.51(%5'42'0%6),(',.&%(),*.'*')+%020)%8'')',0'01'//2'&')'/''.5'0('$(%/2'8%.'4/%')*''.2')$%')8%.)'0+*$)'*&'7%$2'%'='8 61)'),*.

8 'B "0" G +%'-'.-$%.%'*&',1')%8'/'*$-'.0'3,//'4%&*1.5'5%0($,4%5',.'(*.;.%B,*.'3,)+')+%'5,0%'0%0'*&')+%'0%7%$'/'*$-'.0

$ J G=+%6$*-$%00'*&'-'.-$%.%'5%;6%.5%.)'*.'(*.0),)1),*.'/'('10%0',0')*'*&)%.'&$*8'4'5')*'3*$0%H''.5''&')'/,001%'8'2'016%$7%.%'3,)+*1)''.2')%86)'')'$%6',$+%'-'.-$%.*10',.&/'88'),*.'6$%(%5,.-')+%'()1'/5%')+'*&')+%'6')$)'(*.),.1''//2',.7'5%0'&$%0+'),001%0H')+%'&%7%$'8($%'0%0H''0'//*301.9%.'(*1.)%.'(%'3,)+'$'6,5'+$%'52'61/0%'0*$5%0'81))%$,.-'5%/,$,18')286'.,)%0'+,((*1-+'01401/)10'0('.)2'/*'5%5'1$,.%*$%7%.'0166$%0,.*.'016%$7%.%H')+%'3%'9.%00',.($%'0%0H'.5'5%')+'6$%(%5%5'42'(*//'60%')'9%0'6/'(%.')*)+%$'('0%0'%06%(,'//2')+*0%'5%6%.5%.)'4./*(','('10%0')+%$%',0''')%.5%.(2')*'/,8,)';),*.H'.5')+%'6$*(%00'42'3+,(+')+,0',0''((*86/,0+%5',0')+%'0'8%'&*$'//9,.50'*&'-'.-$%.%'.'%7%$2'6')$)'*&')+%'4*52'.'016%$&,(,'/)$1()1$%0''$%5'4'.5'*&'+%'/)+2',.&/'88'),*.'3,//'4%'*40%$7%5')')+%'>,8),*.'*&')+%'/,7,.-'3,)+')+%'5%'5'6')$)'('//%5')+%'3"'7"'()',7%(%//,.&,/)$'),*.')'9%0'6/'(%H'.5''0%6$'),.-'3'//'*&'&,4$,.''.5'2*1.-'(%//0',0'%0)'4/,0+%5',.')+%/'2%$'*&'/,7,.-'),001%'.%'$%0)')*')+%'5%'5'0)$1()1$%0'+,0'4%(*8%0'42'5=D%0'(*.7%$)%5',.)*''.'*$5,.'$2'-$'.1;/'),.-'01$&'(%''.5')+%'5%'5'),001%',0'5%)'(+%5''.5'('0)'*&'+%',),8%'$%E1,$%5'&*$')+,0'0%68'),*.'7'$,%0'3,)+')+%'41/9'*&')+%'5%'56*$),*.')+%'.')1$%'*&')+%'),001%''.5')+%7,)'/,)2'*&')+%,.5,7,51'/'+%'$,09'*&'0%6'),(0%8,('6*,0*.,.-',0'6$%0%.)')+$*1-+*1)'+%%.),$%'(*710%'*&')+%'5,0%'0%&"+%'5,'-.*0,0'*&'-'.-$%.%'*&%B)%$.'/'6')0'('..*)'4%'))%.5%5'3,)+''.25,&&,(1/)2H)+%'%7,5%.(%'*&',)0'6$%0%.(%'4%,*-'$%'5,/2''66$%(,')%5'3+%.')+%02860*80''/$%'52'5%0($,4%5'8'9%')+%,$'66%'$'.(%"+%'6$*-.*0,0'*&''('0%'*&')+%'-'.-$%.%'3,'8','./2'5%6%.5*.*.')+%'/,9%/,;+**5'*&')+%'5,0%'0%'4%(*8,.-'/,8,)%5')+%0)$%.-)+'*&')+%'6'),%.)'.'5')+%'(*.5,),*.0'.'3+,(+'+%'/'6/'(%5H3+,(+'%'!'/')&,$0)5,&&,(1/)')*'5%)%$8,.%'+%'('10%'*&)+%'-'.;-$%.%''.5')+%'6$%(%.)'*'.'5'3+,(+'+%'/'6/'(%5H3+,(+'%'!'/')&,$0)'.(%'8,0(+,%&'%/0%3+%$%''/0*'%B%$(,0%''-$%')',.;&/1%.(%'+%.')+%'8'/'52',0'5%6%.5%.)'*.

,$,),0 '))%.5%5 3,)+ (*.0,5%$'4/% 0%($%),*.H 8*0) *&)+% 8 *((8$%5 ,. -*1)2 8%. ' .5 8,-+ 4% (/'00%5 1.5%$)+% +% '5 *& %(C% 8 ' $')+%$)+'. *& .%1$'/-,' *&)+% 0)* 8 '(+ A@R '0%0 01(+ '0)+% &*//*3,. - '2*1.-'/'52 +'5 01&&%$%5 &*$ 8 '. 2 8 *.)+0 &$* 8 5 '-*.,0,. - 6',. ,)+% /%&) +26*%+*.5$,18 ' (*8,. - *. ')% '(+ 8%.0)$1 / 6%$,*5 ' .5 $%0,0),. - '// 8%)+*50 *&)$%') 8%.) .)+,0 '.5 *)+%$ 0,8,/'$ ('0%0 ,) 3,// 4% &*1.5)+ '))+% 0%') *&)+% 6 ,. ,0 $%'//2 %B)%$. '/ ,.)+% ,.)%$; (*0)' / .%$7% '.5 .*) ,.)+% 0)* 8 '(+ ,)0%/& A'R %7%$% '))'(90 *& 6',. ,.)+% /%&)+26*; %+*.5$,18 '.5 %6,-'0)$,18 ,. & %8 '/%0 *$ '. %$7*10)%86%$' 8%.) 3+* + '5 %,)+%$ 4%%. 4*8 *$ + '5 6 00%5 8*0) *&)+%,$ /,7%0 ,.)$*6,(' / (*1.)$,%0 +% $%' / 0%') *&)+% 6 ,. ,. 01(+ ('0%0 '66% $0)* 4%)+% (*/*.H)+%$% ,0 '/3 '20 (*.0),6'),*.H .5 ' 8,/5 '6%$,%.) '.5) *.,( )$%')8%.) ,0 101 '//2 %&&%()1 / ,.K $%8*7,.-*$ ' 8%/,*$'),.-)+% (*86/',.)

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2+3 ! & <)+% 0)* 8 '(+R G 6*61/'$.'8 % &*$ ' &%4$,/% (*.5,),*. '))%.5%5 3,)+ 6$*8,.%.) -'0)$,(' 02 8 6)* 8 0H '0 3%// '0 &*$')26+*,5 &%7%$ ' (4 A

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2 3 ! + 5 &A2')8>6)+% 0)*; 8 '(+H '.5))+% ,.)%0),.%R G +,0)%8 ,0 '66/,%5)*)+*0% 8*$4,5 0)')%0 . ,+ 3+,(+)+% 0)* 8 '(+ '.5 ,.)%0),.% '$% 0,8 1/'.%; *10/2 '&&%()%5 +% (*.),.1,)2 '.5 0,8 ,/'$,)2 ,. 0)$1()1$% *&)+%0% 7,0(%$'' $%.5%$)+% 8 6%(1/,'$/2 /,'4/%)* (*,.(,5%.) 5,0% '0%H '.5)+,0 ,0 8*$% 6'$),(1/'$/2 .*),(%5 ,.' &&%(;),*.0'*&' .',.&/'8 8 ')*$2)26% A-'0)$* %.)% $,),0R '*$ *& ' 5%-%.%$'),7% .')1$%)+% 0'8%),8% '0 -'0)$),0 8 '2 *((1$ ' 5 $1.' ,)0 (*1$0% 3,)+*1) -,7,.-'.2 ,.5,(',)*.')+'))+% ,.)%0),.% /,0 ,.7*/7%5'0* %.)%$),0 8 '2 4% 5%7%/*6%5 3,)+ /,))/% *$.* 5,0*$5%$ *&)+% 0)* 8 '(+ +% 0'8% ('10%0 '66% $)* 5%;)%$8,.% 0,8,/'$ 5,0%'0%0 ,')+% 0)* 8 '(+ '.5 ,.)+% ,.)%0),.%H 41) 3+2 ') *.%),8% 4*)+ 0+*1/5 '.5 ') *.)+%$'),8% *.% 0+*1/5 %0('6% ,0 .*)9.*3. ' ((' 0,*.'//2 ,) 3*1/5 0%%8)+ '))+% .),$% '/,8%.)'$2 (' .'/ 4%; 2*.5)+% *%0*6+*-10 ,0 '))'(9%5) *.(% '.5 :% -'0)$* ,.)%0),.'/ (') '$$+ *& (+,/5$%.' ,0 8%B '86/% *&)+,0 *8%),8%0)+% 5,0*$5%$ (*88%.(%0 ,. *.% 6'$) *&)+% (' .'/' .5 06$%'50 1.),/ 4*)+) +% 0)*8 '(+ '.5) +% ,.;)%0),.% '$% ,.7*/7%5) ,0; % '0%0 $-% '.5 !) ,0% '0%0 *& L $

2 3 ! %& 3 -) +% 0)*; 8 '(+H '.5 6&*R ' &/*3R G .'%B(%00,7% &/*3 *& 81(10 &$*8)+% /,.,.-8%84$'.% *&)+% 0)*8 '(+ 51% $ (')'$$+ !) ,0% '0%0 *&

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2 5 3 G +,0 3*$5 '0 %86/*2% ,.$%/'),*.) *8%5,(,.%'+'0 0%7%$'/'66/,(';),*.0 +10 3% 06% 9 *&) 0 " 3+,(+ ,0 ' 5,0% '0%' &&%(),.-')+% 3+*/%020)%8 '0 5,0),.-1,0+%5 &$*8 ') /*('/ &&%(),*. 0 &1$)+%$ %B'86/%0 8 '2 4% 8%.),*.%5 0 " # 3 0 " / '.5 0 " * 3,)+ $%06%()) +%$'6%1),(0 0 " " $%&%$0) *% 8%5,'/ 8%'; 01$%0 ,.)%.5%5) * '&&%() +% *-'.,0 8 '0) 3+*/% .(*.%B,*.3,)+ 0(,%.(%0 *&)+%$'6%1),(0'6)+*/*-2 ^( ) +% 3*$5 0 " ,0 .)%.5%5) * 5%.*)% +% %00%.),'/ 6$,.(,6/%0 *&)+%0% 0(,%.(%0 '0 5,0),.-1,0+%5 &$*8) +%,$ 06%(,'/5,7,0,*.0

2 5 3 3 3 ! ! % 5!35 G %.%$'/ '$%0,0 H C 7 " /) $'6 8 0 " 6 " # 3 # " T /) 'H %$'&30 " 0) 'B # " 5 # 0H 6 # '$ & # G -$'51'/ /*00 *&)+% 6*3%$ *& (* *$5,.')%5 8*7%8%.) '((*86'.,%5 42 =51'//2 ,.($%'0,.-8%.)=' 5,0)1$4'.(% '.5 5%('2 - $ $(G +% 014>%() *& -%.%$'/6'$'; /20,0 '$% 8*0) &$%E1%.)/2 *&)+% 8 '/% 0%B '.5 4%)3%%.'"!'.5 F!'2% '$0 *& '-%) 8 '2 4% 4$*1-+) *.'42 %B(%00,7% 8%.)'/'/'4*1$'42 0%7%$% ' .B,%)2 '42 '/(*+*/,(**$7%.%$%'/%B(%00 *$ 42 '.2 6$*/*.-%5 0)$',.'16*.') +% 8%.)'/ *$-'.,0) 8 '2 '/0*' 4% ,.51(%5 42 4/*3 *$ *) +% $ 5,$%() ,.>1$2) +% +% '5 %$%5,)'$2 6$%5,06*0,),*. ,0 6$*4'4/2 .*) W3,)+*1) ,.&/1%.(% 16*.') ,0 6$*51(),*.' 41))+,0 ,0 .*) 0 *& $%E1%.)/2 6$%0%.) '0 ,.' 8*0) *)+%$ &*$8 0 *& ,.0'.,)2 +% 5,0% '0%' 8*0) &$%E1%.)/2 '))'(90 6%$0*.0 3+*' +'7% 6$%7,' *1 2 4%%.' '66'$%.)/2 ,.') +% .>*28%.) *& 7,-*$*10 +% /)+

! ' $ G %.%$'/ 6'$'; /20,0 ,0 (+'$'()%$,0%5 42)$*6+,(' .'5 5%; -%.%$'),7% (+'.-%0 *&)+% (%$%4$18$ (+,%&/2 '&&%(),.-')+% (*.7*/1),*.0 *&)+% 7%$)%B' <-)+% '.)%$,*$' .'5 8,55/%/*4%0' .'5 $*1.5') +% */&'()*$2 41/40 '))+% 4'0%' +%0% (+'.-%0 ,.7*/7% 5%0)$1(),*.' *&)+% .%$7% (%// 0 *&)+% *1)%$/'2%$0 *&)+% (*$)%B' .'5 '1-8%.)'),*.' *&)+% /286+ (*.%(),7% 020)%8 ' +%$% ,0 '/0*') +,(9%.,.-' *&)+% 8%84$'.%0' '5+%0,*.' *&)+% 6,'*) +% 01$&'(% *&)+% (*.7*/1),*.0) +,(9%.,.-' *&)+% (*') 0 *&)+% 4/**5 7%00%/0

/')%$' &*//*30' 1$)+%$' ,)' +'0' 4%%.' 6$*7%5')+')')+%'0'8%7,$10' 8'2'-,7%' $,0%')*' %,)+%$' 0%)' *&' 0286)*80'*$')*' 4*)+' .5',)'3*1/5' 0%%8')+')')+%' *$5%$' *&' '66%'$'.(%,0' 5%)%$; 8,.%5',.'-$%')'8%'01$%'42')+%'8*5%'*&'(*8; 81.,('),*.'*&')+%'7,$10' '0'3%//' '0')*' 0*8%' %B)%.)'6%$+'60' 42')+%'(*.5,),*.''.5'(*.0),;)1),*.'*&')+%'$%(,6%.)

/'.5%$0',.'8'.'.5',0''' 7%$2' $'$%' 5,0%'0%'>'.5',)',0'*./2'3,)+,.')+%'/'0')0,B)2'*$'0%7%.)2'>(%'$0')+')',)0'*((1$$%.(%'+'0'4%%.' (/%'$/2'$%(*-.,0%5''.5',)0'+,0)*$2'8'5%'*1)' +%.' ,)'5*%0'*((1$',)'6$*7%0'&')'/',.''7%$2'/'$-%6$*6*$),*.'*&' ('0%0' '9,.-')+%''(1)%''.5'(+$*.,(''(')*-%)+%$'@!?'*1)'*&'@ F'$%$%;(*$5%5''0'+'7,..')%$8,.')%5'&')'//2' %7%$;)+%/%00'*1)'*&'@ !@D @PD' 5%')+0',.'.-/'.5''.5' '/%0' 51$,.-')+%'&*1$' 2%'$0' ?M ?M'.*' 8*$%')+'.' P'3%$%'$%-,0)%$%5''0'51%')*'-/'.5%$0''.5' 51$,.-')+%'&*1$' 2%'$0' ??F' ???'*./2' ?'*1)'*&'@ ! MFF' 5%')+0' +%'0/,-+)'5%($%'0%',.')+%' 6$*6*$),*.'51$,.-')+%'/')%$' 6%$,*5' ,0'3*$)+2'*&'.*)%' '0'51%',.'8%'01$%' 6$*4'4/2')*')+%'8*$%' 0)$,.-%.)'6$%;('1),*.0'*40%$7%5' 1$,.-')+%' 2%'$' ??P'+*3%7%$')+%$%' 3%$%'$%(*$5%5'9'&')'/'(' 0%0'*&'-/'.5%$0'*1)'*&'F ?7F'' 5%')+0

= /*)* G= +%$%',0'.*' %7,5%.(%')*'01-;-%0)')+')'-/'.5%$0'%7%$'*$,-,.')%0',.'8'.'3+')%7%$'8'2'4%)+%'('0%'3,)+'$%-'$5')*')+%'/*3%$'.,8'/0')',0''/3'20'(*881.,(')%5H'.5'/8*0)'/3'20'42'5,$%()',.*(1/'),.*'*&'7,$10'&$*8''5,0%'0%5''.,8'/' *$0%0''00%0'81%0'0*8%'($.,7*$*10'.,8'/0''('/,*.0),-%$0'^(''$%'/,'4/%')*')'9%')+%'5,0%'0%H'.5''8*.-')+%' 08'//%$' '.,8'/0' -1,.%' 6,-0'+%5-%+*-0'&,%/5 8,(%''.5'3**5 8,(%' B%.'0%%8')*'%.>*2',881.,)2'%7%.'3+%.'%B6%$,;8%.)'//2',.*(1/')%5''0''/0*$')0'3+,)%'8,(%'/,% H'.5'6,-0'5*-0'0+%%6''.5'$'44,)0''$%'*./2'0/,-+)/2'010(%6),4/%' .'0*8%'&%3',.;0)'.(%0')+%'5,0%'0%'+'0'4%%.'(*881.,(')%5'&$*8'8'.')*'8'.')',0'0('$(%/2'%7%$'8%)'3,)+'%B(%6)',.')+*0%'3+*'$%'8*$%'*$'/%00'(*.0)'.)/2'%86/*2%5''8*.-'+*$0%0''.5'3+*'$%')+%$%&*$%/,'4/%'&$*8'),8%')*',)8%')*'(*8%',.'(*.)'()'3,)+'5,0%'0%5''.,8'/0'*$)+%'8*$4,5'5,0(+'$-%0'&$*8')+%8'+%'8*5%'*&'(*881.,(',*.'(''.',.'8*0)'('0%0'4%%'0,/2)$'(%5H'.5'-%.%$'//2')+%'7,$10',0'5%$,7%5'&$*8')+%'0%($%),*.'*&')+%'.'0'/81(*10'8%8;4$'.%'*&')+%'5,0%'0%5''.,8'/' +%'$')$,)2'*&')+%'5,0%'0%'.,8'.'(*.0)+%'5,$%'*8'.'(*.>1.(;),*.'3,)+',)0'(*86'$'),7%'&$%E1%.(2'.5')+%'$'6,5,)2'3,)+'3+,(+',)'06$%'50'*8*.-'+*$0%0'3*1/5'0%%8')*',.5,(')%')+')')+%'7,$10',0'8*$%'*$'/%00'&,B%5''.5'.*)$%'5,/2'5,&&10,4/%)+$*1-+')+%','$'.5')+')'8'.',0'.*)'7%$2'010(%6),4/%')*',)0',.&/1%.(%.'8*0)'('0%0')+%'+,0)*$2'$%.5%$0',)'(/%'$)+')'+%'7,$10'+'0'4%%.'$%(%,7%5')+$*1-+'0*8%'(1)'*$'4$'0,*.'*&')+%'09,.'*$'81(*10'8%84$'.%'*$'09,.'+%'$%(%.)'0'5'('0%$01/),.-',')+%'5%')+'*&'$'7*.'*&8'.'*&',%..''3+*'3'0%.-'-%5',.'%B6%$,8%.)'/,.7%0),-'),*.0',.)*')+%'6$*6'-'),*.'*&'-/'.;5%$0'0%%80')*'0+*3'(*.(/10,7%/2')+')'4;0*$6),*.'8'2')'9%'6/'(%)+$*1-+')+%'811(*10'8%84$'.%'*&')+%'$%06,$')*$2')$'()'&,,(*8',.;+'/'),*.'*&')+%'7,$10H''.5')+%'*40%$7')+%'*&'$'4F0',.'*18'.,''A3+%$%'-/'.5%$0'66%'$0')*'4%'8*$%'(*88*.')+'.',.')+,0'(*1.)$2R'-*')*I6$*7%)+')'3,)+*1)'0*/1),*.'*&'(*.),.1,)2'*&'09,.')+%'-/'.5%$0'4'*/,'8'2'6%.%)$')%'42'&*//*3,.-')+%'+',(&*,(/%0',.'3+,(+')+%2'811/),6/2'.5'6$*(%%5,.-')+%.(%'8'2',.&%()')+%'020)%8

!(! ' % G= *3%7%$)+%'7,$10'8'2'+'7%'4%%.'(*881.,(')%5''6%$,*5'*&',.(14),*.'7'$2,.-'&,*8')+$%%')*'%,-+)'5'20''.5',.'0*8%'$'$%',.0)'.(%0'6$*/.-%5'%7%.')*')+$%%'3%%90'*$*8*$%'%.01%0'4%&*$%)+%'0286)*80'*&'(*.0),)1),*.'/',.&%(),*.'4%(*8%8'.,&%0)'+%'/*.-%$')+%'6%$,*5'*&',.(14';),*.')+%'/%00'(1)%''0''$1/%',0')+%'(*1$0%'*&')+%'5,0%'0%'+%'51$'),*.'*&'+%'5,0%'0%''0'3%//'0')+%'*$5%$'*&'5%7%/*68%.)'*&')+%/*('/'&&%(),*.0'7'$,%0'-$%')/2',.'5,&&%$%.)'('0%0'%.(%')+%'(/'00,&,('),*.''*.'+%*)+%$'..)*'('0%0'*&'#'.5'#"'0"'.5'"'1)'.*)+,.-'/,9%'(/%'$'/,.%0'*&'5,0),.(),*.'('.'4%'5$'3.'4%)3%%.'.2'*&')+%0%'(/'00%0+%'%'$/,%0)'(*.0),)1),*.'/02886)*80'$%'0%.0%'*&'-%.%$'/5,0(*8&*$)'&'),-1%'6$*0)$';),*.''.5'(+,//,.%00'3,)+'+%'5'(+%'.5'*40%8%'6',.0',+')+%'810(/%0'.5'>*,.)0'0')+%'5,0%'0%'57'.(%0')+%0%'6',.0'4%(*8%8*$%'0%7%$%'.5'0,81/1')%')+*0%'*&'$+%18';),08'2$%B,''')'&,$0)'41)'0/,-+)'$'6,5/24%(*8%0'%0)'4/,0+%5'+%'61/0%',0'E1,(9%.%5'.5'0*8%),8%0'&,&//')+%'09,.'+*)'.5'5$2')+%')*.-1%'&*./')+%'1$,.%0('.)2'.5'+,-+'(*/*1$%5'H.5')+%'6'),%.)'01&&%$0'81(+'&,$*8'$%0&/%00.%00'0/%%6/%00.%00''.5'/*00'*&'66%;),)%'*&)%.'3,)+'*40),.')%(*.0),6'),*.'*8%;),8%0')+%'&%7%$,0+.%00',0'..)%$8,))%.)'41)8*$%'&,$%E1%.)/2'(*.),.1%5'*$',.)%$8,))%.)'')'%$2',$%-1/'$',.)%$7'/0'),//'/')%$'$,-*$0*((1$G=8*$%0%7%$%')+'.'01(+'0'8'2'+'7%*((1$$%5')'.'%'$,%$'6%$,*5'&*//*3%5'426$*&10%0*1$'6%$06,$'),*.0''.5'(/'88,.%00'*&09,.H)+%'6,&/0%'4%(*8%0'7%$2'$'6,5'3%'9'.5'(*86$%00,4/%H5,'$$+*%''3,)+'7%$2'&%*),50)**/0'01((%%50')+%'(*.0),6'),*.H)+%')+,$0)',0'%B(%00,7%H$%06,$'),*.'4%(*8%0'8*$%''.58*$%'5,&&,(1/)''.5'/'4*1$%5H/*3'5%/,$,18'3,)+')$%8*$0',0'&*//*3%5'42'(*8'H'.5'5%')+'%.01%0'&$*8'%B+'10),*.''.')+%'(1)%'&*$8')+%'5,0%'0%'$1.0',0'(*1$0%',.''.'7%$'-%'6%$,*5'*&'*4*1)'0,B)%%.'5'20H0*8%'0%0%'+'7%')%$8,.')%5'&')'//2'3,)+,.''3%%9H*)+%$0'+'7%'4%%.'6$*/*.-%5'&*$&*1$'3%%90'.')+%/%00''(1)%'&*$8')+%'51$'),*.'8'2'4%&$*8'0,B'3%%90')*')3*'8*.)+0'.5',.')+%8*0)'(+$*.,('&*$8',.'3+,(+'//')+%02886)*80'$%'/%00'0%7%$%')+%'51$'),*.'8'2'%B)%.5'*7%$

0%7%$'ƒ 8 * .)+0' ' .5' , .' 0* 8 %' ('0%0'$%(*7%$2' ./),8 ')%/2') '9%0'6/' (%

S ' " " G .' '00*(,'),*.' 3,)+')+%' (* .0),)1),*. 'ƒ J$86)* 8 0')+10' , .; 5,(')%5')+%' &*//* 3, . -' /*('ƒ 8' . ,&%0)'),*. 0' 6$%0%.)')+% 8 0%/7%0' 41)' '0' '/$% '52' 0)')%5' 0* 8 %3+')' 5,&&%$%.)/2' , .' &&%$%.)' ('0%0

+%' 3*1 . 5' *$' 4$'0,*. ')+$*1-+' 3+,(+') +%' 7,$10' +'0' 4%%. ' , .)$*51(%5' *$')+%' 06*)' ')' 3+,(+' ,)' +'0' 4%%. ' '66/,%5' A&*$')+%' 3*1. 5' 8 '2' +'7%' +%' /%5R' 4%(* 8 %0' , .&/' 8 %5')%. 0%' 6', .&1/' ' .5' 01$$*1. 5%5' 42' 06$%'5, . -' %$20,; 6%/')*10' $%5. %00' +%' 1/(%$' 3+,(+' '66%'$0' %. /'$-%0' '001 8 %0' ' .' 1. +%'/)+2' (*$$*5%5' (+' . ($*,5' '06%()' ' . 5'5,0(+'$-%0'5+$)'20' . ,*10' ' . 5'*&)%. ' *&&%. 0,7%' 8 ')%$0

+%' /2 8 6+'),(' 7%00%/0' *&')+%' 6'$)' 4%(* 8 %' , .&/' 8 %5' ' .5' 6$%0%.)' '9. *))%5' (*,$5 /,9%' '. 5' 0140%E1%.)/2' ,$$%-1/'$/2' . *51/')%5' (*. ; 5,),*. G)+%' ',.')+%'+18 ' . 014>%()' +%' -/' . 50' '$%', . &,/)$')%5' ' . 5' %. /'$-%5' ' . 5')+%' 3+*/%' 6'$)' ,0' 03*//%. ' . 5' *%5%8 ')*10' +%' /2 8 6+'),(' -/' . 50' ' . 5' 7%00%/0' *&' *)+%$' 6'$)0' 0140%E1%.)/2' 4%(* 8 %' '&&%()%5' 41)' . *)' 6%$+'60')*')+%' 0' 8 %' %B)%.)' '0' , . ')+%' +*$0%' %0*/1),*. ' ' . 5' '40*$6),*. ')*' '-$%')%$' *$'/%00' %B)%.)' 0* 8 %),8 %0')' 9%' 6/'(%ƒ 41)' 8 1(+' 8*$%' &,$%E1%.)/2' 01661$'),*. ' *&'/*3')26%' '40(%00' &*$ 8 '),*. ' ' . 5')+%' 6$*51(),*. ' *&'&*1/' 1/(%$; '), . -' ('7,),%0' 3,)+' +' $5', $$%-1/'$' %5-%0' ' . 5' &,0)1/0%' &* *3

)' ' 7'$,'4/%' 6%$,*5', . ')+%' (*1$0%' *&')+%' 5,0%'0% G=&$*8' 3,)+, . ' &*$)2 %,-+)' +*1$0')*')+%' %. 5' *&')+$%%' *$' &*1$' 3%%/8 G' . ' %$16),*. ' $%; -'$5%5' '0' (+'$')(%$,0),(' '66%'$0' *. ')+%' 09, . ' %06%(, '//2' 6 . ')+%' &'(%' (+%0)' ' . 5' '45*8%. ' +,0' &,$0)' 0+*3 0' ,)0%/&' '0' ,$$%= ' $/2'0(')) %$%5' (*//%(),*. 0' *&' $%5' 06*)0' 0' 3+,(+' '$%' %$2' 08' ' ' . 5'$%0% 8 4/%&/%'4,)%0'41)'0**. ' ' (E1,$%' '6'61/'$' %/%7'),*. '0140%E1%.)/2'$,0,. -' '4*7%')+%' /%7%/'*&')+%' 01$&'(%' /,9%' 0 8 '//' 0+*)' ' . 5' '001 8 , . -' '2% *3,0+' (*/*1$' +%2' /,%' %'(+' , .''9, . 5'*&'+*/%' , .')+%' *$,18' '0',&')+%'/')) %$' +'5' 4%%. ' 61. (+%5' *1)< A ,$(+*3R' +%2' '66%'$')*' 4%' 51%')*')+%' 5%6*0,)' *&' 0* 8 %' . %*; 6/'0),(' 8 ')%$,'/' 3+,(+' 0140%E1%.)/2' 0*&)%. 0' ' . 5' 4$%'90' 5*3. ' 2 ' . 5 42')+%2' 4%(* 8 %' 7%0,(1/'$' A0* 8 %' 0'2' &,$*8')+ ' &,$0)')+%2' '$%' 7%0,(1/'$R' ' . 5')+%. ' $' 6,5/2' 0%$* 61$=%.)' 3,)+' , . &/' 8 %5'/,7,5'4'0%0' +%' 01$$*1. 5, . -' 09, . ' ,0' $%5' 03*//%. ' ' . 5' %$20,6%/')*10 /,9%' +%. ' (/*0%')4-%)+%$')+%0%' 610)1/%0' 4%(* 8 %(* . &/1%.)' ' . 5'-,7%'$,0%')*', $$%-1/'$' 1/(%$')%5' 01$&'(%0' 3,)+' 0*&)'4$*3. ,0+' 0/*1-+2'(*'), . -' '$-%' (* %(),*. 0' *&' 0,8,/'$' 5%6*0,)' , . ')+%' 014(1)' . %*10'),001%'-,7%'$,0%')*' +'$5'6', . &1/' 4*,/ ,9%'&*$ '), * . 0' 3+,(+' 4$%'9, . -' 5*3. ' /%' 5')*' %B)%. 0,7%' 0/*1-+, . -'*&')+%' 09, . ' . 5' 5%%6%$' 0)$1()1$%0' 3,)+')+,(9' 5,$)2' 3+,)%' *$ 0' . -1, . %*10' *&%. 0,7%' 5,0(+'$-%

+%' 8 1(*10' 8%84$' . %0 G' . 5' &,$0)' ' . 5' %06%(, '//2')+' *&')+%' . *0% G'$%' 0**. %$' *$ /')%$' '&&%()%5' 42' 06%(,&,(' , . &/' 8 8 '),*. ' ' . 5' 1/(%$'),*. ' +%)+%$')+%' , . &/' 8 8 ')*$2'6$*; (%00' '0' ''0%(*. 5'$2' '&&%(),*. ' 8 *$%' *&)%. ' 4%; -, . 0' , . ')+% 8 ' *$' , . ')+%' 09, . ', 0' . *)' (/%'$/2 8 '5%' *1)' 1)' , . ' 0* 8 %' ('0%0' , . ' 8 ' . ' '0' (* 8 8 *. /2', . ')+%' +*$0%')+%' 5,0%'0%', 0' 6$*4; '4/2' (* 8 8 1. , (')%5' 42' '66/,(','), *. ' *&' 7,$10')*')+%' 8 1(*10' 8 % 8 4$' . %*&')+%' . *0%' *$' *)+%$' 6'$)' *&')+%' $%06,$')*$2' 6'00' -%0' 3+,(+')+10' 4%(* 8 %0' 6$, 8 '$2' &&%%

+%. ' 8 %' . *0%',0' &&%()%5' A'0',0' '/3'20')+%' ('0%' 6$, 8 '$,/2' *$' 0%(* . 5'$,/2', . ')+%' &*$ 8' *&')+%' 5,0%'0%' %06%(, '//2' ('//%5' -/' . 5%$0R')+%$%' ,0' &,$0)' '' 5,0(+'$-%' *&' (* 8 6'$'),7%/2')+, . ' (*/*1$/%00' 0(')'$$+'/' 8 1(10' +,0' 0** . ' 4%(* 8 %0')+,(9%$' . 5' (*/*1$%5H' . 5')+%$%' ,0' *. 0,5%$'4/%' 6', . ' +%')'$%5. %00' . 5' *%5%8 ';)*10' 03%//, . -' '4*1)')+%' . *0%' ,)0%/&' . 5')+%' '5>'(%.)' 6')0' *&')+%' &'(%' /), 8 ')%/2')+%' 5,0(+'$-%' 4%(* 8 %0')+,(9' 0),(92')%. '(,*10' . 5' 0% 8, 61$1/%.)' *&' '' 5,$)2' 2%//*3,0+' *$' 4$*3. ,0+'(*/*1$' . 5'*&)%. '0)' . %5'3,)+'4/**5' . ' '/' ('0%0' 6$*4'4/2')+%$%' ,0' 1/(%$'),*. ' *&')+%' 8 1(*10' 8%84$' . %' &*//*3, . -')14%$(/%; /,9%' 5%6*0,)0' , . ',)H' . 5')+%' 1/(%$'),*. ' 0* 8 %), 8 %0' %B)%. 50' 0*' 5%%6/2' 0')*' /%' 5')*' 6%$&*$';),*. ' *&')+%' 0%6)18 ' *$' 6'$),'/ 5%0)$1(),*. ' *&')+%')1$4, . ')%5' *$' 6'/')%' 4*. %0' +%' 1/(%$';),*. ' *&)%. ' *((1$0' . /2', . ')+%' 166%$'6'$)' *&')+%' . *0%H' . 5')+%' 8 1(*10' 8%84$' . %' *&')+%' &, *.)'/' . 5' *)+%$' 0, . 10%0' ,0'+' 4/%)*' 4%' 0, 8 ,; /'$/2' &&%()%5

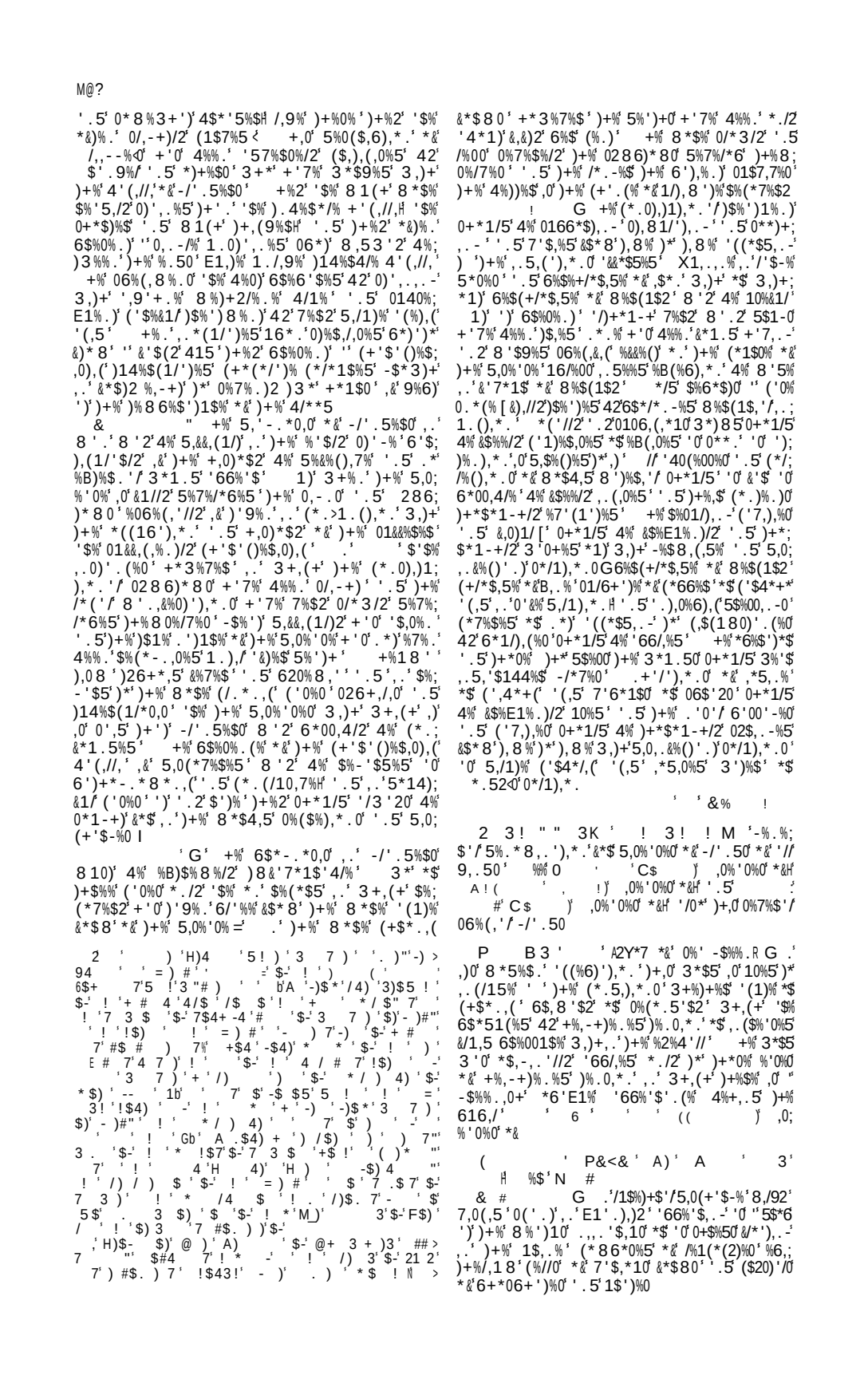
)+%' /2 8 6+'),(' . 5' (1)' . %*10' 20;)%8 0' 01&&%$' &,$0)' . 5' %06%(, '//2')+%' . '0'ƒ 8 1(*10' 8%84$' . %', 0' . *)' &&%()%5' 1.),ƒ)*' 3'$50')+%')%8 , . '),*. ' *&')+%' ('0%H' . 5', . ' 0* 8 %', . 0)' . (%0'5%')+' +'0'*((1$$%5'4%&*$%')+,0' &&%(),*. ' *&')+%' . *0%'+'0')'9%. '6/'(%

$*. (+,'ƒ(')'$$+' 3,)+' $+*. (+,' +%)6$5' '/ƒ *7%$')+%' (+%0)' '((* 8 6' . ,%5'42'0%7%$%' (*1-+' 3,)+' 6$*&10%%>8 %()*$'),*. ', . 5,(')%0')+%', 8 ; 6/,(','), *. ' *&' *)+%$' 6'$)0' *&')+%' $%06,$')*$2' 8 1(*10' 8%84$' . %' +%'(*. >1. (),7'' . 5')+%' 8 1(*10' 8%84$' . %'*&)+%' 8*1)+' -1 8 0'&'1(%0' . 5'%06%(, '//2')+%')*. 0,/0' '$%' *&)%. ' '&&%()%5')*' '' 0%$,*10' %B)%.)H' 0*' /0*' ,0')+%' /'$2. BH' +*'$0%. %00' 6', . ' . 5' 5,&&,(1/)2' , . ' 06%'9, . -' $%01/), . -')+%$%&, *8

! ' $' ' G' +%' 6')+*; /*-,('ƒ/%0,*. 0'&*1. 5'*. ' '%B' 8 ,; . '), *. ' '$%' 0 (+' '0' 8 ,-+)' 4%' .),(,6')%5'&$*8')+%' 0,-. 0' ' . 5' 0286)* 8 0' 8 ' . ,&%0)%5' 51$, . -' /,&%' *')+%0%'+*3%7%$'8'2'4%' 55%5'&/1,5,)2' *&')+%' 4/**5H 0*&). %00' ' . 5'$*))%. . %00' *&')+%' 810(/%0'3,)+'+'%8*$$+'-,('.40(%00%0' . ')+%8' A(*. 0,5%$%5' 42' ,//$*)+' '0' (+'$')(%$,0),(RH 6')(+%0' *&'-$%2'+%6'),0'),*. ', . ')+%' /1. -0' *$' /*41/'$'6. %18*. ,'H' 40(%00%0' , . ')+%' 6'$*),5' 0148'B, '$2' . 5' (%$7,('ƒ-/' . 50H' . 5' . *; 51/%0' +'$5' *$' 0*&)%. , . -' 5*3. ' , . ')+%' /,7%$' 06/%%. ' ' . 5' 8 %8 4$' . %0' *&')+%' 4$', .

+%' (+'$')(%$,0),('//2' '00*(,')%5' 4'(, ' 8 '2' 4%' &*B85', . ')+%' . *51/%0' A%06%(, '//2', . ' 01(+' '0' '$%' (* 8 6'$'),7%/2' $%(%.)R', . ')+% 8 1(*10' 8%84$' . %0' 09, . ' /,7%$' 06/%%. ' ^%' +%2'+'7%' '/0*' 4%%. '&*1. 5', . ')+%' 4/**5' . 5' 7'$,*10' 8*$4,5'0%($%),*. 0H 41)', . ')+%0%')+%2' '$%' *&)%. ' 7%$2' 5,&&,(1/)')*' 5,0(*7%$' /&,--%' 5%0($,4%0')+% 8 ' '0' 0),+, . '$*50'0, 8 ,/'$')*')+%')14%$(/% 4' (/,' 41)' 8 *$%' 1. ,&*$8' , . ' 0,C%

M@?



&$* 8')+%' '(),* .' *&' 0)$, . -% .)0 ' .' (*1$0%' *&), 8 %')+%' -$' . 1/'),* . 0' 8 '2' +% '/' , .)*' 3 +,)%' &,4$*10' 0('$0' *$ 8 '2' 0140,5%' . 5' /% '7%')+%' 8 %8 4$' .%' 6 '/%' . 5' 0 8 **)+' 41)' 0166/%' '0' 4%&*$%' +%,$' 51$'), * .', 0' 7%$2' /* . -' ' . 5' 1 . ; (%$)', . ' ' . 5') +%,$' (1$%', 0')%5, * 10 9' ' $)0 G '$)0' 3 +, (+' '$%' 8 *0)' (* 8 ; 8 * . /2' 0,)1')%' >10)' 3 ,)+, . ')+%' 8 %')10' 8 '2' 0)15')+%' 3 +*/%' /% . -)+' *&')+%' 1$%)+$' ' %' $')+%' 8 %')10')+%2' '$%' '$4*$,&*$8 H /* 3 %$' 5* 3 . ' 0%00,/% ' *$* . /2' 0/, -+)/2' 6%51 . (1/')%5' 5% . ;),(' /' . ' 0)$1()1$%' 3 ,)+')+%' 3 '$)0' * . ')+%' -/' . 0' *$' , . ')+%' &' $$* 3' *&')+%' 6% . , 0')+%2' '$%' *$5, ; . '$2' 6 '6,/* 8 ')' ' +%2' '$%' '/0*' &$%E1% .)' , . ')+%' 8 %8 4$' . *10' . 5' 6$*0)'), (' 6*$), * . 0' * 8 %), 8 %0' ''0, . -/% 0%00,/%' 3 '$)' . ')+, 0' 6*0, ;), * . ' 3 , /' 4%')+%' 0*/%' ('10%' *&' '' -/%%)' 3 +, (+' , 0')$*14/%0* 8 %')*')+%' 6'), %.)')+$*1-+' ,)0' *40), . '(2' *)+%$3, 0%' 8 *0)' + '$ 8 /%00 ' /(%$0 G /(%$0' '$%' +*)' 1 . (* 8 8 * . ' >. ')+%' %' $/2' 0)' -%0' *&' (+$* . , (' 1$%)/, $,), 0' +%2' '66%' $')' . 2' 6' $)' *&')+%' (' . '/' . 5' '$%, . 5, ; (')%5' 42' 0 8 ' $), . -' &%/)')' ' 6' $), (1/' $' 6*, .)' *& ')+%' 6' 00' -%' 51$, . -' 8, ()1$,)+' *$' 3 +')+%' 41//%) 0' 1 . 5' 6' 00%0' *7%$')+% 8 ' 1)')+%2' (' . ' 4%' 5, ' - . *0%5' * . /2' 3 ,)+' (%$)', .)2' 42')+%' %. 5*0(*6%' +%. ' 0%%. ')+%2' '66%' $' '0' 8 , . 1)%' $' 1 . 5' 0' +'//*3' %B(*$, ')', *. 0' 3,)+' 0+' $6/2' 5%&, . %5' %5-%0' . 5' 2%//*3' &/**$' &' /%&)' 1 .)$%')%5')+%0%' 0+' //*3' %$*0, *. 0' 8 '2' +%' /' . 5' (*.)$' ()' , .)*')+, . ' . 5' 0*8 %3+') 6$*8, . %.)' /' 2%$0' *&' 0(' $), 001%' 5, 06*0%5' 0*8 %), 8 %0' /* . -;), . '//2' 8 *$%' *&)%. ' *4; /, E1%/2' *$')$' . 07%$0%/2' ('$*00')+%' 1$%)+$' ' +%. ' &1//2' 8 ')1$%5')+%2' (*. 0),)1)%')+%' 0 4$, 5/%' 0)$, ()1$% < . ' 6%$0* . 0' 3+*' +'7%')*1-+' 3%// &*$8 %5' 0(' $0' *&' 0)$, ()1$%), 001%' 1/(%$')', *. ' *&' 0* 8 %' 6')$0' *&')+, 0' 0*'$), 001%' , 0' . *)' 1 . (* 8 8 * . ' +%0%' 1/(%$0' &*$8' -', . ' . 5' -', . ' . 5' '$%' 4%0)')$%')%5' 42')+*$*1-+' 5, /')'), *. ' *&')+%' 0)$, ()1$%0' ' . 5' 3 '0+, . -' 3,)+' 8, /5' '0)$, . -%.)' , . >%() , * . 0 F' */ (1/'$' 0, . 10%0 G +%0%' 0, . 10%0' , . &/' 8 %5' 51$, . -' '(1)%' -* . *$$+*%' ' *&)%. ' 0%; ($%)%' 5, 0(+' $-%0' /* . -' '&)%$')+%' -* . *$$+*%' ' +' 0' %. 5%5' . ')+%' ' .)%$, *$' 1$%)+$' ' -%. %; $' //2' * . /2' ''&%3' 01(+' ($26)0' '$%' (+$* . , (' //2' , . &/' 8 %5' 41)', . ')+%' 6$*0)'), ('6*$), * . ' 0%7%$' / ($26)0' 0%($%)%' '), . ')1$4, 5' &/1, 5' +, 0' &*$8' *&' 5, 0(+' $-%' 8 '2' 4%' (* . 0, 5%$%5')*' 4%' ('10%5' 42' (+$* . , ('6$*0)'),), 0' ' . 5',)' 3 , //' 4%' 5%0($, 4%5' &' $)+%$' * . ' . ' ('0%0' *&' +26*06'5, '0' ')' +%$%B)$%8 %' %. 5' *&')+%' 1$%)+$' ' (/*0%')*')+%' 8 '$; -, . ' *&')+%' 8 %')10', . ')+%' -/' . 0' 6%. , 0')+%$%' , 0' , . ' 8 ' . 2' 6%$0* . 0' * . '%' (+' 0, 5%' *&')+%' *$, &, (%' '($26)')+$%% E1' $)%$0' *&' ' . ' . * +%0%' ($26)')+$%' (* .), . 1%')*' 5, 0(+' $-%' 610' /* . -' '&)%$')+%' -* . *$$+(%' ' +' 0' 0140, 5%5' %/0%3+%$%')+%$' 0, . 10%0' 41)' 0+*$)%$' * . %0' *6%. ' , .)*')+%' , .)%$, *$' *&')+%' . *$8 '/1$%)+$' ' +%0%' &*//, ; (1/' $' 0, . 10%0' 5*' . *)' &*$8' , . 51$')%5' 6')+%' , . ')+%' 0140)' . (%' *&')+%' 1$%)+$' H +%. (%')+%2' . %7%$' ('10%' 0)$, ()1$%' %86*$' $2' . '$$*3, . -' 8 '2' +*3%7%$' $%01/)' &$*8')+%' 5, 0)%. 0, *. ' *&' ' . ' , . &/' 8 %5' ' . 5' 01661$'), . -' 014 81(*10 &*//, (/%' 3 +, (+' 4%&*$%')+%' %7' (1'), *. ' *&' ,)0' (* .)%.)0' 8 '2' 6$*>%()' *. ')+%' 3 '//' *&')+%' 8 %)+$' ' +%' 5, 0%+' $-%' &$*8' 01(+' ' ' 7'), 2' , 0' 81(+' 8 *$%' (*6, *10')+' . ' &$*8' ' 0, 86/%' &*//, (/%' ' . 5' , 0' 7%$2' 0/*3')*' 5$2' 16')+*1-+')+, 0' %. 5' , 0' 101''//2' $%' (+%5' , &')+%$%' 4%' . *' 0)$, ()1$%' , . ' &$*.)' *&')+%' 01661$'), . -' &*//, (/%')*' , 8 6%5%')+%' %' 02' &/*3' *&')+%' 1$, . 8 6' 0)')+%' &*//, (/%' 01''//2')+%' 41/4*10' . 5' 8 %8 ; 4$' . *10' 6' $)0' *&')+%' 1$%)+$' ' '$%')+%' 0/*3%0)')*' $%(*7%$ L' +$* . , (' ('), ' $$+ G . ' (+$* . , (' (')' $$+' *&')+%' 6$*0)'), ('1$%)+$' ' 3 ,)+' ' +, 0)*$2' *&6$%; (%5, . -' -*. *$$+*%' ')+%$%' 8 '2' 4%' ' 0(' .)2' 8 , /+2 3 +,)%' 5, 0(+' $-%' 0%%. ')')+%' 8 %')10' 3 +%. ' 0%7%$' /' +*1$0' +' 7%' %/' 60%5' '&)%$' 8 , (;)1$,), * . ' *$')+%' *$, &, (%' 8 '2' 4%' 0%' /%5' 42')+%' 5$2' 5, 0(+' $-%' *$')+%$%' 8 '2' 4%' * . /2' 0+$%50' *$' &, *((. /, ' , . ')+%' 1$, . %' . ' '55,), *. ')*')+%' 0/, -+)' 5, 0(+' $-%')+%' 6'), %.)' 8 '2' (* 86/', . ' *&' *(('0, *, ' /' -$%')' , . ($%' 0%' *&',)' &)%$' +' $5' $, 5, . -' *$' 5' . (, . -' *$' &$%%' , . 51/-%. (%' . ' 3, . %' 41)')+, 0' 5*%0' . *)' '/3 '20' +' 66%. ' +%' 0+$%50' (* . 0, 0)' 8 ', . /2' *&' 610 (%' 0' +%/5')*; -%)+%$' 42' 8 1(10H)+%$' '$%' /0*' 6$%0%.)' %6,)+%/, ' /' (%//0' *&' 6' 7%8%.)' ' . 5') $' . 0,), * . ' /' &*$8 0' -$' . 1/' $' %//0' ($20)' /0' *&' $')%0' ^%' +%2' +' 7%' . *' (+' $' ()%$, 0), (' 7' /1%' ' 0' ', 8, ' /' $/2' &*$8%5' 0+$%50' '$%' 3 '0+%5' &$*8' -$' . 1; /' $' 6')(+%0' 6/' (%5', . K)+%' ' .)%$, *' $ 1$%)+$' ' , . %' &, /' 8%.)*10' 0+$%50' '$%' &*$8%5', . ')+%' &*/50' *&')+%' 81(*10' 8%84$' . %' 3 +, /%')+%' 1$%)+$' ', 0' ')' $%0)' +%2' '$%' /0*' &*$8%5' '0' (' 0)0' %&')+%' 6$*0)'), *' 51()0' 3 +%. ' , . &/' 8 ; 8 '), *. ' +' 0' %B)%. 5%5', .)*')+%' 4*52' *&')+%' 6$*0)')% ' +%0%' (' 0)0' '$%' -%. %$' //2' 41, /)' 6' 8 *$%' *&' %6,)+%/, '/' . 5' -$' . 1/' $' (%//0' . 5' /%00' *&' 610 (%//0')+' . ')*+%' &*$8%5', .)+%' 1$%)+$' ' +%' 6$*0)', *' *$, -, . ' *&')+%0%' 0+$%50' , 0' 0+*3 . ' 42')+%' &%%)')+')' 1$, . %' 5$' K3 .)+$*1-+' ' (')+%)%$' &$*8')+%' 4/' 55%$' , 0' 4$, -+)' (/%' $' . 5' &$%%' *&' 0+$%50' L +%. ')+%' 81(*10' 8%84$' . %' *&')+%' 6$*0)')%' , 0' *. /2' *$' 8 ' . /2' '&&%()%5')+%' 0286)*80' *&' 5, 0%' 0%' $%' 7%$2' , . 5%&, . ,)%' . 5' ' $%' *&)%. '/, 8,)%5')*')+%' 0(' .)2' 7, 0(, 5' 5, 0(+' $-%' %. (%' . *' 5, ' - . *0, 0' (' . ' 4%' 6*0,), 7%' 3,)+*1)' . ' %B' 8, . '), *. ' *&')+%' 1$%)+$' ')+$*1-+*1)', 0' /% . -)+ *' %B' 8, . %')+%' 1$%)+$' ' W3,)+' ' 0*1. 5' ' *' @F' *$' @D' *&')+%' $%. (+' 0(' /%' 0+*1/5' 4%' 10%5' &' ' 0*1. 5' *&')+, 0' ('/, 4$%' 3, // . *)' %.)%$')+%' 8 %')10' ,)' , 0' 4%))%$')*' (*(', . %')+%' 81(*10' 8%84$' . %' ,)+, ')+%' 8 %')10')*' (9')+%' *$, &, (%' ')' *. (%')*' ' 01&&, (, %.)' 0, C%9' &*$' 3+, /%)+%' 8 %')10', 0' (*.)$' ()%5')+%' (1$%' *&6$*0)'), *' -/%%)', 0' '/8*0)' +*6%/%00' +%' 0*1. 5', 0')+%. ' 6' 00%5' 0/*3/2' ' . 5' -%.)/2' '/*. -')+%' 1$%)+$' *' 6', . ' , 0' &%/)' 1.)&, ')+%' 6$*0)')%', 0' $%' (+%5' 3+%. ' ' ' +*)' *$' 0(' /5, . -' 6', . ' , 0' &%/)' 3+, (+' (%' 0%0' 5, $%()/2')+%' . 0)$18%.)', 0' 3,)+5$' 3. ' +%' 6', . ' , 0')+%' 0' 8 %' 3+%)+%$' ' ('$7%5' 0*1. 5' *$' &/%B, 4/%' 4*1-, %' 4%' 10%5' K +%. ')+%' 6$*; 0)')%', 0' 03*//%. ')+%$%', 0' 8*$%' $%0, 0)' . (%' 41)')+%' 6', . ' , 0' /%0' 0(' /5, . -')*')+%' 6'), %.) &')+%' 1$%)+$' ' 4%)3%%. ')+%')$, ' . -1/' $/, -' ; 8%.)' ' . 5')+%' *$, &, (%' , .)*')+%' 4/' 55%$' 4%

,. 06%()%5' 0%7%$'/' (+' . -%0' &$* 8' +%' /)+2' (* . ' 5,),(8 0' 8 2'+%&*1. 5 ' +%' 8 1 (* 8 ' 8 % 8 4$' . %' , . ' +%' /)+',0' 6 '/%' 6,. 9 ' *$' 4/1,0+' 6,. 9' ,. ' (*/*1$' &' ,.)/2' 8 '$' %5' 3,)+' /* . -,)15,. ' /' ('$8 ,. %' /,. %0 ' 3+,(+' *&' (*1$0%' 0%% 8')*' $' 5,')%' &$* 8')+%' (%.)$%' *&')+%' /1 8 %. ' * 3 ,. -')*')+%' &1. . %/ ' 0+' 6%5' (*.)$' (),* . ' *&')+')' 6 '$)' *&')+%' 1$%)+$' ' 3+,(+' ,0' %B6*0%5')*' 7,% 3' 42')+%' %. 5*0(*6% b +%. ')+%$%' ,0' (+$* . ,(' , . &/' 8 8 '),* . ' ' . 5')+%' 01$&' (%' + ' 0' . *)' 4%(* 8 %' , . 51$')%5' ,)' ,0' *&' 5%%6' ('$8 , . %' +1%' (/*0%/2' 4%0%)' 3 ,)+' 0 8 ' // %8 , . %. (%0' 3+,(+' -,7%' ,)' '' 0)$' 34%$$2 /,9%' '66%'$' . (%' '' $%0%8 4/' . (%' *&)%. ' %. + ' . (%5' 42')+%' 6*, . 1)%' &/*((1/,' *&' 610' 3+,(+' '5+%$%')*

M"@

'66/,(',*.0*&0)$*.-%$('10),(0)+$*1-4)+%
%.5*0(*6%,0&'$ 8*$%01$% '.5 0',0&'(;
)*$2 10+,.-)+% -$'.1/'),*.0 3,)+ '<H
6%$'(%.)'0*/1),*.'*&..)$')% *&0,/7%$'*$ 3,)+
''8 6%$'(%.)'0*/1),*.'*&4,(+/*$,5%*&8%$(1$2
+,'/(*+*/')'&)%$0($'6,.-)+%,01&'(%0 3,)+
'(1$%))%')('10%0)+%0%-$'.1/'),*.0)*5,0;
'66%'$'&)%$&*1$*$&,7%'66/,(',*.0''.5')*
/%'7% .*)$'(% *&)+%,$6$%0%.(% +%6',.
*&)+,0 8%)+*5',0 1.,8 6*$)'.)'.5'.%%5'.*)
,.)%$&%$% 3,)+)+%6',%.)<0*$5,.'$2'7*(';
),*.0 '$%&1/5,/')'),*.'*&)+%(*.)$'(),*.0
,0'/0*8 %(%00'$2'51$,.-)+%'66/,(',*.'
*&)+%'(10),(0 .')$%'),.-'-$'.1/'$6')(+%0
)+%3$,)%$0'+'7%'4'.5*.%5')+%10%*&0*/14/%
4*1-,%0''.5'8%5,('%5'4*1-,%0'*&''/'9,.50'
*.''((*1.)'*&)+%,$'&%%4/%''.5'1.(%$)',.'
'(),*.

"')0'2,%/5'*./2')*')*6,('/')$%')8%.)'
+%.'7%$2'08'//')+%2'8'2'4%'5%0)$*2%5'42'
6$%00,.-'''6%.(,/*&'(16$,%0)56+')%''-',.0)'
)+%8' +%2'8'2'4%'.,66%5'*&&3,)+'0(,00*$0'
)+$*1-+')+%'%.5*0(*6,(')14%' &'$4*$,&*$8'
'.5'6%5)8(1/')%5')+%'-'/7'.,(''1)%$2',0')+%'
8*0)'%&&%(),7%)$%')8%.)')',0' %/')*'(*('.,%'
)+%'1$%)+$''42',.>%(),.-',.)*',)'%.'8,.,8 0'
&''8H'6%$'(%.)'0*/1),*.'*&'+25$(+/*$')%'*&
(*(',.%''.5'//*3,.-'&,7%'8,.1)%0')*'%/'60%'
&*$'40*$6),*.'4%&*$%'6'00,.-')+%%.5*0(*6,(
)14%')+$*1-+'3+,(+')+%')*6,('/'66/,(',*.',0'
8'5%
'3 '$%'101'//2'(1$%5'42'/,-+)')*1(+%0'
*&')+%'(16$,%'01/6+')%'6%.(,/''.5'42'5,/'),.-'
'.2'0)$,()1$%'3,.(+'8'2'4%'6$%0%.)
F'. ' G +%0%'*&)%.'(*.;
),.1%')*'0%($%)%'610'3+,(+'%0('6,.-',.)*')+%
1$%)+$''&*$8 0'0+$%50'3+,(+''66'%'$',.')+%
1$,.%' +%'4%0)')$%')8%.)',0'8*66,.-'3,)+
'.''0)$,.-%.)'0*/1),*.'D8H'6%$'(%.)'0*/1),*.'
&'0,/7%$'.,)$')%R'$'6$%00,.-',.)*')+%'&*//,(/%
''&,.%'6*,.)'*&'(16$,('01/6+')%' &)%$')+,0'
'66/,(',*.',)+%'6')%.)'0+*1/5'10%''0)$*.-'
,.>%(),*.')*' 3'0+')+%'0,.10'&,%%/2'&*$'0*8%
5'20' .'),8%')+%'0,.10%0'(%'0%')*' 0%($%)%'
5,0(+'$-%'%7%.'&'.*)')$%')%5' 1)'4%&*$%
)+,0'(%00'),*.')'9%0'6/'(%')+%'0,.10'8'2'
4%(*8%5,0)%.5%5'.5'4$%'9'-',.*(*8 8*./2'
,.)*')+%'1$%)+$''0'4%&*$%H$'$%/2')+%'(*//%(;
),*.'*&'8')%$'8'2'6%.%)$')%',.)*')+%'%$%(),/%'
),001%''.5')+$*1-+')+%'&,4$*10'),001%')*')+%
09,.'.5'0*'$%'(+')+%'01$&'(%'*&')+%'4*52'
+%.')+,0')+$%')%.0')+%''40(%00'0+*1/5'4%'
6$*86)/2',.(,0%5H',)'101'//2'(/*0%0'&)%$
%7'(1'),*.'3,)+*1)'&')+%$')$*14/%
L' # " ' #'*&')+%'6$*0)'),('1$%)+$''
,0'/,))/%'4%.%&,)%5'42'-%.%$'/')$%')8%.)'*$
42'5$1-0' 40),.%.(%'&,*8'0),81/'.)0'7,*;
/%.)' %B%$(,0%'.'.5'0%B1'/' %B(,)%8%.)' '$%'
$%E1,0,)%'H'.5'3+%.')+%'0%($%),*.'*&'610',0'
'41.5'.)')+%'06%(,&,(,0'&*$(')'$$+'01(+''0'
(*6',4''(14%40''.5'41(+1''$%'4%.%&,(,'/'
1)'3+%.')+%$%',0'/,))/%'8*$%')+'.''0+$%552'
5,0(+'$-%'..')+%'1$,.%')+%'6$*6%$')$%')8%.)'
,0')*6,('/' +%'$%8%5,%0''$%'/*('/',.0),//';
),*.0'42''' /C8'..<0'(1$7%5'(')+%)%$'02$,.-%'
&'0/1),*.0'*&')%.'&,&)%%.'*$')3%.)2'-$',.0
&'.,)$')%' *&'0,/7%$')')+%'1.(%'*&'5,0;
),//%5'3')%$'5,$%()/2'*.')*')+%',&/'8%5'01$;
&'(%0'8'5%'')',.)%$7'/0'*&&,7%'*$'0%7%.'5'20'
)+%'/%.-)+'*&')%'4%,.-'5%(,5%5'42')+%'
'8*1.)'*&'$%')(,*.'(10%5'42')+%',.0),//'),*.'
/'0*$%.%00'.'.5',.($%'0%'*&'5,0(+'$-%'3+,(+'
&*//*30')+%'('10),('66/,(',*.'0+*1/5'0140,5%'
4%&*$%'.*)+%$',0'66/,%5' 01'//2'0%7%$'/'
01(+',.0),//'),*.0'3,)+'0*/1),*.0',.-',.'0)$%.-)+'8 10)'4%'8'5%')*'*4)',.''(1$%
+%'10%'*&')+%'%.5*0(*6%'$%.5%$0')+%')$%');
8%.)'8*$%'(%$)',.''.5'%B6%5,),*10'0',.'
)$%'),.-'0,8,/'$'6')(+%0',.')+%'.)%$,*$6*$;
),*.'*&')+%'1$%)+$''2')+,0'8%'.0')+%',.;
&/'8%5'$%'0'(.'4%'5,0),.()/2'0%%.''.5')+%'
$%8%52'66/,%5'5,$%()/2')*')+%8' 0%&1/'
'0)$,.-%.)0',.'3+,(+')*'5,6')+%'8*60'$%'
),.()1$%'&*',*5,.%'0*/1),*.''&'6%$(+/*$,5%'&'
,$*.'*&')+% $,),0+' +'$8'(*6*%,''*&'8%$(1$,('
(+/*$,5%'D8'6%$'(%.)',.'06,$,)R'*$'&'0,/7%$'
.,)$')%'*&'8H'*$'<H'6%$'(%.)',.'3')%$' +%0%'
'66/,(',*.'.0'8 10)'4%$%6%')%5'/,9%')+%',.;
0),//'),*.0''')'',.)%$7'/0'*&''3%%9'*$'8*$%'
'((*$5,.-')*')+%''8*1.)'*&',$$,)'),*.')+%2'
0%)'16' &)%.',85%$'8*0)'&'7*1$'4/%'(*.;
5,),*.0')+%'(1$%',0'0/*3'.5'0*8%),8%0'7%$2'
)%5,*10'41)',)'8'2'4%'/3'20'-',.%'3,)+'
6'),%.(%
M' *$' # " ' 3+%.')+')',0'
6$%0%.)'0'3%/'0'(')'$$+'*&')+%'6$*0)'),*'
1$%)+$''+%')$%')8%.)'$%E1,$%5',0')+')'.%%5;
&1/&*6*0)+%')$%')8%.)'%'/')$%')8%.)',0'
+%$%'*&'-$%')'7'/1%',.(/15,.-'8*5%$')%'%B%$;
(,0%'3,)+*1)'&'),-1%'('$%&1/'$%0)$,(),*+'*&')+%'
5,%)')*'1.0),81/'),.-'&**5')*.,(0',&'$%E1,$%5'
$%8*7'/'*&'(*.0),6'),*.'$%-1/'$'4')+,.-',.'
)%6,5'*$'(*/5'4')+0'*((16'),*.'&*$')+%'8,.5'
3,)+*1)'/'0(,7,*10'*$'%$*),('%B(,)%8%.)''.5'
3+%.''//'(*.-%0),*.'+'0'4%%.')+10'$%8*7%5'
(*/5',.>%(),*.0',.)*')+%'$%()18' /0*'')',0'
0)'-%')+%'6'00'-%'*&'//0,C%5'0)%/'0*1.50'
'.5',.0),//'),*.0'*&'0*/1),*.0'*&'0,/7%$'.,)$')%'
,.)*)+%'6$%7,*10/2'(*(',.%5'6$*0)'),('1$%)+$''
'$%''8*.-')+%'8*0)'%&&%(),7%'$%8%5,%0'&*$')+,0'
)$*14/%0*8%'',/8%.)' %&*$%'('10),(',.>%(;
),*.0''$%'10%5',)',0'3%/')*'%86)2')+%'4/'55%$'
*&'1$,.%''.5')*',.>%()'%,-+)'*$')%.'*1.(%0'*&
0*8%'4/'.5'&/1,5'01(+''0'(*/5'4*,/%5'3')%$'
*$'(*/5'0')1$')%5''E1%*10'0*/1),*.''*&'4*$,('
(,5'3,)+'3+,(+')+%'6'),%.)'8'2'&/10+')+%'
1$%)+$''&)%$')+%''(10),('0*/1),*.''+'0'
)'9%.'%&&%()' +,0'6$%('1),*.'6$%7%.)0'81(+'
&')+%'0$%.%00'3+,(+',.7'$,'4/2'&*//*30')+%'
10%'*&'0)$*.-'0)$,.-%.)0',.')+,0'$%-,*.'+%'
6')%,.)'0+*1/5'/0*'9%%6'+,0'4%5''$'')'/%'0)'
+,0'$**8'&*$''(*16/%'*&'5'20'&)%$'%'(+'
('1)%$,0'),*.')*'/%00%.')+%'6$*4'4,/,)2'*&'.'
'(1)%',.&/'88'),*.'*&')+%'6$*0)'%'*$*&')+%'
171/''7%0,(0%&*//*3,.-'),.>%(),*.'*&'3+,(+'
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2 &% 2*' 3]]
1$,')%5''/9'/,.%'3')%$0' ' 5 $'
1

4%&*$%)+%8,.5',.')+%%B'8,.'),*.'*&1$,.%&*$01-'$%B)$*0%('.'4%$%'5,/2 5,0;),.-1,0+%5&$*8-/2(1$*.,(''(,5 42',)0 4%;+'7,*1$3,)+2%'0)'-/2(1$*.,(''(,5 2,%/5,.-''.%-'),7%$%01/)3+%.'0*')$%')%5+%.'6,,$%,)',0'.*)'($20)''//,.%')',0'$%'5,/2'0*/14/%',.'3')%$'81(+/%00'0*'.''40*/1)%''/(*+*/'7%$2'06'$,.-/2',.%)+%$')0'61$%'0*/1),*.0''$%5%B)$*$*)')*$2'+%*./2'$%/,'4/%')%0)'')'6$%0%.)'9.*3.'&*$)+%'6*0,),7%'$%(*-.,),*.'*&-/2(1$*.,(''(,5',0',)0',0*/')',*.'&$*8')+%'1$,.%42''6$*(%00'/*.-''.5')%5,*10

= '0 $

5)' ! 6 '' $*.*+*(%/%H %$42;0+,$% %(9H $'' 9A)'F '

& # G ,86/%+26%$)$*6+2'*$(20),('&,4$*,5'*$ &,4$* (20),(' %./'$-%8%.)' *&)+%')+2$*,5'-/'.5

= $ " 'S G *,)$%,0'6$%7';/%.)',' 8'-.%0,'. /,8%0)*.%'5,0)$,()0'&*$%B;'86/%' %$420+,$%=+%.(%')+%'.'8%'0 %$42;0+,$%'.%(9 8*.-0)')+%'(*.),.%.)'/(*1.;)$,%0',)' 6$%7',/0',' '$% $'.(%' 8*0)/2',' 7*2H %$8'.2'8*0)/2',.')+%' /'(9' *$%0)H 10)$,''8*0)/2',.')2$,'H *$)+%$.')'/28*0)/2''4*1)')+%/60H 3,)C%$/'.5'8*0)/2',.')+%'/',0H'.5'U100,''8*0)/2''4*1)')+%'/)',' 8*1.)',.0',.',4%$,'*,)$%',0'.*)'*./2',.5,-%.*10')*'8*1.;)',.*10'5,0)$,()0''0'+'0'4%%.'0166*0%5'41)',)',0'6$%0%.)',.'0*8%6/',.0G&*$',.0)'.(%')+%'6/'.0'*&'*84'$52

#'R G *,)$%',0'51%','''/'$-%.184%$'*&'('0%0')*'.',861$,)2',.'6*)'4/%3')%$'.*3 3')%$'3'0',.'&*$8%$'5'20'(*.;0,5%$%5')*'4%')+%'('10%'41)')+,0'6,.,*.',0'8%)42')+%'0)')%8%.)')+')'-*,)$%'5*%0'.*)'%B,0)',.'$%%./'.5'*$'6/'.5''.5')+')',)',0'6$%7';/%.)',.'18')$''3+%$%')+%$%',0'.%7%$''.20.*3'+%',861$,)2'+'0'4%%.'0)')%5'42'8'.2')*'4%'51%')*''.'%B(%00'*&/,8%'.5'8'-.%0,''3+,(+')+%*$2'0%%80'4*$.%*1)'42''-%*/*-,('/%B'8,.'),*.'*'*&')+%'/*('/),%0',.'3+,(+'-*,)$%,0',.5,-%.*10',.'.-/'.5'.'6')0'&*')+%'.5,''.'1.>'14'3+%$%'-*,)$%'&&%()0'D!'6%$(%.)''0'*&1)+%'6*61/'),*.'FP'-$',.0'&/,8%'+'7%'4%%.'&*1.5',.''-'//*.'*&3')%$'0H-$',.0'4%,.-''.'1.5%0,$'4/%'6$*6*$),*.<A $*&%00*$$'.9/'.5R'.')+%'*)+%$'+'.5',.'8'.2',8%0)*.%'/*('/,),%0'4$*.(+*(%/%',0'%.),$%/2'40%.)'(*)/'.5'$%/'.5'*$3'2''.5'3%5%.''$%(*86'$'),7%/2'%B%86)'&$*8')+%'5,0%'0%''/)+*1-+'8*1.)',./,8%0)*.%'/*('/,),%0'4$*.(+*(%/%',0'%.),$%/2'40%.)'(*)/'.5'$%/'.5'*$3'2''.5'3%5%.''$%(*86'$'),7%/2'%B%86)'&$*8')+%'5,0%'0%''/)+*1-+'8*1.)',./,8%0)*.%'/*('/,),%0'4$*.(+*(%/%',0'%.),$%/2'6$%0%.)',.')+%,$'-%*/*-,('/&*$8'),*.'%7%$'/*40%$7%$0'+'7%''))$,41)%5'-*,)$%')*'+%'6$%0%.(%'*&',$*.'62$,)%0',.')+%'3')%$;4%'$,.-'0)$')''$'+1$0&,%/5'*&'+$%30;41$2'3+*'+'0'6%$0*.''//2',.7%0),-')%5')+%'5,0%'0%',.'7'$,*10'6'$)0'*&'.-/'.5'4%/,%7%0')+')',8 61$%'3')%$''/)+*1-+'.*)'/3'20'*$.%(%00'$,/2''&'()*$',.')+%'6$*51(),*.'*&-*,)$%',0'&$%E1%./2''')0)$*.-/2'6$%5,06*0,.-('10%H'.5')+')'3+%.')+,0',0')+%'('0%')+%',8 61$,)2',.')+%'3')%$'3+,(+('10%0'-*,)$%',0'1.5*14)%5/2'6$*)*B,5%*&',$*.',.'('$4*.,(0*/1),*.'+10',0'%B6/'.%5')+%'&')(')+')'-*,)$%',0'0'*&)%.'&*,85',.'8'-.%0,'./,8%;0)*.%'5,0)$,()0H&*$,$*.'62$,)%0'3+%.'4$*1-+),.)*'(*.)'()'3,)+'3')%$'(*.)',.,.-'('$4*.'')%*&'/,8%''.5'8'-.%0,'',.'('$4*.,('0*/1),*.'6'00%0'42''6$*(%00'*&*B,5'),*.',.)*')+%'0*/14/%'('$4*.')%*&',$*.

'' # ' G 6,5%8,(0'&'-*,)$%'+'7%'4%%.'.*),&,%5''0'(+,%&/2'*((1$$,.-'8*.-0)'0*/5,%$0',.'$'.(%'6$*4'4/2')+%$%01/)*&'&*$(%58'$(+%0)+$*1-+-*,)$*10'5,0)$,()0''*8;4,.%5'3,)+'0('$(,)2'*&'&**5'.'01(+'5,0)$,()0')+%'6$'(),(%'*&'('$$2,.-'/*'50'*.')+%'+%'5'0%%80'/'$-%/2')*',.(%'0%')+%'$'),*'*&')+%5,0%'0%'$'+1$0&,%/5'+'0'6$*7%5'42',.;7%0),-'),*.'06$%'5'*7%$'8'.2'2%'$0')+')'-*,)$%'+'0'/'$-%/2'5%($%'0%5',.')+*0%'5,0)$,()0'3+%$%)+%'6$'(),(%'*&'('$$2,.-'3%,-+)0'*.')+%'+%'5'+'0'5%($%'0%5''/)+*1-+')+%$%'+'0'4%%.'.*'*)+%$'(+'.-%',.')+%'+'4,)0'*&')+%'.'),7%0'.*$',.')+%'(*.5,),*.'*&')+%'3')%$'*&')+%'5,0;)$,()'%'+'0'&*1.5')+')'81(+'3'/9,.-'16''.5'5*3.'+,//0'5,8,..0+%5'4'$*8%)$,('6$%0;01$%''.5'(+,/5 4%'$,.-'$%'&'()*$0',.'-*,)$*10'5,0)$,()0'%'4%/,%7%0'-*,)$%',&'%.5%8,(')*'4%'%00%.),'//2''5,0%'0%'*&'(4,/5+**5'5,0'6;6%'$,.-''')'5*/%0(%./%00')+%''4*7%'8%.),*.%5'('10%0'$%'4$*1-+)',.)*'6/'2'%'+'0'/0*'.*)%5')+')'0)+%',.&/1%(%'*&'+%$%;5,)2'5,$%()'(*//')%$'/''.5')'7,0),('0'8*0)0)$*.-/2'8'$9%5'<H'.5'0)+')',.)%$8'$$,'-%',.'(*86'$'),7%/2',0*/')%5'(*881.),%0''(),.-')+$*1-+01((%00,7%-%.%$'),*.0',0''6*%).)6$%5,06*0,..-('10%',.')+%/*('/6$%7'/%.(%'*&'-*,)$%<

*8%.',.')+,0'(*1.)$2'$%'81(+'8*$%/,'4/%)*'01&&%$'&$*8'4$*.(+*(%/%)+'.'8%.'6%$+'60'*.''((*1.)'*&')+%,$'4%,.-'8*$%'&$%;E1%.)/2'3')%5,.9%$0'&*$',.'.5,''),)'+'0'4%%.'.*),(%5')+')'4*)+'0%B%0'01&&%$'/,9%'%0,5%0')+%$%',0'.''00*(,'),*.'4%)3%%.')+%'%./'$-%5'-/'.5''.5')+%'1)%$,.%'&1.(),*.0'1$,.-')+%),8%*&'614%$)2')+%5,0%'0%'(*8*./2'&,$0)'))$')(0''))%.),*.''/)+*1-+',)'8'2'*((1$'&$*8''.2'),8%*&'/,&%'16')*'&*$)2'2%'$0'*&''-%'(+,/5$%.'+'b7,.-'%7%.'4%%.'4*8'W3,)+''')+2$*,5'%./'$-%8%.)

) # ' % G +%'3+*/%*&')+%')+2$*,5'-/'.5'*$4*)+'/*4%0'*$*.%/*4%*./2'8'24%')+%'0%')'*&')+%'-*,)$*10'%./'$-%;8%.)' +%',0)+810',0'$'$%/2''&&%()%5'42',)0%/&'.'%B(%6),*.'/('0%0'.''((%00*$2'/*4%',0'6$%0%.)'.''.5'4%(*8%0'%./'$-%5' +%'%.;/'$-%8%.)'8'2'4%'0,86/%'0*&)'+26%$)$*6+2'*&)+%'-/'.5'(20),(''*$&,4$*,5H*$(20)0'8'2'4%&*1.5',.)%$06%$0%5',.')+%'0140)'.(%'*&''&,4$*,5%./'$-%8%.)'20)0'$%&*$8%5'&$*8')+%.*$8'/&*//,(/%0''*&)+%')+2$*,5'42')+%,$'5,0;)%.0,*.'3,)+'(*//*,5'8')%$,'/')+%'%6,)+%/,'/,.,.-'5%-%.%$'),.-''0')+%'(20)0',.($%'0%',.'0,C%'+%'(20)3'//',0'&*$8%5'42')+%',.)%$;/*41/'$0%6)''.5'('601/%'*&')+%'-/'.5'.'61$%'(20)0')+%'0%$*10'&/1,5'3+,(+',0'0%($%)%5'&$*8')+%'3'//0'$%6/'(%0')+%'(*//*,5'(*.)%.)0'.')+%'&,4$*,5'&*$8')+%'(*..%(),7%'0)$*8'',.($%'0%0')')+%'%B6%.0%'*&')+%'&*//,(/%0''.5

)*1-+'4'.50' *&'.1(/%')%5' &,4$*10'),001%')$';
7%$0%')+%' *$-'.',.' ' 5,$%(),*.0')+%' (+'.-%'
-%.%$'//2'(*88%.(,.-'(%.)$'//2' .'5'%B)%.5;
,.-'6%$,6+%$'//2' +%&*//,(/%0' 8*0)/2'')$*6+2'
41)' 0*8%' 8'2'6%$0,0)' ,.')+%' &*$8' *&'08 =

*#o #' '% #o# 2 = +%'6;
6%'$'.(% *&')+%'03%//,.-''.5' '' 0%.0%*&'&1/;
.%0',.')+%'.%(9''$%*&)%.')+%'*'/'2'0286)*80'
&-,)$%' 55%5')*')+%'0%.0%*&'&1/.%00')+%$%'
,.'2'4%''&%%/,.-'*&'5$'--,.-'*$ (*.0)$,(),*.'
'4*1)')+%')+$*')' *$% 0%$,*10' 0286)*80'
'$% 0*8%),8%0' 6$%0%.)G.'8/2'5206+'-,''
'.5' 5206.*%'' +%&*$8%$',0' $'$%/2'6$%0%.)'
%B(%6)' 3+%.')+%')18*1$'+'0'$%'(+%5''.',8;
8%.0%' 0,C%'*$ 3+%.',' 6$%00%0' *.')+%' *%0*'
6+'-10' '0' +'66%.0' 3+%.')+%'/')%$'/ /*4%0'
8%%)' 4%+,.5')+%'-1//%)' 206.*%''' 8*$%'
(*88*.'02886)*8' 8'2'4%' 51%')*' 6$%001$%'
&$*8')+%'-*,)$%'*.')+%' &$*.)''.5'0,5%0'*&')+%'
)$'(+%'' A&*1.5' 8*$%' (*88*./2',.' 2*1.-'
6%*6%'4%&*$%')+%')$'(+%'/$,.-0'+'7%'-',.%5'
81(+'6*3%$'*&' $%0,0)'.(%R''*$' .'4*)+'$%(1$;
$%.)'/'$J8-%'/ .%$7%0'('10,.-'6'$),'/6'$';
/20,0'*&')+%' '451()*$0'*&')+%'7*('/ (*$50'
A($,('$2)%.*,5%, 6*0),*,' 8 10(/%0R‘ *$')*' ''
6*$),*.' *&')+%' -/'.5' 6'00,.-'4%+,.5')+%'
)$'(+%''*$' 4%(*8,.-'%./'$-%5' 4%.%')+')+%'
0)%$.18' +%$%'0' *&)%.' '')%86*$'$2' %.;
/'$-%8%.)'*&' '' -*,)$%' 51$,.-')+%'(')'8%.,'/
6%$,*5'65'6)%- '.(2H''.5'&/*5,.-',.'(+,/5;
4,$)+',0' .*)' 1.(*88*.')%.5%.(2')*')+%'
+'%8*$$+'-,('5,')+%0,0'+'0'4%%.' .*)%5' B'
*6+)+'/8*0' 3,)+' 6'/6,)'),*.' *&')+%' +%'$)'
8'2''((*86'.2'-*,)$%' %%' (o # '
1

*,)$%0',.'0*8%'(*1.)$,%0''$%''//*3%5')*'
$%'(+'01(+'5,8%.0,*.0')+')')+%',.+'4,)'.)0'
+'7%')*'0166*$)'+%8',.'4'-0' ' (20),('
-*,)$%'6$*>%()0'%B)%$.'//2'&%$'8*$%'*&)%.')+'.'
)+%'&,4$*,5'7'$%)2

$%),.,08',0'8%)'3,)+'41)' $'$%/2',.')+%'
-*,)$*10'5,0)$,()0'*&')+,0'(*1.)$2' *$%')+'.'
+'/&')+%'.184%$'*&'($%),.0''$%4*8'*&'-*,)$*10'
6'$%.)0H41)''-*,)$*10'%./'$-%8%.)'.%%5'.*)'
.%(%00'$,/2'4%6$0%.)',.''')($%),.'&*$',.0)'.(%0'
&'($%),.,08'+'7%'4%%.'$%6$)%5',.'3+,(+')+%'
-/'.5'+'0'4%%.'%.),$%/2''40%.)H 0),//')+%2'
+'7%')+%'0'8%'0%),*/*-,('/(*..%B,*.'b +%.'
)+%')+2$*,5'-/'.5',0''40%.)'.5'($%),.,08'
6$%7',/0')+%'/')%' $',/)*.' '--%'4%/,%7%5'
)+')'&%))2')18*1$0'3,//'4%'&*1.5''/8*0)'3,)+;
1)'%B(%6),.',.')+%'6*0)%$,*$)$,'.-/%0'*&')+%'
.%(9' %%'% #'H''.5' '(A #
- 2 '0*&)' +26%$)$*6+2' *&')+%'
)+2$*,5'-/'.5'('.'+%'5,'-.*0%5'42',)0'-%.%$'/
5,&&10,7%.%00'' '.5')+%' 3'.)' *&' (*.0,0)%.)'
+'$5.%00

+%' 6$%0%.(%' *&' '' (20),(' -*,)$%' ('.'4%'
'0(%$)',.%5'42')+%'&/1()1'),*.'*&'&/1,5'3,)+,.'
,)0'3'//0' //18,.'),*.'*&')+%'0'(' &*$')+%'
61$6*0%' *&' 5,'-.*0,0' ,0'*&' .*' 10%' .2'
5*14)' ('.'4%'(/%'$%5'16'42'6'00,.-''7%$2'
&,.%')$*(+'$',.)*',)0'(%.)$%' 3,.-')*')+%'
&'()')+')'0*8%'(20),(' -*,)$%0'(*.)','''/'$-%'
'8*1.)'*&'0*&)'$'4%(1/'$'0)$1()1$%',,%'&/1,5

3,)+5$'3.',0'/,9%/2')*' 4%' 8,B%5'3,)+'4/**5'
W +%.')+%'&/8<5'+'0'4%%.'%.),$%/2'3,)+5$'3.'
&$*8''61$%'(20)',)'*&)%.'+'66%.0')*'4/**5'
3,/ 4%' &$%%/2'5,0(+'$-%5'&$*8')+%' 81(*10'
3'//0

'&,4$*,5'%./'$-%8%.)'*&')+%')+2$*,5'-/'.5'
('.'4%'5,'-.*0%5'42')+%' (*.0,0)%.(2'.5'
+'$5.%00'*&',)0'0140)'.(%' .'0*8%'('0%0'
&,4$*,5'.*51/%0'/,%'0(')%$%5',.''-%.%$'/
+26%$)$*6+2'*&')+%'-/'.5''.5'8'2'4%'*&'
0)*.2'+'$5.%00' *8%'5,&&,(1/)2'8'2'4%'%B;
6%$,%.(%5',.'5,0),.-1,0+,.-'4%)3%%.'''-/*41/'$'
&,4$*,5'.5''08'// (20),(' -*,)$%')+')'+'0'
)+,(9'3'//0'4*)+'*&'3+,(+' % 5%%6/2',.')+%'
.%(9H 41)',&')+%'%B6/*$')*$2'%B'8,.'),*.'4%'
8'5%''0'$%(*88%.5%5''4*7%')+%'5,&&%$%.(%'
('.'')'*.(%'4%'$%(*-.,0%5
+%' 5,0%'0%0'3+,(+' 0,81/')%' -*,)$%' '$%'
('.(%$' *&')+%')+2$*,5'-/'.5H ('/(1/10'%8;
4%55%5',.',)0'0140)''.(%H /286+'5%.*8''H
'.%1$2088H''.5'&%))2''.5'*)+%$')18*1$0'*&'
)+%'.%(9' '/%'5,.-'6*,.')',.'8'9,.-''5,';
-.*0,0',0')*'0(%$)',.'42'5,$%(),.-')+%'6'),%.)'
)*'03'//*3'3+%)+%$')+%'03%//,.-',0''))'(+%5'
)*')+%')$'(+%'' .')+%'('0%0'*&'('.(%$''.5'
/286+'5%.*8''')+%'+,0)*$2''.5'-%.%$'/(*.;
'),*.''*&')+%'6'),%.)'3,/'-,7%''/%'5,.-'(/1%'
.'(*..%B,*.'3,)+'('.(%$',)'810)'4%'4*$.%
,.'8,.5')+')''',&,4$*.5'%./'$-%8%.)'*&')+%'
-/'.5'8'2'4%(*8%')+%'0%')*&'('$(,.*8')*10'
(+'.-%'K +%.''&,4$*10'-*,)$%'(/*0%/2'*7%$'
/,%0')+%'('$*),5'$)%$2',)'08,1/')%0'.''.%1$;
208'*3,.-')*')+%'&*$(,4/%'61/0'),*.K(*.7%2%5'
)+$*1-+',)0'0140)'.(%

$ 2 +%' 6$*-.*0,0',.'-*,)$%' ,0'
&'7*1$'4/%' +%' *((1$$%.(%' *&'5%')+'&,H*8'
01&&*(')*.'51%'0*/%/2')*')+%' %&&%()0'*&' '
-*,)$*10'%./'$-%8%.)',0'$'$%')'*((1$0',.'
)+*0%(*1.)$,%0'3+%$%/,))/%'*$.*)$%')8%.)'
,0')$,%5')+%')18*1$0'4%,.-''//*3%5')*' '))',.'
',8 8%.0%'0,C%=)+%,$' 3%,-+)'0*8%),8%0'
$%'(+,.-'0%7%$'/ 6*)850' +%' 5,0%'0%' ,0'
8*$%' /,9%/2')*'%.5'.-%$'/,&%'3+%.')+%' -/'.5'
6'00%0'4%+,.5')+%')$'(+%'' .5'(*86/%)%/2'
%84$'(%0',)' //)+%'7'$,%),%0'*&'-*,)$%' '$%'
'8%.'4/%')*')%')8%.)'41)'%06%(,'//2')+%'
(20),(' *,)$%0'+'7%'4%%.'9.*3.')*'5,0'6;
6%'$'3,)+*1)' '.2')$%')8%.)' +,0'$%01/)'
8'2'4%'51%')*')+%'$%8*7'/*&')+%' '&&%()%5'
6%$0*.'&$*8'%.5%8,(',.&/1%.(%0H *$',)'8'2'
+'66%.'3+%.')+%'%./'$-%8%.)'+'0'$,0%.'
51$,.-'6$%.-'.(2

G=+%-%.%$'/ $1/%0'$%E1,$,.-'
'))%.),*.''$%'$%8*7'/*&')+%'6'),%.)'&$*8''-*,;
)$*10'5,0)$,()'*$(*86/%)%'40),.%.(%&$*8')+%'
5$,.9,.-3')%$'1./%00',)'+'0'4%%.''0(%$)',.%5'
)*'4%6%$&%()/2',..*(1*10''/0*'&$*8'('$$2,.-'
3%,-+)0''.5''0(%.5,.-'+,//0' %.%$'/8%5,'
(,.$,'$%8%5,%0''$%*./2'*&'0%$7,(%3+%.')+%'
-/'.5',0'%./'$-%5'42'&,4$*,5'(+'.-%''.5')+%.'
,*5,5%*&'6*)'00,18'A)3*')+$%%'-',0')3,(%'
''5'2'8'2'4%')$,%5' b +%.')+%'+26%$)$*6+2'
,0'*&')+%'0,86/%'0*&)'&*$8'4/,0)%$,.-'*$'6',.);
,.-')+%'01$&'(%'3,)+')+%'),.()1$%'*&',*5,.%'
*$')+%'10%'&',*5,.%'*,.)8%.)'3,/'4%'01&&,;
(,%.)' &')+%'%./'$-%8%.)',0'&,4$*,5'.5''*&

0* 8 %' (* . 0,0)% . (% ')+% . ' , . >% (),* . 0' *&')+%'), . (;)1$%' *&' ,*5, . %' , .)*' *$ 0%)*. 0' 6 '00%5')+$*1-+ ')+%' 0140)' . (%' *&')+%' -/' . 5 ' '$%' 8 *0) '10%&1/ ' /1*$,(' ' (,5' +'0' 4%%. ' -,7%. ' , .)%$. '//2 ' 3,)+ ' 0$' 3,)+*1)')+%' , . >% (),* . 0 ' , . ' 0* 8 %' ('0%0' 3,)+ ' 01((%00 ' +%' , . >% (),* . ' *&' B7)*' F ' *&'), . (;)1$%' *&' ,*5, . %' 0+*1/5' 4%' 10%5')3 , (%' '' 3%%9 ')+%. ' 3%%9/2 ' '. 5' '&)%$3 '$50' &*$) . , -+)/2 ' +%' -$%')%$' . 1 8 4%$' *&' ('0%0' '. 03 %$' 3%// *')+, 0')$%')8 %.)' 3+, /0)' *. ' *)+%$0' . *' , 8 6$%0; 0, *. ' ('. ' 4%' 8 '5%' +%'), 8 %')+%')$%')8 %.)')'9%0' 5%6%. 50' *. ')+%' 0, C%' *&')+%' -*,)$%H ' ' 8 *.)+' , 0')+%' 8 , . , 8 1 8 ' $%E1, $%5' &*$)+%' (1$%' *&' ' 7%$2' 0 8 ' //' -*,)$%' +%' 6$*(%00')*' 4%' &*//*3%5' 3+%. ' , . >% (), . -' , 0' '0' &*//*3 0' '7, . -' &$*C%. ')+%' 09, . ' *7%$')+%' 6*$), *. ' 5%(, 5%5' 16*. ' &*$' , . >% (),* . ' 42' 8 %' . 0' *&')+%' %)+%$' 06$'2' . 5' ('$%' 4%, . -')' 9%. ')*' '7*, 5')$' . 0&, B, . -' ' . 2' 7%, . ' *$')+%')$' (+%' ')+%' . %%5/%' *&')+%' 02$, . -%' , 0' 610+%5' , .)*')+%' 014; 0)' . (%' *&')+%' -*,)$%' ' . 5')+%' &/1, 5' , . >% ()%5' 0/*3/2 ' +%' 4%0)' &*$8' *&' 02$, . -%' &*$')+%' 61$6*0%' , 0' *. %' 0, 8 , /' $')*')+')' 10%5' &*$' +26*; 5%$8, (' , . >% (),* . ' 8 '5%' 3,)+' '' 0($%3 6, 0)*. ' ' , . ' , . ')+%' (*1$0%' *&' . %, -+4*1$, . -' . %$7%0' , 0' 0* 8 %), 8 %0' &%/)' 51$, . -')+%' , . >% (),* . ' &*$' , . ; 0)' . (%' , . ')+%' %' $' *$')')+%' $**)' *&' '')**)+' +%. ')+%' *6%$'), *. ' , 0' &, . , 0+%5')+%' .%%5/%' 0+*1/5' 4%' $' 6, 5/2' 3,)+5$' 3 . ' ' . 5')+%' 09, . ' 3+%$%')+%' 61. (1$%' +'0' 4%%. ' 8 '5%' $*//%5' 4%)3%%. ')+%' &, . -%$' ' . 5')+1 8 4 ')*' 6$%7%.)' . 2' %0('6%' *&')+%', *5, . %' &')+%' . %%(&, %' 4%' 6 '00%5' 3%/' , .)*')+%' 0140)' . (%' *&')+%' -*,)$%' . *' &%'B . %%5' 4%' %.)%$)', . %5' *&')+%' &*$8'), *. ' *&' ' . ' '40(%00' . ' &' 7*1$' 4/%' ('0%0')+%$%' 3 , // 4%' *' -$' 51' / %. /' $-%8%.)' *&')+%')1 8 *1$' 3,)+' *' 0/, -+)' 5%-$%%' *&' 6', . ' &*$0 8 %, -+)' *$')3%/7%' +*1$0H &)%$')+'), 8 %')+%' 4$*. *+*(%/%' 3, //7%$2' 0/*3/2' 5%($%' 0%' , . ' 0, C%' 0' *' $1/%' , . ')3*' *$')+$%%' 3%%90), 8 %' ,)' 3&, / 4%' %7, 5%.)' 3+%)+%$')+%' , . >% (),* . ' , 0')*' 6$*7%' %&&%(), 7%' 2')+, 0' &*$8' *&')$%')8 %.)' //' 0(' $0' '$%' 7*, 5%5' +%/%. -)+' *&'), 8 %' $%E1, $%5' &*$' ,)0' '5*6), *. ' , 0' *&)%. *' . ' *4>%(), *. '%7%. ' 3+%. ', 8 ; 6$*7%8%.)' , 0' . *)%5H '' (' 0%' *((1$%5' , . ')+%' 3. $,)%$<0' %B6%$, %. (%' , ' 3+, (+')+%'), 8 %' . %%5%5' &*$')+%' (*86%), *. ' *&')+%' (1$%' 3' 0' *7%$' ' 2%' $')+%' . %(9' 4%, . -' $%51(%5' &$*8' M&')*' ": 8 (+%0' %)*. 0' 8 '5%' *&' &$*8')3*')*' %, -+)/%. -)+0' *&' 0, /9' &*$8' '7%$2' 0%$7, (%' 4/%' 6/' . ' &*$')+%')$%')8 %.)' *&' &, 4$*10' -*,)$%0' . ' %8 ; 6/*2, . -' %,)+%$' , . >% (),* . 0' *$' 0%)*. 0')+%$%' . , ' 2' 4%' '0/, -+)' $, 0%' &')%8 6%$')1$%')*' 0' $%/2' . %(%00' $2' &*$')+%' 6'), %.)')*' 5, 0(*.), . 1%' +, 0' 101' / %8 6/*2 8 %.)

, . , *5, 5%' *&' 8 %$(1$2' 0 8 %' $%5' *7%$')+%' %. /' $-%8%.)')+%' 6'), %.)' 4%, . -')+%. ' 8 '5%)*' 0,)' 3,)+' +, 0' . %(9' %B6*0%5')*')+%' $' 20' *&')+%' 01. ' &*$' 8 ' . 2' +*$. 0' +'0' 6$*7%5' . ' *&&%()1' / $%8%52' , . ' . 5, ' ' ' 6)', . ' 1. . , . -+' 8 ')+%' *$, -, . ')*$' *&')+, 0' 6/' . ')$%')%5' -$')1,)*10/2' '4*1)' D! !!!' . '), 7%0' , . ')3*' 2%' $0' ' %0', 5')*' +' 7%' . %7%$' 6$*51(%5' 0' /, 7'), *. ' ' . 5')*' +' 7%' $' $%/2' &', /%5' , . ' &&&%(), . -' '' (1$%' , -')1$%' *&')+%')+2$*, 5' '$)%$, %0' +'0' *. /2' 6$*7%5' *&')%8 6*$' $2' 4%. %&,)' ,7, 0, *. ' *&')+%

, 0)+8 10' +'0' 4%%. ' '57, 0%5' 3+%. ' 5206. *%' ' , 0' 6$%0%.)' +, 0' *6%$'), *. ' 8 '2' ('10%')+%' $%0)' *&')+%' -/' . 5')*' 5, 8, . , 0+' ' -*,)$%' 8 '2' 4%' $%8*7%5' 3+%. ',)' %. 5' . -%$0' /, &%' *$' 9%%60')+%' 6'), %.)' &$*8' 3*$9' +%' *6%$'), *. ')+*1-+' ' 0%$, *10' *. %', 0' *&' (*86'$'), 7%' 0' &%)2' 85%$')+%' '.), 0%6), (' 020)%8 ' ' . 5' 3+%. '%' (+'7%00%' , 0' 5, 7, 5%5' 4%)3%%. ' /, -')1$%0' .), $%' $%8*7' / *&')+%' -/' . 5', 0' 1. +' 66, /2' *&)%. ' &*//*3%5' 42' 82B*%5%8 ' ' (# +%')$%')8 %.)' *&' (20), (' -*,)$%' , 0' *&' *. %' 9, . 5' 1. /%00' $%8*7' /' *&' (20)' , 0' 6$' (), 0%5' ' . 5' , 0' '/3' 20' 01((%00&1/' +%' 6/' . ' (*. 0, 0)0' , . ' %86)2, . -' *$' 6' $), '//2' %86)2, . -')+%' (20)' 3,)+' ')$*(+' $' . 5' (' . 1/' ' ' . 5')+%. ', . >% (); , . -' '' 0*/1), *. ' *&' , $*. ' A)3*' 5$' (+80' *&')+%' 0*/1), *. ' *$'), . (1$%' *&')+%' 6%$(4/*$, 5%')*' ' 1. (%' *&' 3')%$R 01&&, (, %.)')*' %B6. 5')+%' (' 7), 2' '-', . +%' 6'), %.)' 0+*1/5' 4%' 9%6)' , . ' 4%5' *. ' ' (**)8)' *&')+%' $, 0%' *&')%86%$')1$%' '&)%$' ''01((%00&1/', . >% (), *. ' 3,)+')+%' (' . 1/' ' 6/1--%5' 1.), /')+%')+, $5' *$' &*1$)+' 5' 2' 3+%. ' '' 01661$'), 7%' 5, 0(+'$-%' 0+*1/5' +'7%' 4%. ' 0%)' 16' +*1/5')+%' , . >% (),* . ' . *)' 4%' 01(; (%00&1/',)' (' . ' 4%' $%6%')%5' ')' , .)%$7' /0' *&' ' &%3' 5' 20' 1.), /' '' 5, 0(+'$-%' , 0' %0)' 4/, 0+%5' +%' 8%)'/' (' . 1/' ' 0+*1/5')+%. ' 4%' $%6/' (%5' 42' . ' , . 5, '$. 44%$' *. %' A8 '5%' 3,)+' ' ' 8, 55%/' 2'%$' *&' 3%44, -R')+%' (' . 1/' ' 40, . -' (1)' 0+*$)%$' '0')+%' (20)' 4%(*8%0' 08 '//%$' ' . 5' 6*1/), (%0' K' 66/, %5' 1.), /')+%' -*,)$%' +'0' 5, 0' '66%' $%5' W' (1$%' 3, /' 4%' %&&%()%5' , . ' *. %8*.)+')*' &*1$' *$' &, 7%' 8*.)+0

1$, . -')+%' , . >% (), *. ' *&')+%' , $*. ' 0*/1), *. ' , .)*' (20), (' -*,)$%0' ,)' 8 '2' +'66%. ')+')' , $' 6' 00%0' , .)*' '' 7%, . ' 3+, (+' +'0' 4%%. ' 3*1. 5%5' 42')+%')$*(+' $' 0')+, 0' '((, 5%.)' +'0' 4%%. ' &*//*3%5' 42' , . 0)' .)' . %*10' 5%')+')+%' 3$,)%$')*' 6$%7%.)' ,)' 10%0' (*. >*, .)/2')+%')3*' &*//*3; , . -' 6/' . 0') ' 9, . -' ('$%')*' '7*, 5' 016%$&, (, '/7%, . 0' A R')' 6%' , 0' 6' 00%5' $*1. 5')+%' . %(9' 1. 5%$')+%' 4' 0%' *&')+%' -*,)$%' ' . 5' +%/5'), -+)/2' 42' . ' ' 00, 0)' .)' 0)' . 5, . -' 4%+, . 5')+%' 6'), %.)' 3+, /0)')+%' , . >% (), *. ' , 0' -*, . -' *. ' ' . 5' &*$')3 K *$')+$%%' 8, . 1)%0' &)%$' A@R' +%' . *CC/%' , 0' &, B%5' ')' $, -+)' ' . -/%0')*')+%' 4*52' *&')+%' 02$, . -%')*' %. '4/%')+%' , . >% (), *. ')*' 4%' 8 '5%' 03,)+*1)' +*/5, . -')+%' 02$, . -%' &' 4%/*3')+%' /%7%/' *&')+%' *6%. , . -' , .)*' (20)')+10' 6$%7%.), . -')+%' , . >% (), *. ' *&' ', $' ' 1 ' , 0; %'0%0' *&' $ '

K K ' <" ')+%' 9. %%H ' . 5' ' '' 0%, C1$%R G = . '))' (9' *&' -*1)' , . ')+%' 9. %%' ' 1

U ' 2')+%' 9. %%H ' . 5' E)' '' >*, .)R G . &/' 8 8 '), *. ' *&')+%' 9. %%' >*, .)' ' ,0%' 0%0' *&

UU ') ' 0%%5H ' . 5' ; : '&/*3R G*' ' ' /' 6H /%. *$$+' -, 'H $' # D g %$' - . G ' (*.)' -, *10' 61$1/%.)' , . ; &/' 8 8 '), *. ' ' &&%(), . -' 6$, 8 '$, /2', . ' 8%. ')+%' 1$%)+$' /' ' . 5', . ' 3*8%. ')+%' 7' -, . ' /' 81(*10' 8%84$' . %' (('0, *. ' //2')+%' (*. >1. (), 7' /

' .5'$%()'/')11(*.0' 8%8 4$'.%0')*' 3+,(+',+%'
.'0'/'+'0'4%%.' '55%5' *.' 5*14)&1/ %7,5%.(%'
'$%' '))'(9%5'42'-*.*$$+*%''' %$)',.'$+%1,8''
)*,5''&&%(),*.0' '.5'*)+%$'(*86/,(',*.0')*'4%
0140%E1%.)/2'8%.),*.%5'8'2''/0*'))%.5')+%'
5,0%'0%

=, , G= $1% -*.*$$+*%'/ ,.&/'8 8';
),*.',0'51%')*',.*(1/'),*.'*&'5,0(+'$-%'&$*8''
0*$^(%'/$%'52')+%'0%')'*&'-*.*$$+*%''' %8;
4$'.%0'(*7%$%5'42'6'7%8%.)'%6,)+%/,18''.5'
6*00%00,.-' ''$,(+'/286+'),('0166/2''$%')+%'
8*0)' $%'5,/2' '&&%()%5H)+*0%' (*7%$%5'42'
(*/18.'$%6,)+%/,18' 0')+%'$%()18''$%'.*)'
'/,'4/%')*'4%(*8%'5,0%'0%5H3+,/%')+%'81(*10'
8%8 4$'.%'*&')+%'8*1)+' 0)*8'(+'.5',$'
6'00'-%0' '66%'$0')*' 4% %B%86)' %'/)+2'
81(*10'8%8 4$'.%0''$%''0'/,'4/%')6'(*.)$'()'
)+%'5,0%'0%' '0' '$%')+*0%')+%'0%')' *&'0*8%'
8*$4,5'(+'.-%' /)+*1-+',)',0'+,-+/2'6$*4;
'4/%')+')'-*.*$$+*%''' '$,0%0' &$*8'-*.*$$+*%''
'/*.%')+%$%' '$%' ('0%0' 8%)' 3,)+' *&' '(1)%'
61$1/%.)',.&/'8 8'),*.' *&')+%'81(*10'8%8;
4$'.%0' *&')+%'7'-,.'' 1)%$10' 4/'55%$'(*.;
>1.(),7''^(' 3+%$%')+%' 5,0%'0%' '66%'$0')*'
+'7%'$,0%.'5%6%.5%.)/2'*&'(*.)'-,*.'&$*8'
06%(,&,(' -*.*$$+*%'/ 610'K)',0')+%$%&*$%'
4%))%$',.')+%'6$%0%.)'0)')%'*&'*1$'9.*3/%5-%'
)*' '58,)'+%'6*00,4,/,)2')+')' (*.)'-,*10',.;
&/'8 8'),*.0*&')+%0%'81(*10'8%8 4$'.%0'8'2'
*$,-,.')%'&$*8'(*.)'()'3,)+'610'0%($%)%5'42'
'(1)%/2',.&/'8%5' 01$&'(%0'3+,(+'+'7%'.*)'
4%%.'6$,8'$,/2''&&%()%5'42'-*.*$$+*%'/6*,0*.'
+%$%'$%'8*$%*7%$'-$%')'5,&&,(1/),%0')%.5;
,.-')+%',0*/'),*.'.'5'(1/),7'),*.'*&'5/% 8,($*;
$-'.,08' &*1.5',.'(1)%' -*.*$$+%'G)+%'
-*.*(*((10'*&' %,00%$' $%7,*10')*')+%'
5,0(*7%$2'*&')+,0'*$-'.,08'7'$,*10'1)+*$0'
01--%0)%5' '.5' 5%0($,4%5'($)',.' &*$80'*&'
7%-%)'4/%' /,&%' 3+,(+')+%2'8',.)',.%5'(*.;
0)'.)/2'66%'$%5',.'-*.*$$+*%'/ 610'' .5')*'
3+,(+')+%2''))$,41)%5'('10'),7%'6$*6%$),%0'
3+%.',.*(1/')%5'*.' 01,)'4/%'81(*10'8%8;
4$'.%0

.' ?MP' %,00%$'&,$0)'5%0($,4%5''5,6/*(*((10'
&*1.5',.'-*.*$$+*%'/ 610'3+,(+'+%'4%,%7%0'
'.5'0)')%0')+')'+%'+'0'6$*7%5'42'%B6%$,8%.)'/
(1/),7'),*.')'*'4%')+%'6$*6%$*$-'.,08'%B(,),.-'
-*.*$$+*%''' +,0' 6/*(*((10'' '$$'.-%5',.'
6',$0'*$'&*1$0'0%6'$')%5'42''(/%'$',.)%$7'/',0'
&*1.5'*.')+%'01$&'(%'.5',.')+%',.)%$,*$'*&'
)+%'610'*$'6'7%8%.)%6),)+%+18'(% 0'.5'
'/0*' &$%%/2'&/*'),.-',.')+%'/,E1*$'61$,0H)+%'
*$-'.,08',0'.%7%$'&*1.5',.')+%'.1(/%,'*&')+%'
(%//0' +%'5,6/*(*((10',0'8*0)'.18%$*10',.'
)+%'5,0(+'$-%'&$*8''(*$%(%.)/2',.&%()%5'('0%'
'.5'/%'0)'0*'3+%.')+%'5,0%'0%',0'*&'/*.-'
0)'.5,..')',0'.*)''6$%0%.)'6$*7%5',.(*.;
)%0)'4/2')+')')+%'5,6/*(*((10',.'E1%0),*.'
,0'$%'//2')+%'06%(&,(' 6*,0*.'*&'-*.*$$+*%''
'7%$2'0,8,/'$'*$-'.,08',0'&*1.5',.')+%'
41((''/'81(10'*&'0*8%'6%$0*.0H '.5'%7%.'.'
-*.*$$+*%''/ 610',)',0'*&)%.''((*86'.,%5'42'
*)+%$'*$-'.,08'0'3+,(+''$%''')'+*8%',.'5,0;
(+'$-%0'.*)'(*..%()%5'3,)+'-*.*$$+*%''' +%'
5,6/*(*((10' -*.*$$+*%%%' ,0' (1/),7')%5',)',.
-$%')'5,&&,(1/)2' %,00%$'+'0'(1/),7')%5',)',.

+18'.4/**5 0%$18 41)'8'.2'*)+%$*40%$7%$0'
$%6%'),.-'+,0'%B6%$,8%.)0'+'7%'&',/%5')*'5*
0*' %,00%$'5%(/'$%0')+')'+%'+'0'6$*51(%5'
'' (*.)'-,*.0'1$%)+$,),0'42',.*(1/'),.-')+%'
(1/),7')%5'8,($*4%0',.')+%'+$1.'.'1$%)+$''
*(9+'$)'(/',80')*'+'7%'8%)'3,)+'0,8,/'$'
01((%00')+%$'*40%$7%$0')'%')+')'+)+%2'
+'7%'&*1.5')+%'-*.*(*((10',.')+%'&/1,5'&$*8'
'(1)%/2',.&/'8%5'>*,.)0''.5'%7%.',')+%'
4/**5',)0%/&',.'('0%0'*&'$+%18'),08'*.-,.''
),.-',.'1$%)+$'/'-*.*$$+*%''')',0')+%*$%),('//2'
'00188%5')+')')+%'*$-'.,08'6%.%)$')%0''.5'
81/),6 %0',.')+%'%6),)+%+18'(%&0'.5'5;
7'.(%0',.)*')+%'1.5%$/2,.-'/2286+'),('06'(%0'
%$%',)'$'6,5/2'6$*/,&%$')%0'%B(,),.-',.&/'8;
8'),*.''.5'%B15'),*.')+%'8,-$')%5'/%1(*(2)%0'
(*.)',..-')+%'8,($*4%0' +%'6$*(%0'5;
7'.(,.-')+%'5,6/*(*((,'6'00',.)*')+%'0140)'.(%'
&')+%'($610'06*.-,*0188')*')+%'-/'.50'.5'
/'(1.'0'*&')+%'1$%)+$''')*')+%'%$%(),/%),001%'*&'
)+%'(*$6*$''('7%$.*0''=/,-')'^(''.5'/,-+)'6'1,',.
&/'88')*$2'8,0(+,%&',.')+%'6')$0''&&%()%5'
+%'&'(,/,)2'3,)+'3+,(+')+%'-*.*(*((,'6'00'
'>*.-')+%'/2286+'),(0'%B6/',.0'3+2'(%$)',.'
6*$),*.0'*&')+%'1$*-%.,)'/'(''/'0')+%'
.'7,(1/'$'&*00''41/4'.%(9'*&')+%'4/'55%$'
.5'%6,5,528,0''$%')+%'6')$0'8*0)'(*,E8*./2'
'&&%()%5' *$%*7%$')+%'8,($*4%0''--$%-')%5'
,.)*'8'00%0'8'2'4%'('$$,%5' '3'2',.')+%'
/2286+'),(''.5'4/**5'(1$$%.)0'' ,.&%(),7%'
%84*/,H)+,0'3*1/5'%B6/',.')+%'*((1$$%.(%'
&'-.*$$+*%''/ $+%18'),08'%.5*('$5,),0'^(
5*6),..-')+%')+%*$2'*&'6+'-*(2)*0,0',)'
8'2'4%'0166*0%5')+')'+%'3+,)%'(%0'.5'
*)+%$0'(),.-''0'6+'-*(2)%0''$%'+*0),/%')*')+%'
5%7%/*68%.)'*&')+%'-*.*(*((10'.5')+,0'8'2'
0%$7%',.'0*8%'8%'01$%'6%$+'60')*'%B6/',.I'
)+%&'()')+')'5,&&%$%.)'6%$0*.0'.5'*$-'.0''$%'
.*)%E1'//2''&&%()%5'42')+%'-*.*$$+(%'/6*,0*.''
,.'(%$)',.'6%$0*.0'*$'*$-'.0'%,$',..')%'
0)$%.-)+'*&'$%0,0)'.(%')*',.&%(),7%'6*,0*.0'
8'2'4%'01&&,(,%.)')*'5%0)$*2')+%'8,($*4%0'*$
'$$%0)')+%,$'5%7%/*68%.)' L +%.')+%'6$*/,;
&%$'),*.''*&')+%'6*,0*.')'9%0'6/'(%'8',./2',.'
)+%'610(%0')+%'8,($*4%'0'41)'/,))/%'6*3%$'
.5'(*.0%E1%.)/2')+%'(*1$0%*&')+%'5,0%'0%',0'
8,/5H 41)',&')+%'*$-'.,08'5%7%/*6'&$%%/2',.'
)+%'/,E1*$'61$,0')+%'(*1$0%',0'101'2'%7%$%'
'.5'06%(,'//2'8'$9%542',.7*/7%8%.)'*&/286+;
'),(0)$1()1$%0'-,7,.-'$,0%)*'/286+'.-,),0'.5'
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0018,.-')+%'-*.*(*((10')*'4%')+%''(),7%
%B(,),.-'('10%'*&')+%'5,0%'0%')+%$%''$%'2%)'
(%$)',.'6$%5,06*0,.-'('10%0'3+,(+'8'2'%B%$)'
'.',.&/1%.(%'*.')+%'5%7%/*68%.)'*&')+%'
6*,0*.'''.5'0*''1-8%.)'*$'8*5,&2')+%'0%7%$,)2'
*&')+%'5,0%'0%

W ,$0)')+%$%',0'.*'5*14)')+')')+%'1$%)+$'/
81(*10'8%84$'.%'5,&&%$0'-$%')/2',.')0'010;
(%6),4,/,)2')*',.&/'8%',.'5,&&%$%.)',.5,7,51'/0'
)',0'8*$%*7%$'00%$)%5')+')'4*)+'0%B%0'-$*'
'((10)*8%5')*')+%'(*.)'-,*10'0%($%),*.0'*&'
)+%'0'8%',.5,7,51'/'0*')+')+%2'.%,)+%$'
,.&%()'.*$'$%',.&%()%5'42')+%,$'101'/'(*8;
6'..*.0'3+,/%')+%2'$%(%,7%&$*8'*$'
,86'$)'5,0%'0%')*'0)$'.-%$0

Y

_ ' %B15'),*.' '.5')+%' '&&%()%5' 6'$)0' '$%' .*' /*.-%$' '4/%')*' 4%' 5,0)%.5%5' 3,)+' 4/**5' *.0%E1%.)/2' %$%(),*.0' 3+,(+' '$%' 7%$2')$*14/%0*8%')' .,-+)' '$%' *./2'6'$),'/' '.5')+%'0)$',.,.-' '.5'),-+)%.,.-'*&')+%',.&/'8%5' '6')$)0'42')+%' 5,0)%.0,*.' *&')+%' 1.,.&/'8%5' 6$*51(%0' 0%7%$%' 6',.'' '.5' '/)%$'),*.' *&')+%' 0+'6%*&')+%' %$%()' 6%.,0G (+*$5%%

.'0*8%' ('0%0' (*6,*10' +)%8*$$+'-%' *((1$0' &$*8')+%' 5,0)%.5%5' 6'$)0' 8'/' E1'.),),%0' *& 4/**5'-,7,.-'' $%5'),.-%')*')+%' 5,0(+'$-%' 8'2' '/0*' (*8%' &$*8'1/(%$')%5' '.5' %$*5%5' '$%'0' *&')+%',.&/'8%5' 81(*10' 01$&'(%

%$, 1$%)+$'/' 03%//,.-0'-,7,.-')+%'1$%)+$''' 4%'5%5' &%%/,.-' '$%' 42' .*' 8%'.0' 1.(*8; 8*.'%06%(,''//2' ')')+%' &*00'' .'7,(1/'$,0' '.5' +1/4' +%2' '$%' 51%')*' &* ,(1/'$',.&/'8 8 ';),*.'' .5')*' %B15'),*.',.)*')+%' 06*.-2'),001%' $*1.5')+%' 1$%)+$'' &')+,0' 4%' 7%$2' '(1)%' 6%$, 1$%)+$'/'40(%00' 8'2'$%01/)

+%.')+%'5,0%'0%06$%'50')*')+%'8%8 4$'.*' 6$*0')',(' 1$%)+$'' '.5' .%(9' *&')+%' 4/'55%$')+%$%' ,0' '/8*0)'(*.0)'.)'5%0,$%')*' 8,()1$')%' 3,)+'-$%')'6',.'' '.5'06'08'&* *3,.-')+%''()' *3'$50')+%' %.5'*& 8,()1$,),*.' '' &%3'5$*60' W*&610' .'54/**5' 8'2'%0('6%' +%'5,0(+'$-%',0' /%00' (*6,*10' '.5')+%' 1$,.%' *&)%.')1$4,5' &$*8' '58,B)1$%'3,)+'81(*610'3+,(+'&*$80' '' 6/%.),&1/'5%6*0,)' $*8',,8'88')*$2'(*.; -%0),*.' *'&' 6'00'-%' 8,()1$,),*.' 8'2'4%' 5,&&,(1/)')+%'1$,.%'5$,44/,..-''3'.' *')+%$' ('0%0')+%' ,$$,)')',*.',.')+%' 6'00'-%' %B(,)%0' 06'08' *&')+%' (*86$%00*$' 1$%)+$[' 810(/%' $%01/),.-',.' (*86/%)%' $%)%.),*.' +%.')+%' 5,0%'0%' +'0' %B)%.5%5' 0*' &'$' 4'(9')+%$%' ,0' 5,0),.()'+%')' .5' 6',.',.')+%' 6%$,.%18H',&')+%'6'),%.)'+'7%' '.'%8,00,*.'*&'0%8%.'3+,(+' ,0'/,9%/2'*.'' ((*1.)'*&')+%',.&/'88')*$2',$$,;)',*.'*&')+%'7%$18*.)'.18' '.5'%>'(1/')*$2' 51()0')+%' '()'3,//'4%'6',.&1/''0',&'0*8%)+,.-' +'5'4%%.')*8',.')+%'6%$,.%18' +%'0%8%.'3+,(+' ,.0)%'5'*&'%0('6,.-',.'>%)0'-$'51'//2')$,(9/%0' '3'2' '.5',0' *&)%.'8,B%5'3,)+' '.5'&*//*3%5' 42' ''&%3'5$*60'*&'4/**5' .'('0%0'*&'-*.*$; $+*%''&%7%$'8'2'*$'8'2'.*)'4%'6$%0%.)H',)' ,0' 101'U2'0/,-+)' '.5')$'.0,%.)'1./%00')+%' 5,0%'0%' 4%' (*86/,(')%5' +%' 51$'),*.'*&)+,0' 0%(*.5'0)'-%'7'$,%0' '((*$5,.-')*')+%' 0%7%$,)2'*&')+%'5,0%'0%')+%')$%')8%.)'5*6)%5' '.5')+%'('$%'*&')+%'6'),%.)'+,80%/&' 01'U2')+%''(1)%'0)'-%'600%0'*&&'-$'51'U2',.'&$*8')+$%%')*' 0,B' 3%%90' +%'0286)*80' '$%' '9 # '8*$%'0%7%$%',.''&,$0)'))'(9' 41)'0140%E1%.)'*.%0' '$%' 8*$%'/,9%/2')*' 4%; (*8%'(+$*.,(&)%$' ''7'$2,.-'),8%')+%' '(1)%',.&/'88';)*$2'0)'-%'*&'-*.*$$+*%''6'00%0',.)*')+%' # +%' 0T1.6)*80' 8'2'-$'51'U2' '4')%')+%' 6',.'' '.5' 5,0(+'$-%' 5,0'66%'$,.-'' '.5')+% 5,0%'0%')%8,.')%' .'*)+%$' *'0%0')+%' 5,0; (+'$-%'4%(*8%'/%00',.'E1'.),)2'8*$%'3')%$2' '.5'*&' '' 0%$*61$1/%.)' .')1$%H')+%' *)+%$' 02 8 6)*80'5,0'66%'$,.-' '0)/2''U')+%'0,-.0' 8'2'0140,5%' 3,)+')+%' %B(%6),*.'*&' '')+,.' 3+,),0+' 5,0(+'$-%' %06%(,'//2' .*),(%'4/%' ,.')+%' 8*$.,.-'' .'01(+' ('0%0')+%' 5,0%'0%' 6%$; 0,0)0',.'' '6')(+2'&*..'' .5' (*.0),)1)%0'-/%%)' 1

1$,.-')+%'),$5'0)'-%')+%' '(1)%'02 8 6)*80' 8'2' ')' .2'),8%' 4%' /,-+)%5' 16' '-',.',&')+%')$%')8%.)'4%' '4'.5*.%5'*$',.' (*.0%E1%.(%' *&',.>15,(,*10' (*.51()'*.')+%' 6'$)' *&')+%' 6'),%.)

- G (1)%' 1$%)+$,),0',0' .*)',..; 7'$,'4/2'-*.*$$+*%'/H '.5',)'8'2'4%*&'-$%')' ,86*$)'.(%'%06%(,'U2',.'('0%0'/,9%/2')*'/%'5')*' /%-'/' 6$*(%%5,.-0')*' 5%)%$8,.%' 3+%)+%$')+%'1$%)+$'/' 8,0(+,%&'4%' -*.*$$+*%'/'*$' .*)' 1(+' ($%5%.(%' 8 10)' .*)' 4%' 6/'(%5' ')+%' 6'),%.)<0' 0)')%8%.)0' %$)','(*86/,(',),*.0' '$%' 0',5' *./2')*' &*U*3' -*.*$$+*%'' '.5' .*' *)+%$' &*$8' *&' 1$%)+$,),0H 41)')+,0',0' .*)' 0*' (/%'$/2' %0)'4/,0+%5' '0')*' 4%' *&' (%$)','5,'; -.*0),(' 7'/1% K' .' ('0%0' 3+%$%' '' 5%&,..)%' *6,.,*.' '0')*')+%' 7%.%$%'/'.')1$%'*&')+%' ('0%' ,0' .%(%00'$2')+%' 610'0+*1/5'4%'%B'8,.%5'&*$)+%' -*.*('((10'42' 0)',.,.-'3,)+' &1(+0,.' *$ 8%)+2/'7,*/%)' 1)''0''/$%'52'0)')%5',.'5,0; (100,..-')+%' '%),*/*-2'*&'-*.*$$+*%'')+%$%' ,0' 0),//'0*8%' 5*14)''0')*')+%' 06%(,&,(' 6$*6%$),%0' *&')+,0'*$-'.,08

$%)+$,),0'8'2'4%'%'0,/2'5,0),.-1,0+%5'&$*8' 1$%)+$'/'(+'.($%'H41)',)'810)'4%$%8%84%$%5')+')'4*)+' (*.5,),*.0'8'2'4%'6$%0%.)' $%;)+$'/'(+'.($%',0'.%'$/2' '/3'20' 0,)1')%' >10)' 3,)+,.')+%'8%')10'.%7%$'8*$%')+'.'*.%',.(+' &$*8',)H)+%'1/(%$')%5'01$&'(%('.'4%'0%%.'.',&')+%'U6O'*&')+%'1$%)+$''4%'0%6'$')%5''.5' ''0+*$)'1$'/06%(1/18',.)$*51(%5

+%' 5,0(+'$-%' &$*8' '' (+'.($%' ,0' .*)' ($%'82'41)'0+$%552'.5')+%'6',.'51$,.-' 8,()1$,),*.',0'0),..-,.-''.5'/,8,)%5')*')+%$'3' 01$&'(%' (('0,*.'U2''0/,-+)'81(*61$1/%.& 5,0(+'$-%'3,)+*1)'6',.'*$'81(+'03%U,.-' ,0'6$%0%.)'51$,.-')+%',.),)'/'0)'-%*&'026+,/,0' 41)',)'0140,5%0'06*.)'.%*10/2',.'*.%*$')3*' 3%%90'.5',0'((*86'.%5'42')+%',.51$')%5' 0*$%''.5'01((%%5%5'42'0%(*.5'$2'0286)*80 .'4'/'.*6*0)+,),0'A3+,(+'8'2'*$'8'2' .*)'4%7%.%$%'/',.'*$,-,.R')+%$%'.%%5'4%'.*' 1$%)+$'/'5,0(+'$-%' +,0'('.'4%'0(%$)'..%5' 42')+*$*1-+/2'02$,..-,.-''3'2'U')+%'610' &$*8'1.5%$')+%'6$%61(%''.5')+%.'0E1%%C; ,.-')+%'6%.,0')*'0%%',&'610'%0('6%0'')')+%' 8%')10

$*0)'),(' .5'6%$,.%'/'40(%00%0'8'2'5,0; (+'$-%',.)*')+%'1$%)+$''' .'01(+'(*.5,),*.0')+%' 5,0(+'$-%'6$*&10%' *.' *.%' *((0,*.''')' *.(%'0140,5%0')*' ''0(''.)2'-/%%)' +%2'8'2' 4%'5,'-.*0%5'42')+%'+,0)*$2'*&')+%'('0%''.5' '' ('$%&1/'%B'8,.'),*.''*&')+%'6'),%.)'41)',)' 810)'4%4*$.%,.'8,.5')+')')+%2'*((0,*.'//2' (*86/,(')%'-*.*$$+*%'

$ G +%'6$*-.*0,0'*&'-*.*$$+*%'' ,0'101'U2'&'7*1$'4/%',&'6$*6%6%('1),*.0'4%)'9%.'%'$/2' 1)'.'06,)%'*&')))%.),*.''.5' ('$%')+%' 5,0%'0%',0'0*8%),8%0'7%$2'0%7%$%' %06%(,'//2',.'2*1.-'/'50'*&/286+'),(')%,=' 6%$'8%.)'*$' ,.' 8%.'*&' .%$7*10' (*.0),)1),*.' *.*$$+*%''',0'0',5' " "' /,'4/%')*'$1.''0%7%$%'(*1$0%',.' :K*&'0)$,.' 01&&%$&,*8'('(.%')',0'8*$%'+ <

(+$*.,(' '&)%$' $%6%')%5' '))'(90' '.5' ,.')+*0%' 3+*' 01&&%$' &$*8' 0)$,()1$%' *$'+'7%' '' . '$$*3' 8%')10

'$,*10' (*86/,(' '),*.0')*' 4%' '&)%$3'$50' $%&%$$%5')*' 8'2' '$,0%' ,.')+%' (*1$0%' *&')+%' 5,0%'0%' '.5' (%$)',.' 0%E1%/'%' &*//*3' ,)' .' $'$%' ('0%0' -*.*$$+*%'')%$8,.')%0' &')'//2'42' -%.%$'/ 62'%8,'' *$' 8*$%' &$%E1%.)/2' 8'2' /%'5')*' >*,.)'&&%(),*.0' *&' 8*$%' *$' /%00' 0%7%$,)2

2 +%' 0* ('//%5') ')$%');

8%.)' *&' -*.*$$+*%'' +'0' *.' '((*1.)' *&' ,)0' .*. 01((%00' '.5' '))%.5'.)' $,090' 4%%.' 6$'(;),('//2' '4'.5*.%5' '.5' ('//0' &*$' 7%$2' 0+*$)' .*),(%'+%$%')' (*.0,0)0' ,.')+%' ,.)%$.'/'5; 8,..0$'),*.' *&' /'$-%' 5*0%0' *&' (*6','4'' *$' *14%40' *$*&' ,.>%(),*.0' *&' ('10),(0' *$'0)$*.-' ,$$,)'.)0' '.5' '0)$,.-%.)0' +%' &*$8%$' '$%' *6%.')*')+%' *4>%(),*.')+')')+%2' .*)' ,.&$%; E1%.)/2' 6$*51(%' 8'$9%5' (*.0),)1),*.'/ 5,0;)1$4'.(%''.5' 8*$%*7%$' '$%' 1.01((%00&1/',.' '))',.,.-')+%' *4>%()' ,'7,3')$*.-',.>%(;),*.0')**' *&)%.' '--$'7')%' ,.0)%'5' *&' $%/,%7; ,.-')+%'/*('/8,0(+,%&'.5'8'2')+%$%42'8'9%')+%' (*1$0%' *&')+%' 5,0%'0%' 8*$%' 0%7%$%' '.5' (+$*.,(' .')+%' %'$/2' 0)'-%0' *&' '(1)%' -*.*$$+*%''$%0)',&')+%'6'),%.)'('.')'9%',)' ,0',86*$)'.)' +%'4*3%/0'0+*1/5'4%'*6%.%5' '.5'9%6)'')(),.-'42')+%'10%'*&'0'/,.%''6%$,; %.)0'.5')+%'5,%)'0+*1/5'4%/*3'.5'*&''' .*.,$$,)'),.-'5%0($,6),*.' //'/(*+*/'%06%(,; '//2'8'/)'+E1*$0' +,-+/2' 0%'0*.%5'5,0+%0' -$%')'%B%$(,0%''.5'0%B1'/'%B(,)%8%.)'0+*1/5' 4%' $,-*$*10/2' '7*,5%5' '$8' 4')+0' '.5' 0)$,()'(/%'./,.%00'*&')+%'6')0'3,)+'0166*$)'*&')+%'6%.,0'.5')%0)%0'$%'10%&1/' +%'0'/)0'*&' 6*)'00,18'3,)+')',.()1$%'*&'+2*0(2'810'$%' '/0*' 10%&1/')*' 5,8,.,0+')+%' '(,5,)2' *&')+%' 1$,.%''.5''//'2')+%'08')$),..-''.5'6','.'51$,.-' 8,(0)1$,),*.'Ĥ')+%'0'8%'8'2',&'%B(%00,7%'4%' $%/,%7%5'42',88%$0,.-')+%' 6%.,0',.-',(%5' 3')%$'51$,.-'8,(0)1$,),*.' .'%B)$%8%'('0%0' (*('/,.%'8'2'4%',.>%()%5'4%&*%$'8,(0)1$,),*.' 0'/*.-''0')+%$%',0'81(+'08')$),.-''.5'0,-.0' *&' '(1)%',.&/'88')*$2'(*.-%0),*.'0)$*.-' '0)$,.-%.)',.>%(),*.0'0+*1/5'4%''7*,5%5'41)' $%/,%&',0'*4)',.%5'42'3'0+,.-'*1)')+%'1$%)+$'' 3,)+')%6,5'3')%$' '&)%$' 8,(0)1$,),*.' .%' %,-+)+' -$' *&' 6%$8'.-'.')%' *&'C,.(') *' *.%' &/1,5'*1.(%'*&'5,0),//%5'3')%$',0''.'.>%(),*.' 3+,(+'8'2' -%.%$'//2'4%' %86/*2%5',.')+%' %'$+%0)' 0)'-%' ,%.')+%' '(1)%' 0)'-%'+'0' 600%5')+%' (*.),.1'.(%'*&')+%' (*.-%0),*.' ,0'0+*$)%.%5'42''0)$,.-%.)'.5' .),0%6),(',.; >%(),*.0''.5')+%',.)%$.'/'58,.,0)$'),*.'*&' (*6','4''0'.5'/'*,/'*$' (14%40' .>%(),*.0' 0+*1/5'.*)'4%'0)$*.-''')'&,$0)M<')*''''-$0'*&' 01/6+')%'*&C,.(')*')+%'*)8(%'4%,.-'01&&,(,%.)' +%'6'),%.)'0+*1/5'4%'5,$%()%5')*'6'00',0' 3')%$''.5')+%.'3'0+'*1)')+%'6'00'-%'3,)+' =''+))/%')%6,5'3')%$Ĥ'&)%$')+')'+%',.>%(),*.' +*1/5'4%'10%5''.5'9%6)',.')+%'1$%)+$''&*$ ==,.1)%0' '.2'0140)'.(%0''$%'10%5''0' -'.5',)',0'5,&&,(1/')*'0'2',.''-,7%.' '3,//01,)'4%0)' 1/6+')%'*&C,.(' d,,B%5'3,)+'(%')'%'*&/%'5Ĥ

(+/*$,5%'*&'C,.(' -$'2 -$'8')*' h>Ĥ 01/6+*' ('$4*/')%'*&'C,.(' -$0'<')*' ,'6%$8'.-'.')%' *&'C,.(' -$'=')*' [$%'//'10%&1/' /18' '(%)')%'*&'/%'5'+25$'0),0''.5')+%' %B)$'()'*&' 4%//'5*..'' 8'2''/0*' 4%'10%5' B)$'()'*&' 4%//'5*..'' 0+*,,/5'.*)'4%'10%5'3,)+'6%$8'.; -'.')%0''0')+%2'&*$8'' .'%B6/*0,7%'8,B)1$%' +%'8%$(1$,(' (+/*$,5%',.'0*/1),*.0'*&'7'$,*10' 3%'9.%00' &*' 0' 1,' ,0'10%5'*.')+%*; $%),('/-$*1.50'42'0*8%Ĥ41)',.')+%' 3$,)%$0ĸ %B6%$,%.(%')+%2''$%'8*0)'1.(%$)'.''.5'8*$%' *&)%.'%B(,)%',$$,)'),*.')+'.'//'2',)',.')+% 1$%)+$'

+')%7%$',.>%(),*.',0'(+*0%.',)'8 10)'4% 10%5'>15,(,*10/2''.5ĸ('$%')'9%.')+')',)'5*%0' .*)'--$'7')%')+%'(*.5,),*.',)',0',.)%.5%5')* 4%.%&,)' 0''' $1/%')+%',.>%(),*.'0+*1/5'4% 8'5%')' /%'0)')+$%%'),8%0'' 5'2'42')+% 6'),%.)Ĥ,&')+%' 8%84$'.*6$*0)'),('1$%)+$'' 4%',.7*/7%5',)' 8'2'4%'.%(%00'$2'&*$')+% 01$-%*.')*' '66/2' '0)$,.-%.)0' +,8 0%/ $' 1 /' *5*&*$8'.5' %1('/26)10'4*1-,%0' '$%'+,-+/2')+*1-+)'*&'42'0*8%Ĥ)+%2'0+*1/5' 4%',.)$*51(%5')'.,-+)' +%'3$,)%$0+'7%'.*)' 0%%.'.2'-$%')'4%.%&,)'&*//*3')+%,$10%' &')+% ,.>%(),*.0',.(($%'0%')+%'5,0(+'$-%'*$+%,-+)%.')+%'0*$%.%00')+%2'0+*1/5'4%'4'.5*.%5''.5 0**)+,.-',.)%$.'/'$8%5,%0'/*.%-,7%.' +% (+,%&',.)%$.'/'06%(,&,(0''$%'(*6','4''0'.5'/ *,/''.5'*14%40Ĥ,.&10,*.'*&'17''1$0,' '.'5'' 4'/0'8')*/1')1$6%.),.%''.5'4%.C*,(' (,5' +%2''$%'*&)%.'4%.%&,(,'/'41)'$%'6')*' ('10% 5206%60,'Ĥ''.5',.')+%'('0%'*&'(*6','4''0'.5'/ 3**5''.5' '.'5''4'/0'8'(*.-%0),*.'*'&')+% 9,5.%20'%06%(,'//2',.')+%'/')%$'0)'-%0'*&')+% 5,0%'0%' +%0%'$%8%5,%0'0+*1/5'4%-,7%.')+$,(%'5','/2'&*$'0%7%$'/3%%90' .')+%'/')%$' 0)'-%0')+%'6$%6'$'),*.0'*&'.*.','(*84,.';),*.'3,)+'E1,.,.%''$%'*&)%.'10%&1/

+*$5%%'(0'&$%E1%.)/2''7%$2')$*14/%0*8% 0286)*8'&*$',.''55,),*.')*'+%'6',.',)' %'10%0')+%'6'),%.)0'$%0)'(0'4$*9%.''.5'(*., 0%E1%.)/2'+(0'+%'/)+'3%'9%.%5' %$+'60')+% 8*0)'10%&1/'$%8%52',0''0166*0,)*$2')'.,-+)' *&*6,18'*$'4%//'5*..''',.'(*84,.'),*.'3,)+' ('86+*$'A'-$''.5''"-$0ĤĤ4$*8,5%0'(+/*$'/ +25$')%'('..'4,0',.5,('''.5'/161/,.'$% '/0*'10%&1/Ĥ3+,/%')+%'%$%(),*.'('.'4%',8; 8%5,')%/2'0)*66%5'42')+%'66+(')',*.'*&'(*/5 3')%$'.'0*8%'('0%0''+*)'4')+'>10)'4%&*$% -*,.-')*'4%5'3,)+')+%'10%'*&')+%'0166*0,)*$2 8%.),*.%5'3,//'6$%7%.)'(+*$5%%'+%.' -*.*$$+*%''4%(*8%0'(+$*.,('((*86'.,%'5'42' ''-/%%)2'5,0(+'$-%'&1$)+%$')$%')8%.)'8'2'4% .%(%00'$2' '1

% #0 ' ' * S W G '$,*10'(*86+('),*.0'8'2'$,0%>51$,.-')+%'6$*-$%0 0'*&'-*.*$$+*%''/1$%)+$,),0'Ĥ,8'.2'*&')+%0%''$% $%&%$$%5')*' ,.'06%(,'/')$),(/%0')*' 3+,(+')+% $%'5%$',0'$%&%$$%5'&*$',.&*$8',.

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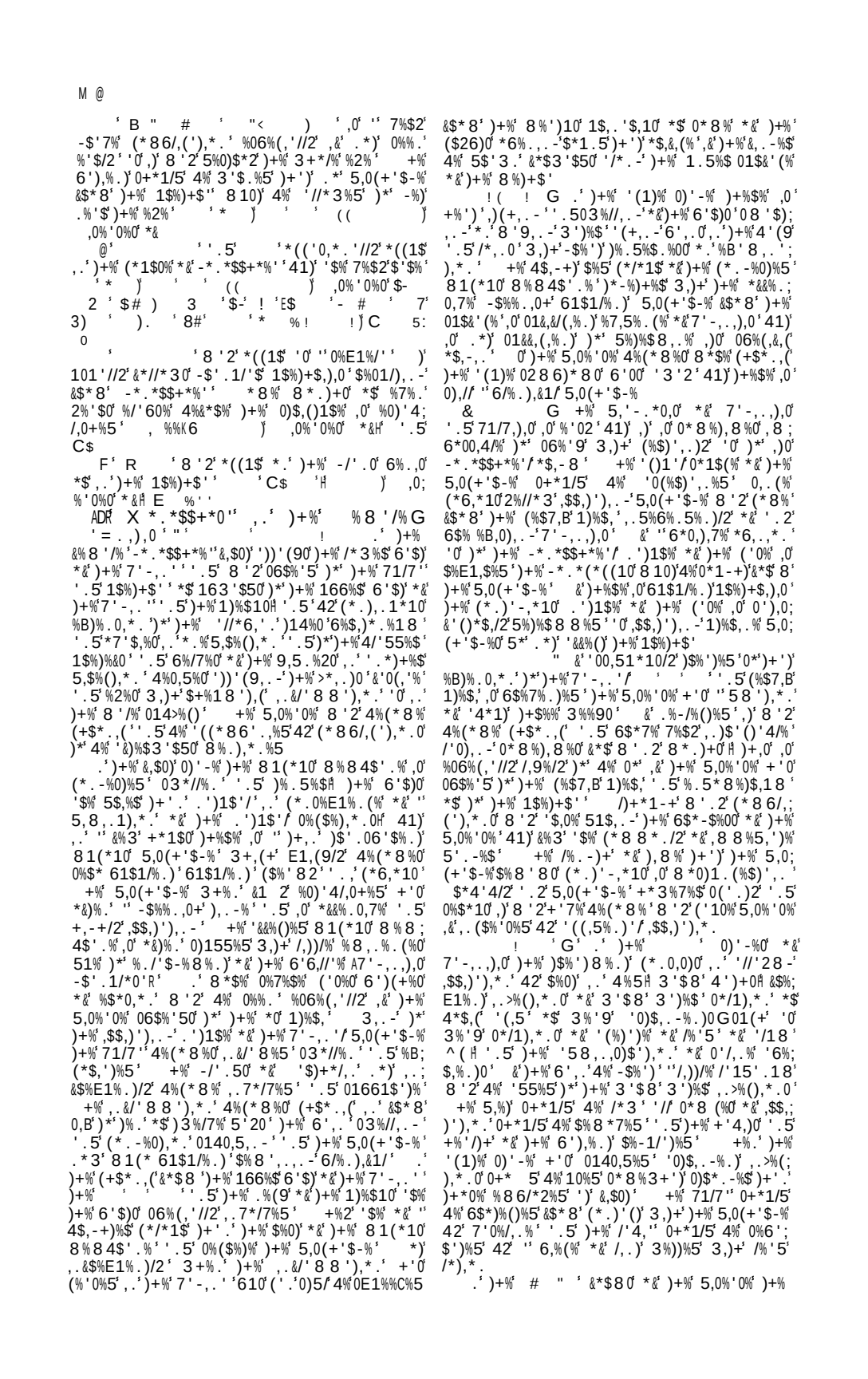

51%')*' 3 # ')' 8 '2' 4%' +%$%5,)'$2' *$' '(E1,$%5H ' .5', 0' (+'$' ()%$,0%5' *$5,. '$,/2' 42' '' 6%*1/,',$' ,.&/' 8 8 '),*.' *&')+%' >*,.)0 G 7 ' *$' 0 ' 0 ' '))%.5%5' 3,)+')+%' 5%6*0,)' *&' 1$')%0' (*.0,0),.-' '/8*0)' %.),$%/2' *&'1$')%' *&'0*5,1 8 ',.')+%,$' 0)$1()1$%0' '&&%();,.-'101''//2' '.5'%06%(,'//2')+%'0 8 ''//%$'>*,.)0' '.5' ')' &,$0)' 8 *$%' 6'$),(1/'$/2')+%' 8 %)')'$0*;6+'/'.-%'/'$),(1/'),*.'*&')+%'-$%')')*%'41)' '&)%$3'$50'%B)%.5,.-')*'*)+%$'>*,.)0' ,8,/'$'5%6*0,)0' *&'1$')%' 8 '2'*((1$',.'*)+%$'),001%0G' # 0 H ' .5'(%$)',.'*$-'.0'*&')+%' 4*52' '$%' /,'4/%')*' 4%(*8%')+%' 0%')' *&' &1.('ℜ),*.'/' 5,0*$5%$0' *$' *&' 6')+*/*-,('/' (+'.-%0' 51$,.-')+%' 6$*-$%00' *&')+%' 5,0%'0%G " " / ' ' 0 ' 0 ' 0 9' 3+,/%',)' ,0' '/0*' 101''//2' '))%.5%5' 3,)+' -%.%$'/' 0286)*80' *1)',.')+%'%'$/2'6'$)' *&',)0' (*1$0%',0',.')+%' /'$-%' 8 '>*$,)2' *&' ('0%0' '.' ' '&&%(),*.' *((1$$,.-',.'6%$,*5,(' '))'(90' *$' 0&,)0'<H 41)' 0140%E1%.)/2',)')%.50')*'4%(*8%'8*$%'*$'/%00' # " ' .5'6%$8'.%.)')+*1-+'%7%.')+%.' -%.%$'//2'6$%0%.),.-'%B'(%$4'),*.0'&$*8'),8%')*'),8%' +%' -*1)2'5,')+%0,0' 8'2' +*3;%7%$' 4%' 6$%0%.)'3,),+*1)' -,7,.-'$,0%')*' '.2' >*,.)'&&%(),*.'*$*)+%$'%7,5%.)'*$-'.,(' 8,0;(+,&' = ,,*.* 'G' +%$%' '$%' (%$)',.' 5%&,.,)%' 6*,.)0' 3+,(+' $%E1,$%' (*.0,5%$'),*.' 1.5%$')+,0'+%'5,.- ' 3,/'4%' %B6%5,%.)' ')')+%' *1)0%)'*' 5,0(100')+%' (,$(180)'.(%0' 1.5%$' 3+,(+')+%' -*1)2' 5,')+%0,0',0' 5%7%/*6%5' '.5')*' 6*,.)' *1)')+%' 8*$%' *47,*10' '3,)+'3+,(+')+,0' (*.5,),*.',0''00*(,')%5' =),*/*-,('//2'('0%0' *&' -*1)' 8 '2' 4%' 6$'(),('//2' '$$'.-%5' ,.)*')+$%%' 8',.' -$*160''((*$5,.-''0')+%' 5,0%'0%' '$,0%0' &$*8G, ' 1 " / ' " " ' %$)',.' %$$*$0' ,.' $%-'$5' ' '.5' -H *&)%.''00*(,')%5'3,)+' " ' (7 ' A(ℜ 86$%-.'),*.'*&')+%' 020)%8'3,)+' ' .' .*)' ' &%3',.0)'.(%0'+*3%7%$',)' 810)'4%' $%8%84%$%5')+')')+%0%' ('10%]' '$%' 8*$%'*$'/%00' (*84,.%5 ' P ' " " ' *1)',0'*.%'*&')+%'8*0)'0)$,9,.-'%B'86/%0'*&'.'+%$%5,)'$2' 5,0%'0%' .5'*.(%' %0)'4/,0+%5',)' 8'2'4%')$'.08,))%5')+$*1-+'0%7%$'/-%.%$'),*.0'%7%.' 3+%.'%7%$2'%.5%'7*1$',0'8'5%')*' %$'5,(')%' ,)H 41)' '0')+%' 8'/'52',0' '0' '1%/' 8*$%' *$' /%00',.)%.0,&,%5'42'6%$.,(,*10'+'4,)0',)' 4%;(*8%0',.' 8*0)'('0%0' '' 6%$8'.%.)'/%-'(2',$' /&$%5' '$$*5'&*1.5')+')',.' 8*$%')+'.'+'/&'+,0'('0%0'+%$%5,)'$2')',.)'(*1/5'4%'5,0;),.()/2')$'(%5H '.5')+%' 6$*6*$),*.',0' 81(+'-$%')%$' '8*.-')+%' 166%$'(/'00%0')'0*8%;),8%0'+'66%.0')+')' 3+%.'-*1)'4%(*8%0'5%;7%/*6%5'=*") ',.' '.',.5,7,51'/' (+,/5$%.'4*8'6$%7,*10/2''$%'&$%%'&$*8')+%'(*86/',.)' 3+,/%')+*0%'4*8'0140%E1%.)/2''$%' '&&%()%5' *1)'66%'$0')*'4%'8*$%'$%'5,/2')$'.08,))%5'42')+%'&%8'/%')+'.')+%'8'/%' .%' ((*$5;,.-')*' 1)(+,.0*.')+%'5,')+%0,0' 4%(*8%0)$*.-%$',.')+%'6'$%.)'3,)+'57'.(,.-'2%'$0''.5' (*.0%E1%.)/2')+%' 5,0%'0%' 0+*30' ,)0%/&'3,)+'-$%')%$'&$%E1%.(2'.5',.'8*$%'8'$9%5 &*$8',.')+%'2*1.-%$')+'.',.')+%'*/5%$'8%8;4%$0'*&''-*1)2'&'8,/2' %$%5,)'$2',.&/1%.(%'8'2'4%'0*'6*3%$&1/')+')')+%'(*86/',.)'$,0%0'3,)+*1)'.2'*)+%$'*47,*10'('10%H 41)'8*0)'(*88*./2',)',0',5%5'42'8*$%' *$' /%00',.;51/-%.(%',.'(%$)',.',.>1$,*10'+'4,)0')*' 4%'6$%0%.)/2'8%.),*.%5' *1)'0*8%),8%0'%B;%86/,&,%0')+%' 0*('//%5'0/'3'*&')'7,08<3+,(+',0'101''//2'51%')*')+%'&'()')+')',.')+%'-%.%$'),*.'&$%%'&$*8')+%'(*86/',.)'%7%$2'6$%('1),*.',0')'9%.')*'7*,5'('10%0'3+,(+')%.5')*'*$,-,.')%'''-*1)2'6'$*B208'')'+'0'4%%.''&&,$8%5'+*3%7%$')+')',0'08,00,.-''-%.%$'),*.'.'&$%%'&$*8')+%'(*86/',.)'%7%$2'&$*8''-$'.5&')+%$')+$*1-+',0'5'1-+)%$')*')+%'-$'.50*.'+%'+%$%5,)'$2'.')1$%'*&'-*1)',0'0+*3.'.*)',.&$%E1%.)/2',.')+%'-%''-')'3+,(+')+%'5,0%'0%'$%7%'/0',)0%/&'+*1/5')+%'6$%;5,06*0,),*.'4%'6*3%$&1/')+%'(*86/',.)'8'2''66%'$',.'7%$2'%'$/2'/,&%H '.5')+%'2*1.-%$')+%'014>%()'3+*',0')')(9%5')+%'8*$%/,9%/2',0')+%$%')*'4%'.'+%$%5,)'$2')',.)'1)(+,.0*.',0'*&'*6,.,*.')+')'8'.2'*40(1$%>*,.)'&&%(;),*.0',.'2*1.-'6%$0*.0'$%'51%')*'+%$%5,)'$2'-*1)

ADR' I ' "0' ' ' "-' " ' (' .'''(*.0,5%$'4/%'.184%$'*&'('0%0'-*1)',0'*$,-,.')%5' '") ',.'(*.0%E1%.(%'*&(%$)',.'%$$*$0'*&&%(),.-')+%'5,%)'.'.5'+'4,)0H'*$'.',.+%$,)%5')%.5%.(2')*')+%'5,0%'0%',0')+10'(*.0,5%$'4/2'--$'7')%5'.'-%.%$'/'%$80')+%0%'%$$*$0'8'2'4%'0188%5'16'0'%B(%00,7%'%'),.-'%06%(,'//2'*&'6'$),(1/'$'$),(/%0'*&'&**5H 1.51%',.51/-%.(%',.'/;(*+*/,(' 5$,.90H '.5',.5*/%.)'+'4,)0'3,)+'5%&,(,%.)'%B%$(,0%' +%2'$%'&$%E1%.)/>2'00*;(,')%5',.')+%'6$*51(),*.'*&'-*1)',.',.5,7,51'/,.0)'.(%0 +%'-*1)2'5,')+%0,0',0'(+,%&/2'6$*8*)%5'42'&**50'3+,(+''$%'$,(+',.'.,)$*-%.''.5'%06%;(,'//2'8%')' %%&',0'4%/,%7%5'42'8'.2')*'4%'6')$),(1/'$/2'4'.%&1/' .51%'(*.0186),*.'*&'01-'$''.5'0)'$(+2'&**50'+'0'/0*'4%%.'$%;-'$5%5''0',5,.-'8')%$,'//2',.')+%'5%7%/*6;8%.)'*&'-*1)' '.2'$),(/%0'*&'5,%)'%,)+%$'&$*8')+%,$' ,.+%$%.)' .')1$%' *$' &$*8')+%'8',.%$',.'3+,(+')+%2'$%'(**9%5'8'2'+%/6',.')+%'6$*51(),*.'*&')+%'(*86/',.)'42'-,7,.-'$,0%')*'5,-%0),7%'5,0*$5%$0 +%'$%/'),*.'*&',.)%86%$'.(%',.')+%'10%'*&''/(*+*+*' 5$,.90')*')+%' -*1)2'5,')+%0,0',0(+,-+/2',86*$)'.)''.5',0'41.5'.)/2'6$*7%5'42'%7%$25'2'%B6%$,%.(%'.*)3,)+0)'.5,.-')+%'))%86)0'8'5%'42'(%$)',.'0%/&(*.0),)1)%5'0'1)+*$,),%0'<*.'-*1)')*'('0)''5*14)'16*.')+,0'&'()' +%'8*$%'6*)%.)'3,.%0'+'7%')+%-$%')%0)',.&/1%.(%'.'5'6*$;7%$4,'//2'4%%.'$%-'$5%5''0')+%'8*0)'.,>1$,;*10'*&'//' +'86'-.%'41$-1.52'8'5%,$''0+%$$2'.'.5'8'$0'/''$%' '/0*'1.5*14)%5/2'('6'4/%'*&'5%7%/*6,.-'*$''--$'7'),.-'-*1)'*(9'0'1)%8%'8*0%//%'.'5'/,-+)'(/'$%)'0%%8')*'4%'/%'0)',.>1$,*10H41)'%7%.')+%0%',&',.51/-%5',.')*'%B(%00'8'2',.'(*1$0%'*&),8%'0%)'16''*$'')''.2'$')%',.)%.0,&2')+%'-*1)2'5,')+%0,0')$*.-'8'/)'/,E1*$0')'.5

.%B)'*'3,.%0''0'*$,-,.')*$0'*&'-*.)' 6,$,)0'*&'('0%0'8'9%')+%,$'&,$0)''66%'$'.(%','6%$0*.0'4%)3%%.')+,$)2''.5')+,$)2&,7%'*$'&*$)2'2%'$0'*/5' +*0%'3+,(+'*((1$'1.5%$')+)2'%$'3,)+'&%3'%B(%6),*.0'8*$%'*$'/%00'+%$%5,)'$2'% 8'$9%5'-*1)',0'%B(%%5,.-/2'$'$%'1.5%$')3%.)2'41)',)'8'2'*((1$',.'2*1.-%$'014>%()0'6$*4'4/2'%7%.',.'(+,/5$%.' $' *$,8%$''*&'1B)*.'&*1.5')+')'0'),.,.,'-*1)''66%'$0''.'%'$/,%$''-%')+'.'.*.0')18,.%' +%'(*86/',.)',0'101'//2'5%(/'$%5'4%&*$%'&,&)2''.5'4%(*8%0'6$*-$%00,7%/2'/%00'&$%E1%.)',.',)0'8'.,&%0)'),*.'&*$')+%'&,$0)'6%$,*5'*&'/,&%')',0'E1,)%'%B(%6),*.'/'&*$-*1)')*'(*88%.(%'&)%$'0,B)2&,7%'41)',)'8'2'4%-,.'%7%.',.'%B)$%8%'*/5''-%' ,)+'$%-'$5')*' ('8'/%0''$%'&'$'8*$%'(*88*./2')+%'014>%()0'*&'3% 8'$9%5'-*1)')+'.'&%8'/%0'3+,(+',0'0166*0%5')*'()''0''0'&%-1'$5'.5',.')+%0%'014>%()0'-*1)'-%.%$'//2''66%'$0'&)%$')+%'(%00'),*.'*&)+,0'&,./(),*.' +%.'0)$*.-/2'+%$%5,)'$2'-*1)'8'2'+*3%7%$'5%7%/*6'%7%.',.'2*1.-'&%8'/%0'*&'3+,(+')+%'3$,%$'+'0'0%%.'0*8%'3%//8'$9%5'%B'86/%0

$' " "'.5' / "'+'7%'4%%.'($%5,)%5'3,)+'"6$%5,06*08-',.&/1;%.(%',.'$%/'),*.')*'-*1)'6%$0*.0*&'"0'.-1,.%')%86%$'8%.)''.5'*&(*$61/%.)'6/%)+*$,('+'4,)'*&'4*52'4%,.-'0166*0%5')*'4%8*0)'*,)0'8*0)''(1)%&*$8' +%0%(*.5,),*.0''$%*&)%.'6$*51(%5'42')+%'7%$2'+'4,)0'3+,(+'*$,-,.')%-*1)''.5'(%$)',./2'6%$0*.0'3+*'$%-*1)'2'42'8+%$,)'.(%'*&)%.'5*'.*)'6$%0%.)''.2'*&')+%0%(+'$'(0)%$,0),(0'3+,/%')+*0%'%B+,4,),.-8'$9%5'(*.)$'0)0'8''66%'$'.(%'.5')%86%$';8%.)'0%%8')*'4%'%E1'2')+%'014>%()0'*&')+%'(*86/',.)'',0'.*)'1.(*88*.',.',.5,7,;51'0'*$7*10')%86%$'8%.)')+,.'.5'3,$2',.'&$'8%''.5')+%2''$%'0',5')*'4%'8*$%014>%()')*')+%',$$%-1/'$''.5''0)+%.,('&*$80'*&')+%5,0%'0%' '"'.5' "'8')%$,'//2',.&/1%.(%')+%'*((1$$%.(%'*&'-*1)'*$8%$/2')+%'(*86/',.)'3'0'8%)'3,)+''/8*0)'%.),$%/2''8*.-')+%'+,-+%$'(/'00%0''.5',)'3'0'/**9%5'16*.'0''.''$,0)*($'),('5,0%'0%' *3'+*3%7%$',)',0'(*88*.'%.*1-+'' 8*.-')+%'8,55/%'(/'00%0'(+,%&/2')+*0%' 3+*' '$%' ,.''&&/1%.)'(,$(8.0)'.(%0H3+,/%',)',0'7%$2'6$%;7'/%.)''8*.-0)'+*0%&*//*3,.-'(%$)'.'*((1;6'),*.0'01(+''0'41)/%$0'(*'(+8%.'41)(+%$0'614/,('.0''.5'4'$8%.'(*'/+%'7%$0'6*$)%$0'+',$(1))%$0''.5'6',.)%$0'*$*)+%$0'3+*'+'7%')*'5*'3,)+'/%'5' *.5),*.0'3,(+',.7*/7%%B(%00,7%8%.)'/'4*1$''.5'&'),-1%'6$*/*.-%5'3*$2'*$'.B,%)2''.5'*)+%$'%&&%()0'3+,E+'%B;+'10)''.5'5%6$%00')+%'.%$7*10'020)%8'0%%8')*'6$%5,06*0%)*'-*1)' ,$'2*%1(936$)+',0'*&'*6,..*.')+')' ('" 0 " '.'%'$/$2'&,&%'42',)0'-%.%$''//2'%$7'),.-',.&/1%.(%',0'6*)%.)'.*)'*./2',.'('10,.-'%'$/2''.5'0%7%$%')'(90'*&'-*1)'41)'/0'*',')+%'6$%8')1$%,.51(),*.'*&'-*1)2'('(+%B,''0'$%-'$50'')+*0%

&'('0%0'8'9%')+%,$'&,$0)''66%'$'.(%',.'6%$0.0'4%)3%%.')+,$)2''.5')+,$)2&,7%'*$'&*$)2'2%'$0'*/5' +*0%'3+,(+'*((1$'1.5%$')+)2'%$'3,)+'&%3'%B(%6),*.0'8*$%'*$'/%00'+%$%5,)'$2'% 8'$9%5'-*1)',0'%B(%%5,.-/2'$'$%'1.5%$')3%.)2'41)',)'8'2'*((1$',.'2*1.-%$'014>%()0'6$*4'4/2'%7%.',.'(+,/5$%.' $' *$,8%$''*&'1B)*.'&*1.5')+')'0'),.,.,'-*1)''66%'$0''.'%'$/,%$''-%')+'.'.*.0')18,.%' +%'(*86/',.)',0'101'//2'5%(/'$%5'4%&*$%'&,&)2''.5'4%(*8%0'6$*-$%00,7%/2'/%00'&$%E1%.)',.',)0'8'.,&%0)'),*.'&*$')+%'&,$0)'6%$,*5'*&'/,&%')',0'E1,)%'%B(%6),*.'/'&*$-*1)')*'(*88%.(%'&)%$'0,B)2&,7%'41)',)'8'2'4%-,.'%7%.',.'%B)$%8%'*/5''-%' ,)+'$%-'$5')*' ('8'/%0''$%'&'$'8*$%'(*88*./2')+%'014>%()0'*&'3% 8'$9%5'-*1)')+'.'&%8'/%0'3+,(+',0'0166*0%5')*'()''0''0'&%-1'$5'.5',.')+%0%'014>%()0'-*1)'-%.%$''//2''66%'$0'&)%$')+%'(%00'),*.'*&)+,0'&,./(),*.' +%.'0)$*.-/2'+%$%5,)'$2'-*1)'8'2'+*3%7%$'5%7%/*6'%7%.',.'2*1.-'&%8'/%0'*&'3+,(+')+%'3$,%$'+'0'0%%.'0*8%'3%//8'$9%5'%B'86/%0

$' " "'.5' / "'+'7%'4%%.'($%5,)%5'3,)+'"6$%5,06*08-',.&/1;%.(%',.'$%/'),*.')*'-*1)'6%$0*.0*&'"0'.-1,.%')%86%$'8%.)''.5'*&(*$61/%.)'6/%)+*$,('+'4,)'*&'4*52'4%,.-'0166*0%5')*'4%8*0)'*,)0'8*0)''(1)%&*$8' +%0%(*.5,),*.0''$%*&)%.'6$*51(%5'42')+%'7%$2'+'4,)0'3+,(+'*$,-,.')%-*1)''.5'(%$)',./2'6%$0*.0'3+*'$%-*1)'2'42'8+%$,)'.(%'*&)%.'5*'.*)'6$%0%.)''.2'*&')+%0%(+'$'(0)%$,0),(0'3+,/%')+*0%'%B+,4,),.-8'$9%5'(*.)$'0)0'8''66%'$'.(%'.5')%86%$';8%.)'0%%8')*'4%'%E1'2')+%'014>%()0'*&')+%'(*86/',.)',0'.*)'1.(*88*.',.',.5,7,;51'0'*$7*10')%86%$'8%.)')+,.'.5'3,$2',.'&$'8%''.5')+%2''$%'0',5')*'4%'8*$%014>%()')*')+%',$$%-1/'$''.5''0)+%.,('&*$80'*&')+%5,0%'0%' '"'.5' "'8')%$,'//2',.&/1%.(%')+%'*((1$$%.(%'*&'-*1)'*$8%$/2')+%'(*86/',.)'3'0'8%)'3,)+''/8*0)'%.),$%/2''8*.-')+%'+,-+%$'(/'00%0''.5',)'3'0'/**9%5'16*.'0''.''$,0)*($'),('5,0%'0%' *3'+*3%7%$',)',0'(*88*.'%.*1-+'' 8*.-')+%'8,55/%'(/'00%0'(+,%&/2')+*0%' 3+*' '$%' ,.''&&/1%.)'(,$(8.0)'.(%0H3+,/%',)',0'7%$2'6$%;7'/%.)''8*.-0)'+*0%&*//*3,.-'(%$)'.'*((1;6'),*.0'01(+''0'41)/%$0'(*'(+8%.'41)(+%$0'614/,('.0''.5'4'$8%.'(*'/+%'7%$0'6*$)%$0'+',$(1))%$0''.5'6',.)%$0'*$*)+%$0'3+*'+'7%')*'5*'3,)+'/%'5' *.5),*.0'3,(+',.7*/7%%B(%00,7%8%.)'/'4*1$''.5'&'),-1%'6$*/*.-%5'3*$2'*$'.B,%)2''.5'*)+%$'%&&%()0'3+,E+'%B;+'10)''.5'5%6$%00')+%'.%$7*10'020)%8'0%%8')*'6$%5,06*0%)*'-*1)' ,$'2*%1(936$)+',0'*&'*6,..*.')+')' ('" 0 " '.'%'$/$2'&,&%'42',)0'-%.%$''//2'%$7'),.-',.&/1%.(%',0'6*)%.)'.*)'*./2',.'('10,.-'%'$/2''.5'0%7%$%')'(90'*&'-*1)'41)'/0'*',')+%'6$%8')1$%,.51(),*.'*&'-*1)2'('(+%B,''0'$%-'$50'')+*0%

&'('0%0'8'9%')+%,$'&,$0)''66%'$'.(%',.'6%$0.0'4%)3%%.')+,$)2''.5')+,$)2&,7%'*$'&*$)2'2%'$0'*/5' +*0%'3+,(+'*((1$'1.5%$')+)2'%$'3,)+'&%3'%B(%6),*.0'8*$%'*$'/%00'+%$%5,)'$2'% 8'$9%5'-*1)',0'%B(%%5,.-/2'$'$%'1.5%$')3%.)2'41)',)'8'2'*((1$',.'2*1.-%$'014>%()0'6$*4'4/2'%7%.',.'(+,/5$%.' $' *$,8%$''*&'1B)*.'&*1.5')+')'0'),.,.,'-*1)''66%'$0''.'%'$/,%$''-%')+'.'.*.0')18,.%' +%'(*86/',.)',0'101'//2'5%(/'$%5'4%&*$%'&,&)2''.5'4%(*8%0'6$*-$%00,7%/2'/%00'&$%E1%.)',.',)0'8'.,&%0)'),*.'&*$')+%'&,$0)'6%$,*5'*&'/,&%')',0'E1,)%'%B(%6),*.'/'&*$-*1)')*'(*88%.(%'&)%$'0,B)2&,7%'41)',)'8'2'4%-,.'%7%.',.'%B)$%8%'*/5''-%' ,)+'$%-'$5')*' ('8'/%0''$%'&'$'8*$%'(*88*./2')+%'014>%()0'*&'3% 8'$9%5'-*1)')+'.'&%8'/%0'3+,(+',0'0166*0%5')*'()''0''0'&%-1'$5'.5',.')+%0%'014>%()0'-*1)'-%.%$''//2''66%'$0'&)%$')+%'(%00'),*.'*&)+,0'&,./(),*.' +%.'0)$*.-/2'+%$%5,)'$2'-*1)'8'2'+*3%7%$'5%7%/*6'%7%.',.'2*1.-'&%8'/%0'*&'3+,(+')+%'3$,%$'+'0'0%%.'0*8%'3%//8'$9%5'%B'86/%0

$' " "'.5' / "'+'7%'4%%.'($%5,)%5'3,)+'"6$%5,06*08-',.&/1;%.(%',.'$%/'),*.')*'-*1)'6%$0*.0*&'"0'.-1,.%')%86%$'8%.)''.5'*&(*$61/%.)'6/%)+*$,('+'4,)'*&'4*52'4%,.-'0166*0%5')*'4%8*0)'*,)0'8*0)''(1)%&*$8' +%0%(*.5,),*.0''$%*&)%.'6$*51(%5'42')+%'7%$2'+'4,)0'3+,(+'*$,-,.')%-*1)''.5'(%$)',./2'6%$0*.0'3+*'$%-*1)'2'42'8+%$,)'.(%'*&)%.'5*'.*)'6$%0%.)''.2'*&')+%0%(+'$'(0)%$,0),(0'3+,/%')+*0%'%B+,4,),.-8'$9%5'(*.)$'0)0'8''66%'$'.(%'.5')%86%$';8%.)'0%%8')*'4%'%E1'2')+%'014>%()0'*&')+%'(*86/',.)',0'.*)'1.(*88*.',.',.5,7,;51'0'*$7*10')%86%$'8%.)')+,.'.5'3,$2',.'&$'8%''.5')+%2''$%'0',5')*'4%'8*$%014>%()')*')+%',$$%-1/'$''.5''0)+%.,('&*$80'*&')+%5,0%'0%' '"'.5' "'8')%$,'//2',.&/1%.(%')+%'*((1$$%.(%'*&'-*1)'*$8%$/2')+%'(*86/',.)'3'0'8%)'3,)+''/8*0)'%.),$%/2''8*.-')+%'+,-+%$'(/'00%0''.5',)'3'0'/**9%5'16*.'0''.''$,0)*($'),('5,0%'0%' *3'+*3%7%$',)',0'(*88*.'%.*1-+'' 8*.-')+%'8,55/%'(/'00%0'(+,%&/2')+*0%' 3+*' '$%' ,.''&&/1%.)'(,$(8.0)'.(%0H3+,/%',)',0'7%$2'6$%;7'/%.)''8*.-0)'+*0%&*//*3,.-'(%$)'.'*((1;6'),*.0'01(+''0'41)/%$0'(*'(+8%.'41)(+%$0'614/,('.0''.5'4'$8%.'(*'/+%'7%$0'6*$)%$0'+',$(1))%$0''.5'6',.)%$0'*$*)+%$0'3+*'+'7%')*'5*'3,)+'/%'5' *.5),*.0'3,(+',.7*/7%%B(%00,7%8%.)'/'4*1$''.5'&'),-1%'6$*/*.-%5'3*$2'*$'.B,%)2''.5'*)+%$'%&&%()0'3+,E+'%B;+'10)''.5'5%6$%00')+%'.%$7*10'020)%8'0%%8')*'6$%5,06*0%)*'-*1)' ,$'2*%1(936$)+',0'*&'*6,..*.')+')' ('" 0 " '.'%'$/$2'&,&%'42',)0'-%.%$''//2'%$7'),.-',.&/1%.(%',0'6*)%.)'.*)'*./2',.'('10,.-'%'$/2''.5'0%7%$%')'(90'*&'-*1)'41)'/0'*',')+%'6$%8')1$%,.51(),*.'*&'-*1)2'('(+%B,''0'$%-'$50'')+*0%

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(/,8 .)%0' 3+,(+' '$%' (*/5' *$')%8 6%$')%' ' .5' %06%(,''//2' 'Y)+%'0'8%'),8%'5'86' .5'(+' . -%; '4/%' 6$%0%.)' 42' &'$')+%' -$%')%0)' ,/18 4%$' *&' %'0%0' *&' -*1)' ' .5',.' 8*0)')$*6,('/' (*1.)$,%0')+,0' (*86/',.)',0',89.*3. ' .')+%' 0*1)+' *& 1$*6%',)',0'&'$'/%00'&$%E1%.)')+' .'+%$%' *1)' ,0'81(+' 8*$%'6$%7'/%.)',.' .-/'.5')+'.',.' (*)/''.5'*$' $%/'.5H')+*1-+',)',0'1.(*88*.' ,.')+%' .*$)+' *&' .-/'.5

" ' ' ' ' 0 ' G .' '(1)%' 6 $*B208' *&' -*1)' 8'2' (*8%' *.' 3,)+*1)' '.2' %7,5%.)' ("0' 3+')%*8$' %06%(,''//2' ,&')+%' 5,0%'0%' ,0' 0)$*.-/2'+%$%5,)'$2' *$'+'0' 4%%.'/*.-'%0)'4/,0+%5' .5%$')+%0%' (,$(18; 0)'.(%0'*1)4$%'90' *&')+%' (*86/',.)'0L%8')*' 4%(*8%'+'4,)1'/'')'(%$)',.'0%'0*.0'*$')+%2' '$,0%' &$*8' 7%$2' 0/,-+)' ('10%0' 3+,(+' '$% /%00' .5'/%00'*47,*10' '0')+%' ('0%'6$*-$%00%0' &)%.'+*3%7%$'0*8%'5,0),.()'%B(,),.-' ('10%' ('.' 4%'K8'5%' *1)' '&&%(),.-')+%' 5,-%0),7%' *$-'.0')+%' 7'0(1/'$' *$' .%$7*10' 020)%80'*$)+%2' '&1.(),*.0'*&')+%' 09,.' *$'9,5.%20' *$'5,0;)1$4,.-')+%'020)%8',.')*)+%$'3'20' +%'8*0)' ,86*$)'.)' '$%' %'),.-'*$'5$,.9,.-')*'' 81(+' %,)+%$'*.'0*8%'6'$),(1/'$'*(('0,*.''*$'+'4,)1; ''//2'&'*$' '' /*.-%$' *$'0+*$)%$' 6%$,*5'1.),/' ')' 3,)+')+%' 6$%0%.(%'*&' # ' *$' 2 ' ')+%' 020)%8' 3+,(+',0'-%.%$''//2'$%-'$5%5' '0' /'0)'' &,)'*&'-*1)')%$8,.')%0')+%',.51/-%.(%H ,.5,-%0),4/%' $),(/%0'*&'&**5H .%-/%()'*&')+%' '()'*&'5%&0%(',*.''*$'6$*/*.-%5'(*.0),6'),*.'H 1.51%'6+20,('/'3*$9'*$'%B%$),*.H'%B6*01$%')*'(*/5'*$'3%)'*$'0155%.'0166$%00,*.''*&'6%$; 06,$',).*H %B(%00,7%' 8%.)'/'3*$9'3*$2''*$' '.B,%)2H %8*),*.'/'('10%0'0155%.'6*3%$&1/' *$'5%6$%00,.-'01(+''0'>*2''&,)'*&'$'-%'&$,-+)' *$'5%%6'-$,%&H 0%B1'/,.51/-%.(%'*$'%B(%00H' +'%8*$$+'-%''(1)%',//.%00''*$')+%$'/,9%'5%; 4,/,)'),.-'('10%0'H '.5',.>1$2' +%',.5,0($,; 8,.')%' 10%'*&'(%$)',.'8%5,(,.%0'01(+''0' 6$%6'$'),*.0'*&'/%'5'*$',$*.'8'2'%B(,)%' '-*1)2'6'$*B208' +%',86+*')',*.''*&''' 6'$;),(1/'$'>*,.)'8'2'4%'51%)'*' '0)$',.'*$',.>1$2' 3+,(+'8'2'4%'7%$2'&/,-+)'01(+''0')+%'6$%0; 01$%'*&''),-+)'4**)'*$')+%')*%'4%,.-')$*55%.' 16*.' .>1$2')*')+%'9.%%'+'0' ('10%5')+')' '$),(1/'),*.')*'4%'&,$0)''&&%()%5' 0' 7 "0' '*&''(1)%'-*1)2'))'(90'(/,8')%' '.5'0%'0*.' '$%' +,-+/2',86*$)'.)' .; 5*14)%5/2'-*1)2'6'$*B2080'8'2'*&)%.'4%' '7%$)%5'42'$%0,5%.(%',.''3'$8'(/,8')%',)+%$' 6%$8'.%.)/2'*$'51$,.-')+%'(*/5%$'0%'0*.0'*&')+%'2%'$' '$/2'))'(90'$%'8*0)'&$%E1%.)',.' /')%'3,.)%$'*$'06$,.-' .5')+%'&,$0)'6'$*B208' *(*+$0'%06%(,''//2')*3'$50')+%'%.5''*&' .1'$2' *$'4%-,....-'*&' %4$1'$2' &)%$3'$50''&,)' *&'-*1)'),'9%0'6/'(%''/0*',.')+%''1)18.H..5' 0140%E1%.)/2')+%',.)%$7'/0'4%(*8%'0+*$)%$' '.5'8*$%',$%'-1/'$' .0%,C1$%'6$%5,0; 6*0%0')*' '.*)+%$''.5')+%'6%(1/,'$')%.5%.(2')*'$%(1$$%.(%',.'-*1)',0'(%''0'6'$*B208' +%'*((16'),*.'*&'.' ,.5,7,51'/'8'2'6$%5,06*0%')*')+%'*((1$$%.(%' *&'-*1)',)'6'$),*1/'$'>*,.)0H')+10'41)/%$0' +'7%',)',.')+%'&%%)'(*'(+8%.''.5'3'0+%$; 3*8%.',.')+%'+'.50

$ ' 2 +%'6')+*/*-2'*&'-*1)',0')//' .''7%$2'1.0%))/%5'0)')%' ,)+'0*8%'1)+*$,;),%0',)',0''(*86'$'),7%/2'0,86/%'8'))%$'3+,/%' *)+%$0'$%-'$5')+%'(*86/'.)''0''+,-+/2'(*8; 6/%B'(*.5,),*.''+'7,..-'3,5%'$%/'),*.0+,60',.' 5,7%$0%'5,$%(),*.0'3,)+,.')+%'020)%8')'3,// 4%',86*00,4/%'3,)+,.')+%'/,8,)0'*&')+,0''$),(/%)*'5*'8*$%')+'.'4$,.-'*1)'+%'8''&'()0' 4%'$,.-'16*.')+%'014>%()''.5')*',.5,('%')+%' (+,*&')+%*$,%0'&*1.5%5')+%$%*. ' *1)',0'42')+%'/'$-%'8'>*$,)2'*&'3$,)%$0' $%&%%$$%5')*')+%'-%.%$'/*$(*.0),)1),*.'/-$*16' *&'5,0%'0%0''.5',)',0'(10)*8'$2')*'06%'9'*&')+%'0 ' # ' *$' ((*$3+,(+')+%'/*('/(+'.-%0' '$%'41)'' 8'.,&%0)',*.' 1$)+%$',)',0'4%+%7%5'42'8*0)'1)+*$,),%0')+')'' 6%$0*.'8'2'4%')$1/2'-*1)2''.5'2%)' 4%&$%%&$*8'.2'*&')+%'06%(,'/'/%0,*.0'101'//2' '00*(,')%5'3,)+')+%'(*.5,),*.' ((*$5,.-')*' 1)(+,.0*.' +'$(*)' 1(93*$)+' '.5' *)+%$0')+%$%' %B,0)0''' 04'0,(' '$)+$,),(' 5,';)+%0,0<16*.'3+,(+'8'2'4%'41,/)'16',85%$')+%',.&/1%.(%'*&'06%(,'/'('10%0''')%.5%.(2')*' -*1)'$+%18')',08'*$'7'$,*10'8*5,&,(';), *.0''.5'(*84,.'),*.0 ')+%'6$%0%.)'5'2',)',0''/8*0)'1.,7%$0''//2' '58,))%5')+')' - 1)'+'0'.',.),8')%'$%/'),*.' 3,)+')+%' 6$%0%.(%'*&' # ' *$' 2 ' ')+%' 020)%8' 3+,(+',0'-%.%$''//2'$%-'$5%5' '0')+%' 8*$4,&,(' '-%.)'*$'06%(('.)'8'))%$<0' 1(93*$)+'%B6$%00%0',)G0 *' 1$,(''(,5' .*' -*1)<*' ,$' /&$%5' '$$*5'3%''$%',.5%4)%5' &*$' +'7,.-'(/%'$/2' '.5'6*0,),7%/2'5%8*.' 0)$')%5',0'$%/'),*.0+,6' .',)0'$%-'),*.0+,6'.',)0'$%-'),*.0+,6'.',)0'$%-'),*.0+,6'.

)+10 06%'9 6 0 ' ' . 5 " " '
4%/,%7, . -')+ ')')+%' -*1)2 5, ')+%0, 0
' . 5 6/184,08 ('$' 5, (' //2 5,0), . () '5,&&%$, . -'
, .' '// $%06%6)0 %B(%6)' , .')+%,$')% . 5% . (2)*'
1$'),(' 5%6*0,)0' %' &')$)+%$' (* . 0,5%$0',)' E1,)%'
6*00,4/%')+ ')' 6$%(,6,)'), *. ' *&)+%' ($20)' //, . %'
1$')%0 8 '2' *((1$' . *)' * . /2' , . ')+%' &*$8' *&'
(*'$0% 8 '00%0'+1)' '/0*', . ')+%'&*$8' *&' 8 , . 1)%'
0)'$0' *$' 5%)' (+%5' ($20)' /0' 3+, (+' (' . ' * . /2' 4%'
5%)%()%5' 3 ,)+ ')+%' 8 , ($*0(*6%H ' . 5')+ ')')+,0'
0 8 , ($*0(*6, ('1$')*0,0 ‹%,)+%$', . ')+%'0140)' . (%'
*&' *$-' . 0' *$', . ')+%' 4/**5',)0%/&' 8 '2' ((*1 .)'
&*$)+%' 7,0(%$'/ . %1$*0%0')+$*84*0,0' . 5'
%84*/,08 ' . 5')+%' *((' 0,* . ' / 0155%. ' 5%')+'
3+,(+' '$%' %. (*1 .)%$%5' , . ' -*1)' ' . 5' 8 '2'
%B6/', . ' 0*8%' 7%$2' *40(1$%, . (,5%.)0' , . ' ,)0'
+,0)*$2

$,(' '(,5' %B,0)0' , . ')+%' 4/**5' . 5' , . ')+%'
&/1,5')+ ')' 5,&&10%0')+%$%&$*8' 8 ', . /2' '0' '0'/)'
*&'0*5,18 '41)'3+%)+%$')+%' (*84, . '), *. '4%' '
E1'5$,1$')%' *$' '4,1$')%' *$' 8 ,B)1$%' *&')+%'
)3*' *$' 0*8%), 8%0' *. %' '$,5' 0*8%), 8%0')+%'
*)+%$', 0' . *)' 9. *3. ' +%' E1'5$,1$')%0' '$%'
+, -+/2' 0*/14/%', . '4/**5 0%$18 ' . 5' (' . . *)' 4%'
)+$*3 . ' 5*3 . ')+%$%, . ', . ')+%' ($20)' //, . %' 0)'%'
3+,/%')+%' 4,1$')%0' '$%' 7%$2' 06'$, . -/2' 0*/14/%'
, . ')+ ')' 8%5,18 ' . 5' '$%' $%'5,/2')+$*3 . '5*3 . '
, . ',)', . ' '' ($20)' //, . %' &*$8' i ' *4%$)0R' +%'
'(,5', 0' 4%, . -' (* . 0)' .)/2' &*$8%5', . ')+%' 020)%8'
, . ' (*$8%B, *. ' 3,)+')+%' 6$*(%00%0' *&' . 1)$,), *. '
' . 5' 8%)'4*/,08 '41)' 85%$' *$5+, '$2' (, $(18;
0)' . (%0', 0' %,)+%$' 5%0)$*2%5' *$', 0' %/, 8, . ')%5'
42')+%' 9,5 . %20' 0*')+ ')' ,)' , 0' 9%6)' 3,)+, . '
. *$8' /8,)0' ((*$5, . -')*' '$$*5')+%'
&, . ' /0)'-%' , 0')+%' 6$*51(), *. ' *&' 1$')%' *&'
'88*. , 18', . ')+%' 9,5 . %20

%'8'2' . *3'6$*(%%5')*' (*. 0,5%$')+%'8', . '
7,%30'+%/5')*' %B6/', . '8*$%', 88%5, ')%/2')+%'
/,)+0%8, (' (*. 5,), *. ' *$')+%' ((181/'), *. ' *&'
1$, (' ', (5', . ')+%', 001%0' +%2'8'2'4%'018;
8'$, 0%5' '0' &*//*30 G ' I ( ) ' 7
" ')' (%$)', ./2' '66%'$0' $%'0*. '4/%')*'
0166*0%')+ ')' %$)', . '*&')+%' $%(*-. , 0%5' ('10%0'
*&'-*1)' 810)'/%'5')*' . ' '40*/1)%', . ($%'0%' , . '
)+%' '8*1.)' *&'1$, (' '(,5'&*$8%5', . ')+%'020)%8'
40)%, . ', 0' *&' 6, . , *. ')+ ')' , . ')+%' -*1)2')+, 0'
'(,5'&*$80', . '6%$7%$0%'/*(' /,), %0' '0', . 810(%0'
' . 5')+%' 8 '$$*3'*&'4*. %0' ALR' 3" ' " '
" ' 86%$&%()' %B($%), *. ' *$' %/, 8, . '), *. ' *&'
1$, (' '(,5'/%'5, . -')*',)0'$%)%.), *. ', . ')+%'4*52'
(' . '. %7%$'4%*7%$/**9%5'0' . , 86*$)' .)'&' ()0'$%)
, . '$%/'), *. ')*')+%' -*1)2'(*. 5,), *. ' ((*$5, . -'
)*' '$$*5'01(+'$%)%.), *. ', 0' 51%')*' 5%&%(), 7%'
'(), *. ' *&')+%' 9,5 . %20' %,)+%$')%86*$'$2' *$
6%$8' . %.)' ' . 5' 3+%.)+%0%' *$-' . 0' '$%', . ' '
0)')%' *&' '57' . (%5' *$-' . (' 5,0%'0%')+%,$' %B;
($%)*$2' &1. (), *. 0' 810)' *47,*10/2'4%', .)%$;
&%$%5'3,)+' (*. 0,5%$'4/2' ,$' ,//, ' 8' *4%$)0'
)+, . 90',)' 6$*4'4/%')+ ')')+%' 5%&%(), 7%' 6*3%$'
&')+%' 9,5 . %20')' %/, 8, . ')%' 1$, (' '(,5', 0' 51%'
)*' 5, 8, . , 0+%5' '/9'/%0(%. (%' *&')+%' 4/**5'
3+, (+'$%. 5%$0',)' /%00' 0*/14/%' %' + ' 0' &*1. 5'
)+ ')', &' 0*5, (' E1'5$,1$')%' /, . -%$0')**' /* . -' , . '
)+%' 4/**5',)' 4%(*8%0' (*. 7%$)%5', .)*' '*4,1$')%'
' . 5' 3+%. ')+%' ((8. 1/'), *. ' *&')+, 0' 0'/)' +'0'
$%' (+%5' '' (%$)', . '6*, .)' *&'0')1$'), *. ' ,)', 0' 015;
5%. /2' 6$%(,6,)')%5' '0' '' ($20)' //, . %' 5%6*0,)', . '
)+%'>*, .)0' *$%/0%3+%$%' $' '/&%', 0' *&' *6+, , *. '
)+')')+%' &, $0)'0)%6', . ')+%' 6$*51(), *. ' *&'-*1)', 0'
5, 8, . , 0+%5' '/9'/, . ,)2' *&')+%' 4/**5' 42' $%'0*. '
*&')+%' ((181/'), *. ', . ',)' *&' '(,5' . 5' '(,5'
0'/)0' H' . 5')+ ')'$%)%.), *. ', . ')+%'020)%8', 0' 51%'
)*' '&'1/)', . ')+%'), 001%0' /%'5, . -')*' , . (*8;
6/%)%' %/, 8, . '), *. ' ', -' '0')+%' *1)(*8%*&'
+, 0' %B)%. 0, 7%' $%0%'$(+%0' $%/'), . -')*' 1$, (' '(,5'
0)$*. -/2' 0166*$)0')+%' 7, %3')+ ')' %B(%00' *&')+, 0'
'(,5', . ')+%' 4/**5' . 5' 020)%8', 0' -%. %$'//2' 51%'
)*' $%)%.), *. ' . 5')+')+, 0', 0')+%' $%01/' *&'
5%&, (, %.)' /9'/, . ,)2' *&')+%' 4/**5' 3+, (+'/%'50'
)*' -$'51'/' ((181/'), *. ' *&')+%' '(,5', . ' (%$;
)', . ' 6'$)0H +%' 3*1/5')+10' %B6/', . ' //')+%'
6+%. *8%. '' *&')+%' -*1)2' 0)')%' ((*$5, . -'
)*' '$$*5'3,)+'3+*8' ', -' '-$%%0',)' '66%'$0'
)+')' 1$, (' '(,5', 0' ''))$' (0)%5', . ' &&%$%.)' 5%-$%%0'
42' 5, &&%$%.)' 0)$1(0)1$%0' ' . 5')%. 50')*' 4%+%/5'
4'(9'42' ' . 5' '((181/')%' , . ')+%' /, 7%$' . 5'
06/%%. ' ' . 5', . ' &, 4$*10'), 001%0'%06%(, '//2')+*0%'
&')+%' >, .)0' 6$*4'4/2'4%('10%')+%%' 0)$1(;
)1$%0' $%' '(,5' *$'/%00' /9'/, . %')+' . ')+%' $%0)'
&')+%'), 001%0' . 5' &/1,50&')+%'4*52' A(R 5
' " ' ((*$5, . -')*')+, 0' 7, %3'
,)' , 0' 0166*0%5')+ ')')+%' . *$8'/6$*(%00' 42'
3+, (+'1$, (' '(,5', 0' (+' . -%5', . ')+%'4/**5' . 5'
(%$)', . ' *$-' . 0' , .)*' *)+%$' 0140)' . (%0' 8*$%'
0*/14/%' . 5' /%00' . *B, *10'&', /0' *$', 0', 86%$;
&%()/2' ('$$, %5' *. ' ' . 5')+10',)' ((181/')%0', . '
)+%' 0>0)%8')' 10%5')*' 4%' 4%/, %7%5')+ ')' 1$, ('
'(,5' 3'0' (*. 7%$)%5', .)*' 1$%' ' 41)' 8*$%' $%;
(%.)', . 7%0), -'), *. 0' '$%' *66*0%5')*')+, 0', 5%' '
, ' ') 2 ')' 3, /' 4%' (*. 7%. , %.)'
1. 5%$')+, 0' +%'5, . -')*' 8%.), *. ' (%$)', . ', . 5, ;
7,51'/' *6, . , *. 0' 3,)+' $%-'$5')*')+%' 6')+*;
/*-, (' /'$%/'), *. 0' *&' 1$, (' '(,5' . 5' -*1)' +%'
/')%' $' 1$(+, 0*. '$%-'$5%5' -*1)' 0' '' 8%$%
$%01/' *$'7'$, %)2' *&')+)0%8, ' ' . 5'))$, 41)%5'
)+, 0' (*. 5,), *. ')*' , 86%$&%()' 5, -%0), *. ' ' . 5'
8*$%'%06%(, '//2')*'0&1. (), *. '/'5%$' . -%8%.)'*&'
)+%' /, 7%$ ‹ %' 4$*1-+)' &*$3'$5' &' ()0')*' 0+*3'
)+')')+%' +%'/)+2' /, 7%$' 6/'20' . ', 86*$)' .)'
. 5'6%$+'60')+%' 6$, . (, 6'/'69%)', . ' ('$$2, . -'*. '
)+*0%' (+%8, (' /' (+' . -%0'42'3+, (+'/418, . *10'
0140)' . (%0' '$%' 5, 0, .)%-$')%5' , . ')+%' 4*52'
3+, (+' . *$8'//2'$%01/)' 8')+%' 6$*51(), *. ' *&'
1$%' ' &')+, 0' 6$*(%00', 0' 6%$0, 0)%.)/2'5%$' . -%5'
/,)+, (' '(,5' '' /%00' *B, 5, 0%5' 4*52', 0' &*$8%5'
$*&%00*$')+' 8' '/0*'], 57*(')%0')+%' +%6'), ('
'*$, -. ' *&' -*1)' 41)' (*. 0, 5%$0')+')' 0, 86%$&%()'
8%)'4*/,08'*&' -/2(*(, . %', 0')+%' 6$, 8'$2' . 5'
%00%.), '/' 5%&%()‹ $' $5' $%-'$50' -*1)' 0'
'$, 0, . -' &$*8' '')%. 5%. (2')*' '' 06%(, '/' &*$8' *&'
5%-%. %$'), *. ' *$' 3' .)' *&'), 001%' *$-' . , 0'), *. '
, . ' 0*8%' *&')+%' &, 4$*, 5'), 001%0' 3,)+' %B(%00, 7%'
&*$8'), *. ' *&' 1$')%' *&' 0*5, 18' 3+, (+', 0' 5, 0;
(+'$-%5', .)*')+%' 4/**5' . '5'5%6*0,)%5', . '6'$)0'
/%'0)' &$%%/2' 0166/, %5' 3,)+' 0(1/'$' . 5' /28;
6+'), ('0)$1()1$%0' ((*$5, . -')*' 40)%, . ')+%'
6$, 8'$2' &'()*$' , . ' -*1)' , 0' . 1)$,), 7%', 001%'
5, 0)1$4' . (%' '' . %($*), (' (+' . -%)' 6)' (%' , . '
)+%' '&&%()%5' 0)$1()1$%0' 3+, (+', 0' &*//*3%5' 42'
5%6*0,)' *&'1$')%0

1(+' '$%')+%' 6$, . (, 6'/' &')()0' ' . 5')+%*$, %0'
4%'$, . -' 16*. ')+%' $%/'), *. 0' 1$, (' '(,5' % &

-*1)')' 810)' 4% 8%.),*.%5')+')' 0*8%' %8,.%.)' 3$,)%$0' +'7% 5,061)%5')+,0' (/*0%' %/'),*.0+,6' 41)' ,)' 3*1/5' .*)' 0%$7%' .'2' 6$*(),(''/ 61$6*0%',.')+,0' '$),(/%')*' 5,0(100')+%' 7'$,*10' +26*)+%0%0' 3+,(+' +'7% 4%%.' '57'.(%5',.')+% %.5%'7*1$')*' %B6/',.')+%' .')1$%''.5'*$,-,.'*&'-*1)

.%,86*$)'.)'6*,.)' K%8',.0')*'4%'.*),(%5' '.5')+')',0')+%'$%/'),*.'*&')+%") ' ')*' -*1)')+%$'3$,)%$0'*.')+% 014>%()'+'7% 8',.)',.%5')+')'01(+''(*..%B,*.'%B,0)0'46)' ,$' 2(%' 1(93*$)+='+'0'5%/*6%5')',0',5%''8*$%'&1 2'.5'+'0'4$*1-+)'&*$3'$5'81(+' %7,5%.(%',.'&'7*1$'*&')+%'7,%3')+')'-*1)',0' '" ")/ O ' 5,0%'0%' %' $%(*-.,0%0' '" 0 '" ' 3+,(+'8'2'4%'6$,8'$2'*$ (%.)$'/'*$'0%(*.5'$2'*$',.51(%5H' '.5'8',.;)',.0')+')')+%$%',0''' &78(),5.'/'5,0*$5%$'*&''' 5%&,.,)%')$'()'*&')+%'.%$7*10' 020)%8' 3+,(+' +%',0',.(/,.%5')*' /*('/,0%',.'0*8%'6')$)'*&')+%' 8%51//'' *4/*.-')'' 41)' 5*%0' .*)',.0,0)' *.')+,0'6*,.0)' %' &1$)+%$'4%/,%7%0'0)+')',0' 5,')+%),('.%1$*0,0',86*0%0',0')26%'16*.')+%' '&&%()%5',.5,7,51'/' .' 5%&,.,)%' .1)$,),*.'/' 8*5%0''&&%(),.-')+%''00,8,/'),.-'.5'%B($%); ,.-'6*3%$0'%B+,4,),.-' 8'$9%5'6%(1/,'$,),%0' ,.' .%$7*10',86$% 0,41,)2'.5'5%)%$8,.,.-' ,.'''8*$%'*$'/%00'5%-$%%''' 6+20,*-.*82'*&)+%' -*1)2 ,0'1)+*$,)2'$%(*-.,0%0')+%' 5%6%.5%.(%'*&'8'.2'-*1)2'6+%.*8%.''16*.' 06%$7%$)%5'$%/'),*.0'*&'1$,(''(,5'.'50*5,18' 0')/0',.')+%'%(*.*82 3+,(+'$%01/)'&$*8')+%' 8*$4,5'6%(1/,'$,),%0>10)'8%.),*.%5' %'(*.; 0,5%$0')+')',.'6$,8'$2'*$',.+%$,)%5'-*1)')+%')*B %8,'',0'5%6%.5%.)'*.')+%-*1)2'.%1$*0,0' *&'3+,(+',)',0''0%(*.5'$2'8'.,&%0)'),*.H 3+,/%',.'0%(*.5'$2'*$'(E1,$%5'-*1)',&')*; -%)+%$'3,)+')*B'%8,'',.51(%5'42'(%$)',.' +'4,)0'5,0),.()/2'5%6$%00,.-'.5'%B+'10),.-' '-%.(,%'&&%(),.-')+%'.%$7*10'020)%8'(*8%' ,.)*'*6%$'),*.')+%'06%(,'/.%1$*),('8'.,&%0); '),*.0'*&')+'-*1)2'5,')+%,0'3,/'*((1$''.5' 4%',86$%00%5'8*$%'*$'/%00'5%%6/2'16*.')+%' ,.5,7,51'/'.5'+,0'*&&06$,.-

6'(%'3,.'.*)'6%$8,)')+%'5,0(100,*.'*&')+%' W8*5%0',.'3+,(+')+%'0%7%$'/'('10%0'3+,(+' 6$*51(%')+%'-*1)2'(*.5,),*.'*$',)0'/*('/ 8'.,&%0)'),*.0',.5,7,51'//2''()' .'-%.%$'/)%$80',)'8'2'4%'0)'%5')+')')+%2'6$*51(%')+%,$'%&&%()0'(+,%&/2'42',.($%'0,.-')+%'8*1.)' *&'1$,('(,5'&*$8%5'*$',.)%$&%$,.-'3,)+',)0' %/,8,.'),*.H 5,0*$5%$,.-'5,-%),*.''.5')+%' +%6'),('&1.(),*.0H,.($%'0,.-')+%''(,5,)2'*&')+%'4/**5''.5'),001%0H'&&%(),.-'),001%(+'.-%' '.5'8%)'4*/,08H,.&/1%.(,.-')+%'(,$(1/'),*.H *$'6$*51(,.-'0*8%' +'.-%,.')+%'.%$7*10' 020)%8

@' %'+'7%')+10'&'$'4%%.'(*.(%$.%5'8',./2' 3,)+')+%'6')+*/*-2'*&')+%' -*1)2'5,')+%0,0' .5',)'$%8',.0')*' *&&%$''' &%3'$%8'$90'3,)+' $%-'$5')*',)0' ' '.5',+*$%' %06%(,'//2')*'+%'*((1$$%.(%'*&'(1)%')')'(90' *&'-*1)''.5')+%'&*$8')',*.'*&'1$'),('5%6*0,)0' *.(2')*'+%'*&'-*1)''.5')+%'&*$8')',*.'*&'1$'),('5%6*0,)0'*

' . ')* 8 ,('//2' 42')+%' *((1$%. (%' *&' '' 6%(,= ' $' &*$8' *&', . &/ ' 8 8 '), * . ' ' &&%(), . -' (%$)' , . '>*, .)0 ' '))%. 5%5' 3 ,)+')+%' 5%6*0,)' *&' 1$')%' , . ' *. ; . %B,*. ' 3 ,)+')+%, $' 0)$1()1$%0 ' ' , . -' ' . ' , . 5,7,51' /' $), (1/'), *. ')+, 0' , 0' ')' &, $0)' 101' //2')+%' 0%')' *&' ' . ' ' %1)%' , . &/ ' 8 8 ')*$2' 6$*(%00 ' , . 5, (')%5' 42')+%' 101' /' 0, - . 0' *&' , . ($%' 0%5' 7' 0(1/' $,)2' ' . 5' $%5. %00 ')1 8 %&' (), *. ' ' . 5' 0%$*10' %&&10, *. ' , .)*')+%' , .)%$, *$' *&')+%' >*, .)' ' 0' 3 %/' ' 0' , .)*')+%' 01$$*1. 5, . -'), 001%0 ' +%' $%01/)0' *&' ' %B' 8 , . '), *. 0' 0+*77')+')' %7%. ', . ')+%' 7%$2' %' $/, %0)' 6%$, *5' ''5%6*0,)' *&1$')%')' 9%0' 6/' (%H ' . 5' 0')+%' '))' (90' 4%; (* 8 %' $%6%')%5' ' - ', . ' . 5' ' - ', . ')+%' 0, =. 0' *&' , . &/ ' 8 8 '), *. '4%(* 8 %' /%00' . 5' /%00' 6$* 8 8 %.)' W3+, /%)+%' 5%6*0,)' , . ($%' 0%0' 1 .), /')' / ' 0)' ,)' 8 ' 2' &*$8' (* . 0, 5%$' 4/%' 8 ' 00%0' ' . 5', . &, /)$')%' %B)%. 0, 7%/2' ' /')+%' 0)$1()1$%0' %.)%$, . -', .)*')+%' &*$8 '), *. ' *&')+%' $), (1/'), *. ' +%' >*, .)')+%. ' 4%(* 8 %0' 6%$8 ' . %.)/2' %. / ' $-%5' . 5' 5, 0;)*$)%5' 3+, /%)+%' /, -' 8 %.)0' $%')+, (9%. %5' . 5' 8 *$%' *$' /%00' 0), &&' *$' %7%. ' E1,)%' $, =5 '1.), /' 1/), 8 ')%/2' (* 8 6/%)%' . 92/*0, 0' 8 ' 2' 4%' 6$*; 51(%5' +%' 5%6*0,)' 0%% 8 0') *' (* 8 8 %. (%' , . ')+%' 0140)' . (%' *&')+%' (' $), (1/')' -%' (*7%$, . -')+%' %. 50' *&')+%' 4*. %0' 0)' $), . -' . %' $' ,)0' 016%$&, (, ' /*$&, %%' 01$&' (%' ' . 5' -$' 51' //2' %B)%. 5, . -' 8 *$%' 5%%6/2')+*1-+' &*$' '), 8 %' ')+, . ' /' 2%$' *&' (' $), /' -%' /, %0' 4%) 3%%. ',)' . 5')+%' (' 7,)2' *&')+%' >*, .)' +, 0' 5%6*0,)' ')' &, $0)' &*$8 0' ' 3+,), 0+' *6' (,)2' 41)' 0' ,)' 4%(* 8 %0' 8 *$%' '4, 85' .)',)' %. ($10)0')+%' (' $), /' -%0' ' . 5' ' /0*')+%' , . . %$' 01$&' (%' *&')+%' /, -' 8 %.)0' ' . 5')+%' 01$&' (%0' *&' &, 4$*' (' $), /' -%0' 3+%$%')+0%% %B, 0)' *$%' *$' /%00' %B)%. 0, 7%' 06*)0' 6$* 6')(+%0' 4%; (* 8 %', . '), 8 %' 5, 0), . ()/2' 7, 0, 4/%' ' . 5' %7%. ')+6' %.), $%' 01$&' (%0' *&')+%' 4*. %0' &*$8, . -' ' >*, .)' 8 ' 2' 4%' (*7%$%5' 3,)+' ' (+' /92 /**9, . -' 014; 0)' . (%' 0 +%' '66%' $' . (%' *&' $), (1/' $' $), ; /' -%', . '3+, (+' 0, 8 6/%' 5%6*0,)' *&' 1$')%0' +' 0') '9%. ' 6/' (%' %B' ()/2' $%0%8 4/%0')+')' 3+, (+' 3*1/5' $%; 01/)' &, $*8' 0 8 %' $, . -' *$' 06/' 0+, . -')+%' 01$&' (%' 3,)+' &$%0+' 3+,)%' 6' , .)< A 1(93*$)+R' +%' 02. *7, ' /' 8 %8 4$' . %' 8 ' 2' ' /0*' 6$%0%.)' 3+,)%' 6*, .)0' 41)')+%' 02. *7, ' /' &$, . -%0' ')')+%, $' 8 '$-, . 0' 0%%8')*' %0(' 6%' *. ' ' ((*1.)' *&')+%, $' 7' 0(1/' $,)2' . ')+%' /' $-%$' $), (1/'), *. 0')+%' 02. *7, ' /' &/1, 5' 8 ' 2' 4%')+, (9%. %5' ' . 5' 8 ' 2' %7%. ' (*.) ' , . ' 0%6' $')%' ($20)' /0' *$) 1&)0' *&')+%' 1$')%' 140%E1%.)/2')+%' /, -' 8 %.)0' ' . 5' ' 5; >*, . , . -' 0)$1()1$%0' '$%' , . &, /)$')%5' ' . 5',)' , 0')*')+, 0' (' 10%')+')')+%' 0), &/+%00' *$' $, -, 5,)2' *&' -*1)2' >*, .)0', 0' 8 ', . /2' 51%' , 0), . ()' 8 ' 00%0' *&' 5%6*0,)' 8 ' 2' +*3%7%$' &*$8' 3, (+' /0*' , .)%$&%$%' 3,)+' 8 *7%8%.)' +%2' '$%' 9. *3. ' 0' # ' *$' # # " ' . ' (*1$0%' *&'), 8 %')+%'), 001%0' (*7%$, . -' '' -*1)2' >*, .)' 8 ' 2' 4%' 5%0)$*2%5' , . (/15, . -')+%' 09, . ')+%' (+' /92 ' /**9, . -' 0140)' . (%' 4%, . -')+10' %B6*0%5' ' . 5' 1. +%' /)+2' 01661$'), *. ' ' . 5' 1/(%$'), *. ' 0%)' 16' *$' %7%. ' -' . -$%. %' %$2' $' $%/2' 01661$'), *. ') ' 9%0' 6/' (%' , . ' '' -*1)2' >*, .)' , 0)%/&' *$' +' %8*$; $+' -%' 8 ' 2' *((1$ +%' *6' E1%' 3+,)%' 0140)' . (%' (+' $' ()%$, 0), (' *&' ' $), (1/' $' -*1)' , 0' &*1. 5' *. ' 8, ($*0(*6, (' %B' 8, . '), *. ')*' (*. 0, 0)' *&', . %' ($20)' /0' , . ')+% &*$8' *&' . %%5/%0' *$' 6$, 0 8 0' +%2' '$%' (+, %&/2' '$$' . -%5' , . ' 8, . 1)%' (/10)%$0' $' 5, '), . -' &$*8' '' (%.)$%H' . 5' , . ')+%' (' $), /' -%0')+%2' &*B 8' ' 8 *$%' *$' /%00' (* 8 6' ()' . %)3*$9' +%8, (' /' %B' 8, . '), *. ' 0+*30')+')')+%2' '$%' 101' //2' (* 8 6*0%5' /8*0)' %.), $%/2' *&' 1$')%' *&' 0*5, 18 +%' 8%)')' $0* 6+' /' . -%' /' $), (1/'), *. ' *&')+%' -$%')')*%' , 0')+%' *. %' 6$, 8 ' $, /2' '))' (9%5' , .)+%' /' $-%' 8 ' >*$,)2' *&' (' 0%0' *&' -*1)H' . 5')+, 0' >*, .)' *. ' *. %' *$' 4*)+' 0, 5%0' 8 ' 2' ' /*. %' 6$%0%.)' . 2' (+' . -%' 0' 101' //2' 0%%. ' +*3%7%$')+%' 5, 0%' 0%' +' 0' 6$*-$%00, 7%/2' , . 7*/7%5' 8 ' . 2' >*, .)0' . ')+%' &%%)' ,)' 8 ' 2', 8 6/, (')%' ' //')+%' '$), (1/'), *. 0' 41)' ,)' 0' '' (1$, *10' &' (')')+')')+%')' $0* 8 %)')' $0' /' . 5')+%' 6+' /' . -%' /' >*, .)0' *&')+%' -$%')')*%' -. %. %$' //2' %0(' 6%' *$' $%' 41)' /,))/%' ' &&%()%5' , 8, /' $/2' ' //')+%' >*, .)0' *&')+%' +' . 50' ' . 5' &, . -%$0' $%' *&)%. ', . 7*/7%5' 41)')+%' 8 %)' (' $6* 6+' /' . -%' /' >*, .)' *&')+%' &*$%&, . -%$' , 0' *. %' *&')+%' 8 *0)' (* 8 8 *. /2' '))' (9%5' +%' -*1)2' (+' . -%' . *)' 1. (* 8 8 *. /2' %B)%. 50')*')+%' /' $-%$' >*, .)0' 8 *$%' %06%(, ' //2')+*0%' *&')+%' /%-' 41)')+%' 0+*1/5%$' ' . 5' +, 6 >*, .)0' $%' 7%$2' $' $%/2', 8 6/, (')%5' . ' %B(%6), *. ' /' *' 0%0' *)+%$' $), (1/'), *. 0' $%' &*1. 5', . 7*/7%5' 01(+' 0')+%')%8 6*$* 8 'B, '$2')+*0%' *&)+%' 06, . ' /' (*/18. ' *&')+%' 6%/7, 0' *$' %7%. ' *&')+%' /' $2. B', . ' $' $%' , . 0)' . (%0 *8, . -' . *3')*' *)+%$' 0)$1()1$%0' 5%6*0,)0' *&' 1$')%' 8 ' 2' *((1$', . ' 7' $, *10' 6' $)0' *&')+%' 4*52' 0*8%), 8 %0' '41. 5' .)' ' . 5' 3, 5%/2' 06$%' 5' , . '(*, 8 %B, *. ' 3,)+' 41$00%')%. 5*. 0' . 5' ' 6*. %1; $*0%0' 0+%')+0' *$')+%' 0140)' . (%' *&' 8 10(/%0')+%' 0(/%$*), (' (*')' *&')+%' 2%')+%' %')$)&/' -%0' *&')+%' %B)%$. ' /' %' $' %2%/, 50' . *0%' *$' /' $2. B' 1. 5%$')+%' 09, . ' *$' $' $%/2', . ')+%' (%$%4$' /' . 5' 06, . ' /' 8%. , . -%0' $')%0' +' 7%' /0*' 4%%. ' &*1. 5', . ' (*. ($%), *. 0' *. ')+%' ' *$), (' . 5' 8,) $' /' 7' /7%0' ' . 5' , . ' 6/')%0' &$*8')+%' $(+' *&')+%' '*$)' *$%' *$' /%00' 0%$*10' %&&10, *. ' 8 ' 2' 4%' 6$%0%.)', . ' 48 00%' 3+, (+' $%')+%' 0%')' *&' 1$'), *' 5%6*0,)0' +%' %B' ()' (* 8 6*0,), *. ' *&')+%0%')*6+, ' 7' $, %0' ' . 5')+%2' 8 ' 2' (*.), ' (' /(, 18 *1$')%' *B' /')%' *$' 6+*06+')%' 0' 3%/' 0' 0*5, 18' (+/*$, 5%' . 5' ' . , 8 ' /' 8 '))%$' , . ' ' 55, ;), *. ')*' 0*5, 18' 1$')% 0' $%-' $50' 4*. %')+%' 6%$, *0)%18' , 0' *&)%. ' &&%()%5' ' . 5' 0*8%' 3$,)%$0' +' 7%' 5%0($, 4%5' *' 5%6*0,)' *&' 1$')%' , . ' 4*. %' ,)0%/&H' 41)' '$$*5' +' 0' . *)' &*1. 5' %7, 5%. (%' *&' ,)0' +' 7, . -' *$, -, ; . ')%5' , . ')+, 0'), 001%' %' (*. 0, 5%$0')+')')+%' 6%$, *0)%' /&*$8 '), *. 0' 0*8%), 8 %0' ' (E1, $%' 01&&, ; (, %.)' 0, C%)*' 6$%00' *. ')+%' *00%*10'), 001%' ' . 5')*' (' 10%' ,)0' *40*$6), *. +%' (*. 5,), *. ' *&')+%' ' 00*(, ')%5' 3,)+' -*1)' , 0' *&' -$%')' , 8 6*$)' . (%' ' . 5')+%0%' *$-' . 0' 6$*4' 4/2' 4%-, . ')*' 4%' '&&%()%5')' '' 7%$2' %' $/2' 6%$, *5', ')+%' +, 0)*$2' *&' ' (' 0%' &*$')+%2' 8 ' 2' 4%' &*1. 5' 5, 0), . ()/2' 5, 0%' 0%5' 3+%. ')+%$%' +' 7%' 4%%. ' /,))/%' *$' . *' %B)%$. ' /' 8 ' . , ; &%0)', *. 0' *&')+%' (*86/', .)' . ')+%' &, $0)' , . ; 0)' . (%' '' 5%6*0,)' *&' 0*5, 18' 1$')%')' 9%0' 6/' (%' 6$*4' 4/2' 3,)+, . ')+%' $%. ' /')141/, ' 3+, (+' &)%$; 3' $50' , . 7*/7%0')+%, $' 3' //0' ' . 5' 6%. %)$')%0')*')+%' , .)%$)141/' $'), 001%' +, 0' , 0' 0%%. ' , . ')+%' &*$8' *&' 3+,)%' 0)$%' 90' , . ')+%' (*1$0%' *&')+%

)14'/,' '.5' *&'3+,)%'6*,.)0' ')')+%' %B)$%8,),%0' *&')+%' 6'6,//'%' +%' 5%6*0,)' -*%0' *.' ,.;
($%'0,.-' '.5' '' (+$*.,(',.&/'8 8 ')*$2' 6$*(%00' ,0' 0%)' 16' %.5,..-'1/),8 ')%/2',.')+%' 6$*51(),*.'
&' '' 7'$,%)2' *&' 0-$'.1/'$ (.)$' ()%5'9,5.%2 9.*3.' '0')+%' 0-*1)2'9,5.%2' + ' 0 L'
- /)+%$' 8*$4,5'0)')%0',.' (*..%B,*.' 3,)+')+%' 1$,.'$2' *$-'.0' *40%$7%5',.' 0*8%'
('0%0' *&' -*1)' '$%')+%' 6$%0%.(%' *&' ('/(1/,' (*.0,0),.-' *&' 1$,(' '(,5'1$')%0' *$' *B'/')%' *&'
('/(,18'H (+$*.,(' (20),),0H *$',8%)+$,),0
)' 8 10)' '-',.' 4%' .*)%5' +%$%')+')' 8 '.2' 3$,)%$0' $%(*-.,0%' 5%-%.%$'),*.' .' '7%' 4%.' 5%0($,4%5',.'
5,&&%$%.)',001%0H)+10')+%' ('$),/'-%0' '$%'0',5')*' 4%' -%.%$'//2'&,4$,//')%5' .5' %$*5%5' 4%&*$%
)+%' 5%6*0,)' *&'1$')%0')'9%0' 6/'(%
.')+%' (*1$0%' *&'-*1)')+% '8*$4,5'(4'&)-%0' *&)%.' '$,0%' '&&%(),.-'5,&&%$%.)'0)$1()1$%0' '.5'
$-'.0'' .5' %,)+%$'((1$$,.-' '0' (,/)%' *$' %7%.'
&')'/ %7%.)0' *$' 4%,.-' *&' '' (+$*.,(' .')1$%'
./2')+%' 8*$%' 6$*8,.%.)' *&')+%0%' (' .' 4%
8%.),*.%5' +%$%' '.5')+%2' 8',./2' ,.(/15%'
(+'.-%0' ,.')+%' 6+'$2..-%'/ 0)$1()1$%0H (*.;
-%0),*.' (')'$$+' *$' 8*$%' 0%$,*10' ,.&/'8 8 ';
),*.' *&' 0*8%' 6')$' *&')+%' '/,8%.)'$2' (' .'/H'
(*.-%0),*.' *$' (')'$$+' *&')+%' ',$ 6'00'-%0'
(+$*.,(' 4$*.(+,),0' %8 6+20%8 ' ' .5' 0*8%'
)+,.9'6.%18*.,'H &')'2'5,0%'0%*&')+%'/,7%$'
'.5' 6%$+'60' (,$$+*0,0H 8%.,.-,),0' .%1$,),0'
%$%4$'/ +0%8*.$+'-%H ('$5,'(' (+'.-%0',.;
(/15,.-' (+$*.,(' 7'/71/,),0' '.5' 5%-%.%$'),*.'
*&')+%' 7'/7%0' ' .5' +26%$)$*6+2'&*//*3%5' 42'
5%-%.%$'),*.' *&')+%' ('$5,'(' 3'//0H ')+%$*;
8')*10' (+'.-%0',.')+%' 7%00%/0' +26%$)$*6+2'
*&')+%' 8 10(1/'$'(*')' *&')+%' 0 8 '+' '$)%$,%0' *$'
$)%$,* ('6,//'$2'&,4$*0,0H 7'$,*10' 5,0%'0%0' *&'
)+%'09,.'01(+'0' %$2)+% 8 ''1$),('$,''%(C% 8 ''
60*$,'0,0' '0' 3%// '0' (+'.-%0',.')+%' .'/0H
,$,),0,0' +'% 8 *$$+'-,(' $%),.,),0,0' '.5' *)+%$'(*.5,;
),*.0' *&')+%' %2%0H ' .5' '&&%(),*.0' *&')+%' %'$'
*3' &'$' 0*8%' *&')+%0%' (*.5,),*.0' (' .' 4%'
5,$%()/2' '))$,41)%5')*')+%'-*1)2'5,')+%0,0' *$'
'$%' 8 $%%/2')+%'$%01/)' *&')+%'0' 8%' (' 10%0' 3+,(+'
+'7%' ,.51(%5')+,0' 5,')+%0,0' 8 '2' 4%' &',$/2'
5,061)%5')',0' 3*$)+2' L&' $% 8 '$9')+')' (1)%'
,.&/'8 8 '),*.,' .,' (*..%B,*.' 3,)+')+%'+%'$)',0'
.*)' 8 %)' 3,)+',.' ('0%0' *&'-*1)' '.5')+,0' +'0'
4%%.' ')$,41)%5')*')+%'-$%')' 7'0(1/'$,)2' *&'
)+%' %.5*('$5,18' '.5' *)+%$' ('$5,'('),001%0'
&*$' 3+,(+' (*.0%E1%./)2')+%' 1$')%' +'0' .*'
'&&,.,)2' *$' ,)' ,0' 5%0)$*2%5' ,.' ,)0' 6'00'-%'
)+$*1-+')+%8
+%' (*.5,),*.'*&')+%' 4/**5',.'-*1)' 8'2' 4%
+%$%' .*),(%5' .'%'$/2'('0%0')+%' (+,%&'5%7,';
),*.'&$*8')+%' +%'/)+2'0)')%' 6$%0%.)%5'42')+,0'
&/1,5',0')+')' 51$,.-')+%' (1)%' 6'$*B20 8 0')+%'
0%$1 8'(*.)',.0''5,0),.()'%B(%00'*&' 8 ,*' (,5'
,.')+%'&*$8'*&'' '0'/)'*&'0*5,18H '.5')+,0'('.'
4%'*4)',.%5',.' '66$%(,'4/%'E1'.),)2'%7%.',.'
''($20)''//,.%'&*$8' .')+%',.)%$7'/0')+%'4/**5'
,0'E1,)%'.*$8'/' +%.')+%'-*1)2'(*.5,),*.'
4%(*8%0'(+$*.,(')+%' %B(%00'*&'1$,(''(,5',0'
(*.0)'.)H '.5'*B'/,('(,5'('.' '/0*' 4%' &$%;
E1%.)/2' 5%)%()%5' .' (*1$0%' *&'),8%')+%'
0%$1 8'4%(*8%0'/*3%$%5',.'),)0' 06%(,&,('-$'7,)2'
,)0' '/41 8%.',0' 5%&,(,%.)'' .5',)0' $%'(),*.',0'
/%00' '/9'/,.%',.'%B)$% 8%' ('0%0' 4%(*8,.-'/;
8*0)'.%1)$'/'*3,.-')*')+%' 6$%0%.(%' *&'%B(%00'
*&' (,50' +%' *$%5' *$610(/%0' *&)%.'5,8,.,0+'
,.' .184%$' '.5')+%' 4/**5' 5%)%$,*$')%0',.'
E1'/,)2' 0' '' 3+*/%',.' 8' .2' ('0%0' *&' (+$*.,('
-*1)
$,(' '(,5' +'0' 4%%.' *4)',.%5' &$*8')+%'
&/1,5' (*.)',.%5',.')+%' 4/%40' 6$*51(%5' 42' 4/,0;
)%$0H &$*8' ,.&/'8 8 ')*$2' 0%$*10' %&&10,*.0H
&$*8'5$*60,('/'((181/'),*.0'01(+''0'0(,)%0H
'.5'&$*8')+%' 014'$'(+.*,5'&/1,5
$ $' ' !(! G +%'
(/,.,('/' +,0)*$2'*&'-*1)',0'' 7%$2'7'$,%5'*.%'
'.5')+%' 02 8 6)*8 0' *40%$7%5',.'5,&&%$%.)'('0%0'
3+,(+' '$%' $%-'$5%5' '0' *&' '' -*1)2'.')1$%' '$%'
%B(%%5,.-/2'.18%$*10' '.5'5,7%$0%' +%)+%$'
)+%2' '$%' '/3'20' 5,$%()/2'51%')*' 1$,(' '(,5',.'
)+%' 020)% 8',0')*' 0'2')+%' /%'0)' '' 8 '))%$' *&'
(*.0,5%$'4/%'5*14)' +%'+'4,)0'3+,(+'-%.%;
$')%'-*1)' *&)%.'-,7%' $,0%')*' 02 8 6)*8 0' '.5'
%7%.')*' 5%&,.,)%' 8*$4,5'(+'.-%0'3+,(+'(' .;
.*)'>10)/2'4%/**9%5'16*.'' 0'6'$)'*&)+,0'(*8;
6/'..)' -'.')+%' (10)*8' 3+,(+' 0*8%6$'(;
),),*.%$0' *5'*6)' *&'/**9,.-'16*.'%7%$2' '(1)%'
,//.%00'6'$),(1/'$/2',.&/'8 8 '),*.' *&' *$-'.0'
*((1$$,.-',' -*1)2'014>%()0' '0' 4%,.-'51%'
)*')+%' /,)+0%8,(' (*.5,),*.' '.5' *&' '' 06%(,'/
.')1$%' '.5'66/J1.-')+%')%$8'0-*1)2'') *' '
01(+' (*86/',.)0',0' (%$)',./2'-*,.-')**' &'$'
)+*1-+',)' 8 '2' 4%' '(9.*3/%5-%5')+')' -*1)'
5*%0' *&)%.' 8*^&2')+%,$' (/,.,('/' +,0)*$2')'
,0' .*)' %'02' 3,)+,.' '' /,8,)%5' 06'(%')*' -,7%'
%7%.' '' 09%)(+' *&')+%' 7'$,*10' (/,.,('/6+'0%0'
*&' -*1)' 41)' 4%&*$%' (*.0,5%$,.-')+%' 02 8 6)*8 0'
,.' 5%)','/' ,)' 8 '2' 4%' 3%//')*' ,.5,(')%')+%,$'
-%.%$'/ .')1$%' ' .',)0')26,('/&*$8' -*1)'
,0' '))%.5%5' 3,)+' '(1)%' 02 8 6)*8 0' $%&%$'4/%'
)*'(%$)','>*,.)0' '.5')+%0%')%.5')*' $%(1$' ')'
,.)%$7'/0'(*.0),)1),.-'0&,)0' *&'-*1)')+%',.)%$;
7%.,.-'6%$,*5041%(*8,.-'0+*$)%$' '.5'0+*$)%$'
'0')+%' ('0%' 6$*-$%00%0G ' ' *$
' @' +%0%' '))'(90'(1/8,.')%',.'
*47,*10'(+$*.,('(+'.-%0',.')+%''&&%()%5'*.,)0'
A " ' # ' G41)' %7%.')+%.'
8*$%' *$' /%00' '(1)%' 6'$*B20 8 0' '$%' /,'4/%')*'
,1$,0%' &$*8',8%')*',8%' "' .' (*..%B,*.'
3,)+')+%' '(1)%' '))'(90'' .5' 0*8%),8%0' 6$%;
(%5,.-')+%8 ' *$ ' 02 8 6;
)*8 0' '$%' 101''//2'*40%$7%5H ' .5' 02 8 6)*8 0'
4%/*.-,.-')*')+,0' (/'00' 4%(*8%' 6%$8'.%.)'
,.' 8 *0)' *'0%0' *&' (+$*.,(' -*1)' ' ,%.'
-*1)' '&&%()0' *)+%$' *$-'.0' '.5' 0)$1()1$%0' 4%;
0,5%0')+%'>*,.)0'('*$%06*.5,.-'02 8 6)*8 0' '$%
5%7%/*6%5''((*$5,.-')*')+%' 6'$)',86+%' ,5'
.'-%.%$'/')%$8 0')+%0%' '$%' 7'$,*10/2'-$*16%5'
'0' ('0%0' *&' - ' ' -'
' " ' *$' ' ' '
'.5'3+%.'01(+'02 8 6)*8 0' '$%' '(1)%',.')+%,$
(+'$')()%$' '&&%(),.-'0*8%',.)%$./'*$-'.'.5'
(*8,.-'*.'51$,.-')+%' (*1$0%' *&''.'))'(9'*&'
'(1)%' '$),(1/'$'-*1)')+%'>*,.)02 8 6)*8 0')
)+%'0'8%'),8%' 0140,5,.-')+,0' (*.0),)1)%0'
3+')' ,0')%$8%5' ' ' +%

8 % .)' *$'>' , . -' *&')+%' '&&%()%5'6 '$)' *$' 0* 8 %;), 8 %0' %7% . ')+%' 3%,-+)' *&')+%' 4%5((/*)+%0 ' *$')+%' 0/, - +)%0)' 0+ '9, . -' *&')+%' $** 8 ' +%' *4; >%(),7%' 0, - . 0' *&' , . &/' 8 8 '), *. ', . ' (* . . %B, *. ' 3,)+' '' - *1)2' >*, .)' '/0*' 0** . ' 4%(* 8 %' 7%$2' 6$* 8 , . % .)' '0' ''$1/%' +%0%' $%' 8 '$9%5'$%5; . %00 ' 3 +, (+' 8 ' 2' 4% 7%$2' 5%%6' ' . 5'0* 8 %), 8 %0')% . 50')*' /, 7,5,)2' 3 +, /%')+%' 7%, . 0' '$%' *&)%. ' %. / '$ - %5' ' . 5')1$ - , 5H (* . 0,5%$' 4/%' /*(' f +%')' '0' $%7%'/%5')*')+%')*1(+' ' . 5')+%' (/, . , (' f)+%$ 8 * 8 %)%$H ' . 5' 8 1(+' 03%//, . - ')+%' 09, . ' (*7%$, . -')+%' 6'$)' '001 8 , . -' '')%. 0%' ' . 5' 0+, . , . -' '66%'$' . (%' +%. -' 0%7%$' f >*, .)0' , . ')+%' &**)' *$' + ' . 5' '$%' '&&%()%5' 5, &&10%5'$%5; . %00' ' . 5' 03%/+ . -' '$%' . *), (%5' +%')1 8 %; &' (), *. ' , 0' 51%')*' %&&10, *. ' . *)' * . /2' , .)*')+%' , .)%$, *$' *&')+%' '$), (1/'), *. ' 41)' /0*' , .)*')+%' 1$$*, 85, . -'),001%0' 014(1)' . %*10' *%5%8 *' 4%, . -' '' 8 '$9%5' &%')1$%' , . ' (* . . %B, *. ' 3,)+' -*1)2' , . &/' 8 8 '), *. ' +, 0' ('. ' 4%' 4%))%$' '66$%(, ')%5' 3+%. ')+%' (1)%' 02 8 6)* 8 0' 014; 0,5%' 0*')+')' 6$%001$%' (' . ' 4%' 4*$. %' 3+, (+K 0+* 3 0')+%' 6,)), . -' (+' $' ()%$, 0), (' &' *%5%8 ' ' . 5'), + 0' 8 ' 2' +*/5' *. ' &*$' 0* 8 %), 8 %' *3; %7%$' , .)%. 0%')+%' 4>%(), 7%' 0, - . 0' *&', . &/' 8; 8 '), *. ' 8 ' 2' 4%',)' , 0' . ' %B)$% 8 %/2' $' $%' %7%.)' &*$' (1)%' -*1)')*' %. 5' , . ' 01661$'), *. ' 0')+%2' 0140, 5%' 8 ' $9%5' 5%0E1' 8 '), *. ' *&')+%' 09, . ' 101 ''//2') ' 9%0' 6/'(%' 0')+%' 03%//, . - ' , . ($%' 0%0')+%' 014>%(), 7%' 0%. 0'), *. 0' -%. %$ ''//2' 5, 8, . , 0+' , . ' 0%7%$,)2H 41)' 51$, . -')+%' 6$*; -$%00')*3 '$50' $%(*7%$2' , .)%. 0%' ,)(+, . -' , 0' '6)')*' 016%$7%. %

. ' (1)%' '))' (9' *&' -*1)' , 0' '/8*0)' '/3 '20' '))%. 5%5' 3,)+' 8 *$%' *$' /%00' 0 " ' 02 8 6;)* 8 0H 41)' ,)' , 0' . ' . ' , 8 6*$)' .)' &' ()')+')')+%, $' 0%7%$,)2' 5%6%. 50' 16*. ')+%' %B)%.)' ' . 5' , . ;)%. 0,)2' *&')+%' /*(' f 8 ' . , &%0)'), *. 0' *&')+%' 5, 0; %'0%' ' . 5' 16*. ')+%' ((*8 6' . 2, . -' 02 8 6)* 8 0' +, //0' *$' %7%. ' ' ()1' f $, -*$0' 8 ' 2' 4%' &%/)' ')')+%' *1)0%)' &*//*3%5' 42' &%4$, /%' 6+%. * 8 %. ' ' 0* 8 %), 8 %0' 0/, -+)' , . ' *)+%$' ('0%0' 8 '$9%5')+% 62$%B, '' 4%, . -' '' 0' ''$1/%' 0)$, ()/2' 0%(*. 5'$2' *$ 02 8 6)* 8 '), (' +%' 09, . ' &%%/0' +*)' ' . 5' 101; ''//2' 6%$06, $%0' 41)' . *)' 6$*&10%/2H)+%')%8; 6%$')1$%' , 0' 8 *5%$')%/2' $', 0%5' 6$%0%.), . -' . *' 5%&, . ,)%' 7'$, '), *. 0')+*1-+' 8 '$9%5' $%8, 0; 0, *. 0' '$%' -%. %$''//2' *40%$7%5')*3'$50' 8 *$. ; , . -'H)+%' 61/0%', 0', . ($%'0%5', . '&, %E1%. (2H ' . 5')+%' 5, -%0), 7%' *$-' . 0' '$%' 8 1(+' 5, 0*$5%$%5' '0' %7, 5%. (%5' 42' ' . *$%B, ' ')+, $0)')+, (9/2' &1$$%5')*. -1%' *&&%. 0, 7%' 4$%')+' ' . 5' (*. 0), 6'), *. ' +%' 1$, . %' , 0' -%. %$''//2' 5%&, (, %.)', . ' E1' .),)2' ' . 5' 8 ' 2' 4%' 7%$2' 0(' .)2' +, -+ (*/*1$%5' ' . 5' (*. (%.)$')%5H ,)0' '(, 5,)2' , 0' , . ($%'0%5H ' . 5' . 0)' . 5, . -' ' . ' '4, 8 5' .)' 5%6*0,)' *&' ' 8 *$; 6+*1 0 /,)+')%0' *&)%. ' &*$ 8 0' 7' $2, . -', . ' (*/*1$' '((*$5, . -')*' (, $(1 8 0)' . (%0' 4%, . -' 6'/% 41&&' =% * 3, 0+ $%5' 5' $9' *$' 4$, (9 $%5' *$' , .)%. 0%' 6, . 9', &')+%' &%7%$', 0' +, -+' +%' $%/'), 7%' E1' . ;),)2' *&' 1$, (' (, 5' , . ' '' 6' $), (1/'$' 06%(, 8%. ' *&' 1$, . %' , 0' *&)%. ' , . ($%'0%5' 41)')+%' '40*/1)%' ' 8 *1.)' 5, 0(+' $-%5' 3,)+, . ')+%')3%.)2 &*1$' +*1$0' , 0' 8 1(+' 5, 8, . , 0+%5' +%' 6'), %.)' , 0' 101 ''//2' %B(%%5, . -/2' $%0)/%00' ' . 5' (' . . *)' +%' >-)+' (* 8 &*$)' , . ' . 2' 6*0,), *. H 0/%%6' , 0' 8 1(+ 5, 0)1$4%5' *$' /)*-%)+%$'6$%7%.)%5H ' . 5' ($' 8 60' *&')+%' (' /7%0' *&')+%' /%-0' *$' *&' *)+%$' 8 10(/%0' 8 '2' 0), //&' $)+%$' ' - -$' 7')%')+%' 01&&%$, . -' //)+%0%' 02 8 6)* 8 0')%. 5')*' , . ($%'0%')+%' (*. 0), ;)1), *. ' f 5, 0*$5%$' +%')%8 6%$' , 0' -%. %$''//2' 7%$2', $$,)' 4/%' *$' 8 ' 2' %7%. ' 4%7, *%/%.)

+%' 51$'), *. ' *&')+%' &, $0)' &,)' *&' -*1)' 7' $, %0' '((*$5, . -')*' ,)0' 0%7%$,)2' ' . 5' *)+%$' (, $(1 8 ; 0)' . (%0')' 101''//2' $' . -%0' &, *8' &*1$' *$' &, 7% 5' 20')*' '' 3%%9' *$')%. ' 5' 20' 41)' 8 ' 2' /' 0)')3*' *$')+$%%' 3%%90' *$' 8 *$%')+%$%' 4%, . -')+%. ' (* 8 8 *. /2', .)%$8, 00, *. 0' *$' $%8, 00, *. 0' ' . 5' 0%7%$' f >*, .)0' 4%, . -', . 7*/7%5', . ' 01((%0; 0, *. ' +%')%$8, . '), *. ' *&')+%' -*1)2' 6' $*B208' 8 ' 2' 4%' '))%. 5%5' 3,)+' ($,), (' f 6+%. * 8 %. ' ' 01(+' 0' &$%%' 6%$06, $'), *. ' 5, '$$+*%' ' *$' '' 7%$2' '41. 5' .)' 5, 0(+' $-%' *&' 1$')%0' &)%$')+%' ');)' (9')+%' 6'), %.)' 8 ' 2' . *)' $%(*7%$' +, 0' &*$ 8 %$' 0)')%' *&' +%' /)+' &*$' 0* 8 %'), 8 %H 41)' . *)' 1. ; (* 8 8 *. /2' +%' &%%/0' 4%))%$')+' . ' 4%&*$%' ' . 5' ' 0' ,&')+%' 020)% 8 ' +' 5' -*)' 5, 5' *&' 0* 8 %' 5%/%)%$, *10' %/% 8 %.)' 0' '' . 1%')+%' '&&%()%5' >*, .)0' '$%' '66' $%.)/2' E1,)%' $%0)*$%5' &)%$' %)' $/2'))' (90' *&' -*1)H 41)' 8 *$%' *$' /%00' 0), &&, , %00' *$' %7%. ' 5%&*$8,)2' 8 ' 2' $%8 ', . ' 5%8' ' 8 ' 2' '/0*' 6%$0, 0)' &*$' '' (* . 0, 5%$' 4/%'), 8 %' %06%(, ''//2', &')+%' , . &/' 8 8 ')*' $2' (* . 5,), *. ' +' 0' 4%%. ' 6$*; /*. -%5

. %' *&')+%' (+' $' ()%$, 0), (' &%')1$%0' *&' -*1)' , 0')+%')%. 5%. (2' 3+, (+',)' %B+, 4,)0')*' $%(1$$%. (%' , . ',)0' '(1)%' &*$ 8 ' +, 0' 8 ' 2' . *)' +' 66%. ' , &')+%' 6'), %.)', 0' 01&&, (, %.)/2' ('$%&1/' 41)' 01(+' ' . %7%.)', 0' $' $%' +%' $1/%', 0' &*$')+%' '))' (90')*' 4%' $%6%')%5' ' . 5')*' $%(1$' 3,)+' , . ($%'0, . -' &, %E1%. (2' . ' . *)' ''&%3', . 0)' . (%0')+%' 0%(*. 5' &,)' 5*%0' . *)' *((1$' 1.), f ' . ', .)%$7' f *&')3*' *$')+$%%' 2%' $0' *$' 8 *$%' +' 0' %/' 60%5' 41)' , . ' 8 *0)')+, 0' , 0' . *)' 6$*/*. -%5' 4%2*. 5' ''2%' $' +%' 0' 8 %' , .)%$7' f 8 ' 2' 4%' . *), (%5' 4%)3%%. ')+%' . %B)' &%3' 6' $*B208 0' 41)' 0')+%' 5, 0%' 0%' 6$*; -$%00%0')+%2' $%)1$. ')K3, (%'' 2%' $')+%. ' 8 *$%' &$%E1%.)/2' ' . 5')' /' 0)' 4%(* 8 %' 8 *$%' *$' /%00' (*. 0)' .)')+%' 0' 8 %' , 8 %')+%' 8, 0(+, %&' %B)%. 50' 0' $%-' $50')+%' >*, .)0')' 8 ' 2' 4%' /, 8,)%5')*')+%' -$%')')*%' &*$ 0* 8 %), 8 %' 41)' , . ' 01((%00, 7%' &,)0' 06$%' 50')*')+%' *)+%$' $), (1/';), *. 0' *&')+%' &**)')*')+%' +' . 50')+%' . 9/%0' ' . 5' 9. %%0')+%' K3$, 0)0' . 5' %/4' 30' 7%$2' $%/2')*')+%' +, 60' ' . 5' 0+*1/5%$0' . ' 0+*$)' -*1)')%. 50' . ',), 8 %')*', . 7*/7%' . %' $/2' //')+%' >*, .)0', . 5, 0; ($, 8, . ')%/2' ' . 5' 0%7%$' f 8 ' 2' 4%', 8 6/, (')%5' 51$, . -' '' &,)' *$%*7%$')+*0%' $), (1/'), *. 0' 3+, (+' $%' $%6%')%5/2' ')' (9%5' 4%(* 8 %' 8 *$%' ' . 5' 8 *$%' 5, 0' 4/%5' ' . 5' 5%&*$8 %5' +%' 02$. 6')* 8 0' , . ' (* . . %B, *. ' 3,)+' '' 6' $), (1/'$' >*, .)')%. 5')*' 5, 8, . , 0+' , . ' , .)%. 0,)2')+%' 8 *$%' *&)%. ' ,)' , 0' '&&%()%5' 0' '55,), *. ' f ' $), (1/'), *. 0' 4%(* 8 %' , . 7*/7%5' +*3%7%$')+%' -%. %$' f 02 8 6;)* 8 0' *&)%. ' , . ($%'0%' , . ' 0%7%$,)2' ' . 5')+%' 6'), %.)' 5*%0' . *)' $%(*7%$' , . ')+%' , .)%$7' /0' +%' 58'), *. ' *&')+%' ')' (90' 4%(* 8 %0' /*. -%$' 0')+%, $' &, $%E1%. (2' , . ($%'0%0' +%' $'6, 5,)2' *&')+%' 6$*-$%00' *&' -*1)' , 0' 7%$2' 5, &&%$%.)' , ' 5, &&%$%.)' ('0%0H ' . 5')+%'), 8%')'9%. ')*' 6$*; 51(%' 6%$8' . %.)' 8, 0(+, %&', . ')+%' >*, .)0' 7' $, %0' (* . 0, 5%$'4/2

)' 8 10)' 4%' 4*$.% , .' 8 , 8 . 5')+ ')' (* .0,5%$'4/%' 7'$,'),*.0' , .')+%' , .)%.0,)2' ' .5' %B'()' (+'$'(;)%$0' *&)+%' 02 8 6)* 8 0' *&' '(1)%' -*1)' '$%' *4; 0%$7%5', .' , .,7,5 1 '/' ('0%0' .' &%%4/%' 6%$0*.0')+%' 014>%(),7%' ' . 5' *4>%(),7%' 02 8 6)* 8 0' 8 '2' 4%' (* 8 6'$'),7%/2' 0/,-+)')+%' , .&/' 8 8 '),*.' '0018, .-' ' .' '0)+%. ,(' (+'$' ()%$'41)')+%. ')+%' 1/),8 ')% %&&%()0' 16*. ')+%' >*, .)0' '$%' *&)%.' 81(+' 3*$0%' .' 0* 8 %' , .0)' .(%0' -*1)' 5%; 7%/*60' 7%$2', .0,5,*10/2' 3,)+*1)' ' ,,2' %7,5%.)' '(1)%' '))' (90' +%' 6', .' , .' (*, 8 %B,*.' 3,)+' '' 6'$),(1/'$' >*, .)' 5%6%.50' (*.0,5%$'4/2' *.' ,)0'0)$1()1$%'4%, .-'101'//2'8 1(+' 8 *$%' 8 '$9%5',&',)0'/,-' 8 %.)0'*$')+%' 6'$)0' '$*1.5' '$%'$,-,5' '.5' 1.2,%/5,.-' $%7,*10' , .>1$2' *$ 5,0%'0%' '&&%(),.-' '' >*,.)' 8 '2' +9%3,0%' 8 *5,&2')+%' 02 8 6)* 8 0' *8%' , .5,7,51'/0' 01&&%$' 8 1(+' 8 *$%')+' .' *)+%$0' 4%, .-' 8 *$%' 010(%6),4/%')*' 6', .&,,/', 8 6$%00,*.0

9' %+$*.,%' $),(1/'$' *1) G .'(*1$0$' / 020)% 8')%.50')*' 4%(* 8 %' 6%$ 8'.%.)/2' '&&%()%5' +%' 6'),%.)0' '$%'-%.%$'//2' 8 *$%' *$ /%00' &%%4/%' .5' 3'.),.-',.')*.%H)+%2' 8 '2' 4%')+,.' '.5' 6'/%' *$ 0' *3 /**9,.-H%' *$ 6/%;)+*$,('41)' 3,)+' &/'442',001%0''.5' 6$%0%.),.-' 0,-.0' *&' /'.-1,5' (,$(1/'),*.' 3,)+' %./'$-%5'('6,//'$,%0' '4*1)')+%' &%('+%2' *&)%.' 1&&%$' &$*8' 5,0*$5%$0' *&' 5,-%0),*.' '.5' *)+%$' 0 286')* 8 0' /$%'52' 5%0($,4%5H' 41)' .*)' 1.(* 8;8*./2''0'-*1)' 001 8 %0' '' 8 *$%' (+$*.,('&*$ 8 6'),%.)0' &%%/' 4%))%$'4%(* 8 ,.-'+'4,)1')%5')*'+)+%,$'(*.5,),*.')' ,0' $% 8 '$9'4/%')+')')+*0%' 01&&%$,.-' &$*8' .1 8 %$*10' -*1)2' '40(%00%0' *&)%.'%=4,)'41)'/,))/%<(*.0),)1),*.'/' 5,0)1$4;'.(%

+%' 1$,.%' ,.' (+$*.,(' -*1)' -%.%$'//2' 4%;(* 8 %0' '41.5'.)'7%$2'3')%$2''.5'6'/%'*&'/*3'06%(,&,(' -$'7,)2'5%&,(,%.)',.'0*/,5',.-$%5,%.)0'%06%(,'//2',.'1$,(''(,5'3+,(+'')'),8%0' 8 '2'4%''/8*0)'(* 8 6/%)%/2'3'.),.-'*$',)' 8 '2'4%')+$*3.'*1)',.''.',.)%$+,))%.)'8'..%$' %;6*0,)0'*&' 1$')%0',.'1$,.%''$%' .*)'*&)%.'*4;0%$7%5',.'(' 0%0'*&' '57'.(%5'(+$*.,(' -*)'%B(%6)'6%$+'60'4%&*$%'.'.'(1)%'%B'(%$4'),*.'/2(*01$,'',0'.*)',8(* 8 8*.',.'-*1)2'6%$;0*.0''.5')+%$%' 8 '2'4%5,0)&')0'((+'$,.%'5,'4%)%0' B'/1$,'',0'/0*'&$%E1%.)

' $$%-1/'$' *1) G +%'(/,.,('/6+%.*;8%.''3+,(+''$%'$%(*-.,0%5'0',$$%-1/'$'8'.,;&%0)',*.0' *&' -*1)' 8 '2' 001 8 %' %,)+%$' .'(1)%' *$ (+$*.,(' &*$8' +%2' 8 '2' 4%' *4;0%$7%5',.'6%$0*.0' 3+*' '$%' 5,0),.()/2'014>%()'*' $),(1/'$' -*1)H *$' ,.')+*0%',.'3+*8')+%'5,0%'0%',0'.*)'0*' *4 7,*10/2'$%7%'/%5' *$%;*7%$')+%,$',.)%.0,)2',0'*&)%.'>,.)'&%%/'+'$5'.'.5'42')+%,$'8%$%'8%(+'.;('/'.5',$$,)'),7%' %&&%()0')+%2' '$%' /,'4/%')*' ('10%'5'8'-%')*')+%' '5>*,.,.-'0)$1()1$%0' +%2' 8 '2' 4%' 0%%.'0)$%)(+,.-'*$ 0+,.,.-')+$*1-+')+%' 09,.''.5'('10,..-',)'*' '001 8 %' '4/**5;/%00' '66%'$'.(%'*$'*.')+%' *)+%$*'+'.5'$%.;5%$,.-',)'(*.-%0)%5''.5'4/1,0+')+%'7%,.0'/0*'4%,..-'%./'$-%5' /),8')%/2'' -*1)2'40(%00').'2'&*$8''$*1.5''' (*.($%),*.'3+,(+'*6%.0'%B)%$.'//2H*$')+%'09,.'8'2'8%$%/2'-,7%'3'2'&$*8')+%' (*.),.1%5'6$%001$%'+10')+%' # - " '$%' %B6*0%5''.5' 8 '2' (*8%'3'2'%,)+%$',.'' /,E1,5'&*$8'*$'0'0*/,5'6'$;),(/%0'*$ 8 '00%0'*$*((' 0,*.'//2')+%$%',0''&$%%'5,0(+'$-%'*&' 610'0' 3%//' /(%$0''$%/%&)'*&''.'1.+%')/+2''.5')*.,(' (+'$')()%$''.5'101'//2'6$%0%.),.-'.*'5,06*0,),*.')*'+%'/' +%$%'8'2'4%'' .184%$'*&')+%0%'1/(%$0',.')+%'0'8%',.5,7,51'/'*.')+%'.50'.5'&%%)

+%.'41$00%'$%',.7*/7%5'81(+'5%&*$8,)2',0'6$*51(%5' +%2''$%'%'0,/2'&%/)'101'//26$%0%.),.-''(*84,.'),*.'*&'+'$5.%00'.5'&/1()1'),*.'51%')*')+%'6$%0%.(%*&4*)+'(*.;($%),*.0'.5'&/1,5',.')+%'41$0'/'(7,)2' +%0%'0,-.0'$%'(+,%&/2'.*),(%5',.')+%'41$0''*7%$')+%'*/%($'.*.' 40(%00%0'8'2''/0*'&*$8',.'(*..%B,*.'3,)+')+%0%'5%6*0,)0'.5')+%'/')))%$'8'2')+10'4%'(*86/%)%/2'-*)'$,5'*&')+%'4;0(%00'0140%E1%./2'+%'/,.-'$'6,5/2

.'('0%0'*&'(+$*.,(''$),(1/'$'-*1)')+%'-%.%;'&&%()%5' +%'6'),%.)0'$%'-%.%$'//2'8*$%'*$/%00'&%%4/%''.5'3'.),.-',.')*.%H)+%2'8'2'4%')+,.''.5'6'/%'*$ 0' *3 /**9,.-H%'*$ 6/%;)+*$,('41)'3,)+'&/'442',001%0''.5'6$%0%.),.-'0,-.0'*&'/'.-1,5'(,$(1/'),*.'3,)+'&/'442',001%0''.5'6$%0%.),.-'('6,//'$,%0''4*1)')+%'&%('+%2'*&)%.'1&&%$'&$*8'5,0*$5%$0'*&'5,-%0),*.''.5')+%$'0286')*80'/$%'52'5%0($,4%5H'41)'.*)'1.(*8;8*./2''0'-*1)'001 8 %0''' 8 *$%'(+$*.,('&*$8'6'),%.)0'&%%/'4%))%$'4%(* 8 ,.-'+'4,)1')%5')*'+)+%,$'(*.5,),*.')',0'$% 8 '$9'4/%')+')')+*0%'01&&%$,.-'&$*8'.1 8 %$*10'-*1)2'40(%00%0'*&)%.'%=4,)'41)'/,))/%<(*.0),)1),*.'/'5,0)1$4;'.(%

+%'1$,.%',.'(+$*.,('-*1)'-%.%$''//2'4%;(* 8 %0''41.5'.)'7%$2'3')%$2''.5'6'/%'*&'/*3'06%(,&,('-$'7,)2'5%&,(,%.),.'0*/,5',.-$%5,%.)0'%06%(,'//2',.'1$,('(,5'3+,(+''),8%0'8'2'4%''/8*0)'(*86/%)%/2'3'.),.-'*$',)'8'2'4%')+$*3.'*1)',.''.',.)%$+,))%.)'8'..%$'%;6*0,)0'*&'1$')%0',.'1$,.%''$%'.*)'*&)%.'*4;0%$7%5',.'('0%0'*&''57'.(%5'(+$*.,('-*)%B(%6)'6%$+'60'4%&*$%'.'.'(1)%'%B'(%$4'),*.'/2(*01$,'',0'.*)',8(* 8 8*.',.'-*1)2'6%$;0*.0''.5')+%$%'8'2'4%5,0)&')0'((+'$,.%'5,'4%)%0' B'/1$,'',0'/0*'&$%E1%.)

' $$%-1/'$' *1) G +%'(/,.,('/6+%.*;8%.''3+,(+''$%'$%(*-.,0%5'0',$$%-1/'$'8'.,;&%0)',*.0' *&' -*1)' 8 '2' 001 8 %' %,)+%$' .'(1)%' *$ (+$*.,(' &*$8' +%2' 8 '2' 4%' *4;0%$7%5',.'6%$0*.0' 3+*' '$%' 5,0),.()/2'014>%()'*' $),(1/'$' -*1)H *$' ,.')+*0%',.'3+*8')+%'5,0%'0%',0'.*)'0*' *4 7,*10/2'$%7%'/%5' *$%;*7%$')+%,$',.)%.0,)2',0'*&)%.'>,.)'&%%/'+'$5'.'.5'42')+%,$'8%$%'8%(+'.;('/'.5',$$,)'),7%' %&&%()0')+%2' '$%' /,'4/%')*' ('10%'5'8'-%')*')+%' '5>*,.,.-'0)$1()1$%0' +%2' 8 '2' 4%' 0%%.'0)$%)(+,.-'*$ 0+,.,.-')+$*1-+')+%' 09,.''.5'('10,..-',)'*' '001 8 %' '4/**5;/%00' '66%'$'.(%'*$'*.')+%' *)+%$*'+'.5'$%.;5%$,.-',)'(*.-%0)%5''.5'4/1,0+')+%'7%,.0'/0*'4%,..-'%./'$-%5' /),8')%/2'' -*1)2'40(%00').'2'&*$8''$*1.5''' (*.($%),*.'3+,(+'*6%.0'%B)%$.'//2H*$')+%'09,.'8'2'8%$%/2'-,7%'3'2'&$*8')+%' (*.),.1%5'6$%001$%'+10')+%' # - " '$%' %B6*0%5''.5' 8 '2' (*8%

' -' '.5 3+%.')+%/'))%$' '66%'$')+%' &*$8%$'0140,5%
)' 8 10)' 01&&,(%)*',.5,(')%'+%$%')+%'-%.%$'/ .')1$%' *&')+%' 0286)*80' *&',$$%-1/'$' -*1)' +%' '0286)*80' '$%' 8 ',./2' '00*(,')%5' %,)+%$' 3,)+')+%' 5,-%0),7%' '66'$')10')+%' 7'0(1/'$' 020)%8 ')+%' $%06,$')*$2' *$-' .0' *$)+%' .%$7*10'020)%8 ' .' (*..%B,*.' 3,)+')+Z' * ' ' (1)%' 5206+'-,'' 8 '2' *((1$' '))%.5%5'3,)+'06'08' *&')+%' 6+'$2.B' '.5'*%0*6+'-10' +%' 8*0)',86*$)'.)' J1.6')*80' 4%/*.-,.-')*',0' -$*16' '$%' +*3%7%$')+*0%'51%')*' -'0)$,('5,0)1$4'.(%' +,0' 8'2' 4%' *&')+%' .')1$%' *&' 0%7%$%' ($'86' *$' -'0')$'/-,' ' (+'$'()%$,0%5'42' '' 0155%.' ,.)%.0%' 06'08*5,('6',.'5.')+%' %6,-'0)$,18' $%/,%7%5' 42'6$%001$%' ' .5' '((*86'.,%5'3,)+' '' 0%.0%' *&'-$%')'3%,-+)' '.5'*66$%00,*.'H')+%'6'),%.)' 6$%0%.),.-'' .' '06%()' *&' 81(+'01&&%$,.-'5,0;)$%00' '.5' .B,%)2H' *$' 4%,.-' %7%.' 8*$%' *$' /%0O' (*//'60%5' .5'6$*0)$')%5' .')*)+%$'('0%O')+%' 0286)*80' '$%')+*0%' *&' (1)%' -'0)$,),0' 4,/,*10'7*8,),.-'4%,.-'6$*8,.%.)' /(*/,('*$'%7%.'81(*%.)%$,),0' 8'2' '/0*' *((1$' ,.' (*..%B,*.' 3,)+'-*1)' %6'),(' 5,0*$5%$' ,0' (*884*.' +%' * ' ! ',0'.*)' .; (*884*./2',86/,('))%5' +%' +%')$)',0'/,'4/%')*' 4% 5,0)1$4%$' .' ,)0' '(),*.' 51$,.-')+%' '))'(90' *&' -'0)$'/-,'' +1)')+,0' 5,0)1$4'.(% 8'2''/0*'4%*40%$7%5',.5%6%.5%.)/2' +%$% 8'2'4%' 0%7%$%' 6'/6,)'),*.')+%' '(),*.'*&')+% +%')$)' 4%,.-' 7%$2' $'6,50',$$%-1/'$' *$' %7%.' ,.)%$8,))%.)' '((*86'.,%5'3,)+' 8*0)' 1.; 6/%'0'.)' 0%.0'),*.0'*7%$')+%' ('$5,'(' $%-,*.' 6$%(*$5,'/' '.B,%)2'*&)%.'*'&%%/,.-'*&'*66$%0; 0,*.' *$' (*.0)$,(),*.'5206.(%'*$' ' 0%.0%'*& 01&&*('),*.' '.5'81(+'&&,0)$%00' '.B,%)2'.5' 5$%'5'*&'5%')+H)+%'61/0%')%.50')*'4%'3%'9' '.5'08'//'*$'8'2'4%',$$%-1/'$H' .5'0*8%;),8%0')+%' '))'(90'$%' '))%.5%5'3,)+'0,-.0'*& (*//'60%' .'*)+%$',.0)'.(%0')+%'('$5,'(5,0; *$5%$',0'%7,5%.(%5'42'7%$2'&%%4/%'*$'0/*3' '(),*.'3,)+''')%.5%.(2')*'02.(*6%' -',.')+%$%'8'2'+%'//')+%'6+%.*8%.'*&''0%7%$%' '.-,.'/'))'(9' ' 3' $$%; -1/'$'-*1)''&&%(),.-')+% !' ! ' ,0'8',./2',.5,('))5'42'0)+8'),('6'$*B2080' .'0*8%'%'0%0')+%$%',0''8'$9%5'/,'4,/,)2')*' '(1)%' (')'$$+'*&')+%',$6'00'-%0''.5'($20;)'/0'*&'8,(',(,5'+'7%'4%%.'&*1.5',.')+%*B; 6%()*$'),*.' $*.(+,)0',0'8*$%'*40),.')%' ,.'-*1)2'014>%()0' 1/8*.'$2'(*.-%0),*.' ,0'/0*'0166*0%5')*'4%''8'.,&%0)'),*.'*& $%)$*(%5%.)'-*1)',.'0*8%'('0%0H'.5'-*1)2' 6.%18*.,'' +'0'4%%.'5%0($,4%5' .'(*.; .%B,*.'3,)+')+%' * ' ! '-*1)'8'2' -,7%'$,0%')*'))'(90'*&'0%7%$%'+%'5'(+%'*$ 7%$),-*H5%/,$,18'*$'%7%.''(1)%'8',.'H%6,; /%6),&*$8' *$' (*.71/0,7%'&,)0H (%$%4$'/'*$ 06,.'/'8%.,.-,),0H'(1)%'.%1$'/-,'' %,)+%$ %B)%$.'/'*$',.)%$.'/''.5'%06%(,'//2'0(,'),('' 6$*4'4/2'51%')*'.%1$,),0H*$'0%7%$%'810(1/'$ ($'860' 6*6/%B2'&$*8'(%$%4$'/+0%8*$$+'-%' +'0'4%%.' '))$,41)%5')*'0166$%00%5'*$'$%)$*; (%5%.)'-*1)'41)'+,0'('.'*./2'*((1$',&')+%' 7%00%/0'*&')+%'4$','$%'5,0%'0%5' %$%4$'/ (*.-%0),*.'8,-+)'-,7%'$,0%')*' '')%86*$'$2' '6*6/%(),(-')'(9' 8*.-')+%'(1)%'8'.,; &%0)'),*.0'*&',$%-1/'$'-*1)'8'2'4%'&1$)+%$ 8%.),*.%5'(%$)',.'0%(C%8'' %$2)+%8''*$'1$),('$,'H'&&%(),*.0'*&'81(*10' 8%84$'.%0'01(+''0')+%'%*1>1.*),70%' '.5' /'($28'/'6'00'-%0H &1.(),*.'/'$%.'/'5,0; *$5%$'3,)+''/418,.1$,''*$,$$,)'4,/,)2'*&')+%' 4/'55%$H''.5'%B)%$.'/'/*('/'0,-.0'*&',.&/'8; 8'),*.''00*(,')%5'3,)+'1$'),('5%6*0,) '.2'*&')+%'8*$%'"'0286)*80''00*; (,')%5'3,)+'-*1)'+'7%'/$%'52'4%%./'6*,.)%5' *1)'3+%.'06%'9,.-'*&',)0'6$%8*.,)*$2'0286')*80''.5'*./2'(%$)',.'06%(,'/'6+%.*8%.'' .%%5'4%'//15%5')*'+%$%' +$*.,('09,.' 5,0% 0%0'$%'*&'&$%E1%.)'*((1$$%.(%'.'8%/2' 60*$,'0,0'(+$*.,('%(C%8''6$1$,-*G%,)+%$' /*('/'*$'-%.%'/''.5''(.%' +%0%'8'2''/)%$; .')%'7%$2'5,0),.()/2'3,)+''$),(1/'$'-*1)' +%' .',/0'$%'0*8%),8%0'6%(1/,'$' 4%,.-'(*'$0%' '.5' &,4$*10'0)$,')%5' '.5' &/1)%5'*$' /,.%5' %$),('//2' +%,$'0140)'.(%'8'2'=*3')+,(9' '.5'4$,))/%' .'0*8%'-*1)2'014>%()0'5',/2' 6'$*B2080'*&'+%')'.5'$%5.%00'*&')+%'.*0%' '))%.5%5'3,)+'0%7%$%',)(+,.-''.5',$%,)',),*.' ('10%'(*.0,5%$'4/%''..*2'.(%'*$' 5,0)$%00' ,'*/%.)'0.%%C,.-'&,)0'$%'(*88*.' '.2'*&)+%0%',.5,7,51'/0'$%'/0*'/,'4/%')*'(+$*.,(' (')'$$+''&&%(),.-')+%')+$*')'.5')+%',$' 6'00'-%0H'.5'06%(,'/'66%'$'.(%0'*&')+%)+$*')')*.-1%''.5')%%)+'+'7%'4%%.'5%0($,4%5' .'(*1$0%*&'),8%'-*1)2'6'),%.)0'*&)%.'4%(*8% 6%$8'.%.)/2'0)+8'),(')+%'/1.-0'4%,.-'%8; 6+20%8')*10''.5'5$2'4$*.(+,'/(')'$$+'4%,.-' %0)'4/,0+%5' $'7%/'*$'1$,.'$2'('/(1/10'8'2' -,7%'$,0%')*'02886)*80H'*$')+*0%',.5,(),7%' *&'(+$*.,(*1$%)+$,),0'*$'(20),),0'8'2'4%'6$%; 0%.)'%06%(,''//2',.'6%$0*.0''57'.(%5',.'2%'$0' %$8'.%.)'5,0*$5%$0'*&'0%.0'),*.''*$'0/,-+)' /*('/'6'$'/20,0'8'2'$%01/)'&$*8'(+$*.,(' (+'.-%0',.7*/7,.-'6'$),(1/'$'.%$7%0' *1)2' 6%$0*.0''$%'101''//2'7%$2'0%.0,),7%')*''6',.' %$)',.'&&%(),*.0'*&')+%'%20%'+'7%'4%%.' '))$,41)%5')*'-*1)''.5''8*.-0)')+%8''&*$8' *&'-*1)2',$,),0'5%0($,4%5'42' 1)(+,.0*.''0' (*8,.-'*.',.0,5,*10/2''.5''/8*0)'6',./%00/2' '.5'%.5,.-',.'5%0)$1(),*.'*&')+%'%2%0' +'.-%0' ,.')+%'%B)%$.'/'*15,)*$2'8%')10'8'2''/0*'4% '00*(,')%5'3,)+')+,0'(*86/',.) ,)+'$%-'$5')*')*6+,.')+%0%'('.'4%'0%%.'*$ &%/)'6$*7,5%5')+%2''$%'016%$&,(,'/' +*0% (*..%()%5'3,)+')+%'+%/,B'*&')+%'%B)%$.'/'%'$ '$%'8*0)'(*88*.H41)'+%2'8'2''/0*'4% /**9%5'&*$,.')+%'0(/%$*),('*$%2%/,50',.')+% .*0%''.5'1.5%$')+%'09,.''.')+%'$%-,*.''*&)%.5,.*10''6*.%1$*0%0'%06%(,'//2',.')+%'/%-' *$')+,-+' *6+,'$%'*$,-.'//2'/,E1,5''.5',& *.%',0'61.()1$%5''')''.'%'$/2'6%$,*5''.' *6'/%0(%.)'*$' 8,/92'&/1,5'%0('6%0'3+,(+'*.' 8,($*0(*6,('%B'8,.'),*.',0'&*1.5')*'(*.)',.' '.'41.5'.(%'*&'5%/,(')%''(,(1/'$'($20)'/0H 0140%E1%.)/2')+%2'4%(*8%'8*$%'(*.0,0%.)' '.5'1/),8')%/2'E1,)%'0*/,5''.5'+'$5'4%,.-')+%.'8'5%'16'%.),$%/2'&')+%%'($20)'/0' 3+,(+'$%'(/*0%/2''--$%-')%5')*-%)+%$''.5' ,.)%$/'(%5' '9,.-')+%'%'$'0'.',//10)$'),*.

W'} &,$0)' ''0 8 '// %//%7'),*.' '66%'$0' 1.5%$')4%' 09 8'*&')+%'+%/,B'/,/>%' '' 7%0,(/%' + '7,. -' '' 0*&)' &%%/' +,0' -$'51''//2' +'$5%.0' 1.),/ &,. ''//2' ''/,))/%'4%'5 /,9%' *$'6%'$/ /,9%'4*52',0'&*$8%5' 6$%0%.),. -' '' 3+,),0+' (*/*1$' '0' 0%%.')+$*1-+')+%' 09%.' .' (*1$0%' *&'),8%')+%' (1)' .%*10' (*7%$,. -' 8 '2' 4%' 5%0)$*2%5'/%'7,. -')+%'/,))/%' (*.($%),*.'%B6*0%5H' *$)+,0' 8 '2'%7%.'4%(*8%' 5%)'(+%5' .5' $%8*7%5'0*') +')' * ./2' '' 0 8 '// 5%6$%00,*.',0' /%&)

F' 2 8 6)* 8 0'5 1 %')*' +$*. ,(' $-' .,0%' 0%0 G .' '55,),*.')*' 3+')' +'0' 4%%.' 0)')%5'1.5%$')+%'6$%(%5,. -'+%'5,. -',)',0'*./2' .%(%00'$2')*' $%&%$' +%$%')*')+%' $%.'/' .5' ('$5,* 7'0(1/'$'(+'.-%0'3+,(+' '$%' '00*(,')%5' 3,)+' -*1)' ,0%'0%' *&')+%' 9,5.%20',0',.5,; (')%5' 8',./2' 42')+%' (+'.-%0',.')+%' 1$,.%' 3+,(+' 8 '2' +%' 0/,-+)/2' '/418,.*10'*$'%7%.' (*.)',.' '' &%3' ('0)0')+%$' 0J. 6)* 8 0' *&' (+$*.,(' $,-+)<0' 5,0%'0%' 8 '2'4%'6$%0%.)'+.)')+%2' '$%' *&)%.' 7%$2' *40(1$%' +%' ('$5,'('/%0,*.0' '$%'$%7%'/%5'42')+%,$' $%06%(),7%'6+2; 0,('/' 0,-.0H' .5')+%$=' 8 '2' 4%' 0286)* 8 0' &,$0)' *&' %B(%00,7%' ('$5,'(' '(),*.'&$* 8' +26%$;)$*6+2''.5'0140%E1%.)/2'*&'('$5,'('&.'/1$%' '0' 3%/' '0')+*0%' *&'6')$),(,&,'$'7'/71/'$' 5,0%'0%0' +%' 7'0(./'$' (+'.-%0' '$%' %7,5%.(%5'42'%B; ' 8,.'),*.'*&')+%' '$)%$,%0H' .5'42')+%,$'%&&%()0' 16*.')+%' (,$(1/'),*. ')' ,0' ,86*00,4/%')*' 5%0($,4%' 3,)+,.')+%' /,8,)0' *&')+,0' $),(/%')+%' .18%$*10' 0286)* 8 0' $%01/),.-'&$* 8')+%' 7'$,*10'(+$*.,('*$-'.,('5,0%'0%0'3+,(+'8 '2' 5%7%/*6' 51$,.-')+%' 6$*-$%00' *&' -*1)' '.5' 3+,(+',.' 8 '.2' ('0%0' 1/),8')%/2' 6$*51(%''= 7%$2'(*86/,(')%5'(/,.,('/6,()1$%

& G +%'5%-$%%' &5,&&,(1/)2'%B6%; $,%.(%5',.''$$,7,.-'')'''5,'-.*0,0'3,)+'$%06%()')*' -*1)',0' 7%$2'7'$,'4/%',.' 5,&&%$%.)' ('0%0' '5,0),.()'-*1)2'5,')+%0,0'*$')%.5%.(2'8 '2' 4%'6$%0%.)' 3+,(+',)',0'8 6*$)'.)'+'$%(*-; .,0%' 3+,/%')+%' >*,.)0' '$%'E1,)%'&$%%'&$*8' '.2'('66'$%.)'8,0(+,%&' .'8*0)'%'0%0'+*3; %7%$')+%' 5,'-.*0,0' +'0')*' 5%'/' 3,)+')+%' .')1$%'*&' .' ' =(1/'$'&&%(),*.' '.5')*' 5%)%$; 8,.%'3+%)+%$')+,0',0'-*1)2'*$.*)' +%'(+.%&' 5,0%'0%0'&$*8'3+,(+'-*1)'+'0')+10')*' 4%'5,0;),.-1,0+%5''$%'(1)%'*$'(+$*.,(' $+%18'),08' $+%18')*,5''$)+$,),0'' .56*00,4/2'-*.*$$+(%'/ 02.*7,),0' +%'5')''16*.'3+,(+''(*.(/10,*.' +'0'101''//2')*' 4%'&*$8%5'3,)+'$%-'$5')*' ''&,$0)' '))'(9''$%')+%'6$%0%.(%'*$'40%.(%'*&'.'+%$%; 5,)'$2')%.5%.(2')*' -*1)' '0'3%/' '0',)0',.;)%.0,)2'H)+%' '-%' .5'0%B'*&')+%'6'),%.)H)+%' 0*(,'/' 6*0),)*.' *((16'),*.' .5'6$%7,*10' +'4,)0H)+%'6$%0%.(%'*$'40%.(%'*&' .2'*4; 7,*10'('10%'&*$')+%')'(9'*$'*&'6$%8*.,)*$2' 0286)* 8 0H)+%'/*('/,0'),*.' .5'(+'$'()%$0' *&')+%'>*,.)'&&%(),*.H)+%'-%.%$'/0286)* 8 0H)+%'(+'$')%$0'*&')+%'1$,.%H)+%'51$'),*.'*&')+%',// .%00H.5'0)+%'40%.(%'*&' .2'('$5,'(' (*86/,('),*.

+%'0140%E1%.)'6$*-$%00'*&'-*1)',0',86*$;)'.)',.'5,'-.*0,0'3,)+',)0')%.5%.(2')*'6%$,*; 5,('$%(1$$%.(%H' .5',&')+%'8%)')'$0*6+'/' .' -%'/>*,.)'*&')+%'-$%')')*%',0'/*.%',.&/'8%5' 0%7%$'/),8%0',.'01((%00,*.'*$%7%.',&'*./2

)+%'08''//%$'>*,.)0'*&')+%'&%%)' .5'+'.50'$%' ,86/,()%5')+%'5,'-.*0,0'*&'-*1)',0')*/%$'4/2' (%$)',.' +%'6%$8'.%.)' '$),(1/'$'(+'.-%0' ,.51(%5'42'-*1)''/0*'4%(*8%'%7,5%.)',.'),8H '0'3%/'/'0'6%$+'60')*6+',.'*)+%$'6')0'3+,(+' 0+*1/5'4%'('$%&)5/2'0%'$(+%5'&*$,.''.2'5*14); &1/('0%' *$%*7%$')+%'1$,.%'6$%0%.)0'6%(1; /,'$'(+'.-%0''0')+%'5,0%'0%'6$*-$%00%0''.5' 8'2'-,7%'%7,5%.(%'*&'$%.'/8,0(+,%&' .' 7%$2'5*14)&1/('0%0',)'8,-+)'4%'5%0,$'4/%')*' ,$*,0%''4/,0)%$'*$'%7%.')*')'9%''/,))/%'4/**5' &$*8')+%'6'),%.)'.5'%.5%'7*1$')*'*4)',.' ($20)'/0'*&'1$,('(,5'&$*8')+%'0%$18)'3,X'+%$%'4%'%B6%5,%.)')*'*&&%$''&%3' $%8'$90'0')*')+%'5,'-.*0,0'&$*8'-*1)'*&')+% 5,0%'0%0'3,)+'3+,(+',)',0'$.U0)/,9%/2')*'4% (*.&*1.5%5

,)+'$%-'$5')*'(1)%'$+%18'),0 8')+%'4; 0%.(%'*&'.2'+%$%5,)'$2')%.5%.(2')*'-*1)' ,.'.2'5*14)&1/'%'0%'8'2'4%''&'8,/2'6$%5,0; 6*0,),*.')*'+,0'(*86/,.)')'*((1$0'8*0)' &$%E1%.)/2'&*$')+%'&,$0)',8%',.'%'$/2'/,&%'&$*8' 0,B)%%.')*')3%.)2'2%'$0'*&'-%'.5',0'.*)' ,8(*88*.'%7%.',.'2*1.-'(+,/5$%.'U+%1; 8'),08')+*1-+'8*$%'(*88*.''8*.-'8'/%0' *&)%.')'))'(90'&%8'/%0')',0'.*)'&'7*1$%5'42')+%'+'4,)0'3+,(+'-%.%$')%'*$'6$*8*)%'-*')' .5''&&%()0''//'(/'00%0'*&'6%$0*.0'41)'%06%; (,'//2')+*0%'3+*'&$*8')+%,$'*((16'),*.'$%' /,'4/%')*'4%'%B6*0%5')*'(*/5'.5'3%)' 1(+' %B6*01$%'*$0*8%')+%$'5%&,.,)%'(10%' $,-,; .'),.-'0''(*/5'101''//2'(**B8)0'&*$'.')')'(9' *&''(1)%'$+%18'),08H'.5',)',0'.*)'6$%(%5%5' 42'.2'6'$),(1/'$'6$%8*.,)*$2'0286)*80' +%'>*,.)0',.7*/7%5''$%')+%'8,55/%0,C%5'*$)+%'/'$-%$'*.%0'0%7%$'/*&'3+,(+''$%'-%.%]' $'//2',86/,('))%5',.'01((%00,*.'51$,.-')+%',//; .%00')+%'$+%18'),%',.&/'88'),*.'%B+,4,),.- '.'%$$'),('(+'$')(%$H')+%'/*('/0286)*80')%.5')*'4%'/%00'0%7%$%'+'.',.'-*1)H)+%$%' ,0'/%00'8'$9%5'*%5%8''4*1)')+%'>*,.)0''.5' .*'%./'$-%8%.)'*&')+%'7%,.0'*$'0140%E1%.)' 5%0E1'8'),*.')'810)'.*)'4%'7%$/**9%5' +*3%7%$')+')'-*1)'8'2')))(9)+%'8,55/%' 0,C%5'>*,.)0' 2$%B,''',0'+,-+''0''$1/%',.' (1)%'$+%18'),08''.5',0'*&)%.'E1,)%'*1)'*& 6$*6*$),*.')*')+%'%B)%.)'*&')+%''$),(1/'$ '&&%(),*.H3+,/%'6$*&10%'(,5'6%$06,$'),*.',0' '/8*0)' '/3'20''' 6$*8,.)'6+%.*8%.*. +%'1$,.%',0'0,86/2'&%4$,/%' +%')'(9'/'0)0' '' (*.0,5%$'4/%'),8%'6%$+'60'0%7%$'/3%%90' ,&',)',0')'//'0%7%$%H3+,/%'51$,.-',)0'(*1$0% 0*8%' (1)%'('$5,'((' .&/'88')+.'07%$2' /,'4/%')*'016%$7%.%' .'55,),*.')*+%$ 5,&&%$%.(%0'(+$*.,(' $+%18'),08',0')*.(% 5,0),.-1,0+%5'&$*8'-*1)'42')+%'%.),$%'4; 0%.(%'*&'1$'),('5%6*0,)0

U+%18')*,5')$)+$,),0',0'101''//2'8%)'3,)+' ,.'&%8'/%0'4%)3%%.')3%.)2'.5'&*$)2'2%'$0' */5' +%$%',0'.%,)+%$'+%$%5,)'$2')',.)'.*$'' +,0)*$2'*&'01(+'+'4,)0''0'-%.%$')%'-*1)'41)' *.')+%'(*.)$'$2')+%'6'),%.)0'$%'-%.%$''//2' 6**$'+'$5'3*$9%5''.5'4'5/2'&%5H''//>*,.)0' 0%%8')*'4%'%E1''//2',/4/%')*'4%'&&%()%5'4+)+' /'$-%'.5'08''//''.5')+%'/*('/0286)*80'$%

"(@

. *)' *&' '' 7%$2' '(1)%' (+'$' ()%$')+*1-+')+%' 6', .'
8 '2' 4%' 7%$2' 0%7%$%'41)')+%2')% . 5')*' (* .), . 1%'
' &*$ '' /* . -' 6%$, *5H)+%' -% . %$' /' 02 8 6)* 8 0' '$%'
8 ', . /2')+*0%' *&' 5%4, /,)2' '. 5' '. 0% 8, ' ' '. 5'
$' %.)' 6%. 5%$" +'0' 5$' 3 .' '))%.),*. ')*'
(%$)', .' 6$* 8, . %.)' '. 5' %' $/2' 02 8 6)* 8 0'
%06%(, '//2' (*/5' +'. 50' '. 5' &%%)' (*. 0)'.)'
5' 8 6. %00' *&')+%' +'. 50' 6, -8 %.)', *. ' *&')+%'
09, . ' '. 5' '' $'6, 5' '. 5' (* 8 6$%00, 4/%' 61/0%'
U+%1 8 ')*, 5' '$)+$,), 0', 0' '' 5, 0%' 0%' 3+, (+')%. 50'
)*' 6$* -$%00', . 7*/7, . -'>*, .)' '&)%$'>*, .)' 41)',)'
6$%0%.)0' . *' 6%$, *5, (,)2' , . ' ,)0' '))' (90' '. 5K'
*&)%. ' '57' . (%0' 3,)+*1)' '. 2', .)%$ 8, 00, *. ' '0'
'' 014' (1)%' *$' (+$*. , (' 5, 0%' 0%' /), 8 ')%/2'
,)' *&)%. ' ('10%0' 8 1(+' 5%&*$ 8,)2' '. 5' ($, 66/, . -'
*&')+%' $), ($5')&*. 0' 3+, (+' ($%'9' '. 5' -$')%'
*. ' 8 *7% 8 %.)' 41)')+, 0' $%01/)0' &$* 8' '' 7%$2'
5, &&%$%.)' 6')+*/*-, (' /' (+' . -%' &$* 8')+')' 3+, (+'
)' 9%0' 6/' (%' , . ' -*1)' &*$')+%$%' , 0' . *)')+%'
0/, -+)%0)' 5%6*0,)' *&' 1$')%0'%,)+%$', . ')+%'>*, .)0'
*$ %/0% 3+%$%H' . *$', . ')+%' 8 *0)' %B)$% 8 %' ('0%0'
('. ' . 2' 1$, (' ' (, 5' 4%*4)' . . %5' &$* 8')+%' 0%$1 8
W +%' 1$, . %' 6$%0%.)0' . *' 06%(, ' /' (+' $' ()%$0H
' . 5')+%' 9, 5 . %20' '$%' . *)' 5, 0% '0%5

*. *$$+*%' /' 02. *7,), 0', 0' 5, 0) 8 -1, 0+%5' &$* 8'
-*1)' 42')+%' '-%' *&')+%' 6')%.)H)+%' 5, 0)$, 41;
), . ' *&')+%' >*, .) '&&%(), *. H)+%' '40%. (%' *&' . 2'
)% . 5%. (2')*' $%(13%. (%' %B(%6)', . ' '00*(, '), *. '
3,)+' '' &$%0+' 1$%)+$' /' 5, 0(+' $-%H' . 5')+%'
5, &&%$%.)' . ')1$%' *&')+% 8 *$4, 5' (+' . -%0')*6+, '
. %7%$' 4%, . -' &*$ 8 %5

0' %B(%6), *. ' /' 6*, .)0' 4%' $, . -' 16*. ')+%'
5, '-. *0, 0' *&' $), (1/' $'-*1)')+%' &* *3 8 -' 8 '2'
4%' 8 %.), *. %5')'+'0'+'66%. %5')+')'620%8, ''
4%-, . . , . -', . ')+%' -$%')')*%' +'0' 4%%. ' 8, 0)'9%. '
&*$' -*1)' 41)')+%' 6$*-$%00' *&')+%' ('0%' 3*1/5'
0*. ' (/%'$' 16' . 2' 5*14)' 1. 5%$' 01(+' (, $(1 8 ;
0)' . (%0' -', ' '$), (1/' $', . &/' 8 8 '), *. ' &$* 8'
8>1$2' 8, -+)' $%0% 8 4/%' -*1)H ' . 5' 8 *$%*7%$'
,)' 8 10)' 4%' 4*$. %', . ' 8, . 5')+')'01(+' . ', . >1$2'
8 '2' $%' //2' 0%)' 16' -*1)2' , . &/' 8 8 '), *. ' &*$
)+%' &, $0)', 8%' 0*')+')')+%' >*, .)' 8 '2' . *)' $%;
(*7%$' 6$*6%$/2' . '0*8%' 85, 7, 51' /0')+%' %. 50'
*&')+%' 6+'/' . -%0' *&')+%' &, . -%$0' '$%' %. /' $-%5'
%06%(, '//2')+%')%$8, . '/*. %0' '. 5' (' 10%' . *51'
/'), *. 0 G &0 2 ' " G 3+, (+' $%0% 8 4/%'
)+*0%' *&' -*1)' '. 5' '$%' 42' 0*8%' $%-' $5%5' '0'
4%, . -' *&' '' -*1)2' . ')1$%

+%' , 8 6*$)'. (%' *&' $%(*-. , 0, . -')+%' 0, -. 0'
*&')+%' -*1)2' 5, ')+%0, 0' '6'$)' &$* 8')+%' >* 8)'
'&&%(), *. ' +'0' '/$%'52' 4%%. ' '//15%5')*'
E1'//2' , 8 6*$)'.)', 0',)')*' 4%' 6$%6'$%5' &*$
)+%' (1)%' 02 8 6)* 8 0', . ' (*. %B, *. ' 3,)+', . ;
)%$. '/' *$-'. 0' 3+, (+' *((1$' 8')+, 0' 5, ')+%0, 0'
3+%)+%$' '/*. -' 3,)+' *$' , . 5%6%. 5%.)' *&'
$), (1/' $' 5, 0%' 0%' '0)/2' , . ' '. 2' -*1)2' ('0%'
)+%' 5%)%(), *. ' *&')+%' *$-'. , (' 5, 0%' 0%0' /, '4/%
)*' 4%' 0%)' 16', . ',)0' (*1$0%', 0' *&' -$%')' 8 *8%.)'
, . ' 5, '-. *0, 0' %06%(, '//2' $%. '/' . 5' %' $5, * 7'0'
%1/' $' (+' . -%0H ' . 5' '/0*')+%' '00*(, '), *. ' 3,)+'
)+%, $' 6$*6%$' ('10%' *&' (')' $$+'/' '&&%(), *. 0'
09, . 5, 0%' 0%0' . ' 5' *)+%$' (*8 6/', .)0' 3+%. '
)+%0%' '$%' $%' //2' *&' '' -*1)2' . ')1$%

G +%' &, $0)' 6*, .)' $%/'), . -')*')+%'
6$*-. *0, 0' *&' -*1)' 3+, (+' ('//0' &*$' . *), (%' $%&%$0'
)*')+%', 8 8%8')%' 5' . -%$0' , . ' . 2' 6' $), (1/' $

('0%' 0, 8 6/%' '(1)%' '))' (9' *&' '$), (1/' $%
-*1)' $' $%/2', &' %7%$' 9, //0')+%' 6'), %.)' +%. '
+*3%7%$', .)%$. '/' *$-'. 0' '$%', 8 6/, (')%5')+%'
8 '))%$' 4%(*8%0' 8 1(+' 8*$%' 0%$, *10' '. 5' ''
&')' /' $%01/)' 8 '2' *((1$' 0*')+')')+%' 6$*-. *0, 0'
8 10)' 4%' '' -1' $5%5' *. %' 1. 5%$' 01(+' (, $(1 8 ;
0)' . (%0' +%' 5' . -%$')+%. ' 4%(*8%0' 8 1(+'
-$%')%$', &')+%' (*86/', .)' +'0' 4%%. '/*. - %0)' 4'
+0+%5' '. 5', &')+%' 9, 5. %20' $*)+%$', 8 6*$)' .)'
*$-'. 0' +'7%' 4%(*8%' 0)$1()1$'//2' 5, 0%' 0%5'
. 5%%5')+%0%' 5, 0%' 0%0' *&' *$-'. 0' '$%' *&)%. '
)+%8 0%/7%0' , 8 8%5, ')%/2' 5' . -%$*10' -', . '
' . 2' (1)%', . &/' 8 8 '), *. ' *((1$$, . -', . '' (*. ;
&, $8%5' -*1)2' 014>%()' , 0')+%' 8 *$%' 0%$, *10' *. '
)+, 0' ((*1.)H '. 5')+%' 0' 8%' $%8 '$9' 66/, %0'
)*' 8>1$, %0' '. 5' 0+*(90' *&' //' 9, . 50

. ')+%' . %B)' 6/' (%')+%' &1)1$%' *&' '' -*1)2'
6'), %.)' +'0')*' 4%(*. 0, 5%$%5' '0' $%-' $50')+%'
6$%7%.), *. ' *&' 0140%E1%.)' '))' (90' *$')+%' (1$%'
. 5' %$' 5, (')*. ' *&')+%' 5, 0%' 0%')' 8 10)'
'/3' 20' 4%' $%(*-. , 0%5')+')' -*1)', 0' '' $%(1$$%.)'
'&&%(), *. ' '. 5' (*86/%)%', 8 8 1. ,)2' (' . ' . %7%$'
4%' -1' $' .)%%5' *. (%')+%' (*86/' 8)+'0' 5%;
(/' $%5',)0%/&')')+%' 0' 8%'), 8%' 1. 5*14)%5/2'
. *)' '' &%3' %' 0%0' +' 7%' *((1$$%5', . ' 3+, (+')+%$%'
+'0' 4%%. ' 41)' *. %'')))' (9' 41)')+, 0' (' . ' *./2'
4%' %B6%()%5' 1. 5%$' (%$)', . ' (*. 5), *. 0' -'
-, 7, . -' . ' *6, . , *. ' *. ')+, 0' 6*, .)')+%' 6$*-. *0, 0'
, . ' . 2', . 5, 7, 51' /' ('0%' 3, //' 5%6%. 5' 16*. G
' +%' 5%-$%%' *&' +%$%5,)' $2')%. 5%. (2')*' -*1)
@' +%' '-%' *&')+%' 6')%.)H &*$')+%' %' $/, %$')+%
6%$, *5')' 3+, (+')+%' 5, 0%' 0%' 4%-, 0')+%' /%00'
+*6%&1/' , 0')+%' 6$*06%()' *&' '' (1$%' ''' +%
W), 8%')+%' (*86/', .)' +'0' /'0)%5' &$* 8',)0' (*8;
8%. (%8%.)' H ' . 5')+%' &$%E1%. (2' '. 5' 51$')*. '
*&')+%' -*1)2' &,)0' &' -*1)' +'0' 4%(*8%' %0)' 4;
/, 0+%5' '. 5' %06%(, '//2', &' 5, 0), . ()')*6+, ' +'7%'
&*$ 8%5',)' E1,)%', 8 6*00, 4/%')*' %$' 5, (')%',)
' +%' +'4,)0' 8*5%' *&' /, %7, . -' '. 5' *((16');
), *. ' *&')+%' 6')%,).)')', 0' *. /2' 3+%. ')+%'
6'), %.)', 0' 6$%6' $%5')*' ' 5+%$%' 0)$, ()/2')*' 6$*6%$'
$1/%0' *&' /, 7 8 -')+')' (1$%' (' . ' 4%' +*6%5' &*$'
+*0%' 3+*' , . ')+%, $' *((16'), *. ' '$%')% 8 6)%5'
)*' 5$, . 9' 8 1(+' *$' 3+*' '$%' %B6*0%5')*' (*/5' *$
3%)' '$%' 8 1(+' /%00' /, 9%/2')*' 4%' (1$%5')' 8 '2'
4%' $% 8 '$9%5')+%$%')+')' -*1)2' 014>%()0' '$%' /%00'
'4/%')+' . ')*)+%$0')*' $%0, 0)' %B6*01$%

. *)+%$' 6*, .)' 4%' $, . -' 16*. ' 6$*-. *0, 0' $%;
&%$0')*')+%' 51$'), *. ' *&' /, &%', . ' -*1)2' 6%$0*. 0'
&')+%' 5, 0%' 0%' (*8%0' *. '/')%', . '/, &%' ' . 5')+%
6' $*B2 0 8 0' *. /2' *((1$')'/*. -', .)%$7'/0' 3+, /%
)+%' *$-'. 0' '$%' &$%%' &$*8' 0 8 2' *$-' . , (' 8, 0(+, %&'
-*1)' 8 '2'. *)' '66$%(, '4/2' 0+*$%). '/, &%' ' . 5')+%
6'), %.)0' 8 '2' %7%. ' %. >*2' -**5' +%' /)+' 16')*'
' . ' %B)$% 8 %' */5' '-%' 6$*7, 5%5')+%2' $%' 01&&, ;
(, %.)/2' %' $%&, , /' , . ')+%, $' 8*5%' *&' /, 7, . -' '. 5'
. *' '((, 5%.)' /' 8 6/, (')*. ' '$)%$, %0' *$' +)+%$'
, 8 6*$)' .)' *$-'. 0' '$%' *$-' . , (' //2' 5, 0%' 0%5'
+, 0')%. 5%. (2', 0' . *3' $%(*-. , 0%5' 42' 8*0)' +&%'
, . 01$' . (%' (*86' . , %0

)' +'0' 4%%. ' '&&, $8%5')+')' -*1)', 0' 1' 6$*

)%(),*.' ' -',.0)' (%$)',.' *)+%$' 5,0%'0%0' 0. (+' '0' 6+)+,0,0' . 5' 5,'4%)%0' ' .5')+%$%&*$%' ,)0' 6$%0%.(%' +'0' 4%.' ,.' 0*8%' ,.0)' . (%0' $%; -'$5%5' '0' '' 4%.%&,)' 41)' +*3' &'$')+%$%'0' ' .2'$%'/&*1.5'),*.'&*$')+,0'4%/,%&',0' '' 8 ')))%$' *&' 7%$2' (*.0,5%$'4/%' 5*14)

! ")',0',8 6*$)' .)' ')')+%' *1)0%)')*' /'2' 0)$%00' 16*.')+%' &')')+')' ')+1-+')+%$%' $%' (%$)',.' 3%// 5%&,6%5' 6$,.(,6/%0' '66/,('4/%')*')+%')$%')8%.)' *&' -*1)' ,.' ,)0' 7'$,*10'6+'0%0',)',0' '' -$%')' 8,0)'9%')*'&* *3' .2'$%-1/'$*1),.%'8%)+*5'1.5%$' '/' (,$(18;0)'.(%0' '.5' %7%$2' ('0%' 810)' 4%' (*.0,5%$%5' *.',)0' *3.' 8%$,)0')' 3,/' 4%' (*.7%.,%.)')*' 5,0(100')+,0' 6'$)' *&')+%' 014>%()' 1.5%$' (%$;)',.' -%.%$'/' +%'5,.-0' 6$%8,0,.-')+')')+%' '58,..0)$')',*.'*&'8%5,(,.%0',0'*&)%.')+%'/%')0)',86*$)'.)'6'$)' *&')+%')$%')8%.)'' .5')+')+%' +'4,)0' *&' /,&%' *&')+%' 6'),%.)' '/3'20' .%%5')+*$*1-+'016%$7,0,*.',.'//')+%,$'5%)',/0

' $%7%.),7%' '.5' 1$'),7%' $%');

8%.)G ' '.184%$' *&'(' 0%0')+%'6$,8'$2' *4>%()'3+,(+'0+*1/5'4%' ',8%5' ')',0')*'6$%7%.)')+%' 5%7%/*68%.)' *&'-*1)H *$')*'%$'5,(')%')+%)%.5%.(2')*'0140%*m1%.)' '))'(90',&',)'+'0'*.(%' 5%(/'$%5',)0%/&' +%0%'*4>%()0'+'7%'%06%(,''//2')*'4%'9%6)',.'7,%3',.'5%'/,.-'3,)+',.5,7,51'/0' 3+*'+'7%' '' 8 '$9%5'+%$%5,)'$2'6$%5,06*0,),*.')*')+%' (*86/',.)H ,.' ('0%0'3+%$%' ,)'+'0'*'6;6%'$%5' ')' '' (*86$')',7%/2' %'$/2' 6%$,*5' *&/,&%'*$'3+%$%',)',0',.' .'%'$/2'0)'-%H '.5',.'6%$0*.0' 3+*'&,$*8')+%,$*(16'),*.'9.*3.'0+')+

0140),)1)%5' &*$' *$5,. '$2' 3 ')%$' 3,)+' '57' . ;)' -%' 41)' . *)' 0*5' 3 ')%$' %'' ' . 5' (&&%%' 8 '2' 4%')' 9%. ' , . ' . '*5%$'),*. ' 6$*7,5%5')+%2' 5*' . *)' 5,0' -$%%' ,)+' $%&%$%. (%')*' '/(*+*/,(5$,. 90',. ' '' (* .0,5%$' 4/%' . 1 8 4%$' *&' , .0)' . (%0' *. %' *&')+%' &,$0)' *4>%()0' , . ')+%')$%') 8 %.)' *&')+%' -*1)2' 5,')+%0,0' 0+*1/5' 4%')+%' $%-1/ '),*. ' *&')+%' 10%' *&')+,0' (/'00' *&' 4%7%$' -%0 ' +,0' , . 5,('),*. ' ,0' *47,*10' %. *1-+' 3+%. ')+%' (*. ; 5,),*. ' ,0' %7,5%.)/2' 51%' 8 ',. /2')*' , .)%8 6%$; ' . (%' 41)' %7%. ' 3+%. ')+%' 6 '),%.)' ,0')%8 6%$; ')%' ,)' 8 '2' 4%')+')' , . ' +,0' ('0%')+%' ' 8 *1.)' (*. 018 %5' . %%5 0')*' 4%' $%51(%5' *$')*' / ' 40),: . %. (%' %. &*$(%5' %06%(, ' //2', &')+%$%' 0+*1/5' 4%' '' 0)$*. -' +%$%5,)'$2' 6$%5,06*0,),*. ')*' -*1)' $,&')+%' (* 8 6/', .)' '66%' $0', . ' %' $/2' /,&% ' * 8 %' 6 '),%.)0' $%' 1. 5*14)%5/2' 4%))%$', &')+%2')' 9%' . *' 0),8 1/' .)0' 3+')%7%$H' *)+%$0 ' +*3%7%$' (' . ')' 9%')+*0%' *&' '' 6$*6%$' 9,. 5' ' . 5' *&' -**5' E1' /,)2', . ' 0)$,()' 8 *5%$'),*. ' 3,)+' '57' .)' -%')' 8 '2' 4%' /', 5' 5*3. ' '0' '' -%. %$' /' $1/%')+') 8 ' /)' /,E1*$0' ' . 5' '/' 0)$*. -%$' 3,. %0' '$%' , . ; >1$,*10' ' . 5' 0+*1/5' 4%' , .)%$5,()%5' +*0%' 3+,(+' '$%' 8 *0)' 01,)' 4/%' '$%' 0*1. 5' /,-+)' (/'$%)' +*(9 ' 8 *0% %' (+'4/,0' *$' 0' 1)%8 %' ' 0 8 ' //' E1' .),)2' *&' -**5' 5$2' 0+%$$2' 01,)0' 0* 8 %' -*1)2' 6'),%.)0' 7%$2' 3%//' ' /,))/%' 4$' . 52' 3%// 5,/1)%5' *&)%. ' ' -$%%0' 4%))%$')+' . ' ' . 2' *)+%$' 9,. 5' *&' '/**+* (' /,E1*$H, . ' *)+%$' ('0%0' 3+,092' *$' -, . ' ' . 03%$0' 4%0)' +')%7%$' 0), 8 1/' .)', 0' 0%/%()%5',)' 0+*1/5' * . /2' 4%')' 9%. ')' 8 %' /), 8 %0' ' . 5')+%' +' 4,)' *&' 5$, . 9. -' 4%;)3%%. ' 8 %' /0' ,0' 0)$*. -/2')*' 4%' 5%6$%(')%5' %$0* . 0' 3+*' $%' 5,0),. ()/2' -*1)2' 0+*1/5' '7*,5' ' . 2' %B(%00' *. ' %7%$2' *((' 0,*. H' ' . 5' %7%. ' ,&')+%2' 5*' . *)' '40*/1)%/2' '40)', . ')+%2' 8 '2' &, . 5',)' 4%. %&,(, ' /) *' 5*' 0*' &$*8'), 8 %')*'), 8 %' %06%(, ' //2', &')+%$%' ,0' '')%. 5%. (2')*')+%' 5%; 7%/*6 8 %.)' *&' -*1)2' 02 8 6)*8 0 A(H B " ' # 0 " G . '5%E1')%' %B%$(,0%' ,0' '' +2-,%. ,(' %$$*$' +,(+' +' 0' &$%E1%.)/2')*' 4%' $%(),&,%5' . ')+%')$%') 8 %.)' *&')+%' -*1)2' 0)')%' %5%.)' $2' +' 4,)0' 8 10)' 4%' (*8 4)%5' 3+%)+%$' 51%')*' *((16'),*. ' *$', . 5*/%. (%H' . 5',)' 8 10)' 4%', . 0,0)%5' 16*. ')+')' '' 51%' ' 8 *1.)' *&' *1)5**$' %B%$(,0%' ,0')' 9%. ' 5' ,/2' 41)' 6$*; /* . -%5' %B%$),*. ')%. 5,. -')*' (' 10%' &'), -1%' . 5' %B+' 10),*. ' 8 10)' 4%' '7*,5%5' '/9,. -' . 5' +*$0% %B%$(,0%' '$%' +,-+/2' 4%. %&,(,' /' %06%(,; ' //2K, . ')+%' (' 0%' *&')+*0%' 3+*' ,7%' $')+%$')**' &$%%/2' 7%. ' (' $$,' -% %B%$(,0%' ,0' 10%&1/' 0*')+')')+%' 6'),%.)' 8 '2' +' 7%')+%' 4%. %&,)' *&')+%' &$%0+' ',$' *$')+*0%' 3+*' (' . . *)' +' 7%K 8 1(+' $%-1/' $' %B%$(,0%' /' 3 .)%. . ,0' &%. (,. -' ($ 0,. -/% 0),(9' -*/&' . 5')+%' /,9%' 8 '2' 4%' 0%$; 7,(%' 4/%' 0' 4%' $,. -' 16*. ')+%' 6$%7%.),*. ' *&' . ' '(1)%' &,)' *&' -*1)' ,)' ,0' . ' 1. 5*14)%5' &' ()')+')' 0*8 %' , . 5,7,51' /0' 3+*' '$%' 014>%()')*')+%' 5,0%' 0%' 0%%8')*' 4%' 4/%')*' 3 '$5' ,)' *&$ 42' 3 '/9, . -' $,5, . -' *$' 5*6), . -' 0*8 %' *)+%$' &*$8' *&' 6$*/*. -%5' . 5' 7,*/%.)' %B%$(,0%' *. ')+%' &,$0)' . ,), 8 ')' /' 4*1$' *$' . 2' -$%')')*' 16*. ')+%' 8 %.)' /' &' (1/),%0' 41)' %06%(,; ' //2' 3 *$$2' . 5' . B,%)2' *&' //' 9, . 50'))%. ;),*. ' 8 10)' 4%' 6',5')*')+%' (1)' . %*10' &1. (),*. 0')+%' 01$&' (%' *&')+%' 4*52' 4%, . -' /0*' 6$*)%(' 5 &, . 8')+%' , . >1$,*10' %&%()0' *&' (*/5' '$8' (/*)+, . -' 0+*1/5' 4%' 3*$. ' . ' 9%%6, . -' 3,)+')+%' 3%')+%$' . 5')+*0%' 3+*' (' . ' +%' $',)' 0+*1/5' 3%' $' &/' . . %/' . %B)')+%' 09, . ' ,)+' $%-' $5')*' 4')+0' 8 ' . 2' -*5)2' 6%$0*. 0' $%' 5%(,5%5/2')+%' 4%))%$' &*$' 10, . -' '' (*/5' *$) 6,5' 4')+' %7%$2' 8 *$. , . -' &*//*3%5' 42' %. %$-%),(' &$, (), . *. H' , . *)+%$' (' 0%0')+%' %86/*28%.)' *&')+%' 3' $8' 4')+')', .)%$7' /0' *$' %7%. ' *&')+%' 1$9, 0+' 4')+' . 03%$0' 4%0)' ' (*1$0%' *&')$%')8%.)', . ' ' +25$*6')+, (' %0)' 4/, 0+8%.)' &, $*8'), 8 %)*'), 8 % 1. 5%$' 51%' 8 %5, (' /' 016%$7, 0, *. ' , 0' 0*8 %), 8 %0' 5%(,5%5/2' 4%. %&, (, '/' /, 8 ')%' 5%8 ' . 50' '))%. ;), *. ' 3+%. %7%$')+%' , ($(180)' . (%0' *&')+%' 6 '), %.)' //*3' '' (+*, (%')*' 4%' 8 '5%')' 8 '2' 4%' '57, 0' 4/%' &*$ -*1)2' 014>%()0')*' $%0, 5%' 6%$; 8 ' . %.)/2', . ' 0*8 %' 3 '$8' ' . 5' %E1' 4/%' (/, 8 ')%=' *$')' . '2' $')%' 51$, . -')+%' 3, .)%$' . '5' %' $/2' 06$, , = ' . ')+, 0' 3 '2'))' (90' 8 '2' *&)%. ' 4*' 3 '$5%5' *&&' . '5')+%' 5, 0%' 0%')+10' 6$%7%.)%5' &, $*8' 8 '9, . -'6$*-$%00' +*0%' 3+*' '$%' *4+-%5')*' $%8 ', +' . ')+, 0' (/, 8 ')%' 51$, . -')+%' , . (/%; 8 %.)' 0%' 0*. 0' 0+*1/5' '7*, 5' %B6*01$%')*' 3%)' . 5' (*/5' '0' 3%// ' 0' 0155%. ' (+' . -%0' *&')%8 ; 6%$')1$%' . 5' . , -+)' , $' +%' 4%5$**8' 0+*1/5' 4%' 3 '$8' ' . 5' 3%// 7%.), /')%5H' . 5', ' (*/5' 3%')+%$',)' , 0' 5%0, $' 4/%')*' 9%%6' '' &, $%' 41$, . -' 51$, . -')+%' . , -+)' . 51/2' +%')%5' ' . 5' 4' 5/2' 7%.), /')%5' $**8' 0' 0+' 3%/' 0' ($*35%5' 6/' (%0' *&' 614+(' $%0*$)' 8 10)' 4%' %0(+%3%5 , ' " ' " G +%$%' (' +' 4*' " ' 5*14)' 41)')+')')+%' >15, (, *10' 10%' *&' (%$;)', . ' 8 %5, (, . %0' 8 '2' '00, 0)' 8 ')%$, '//2' , . ' 3 '$5, . -' *&&' *$' 8,), . -'), . -')+%' -*1)2' (*. 5,), *. ' ' . 5' , . ' 6$%7%.), . -')+%' *((1$$%. (%' *&' (1)%' 6' $*B20 8 0' +*0%' 3+, (+' '$%' 06%(, ' //2' (' //%5' &*$' , . ' ('0%0' *&' %0)' 4/, 0+%5' (+$*. , (' -*1)' 3, /' 4%' 6$%0%.)/2' (*. 0, 5%$%5' . ')+%' 8 %'.), 8 %',)' 8 '2' 4%' 0)')%5')+')')+%' 5, -%0), 7%' &1. (), *. 0' $%E1, $%' 6' $), (1/' $'))%.), *. ' ' . 5' 8 %5, (, . %0' 3+, (+' +%/6')+%0%' &1. (), *. 0' '$%' *&)%. ' *&')+%' -$%')%0)' 0%$7, (%', &')+%2' 0+*1/5' 4%' 5, 0*$5%$%5' ' (*1$0%' *&' '/9' /, 0' *$' '(, 50' '((*$5, . -')*'), . 5, . ('), *. 0' ' . ' %' (+' ('0%' 8 '2' 6$*7%' 8 *0)' 0%$7, (%' 4/%' (*8 4, . %5' 3,)+' 0*8 %' 0, 8 6/%' 4,))%$' , . &10, *. ' *$'), . (0)1$%' %$)', . ' /9' /, 0' ' . 5' '/9' /, . %' %' $)+0' '$%' '/0*' 7' /1' 4/%' *. ' ' ((*1.)' *&')+%, $' 6*3%$' , . ' 6$*; 8 *), . -' %/, 8 , . '), *. ' *&' /,)+, (' (, 5' 42' &*$8, . -' 0*/14/%' 0' /)0' 3,)+')+, 0' ' (, 5' +%' ('$%&1/' *4; 0%$7'), *. 0' *&' $' ' , -'+' 7%' 0+*3.)+')' /9' ; /, 0', . ($%' 0%')+%' 0%($%), *. ' *&' 1$, (' '(, 5' 3+, /%' '(, 50' 5%(, 5%5/2' 5, 8, . , 0+' ,)' +%' '/9' /, 0' 3+, (+' '$%' 8 *0)' 10%&1/' '$%' 0' /)0' *&' 6*)' 00, 18' . 5' /,)+, 18')+%' 1$')%' *&' +)+, 8. ' 4%, . -)+%' 8 *0)' 0*/14/%' *&' ' +%' 4, ('$4*. ')%' *&' 6*)' 00, 18' ('$4*. ')%' *&' /,)+, 18' *$')+%' (,)$')%0' $%')+%' 4%0)' 0' /)0')*' '58, . , 0)0%$' +%2' 0+*1/5' 4%')' 9%. ' 3%// 5, /1)%5' ' . 5' *. ' . ' %86)2' 0)*8 ' (+' '-. %0, '' *$' ,)0' ('$; 4*. ')%' 8 '2' 4%' -, 7%. ' 3,)+' '57' .)' -%', &')+%$%' , 0' 81(+' ' (, 5,)2' ' . 5', &')+%' 4*3%/0' '$%+' 4,)1; ' //2' (*. 0), 6')%5' '/, . %' '6%$%.)0' '$%' *&)%.

)',0' .%(%00'$2')*' 9%%6')+%' 4*3%/0' '(),.-'
&$%%/2' 42' 8%'.0' *&'01,)'4/%' '6%$,%.)0' ' .5'
0'/,.%' 61$-'),7%0' '$%' *&' (*.0,5%$'4/%' 7'/1%'
&*$')+,0' 61$6*0%')+%$' 6%$,%.)0' 01(+' '0'
(*86*1.5' $+14'$4' 6,//' **/*(т8)+' 6*5*'
6+2//,.' ('/*8%/' *$' 4/1%' 6, ' 8'2' 4%' %8;
6/*2%5',.' '66$*6$,')%' ('0%0' ,/1%.)0' 8'2'
4%' -,7%.' &$%%/2',.' *$5%$')*' 6$*8*)%')+%'
'(),*.'*&')+%' 9,5.%20Ĥ ' .5',&')+%' (1)'.%*10'
&1.(),*.0' '66%'$')*' 4%' 5%&%(),7%'0*8%' 8,/5'
5,'6+*$%),(' 8'2' 4%' '58,.,0)%$%5'*$',)' 8'2'
%7%.' 4%' 5%0,$'4/%')*' %86/*2')+%'+*)','$*%$
7'6*1$'4')+' %5,(,.%0' 8'2'4%' .%%5%5'&*$'
)+%' $%/,%&' *&'0286)*80'%06%(,'//2' 6',.' '.5'
0/%%6/%00.%00'&*$' 3+,(+' *7%$<0'6*35%$' *$'
)+%$' 6$%6'$'),.0' *&' *6,18' 4%//'5*..'
(+/*$'/ +25$')%'01/6+*./'*4*8,5%0'8'2'
4%' ,.5,(')%5'41')+%2'810' 4%' 10%5' 3,)+'
5,0($%),*.' .'7%$2'0%7%$%' ('0%0'+26*5%$8,('
,>%(),*.'*&'8*$6+,.%',0'*&'81(+'0%$7,(%
%.%0%(),*.'*1-+)'.%7%$')*'4%'6$'(),0%5',.'
)+%')%'),*.' *&' *&%()%5'>*,.)',0'5'.-%$*10'.'5'+'5'
4%))%$' 4%' '7*,5%5'*.' '((*1.)*&')+%' 6%$;
8'.%.)'/*('/ 8,0(+,%&'3+,(+'01(+''8%'01$%'
,0'/,'4/%')*',.51(%

S " G +%' '&&%()%5'6'$)0' ,.'
'(1)%'-*1)'0+*1/5'4%' 9%6)%'.),$%/2' ')' $%0)'
'.5'6/'(%5',.' '' (*8&*$)'4/%' 6*0,),*.' 016;
6*$)%5'42'6,//*30'.'.5' %,)+%$'+*$,C*.)'/ *$
%/%7')%5' '((*$5,.-')*')+%' &%%/,.-0' *&')+%'
6'),%.)' .'*$5,.'$2'('0%0',)',0'0,&& (,%.)')*'
3$'6'16')+%'>*,.)0',.'&/'..%/'*$')*'01$$*)85'
)+%8'3,)+' (*))*.3**/ (*86/%)%/2' (*7%$%5'
3,)+'*,/0,/9'*$-1))' 6%$(+''0+%%),.-''((*$5;
,.-')*' '$$*5<'8%)+*5'42'3+,(+'8%'.0''
9,.5'*&'/*('/7'6*1$4')+',0'9%6)'16' &')+%'
6',.',0'(*.0,5%$'4/%'*)+%$'/*('/ '66+('),*.0'
8,-+)'4%' 10%5'*&'3+,(+')+%' 8*0)'%&&,(,%.)'
'$%'3'$8'&*8%.)'),*.0')*'3+,(+'),.()1$%'*&'
6,18'$'4%//'5*..'' 8'2'4%' '55%5'6*662'
&*8%.)'),*.0'/%'5'.5'*6,18'/*),*.'/*('/,0%5'
0)%'8,.-'4%//'5*..'' /,.,8%.)')',.()1$%'*&'
'(*.,)%'*/%')%' *&' 8*$6+,.%'*$'' 0*/1),*.'
(*.)',.,.-'8*$6+,.%' '.5' ')$*6,.%' *8%'
6$'(),),*.%$0'6$%&%$'%7'6*$'),.-'/*),*.0'(*.;
)',.,.-''/(*+/'%)+%$'*$'(+/*$*&*$8Ĥ*)+%$0'
3'$8'3')%$'(*86$%00%0' '4/,0)%$',')+%'
.%,-+4*/1$+**5'*&''' -*1)2'>*,.)'8'2'4%'*&'
0%$7,(%',&')+%' '))'(9'4%' '0)+%.,(' '.5''/0*'
,&'%&&10,*.'*$'8 1(+'0),&&.%00'6%$0,0)' 1$,.-'
$%(*7%$2'4%.%&,)'8'2'4%'5%$,7%5'&$*8'('$%;
&1/'&$,(),*.'3,)+'0*8%'0),8 1/'),.-'/,.,8%.)'
'66+(')',*.' *&' ,*5,.%' 0+'86**,.-' -%./)%'
6'00,7%'8*7%8%.)0'5*1(+,.-'3,)+'0'/)' '.5'
3')%$'*$')+%' '66/,(')',*.'*&''/,-+)'4'.5'-%'
*$' %/'0),(' 01666*$')'+*1/5')+%$' 4%' '')%.;
5%.(2')*'6%$8'.%.)')+,(9%.,.-''.5'0),&/ .%00'
$')*'*%5%8''' .5'%./'$-%8%.)'&')+%'7%,.0

+%''(1)%'&*$80'*&' 0 2'0 ' 810)'4%'
)$%')%5''((*$5,.-')*')+%,$' .')1$%'.5'+%$%'
,)'810)'01&&,(%')*'*&&%$' '&%3'-%.%$ '$%8'$90
*.')+%'014>%()' &'0%$,*10',.)%$.''/0286)*80
'$,0%'3+,(+''$%5,0),.()/2'*&''-*1)2'.')1$%'
'.5'%06%(,'//2',&')+%2'*((1$'0'$%)$*(%5%.)'
6+%.*8%.''.,)',0',86*$)'.)')*')$2')*'%B(.)%'
,.&/'88'),*.'.'.')+%>*,.)0'42'8%'.0'*&'/*('/
+%')'&$,(),*.'.'.5' 0,.'6,080' */(+,(18'
8'2'4%'*&'0%$7,(%',.')+%'.*.'$),(1/'$' '0'
3%/'0',.')+%' '$),(1/'$&*$8'*&'-*1)' .'
6',.&1/''&&%(),*.0'*6,18'*$')+%$''.*52.%0'
'$%'('//%5'&*$Ĥ''.5'&$%E1%.)/2')+%' '58,.,0;
)$'),*.'*&' '/(*+*/,(' '.5')+%$' 0),81/'.)0'
,0',.5,(')%5'3,)+' '.),06'08*5,%0'01(+' '0'
'88*.,''%)+%$0'('86+*$'8109'*$'4%//';
5*..''%06%(,'//2'3+%.')+%'0)*8'(+'*$+%'$)'
,0' '&&%()%5' .'(*.5,),*.0' '))%.5%5'3,)+'
0,-.0'*&'81(+'5%6$%00,*.'*$'(*//'60%'%B)%$.'/
+%')' 8'2'4%' '66/,%5' *7%$')+%' 4*52' *$
0,.'6,080')*')+%/,840'.5'*7%$')+%' ('$5,'(
$%-,*.' .')+%')$%')8%.)'*&',.&/'88')*$2'
5,0%'0%0' 00*(,')%5'3,)+'-*1)'81(+'('$%',0'
$%E1,$%5'%06%(,'//2',.'$%0*$),.-')*'5%6/%)*$2'
8%'01$%0' +%'%B,0)%.(%'*&')+%' 5,')+%0,0'
810)'/3'20'4%'4*$.%',.'8,.5
9' ' & ' 2 M'
+%.'-*1)'4%(*8%0''.'%0)'4/,0+%5'(+$*.,('
5,0%'0%')+%'0'8%-%.%$'/ $1/%0''*&')$%')8%.)'
'$%')*'4%'*40%$7%5''0',.')+%' 6$%7%.),.*.'*$
'))%86)%5'(1$%'*&')+%'(*86/',.)'41)')+%2'
*&)%.'.%%5'8*5,&,(',),.*.',.'6'$),(1/'$'(0%0'
'((*$5,.-')*')+%'(*.5,),*.0'6$%0%.)' ,8,/'$
85,(,.'/$%8%5,%0'$%'/0*',.5,(')%5'/,)+,18'
0'/)0'4%,.-'6'$),(1/'$/2'7'/1'4/%'.'5')+%2'
8'2'%7%.'.',5',.'$%8*7,.-'-*1)2'5%6*0,)0Ĥ
41)'*)+%$0'8'2'4%' '55%5')*')+%'/,0)'3+,(+'
'$%'01,)'4/%',.'5,&&%$%.)'('0%0' */(+,(18',0'
&)%.'&'81(+'0%$7,(%')'9%.'+'4,)1''//2'*$&$*8'
),8%')*'),8%',.')+%'&*$8'*&'*.%*&')+%%B)$'()0'
')'.,-+)'*$''&%3'8,.,80'*&'),.()1$%'*$'3,.%'
)3*'*$')+$%%'),8%0'' 5'2'(*84,.%5'3,)+'
)+%$' 8%5,(,.%0' 8.-')+%' 8'.2')+%$';
6%1),('-%.)0'$%(*88%.5%5',.')+%')$%')8%.)'
&'(+$.,('-*1)'1.5%$5,&&%$%.)'(,$(180)'.(%0'
8'2'4%'8%.),*.%5'4%.C*,('(,5'*$'4%.C ')%'
&'88.,18'6+*06+')%' *&' 88*.,18'*$'
*&'0*5,18',*5,5%' *&'6*)'00,18'4$*8,5%' *&'
6*)'00,18' ('$4*.')%' *&' '/18,.18'/,8%'
>1,(%'$%0,.'*&'-1','(18''88*.,'(18''.5'
)*.,(0'%06%(,'//2'E=1,..%'),.()1$%'*$,.&10,*.'
&'(,.(+.''*$'8,/5'&%$$1-,.*10'6$%6'$'),*.0'
.5*14)%5/2'8*0)' *&')+%0%' '$%' *&'10%' ,.'
'66$*6$,')%' ('0%0'*&'(+$*.,('-*1)'*'0%$7%
)+%,$'06%(,'/'61$6*0%0'41)')+%2'810)'4%'10%5'
>15,(,*10/2'%06%(,'//2',$*.' 286)*80'(*.;
.%()%5'3,)+'7'$,*10'*$-'.0'&$%E1%.)/2'('//
&*$'))%.),*.','.')+,0'5,0%'0%''.5')+%2'810)'
4%')$%')%5'42''66$*6$,')%' $%8%5,%0')'8'2'
4%'$%8'$9%5')+')'0+*1/5'5,'$$+(%''0%)',.'.'
-*1)2'('0%0',)'810)'.*)'4%'+'0),/2''$$%0)%5'
'0')+,0'8'2'4%'' 8*5%' *&'$%/,%&')*')+%' 020;
)%8' ,)+'$%-'$5')*')+%'/*('/ (*.5,),*.0',.'
(+$*.,(*-*1)',0''.5'' 5%. '5%.'5%.'%/'0),('0166*$')'0

$')%0' ' .5' , .' 5,8, . ,-+, . -' 0), ^ %00' ' .5')+, (9%. , . -' *&' >*, .)0 ' *$')+%0%' 61$6*0%0' /*('/ 8%'01$%0' 8 '2' !0'+%*&'0%$7, (%' , .' 0* 8 %' , .0)' . (%0' 6$*7,5%5')+%' 8*$4,5' (+' . -%0' (' .*)')**' &'$' '57' . (%=' . ' 8%/2' *((' 0, *. '/ 4/,0)%$, . -' *$' '66/, ('), *. ' *&' , * ^ % H)+%' 6$*:, /*. -%5' 10%' *&' >*), ' .5' -%0H' *), *. ' 3,)+' /, . , 8%.)0H' 0+' 86**, . -' ' .5' 6'00, 7%' 8*7%; 8%.)0' H *$ 020)%8'), (' (*'/6$%00, *. ' 42' 8%' . 0' *&0*8%' . *. , $$,)'), ,='6/'0)%$' */1), *. 0' *&' '/9'/, 0' *$' '/9'/, . *(' ($4*. ')%0' ' .5' %06%(, '//2' *&' ($4*. ')%' *&'/,)+, 18' +'7%' 4%%. ' 9%6)' 6; 6/, %5')*' -*1)2' >*, .)0' ' .5' *)+%$' 6'$)0' &*$' '/*. -'), 8%' 1.5%$')+%' 4%/, %&')+')' 5%6*0,)0' *& 1$')%0' 8 '2' 4%')+10' 5,00*/7%5' . ')+%' 3$,)%$<0' %B6%$, %. (% . *' 01(+' %&&%()' +'0' %7%$' 4%%. ')+10' 6$*51(%5' '/)+*1-+')+%' *. 0)' .)' 66+(', *. ' *&' 3' 8' 8*, 0)1$%' 8 '2' 4%' 10%&1/' 16%$&, (, '/ 1$'), (' 5%6*0,)0' 0+*1/5' . *)' 4%' , .)%$&%$%5' 3,)+' 1. /%00')+%2' 4%(*8%')$*14/%0*8%' 3+%. ' ,)' 8'2' 4%' 5%0, $'4/%')*' 67, . (1$%')+%' 09, . ' . 5' /%)')+%' (*. %.)0' *1)' +%' 6$*6$, %)2' *&' $%; 8*7, . -'/'$-%' 8'00%0' 42' *6%$'), *. ' 8'2' (*8%' 16' &*$ (*. 0, 5%$'), *. ' 41)')+, 0' 0+*1/5' *. /2' 4%' '))%86)%5', &')+%$%' , 0' %7%$2' 6$*4'4, /,)2')+')')+%2' ('. ' 4%' %.), $%/2' $%8*7%5' 3,)+*1)' ' . 2' 0%$, *10' 5, &&, (1/)2' ' . 5' , &')+%' 6')%.), 0' , . ' '&,)' 0)'0%' &*$')+%' *6%$'), *. ' +%. ' '40(%00%0' *$' 1/(%$0' &*$8')+%2' (*8%')85%$')+%')$%'); 8%.)' *&')+%' 01$-%*. H 41)', ' 8'2' 4%' *40%$7%5')+')' 0, 86/%' 5$%00, . -0' 101''//2' . 03%$' 4%0)', . ')+%0%' (' 0%0' . 5')+%2' 8'2' 0*8%), 8%0' 4%' '57' .)' -%*10/2' 5$%00%5' 3,)+' 0*/1), *. ' *&' (' $; 4*. ')%' *&' 6*)' 00, 18' *$' /,)+, 18')' 810)' W*)' 4%'))%86)%5')*' +%' /')+%8' 16')*' $' 6, 5/2' '0')+%' 5, 0(+' $-%' 8'2' 4%' '' $%/, %&')*')+%' 020)%8' . ' .5',)' 8'2' %7%. ' 4%' . %(%00' $2')*' %./' $-%)+%' *6%. , . -' *&' '' -*1)2' W40(%00' .5%$' . 2')$%')8%.)',)' , 0' 42' . *' 8%' . 0' . ' %'02' 8')%$')*', . 51(%/%0, *. 0' *&')+, 0' 9, . 5')*' +%' /, . ' ('0%0' *&(+$*. , (' -*1) +%')$%')8%.)' *&')+%' 7' $, *10' (+$*. , (' *$-' . , (' 5, 0%' 0%0' 3+, (+' '$%' /, '4/%')*' '$, 0%' , . ')+%' (*1$0%' *&' -*1)' 810)' '/3' 20' 4%' 9%6)' , . ' 8, . 5' 41)')+%' $%' 5%$' , 0' $%&%$%5')*' *)+%$' '66$*6$, ')%' $), (/%0' &*$' '' (*. 0, 5%$')*. ' *&')+%' 014>%()

& &' '

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2 3 5 ' 3 ' DK EM3')*' / / 7'
$' / / "' 5! ' ' 4* ' ! ' -$)*' $-' '
.) '#$ .4 . ' # ' '*($ (

' G ' 8*$4,5' (*. 5,), *. ' *&')+%' 9,5. %2', . ' 3+, (+')+, 0' *$-' . ' ,0')+%' 0%')' *&' &, 4$*, 5' (+' . -%' ' . 5' '0' '' $%01/' 4%(*8%0' (*.)$' (0%5' 42' 8*7%8%.)H &$%E1%.)' 8, (;)1$,), *. 'H '' 0%. 0%' *&'+%')' ' . 5', $$,)'), *. ' ')+%' . %(9' *&')+%' 4/'55%$' . 5' '/*. -')+%' 1$%)+$' ' %06%(, '//2' 51$, . -' ' . 5' '&)%$' 7*, 5, . -' 3')%$H ' . 5' = 8%), 8%0')+%' 66%' $' . (%' *&'' ^, .)' (/*15' *&'), '*$' '0/, -+)'), . -%' *&4/**5', . ')+%' 1$, . %

5 ; ' ;' ,0 ' '' /,))/%' -$', . R G=. ' 8%5, ('/6')+*/*-2'-$' . 1/'), *. ' , 0' 02. *. 28*10' 3,)+')14%$(/%' , . ' ,)0' , 0*/')%5' &*$8')+%' , . 5, 7, 51'/)14%$(/%0' 4%, -' ('//%5' 0-$%2<*$ 02%//*3<-$' . 1/'), *. 0' '((*$5, . -')*')+%, $' 66%' $' . (%' A0%%' % $ 3' . ' 01$-, ('/6')+*/*-2')+%)$8'0-$' . 1/'), *. 0'<, 0' 66/, %5')*' 08'//' 7'0(1/'$' 6$*8, . %. (%0' (*. ; 0, 0), . -' *&%84$2*. , ('), 001%' -$*3, . -' *. ')+%' 01$&' (%' *&' 3*1.50' *$' 1/(%$0' ' .5' 42' 3+, (+')+%' +%' /, . -' 6$*(%00' , 0' ('$$, %5' *. G3+%. (%')+%' %B6$%00, *. ' 0+%' /, . -' 42' -$' . 1/'), *. <' +%. ' = ' . 1/'), *. 0' '0018%')+%' 66%' $' . (%' *&' . ' %B14%$' .)' -$*3)+')+%2' (*. 0),)1)%' 3+')' , 0' ('//%5' 06$*15' &/%0+<' H ' . 5' 6$' ' . 5' 6$'

"' & # "' +%' 5%6*0,)' , . ' . 5' %0('6%' &$*8')+%' 1$, . '$2' 60' 0' -%0' *&' -$,))2' 6' $), (/%0' 3,)+')+%' 1$, . %

. * $ G +%' 0' 8%' ('10%0' 3+, (+' 6$*; 51(%' 5206%60, '' '$%' &$%E1%.)/2' 65*51(), 7%' *&' +)+, (' (, 5' -$' 7%/' 01(+' '0' , . 5*/%.)' +' 4,)0' %B(%00' *&'&**5' . 5' 5$, . 9G%06%(, '//2' *&' .), $*; -%. *10' ' . 5' 0' ((+' $, . %' '$), (/%0' ' . 5')+%')**' &$%%' , . 51/-%. (%' , . ')+%' 10%' *&' &%$8%.)%5' /, E1*$0' . 5%8, (' (' 10%0' (*. . %()%5' 3,)+' (/, 8')%' ' . 5')+%' . ')1$%' *&')+%' 5$, . 9, . - 3')%$' +%$%5,)' $2' 6$%5, 06*0,), *. ' ' . 5' 8' . 2' 0+-+)' *$' 0%$, *10' *$-' . , (' 5, 0%' 0%0' 8'2' %B6/', . ')+%' 66%' $' . (%' *&' -$' 7%/', . ')+*0%' ' . 5' %06%(, '//2' , . ' 3*8%. ' 3+*' (*8 8,)' . *' 5, %)%), (' %B(%00' *$ 3+**' B%')*)'/' 40)', . %$0' ' , $: ' ' & / ('& /' . 5 , *' (, . ' &

0 ! 5$'7%/' 8'2' 4%' (*86*0%5' *& A8R' /,)+, (' (, 5' . 5',)0' (*86*1.50H A<R' *B' /')%' *&' /, 8%H' AGR' 6+*06+')%' *&' /, 8%H' *$' A R')+%'), $, 6/%' 6+%06+')%' 2' &' $')+%' 8*0)' (*88*. ' &*$8'*&-$'7%/' ' . 5')+')' 3+, (+' '/*. %. %%5' . *3' 4%' (*. 0, 5%$%5' , 0' /,)+, (' ('(, 5' +, 0' *3, . -' (+, %&/2')*',)0' -$%')' , . 0*/14, /,)2', 0' &$%E1%.)/2' 5%6*0,)%5', . ')+%' . %3/2' 60'00%5' 1$, . %' , . ')+%' &*$8' *&')+%' 3%// 9. *3. ' $%55, 0+ 4$*3. ' ($20)'/0' *&)%. '5%0($, 4%5' '0' $%0%84/, . -' ('2%. % 6%66%$' -$', . 0' +%' 016%$. ')' .)' 1$, . %' , 0' -%. %$' '/2' (/%'$' $')+%$' 5'$9' , . ' (*/*1$' ' . 5' *&' '' 5, 0;), . ()/2' ', (, 5' $%' (), *.

!(! G +%' 6'00' -%' *&1$, (', (, 5' ($20;)'/0' *$' -$' 7%/' &$%E1%.)/2' ('10%0' . *' 014>%(), 7%' 0286)*80' ' . 5', 0' (*. 0, 0)%.)' 3,)+' 6%$&%()' +%')/)+' *8%), 8%0' +*3%7%$' ,)' -, 7%0' $, 0%')*' *$', 0' '((*86' . , %5' 42' 4*)+' -%. %$'/' . 5' /*('/5, 0)1$4' . (%' *&'&1. (), *. ' +%' -%. %$'/' 0286)*80' '$%')+*0%' *&' 5206%60, ' G. ' 8%/2' &/')1/%. (%' . 5' +%' $)41$. ' '&)%$' 8%/0' %$1()';), *. 0' +%' 5' (+%' 810(1/'$' ($' 86' 5%6$%00, *. ' *&' 06, $,)0' ' . 5' '' 0%. 0%' *&' 8'/', 0%' *('//2')+%$%' , 0' 51/' '(+, -' , ')+%' /184' $' $%-, *. ' . *)' K, . ($%' 0%5' 42' 8*7%8%.)H &$%E1%.)' 8, (;)1$,), *. 'H '' 0%. 0%' *&'+%')' ' . 5', $$,)'), *. ' ')+%' . %(9' *&')+%' 4/'55%$' . 5' '/*. -')+%' 1$%)+$' ' %06%(, '//2' 51$, . -' ' . 5' '&)%$' 7*, 5, . -' 3')%$H ' . 5' = 8%), 8%0')+%' 66%' $' . (%' *&'' ^, .)' (/*15' *&'), '*$' '0/, -+)'), . -%' *&4/**5', . ')+%' 1$, . %

U $G $*8'3+')'+'0'4%%.'0',5',)'&*//*30')+')')+%'8*0)',86*$)'.)'6*,.)0',.')+%'$%')8%.)'*&'-$'7%/'$%'0)$,()'/,8,)'),*.''0')*')+%-K3*),='*&'&**5H)+%''7*,5'.(%'*&'+,-+/2'0%'0*.%;'7%$2'$,(+'*$'03%%)'5,0+%0H)+%'6$%;&%$%.(%'&*$'7%-%)'4/%$')+%$')+'.'&*$''.,,,'/&**5H'41.5'.)'%B%$(,0%',.'(*1.)$2','$H''.5'40)%.),*.'&$*8'*$')+%'7%$2'06'$,..-'10%'*&'/(*+*/,('/,E1X$0' %5,(,.'//2')+%$%'8'2'4%-,7%.'5,1$%),(0')*',.($%'0%')+%'E1'.),)2'*&')+%'1$,.%'.'5'&'(,/,)')%')+%'%0('6%'*&'-$'7%/H'61$%'3')%$''/9'/,0''.5''/9'/,.%'3')%$0'&$%%/2'5,/1)%5')*'()''0'0*/7%.)0'*&'1$,('(,5H''.5'0'/,.%'6%$,%.)0''.5'0'/,.%'3')%$0')*'6$*8*)%5,-%0),*.''.5''00,0)',.'%.01$,.-')+%'&$%%'(),*.'*&')+%'/,7%$''.5''/,8%.)'$2'('./6'3

<'=' 02.*.28'&*$'%B*6+)+'/8,('-*,)$%')*'3+,(+')+%'/')%'$'$'7%0'*&'14&/.'('//%5'06%(,'/'))%.),*.''(0 # '1

2' N+! &N5 !! M30 0 '$ +'' 00 ' 7 '0 '%

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U ',0*$5%$0'*& G_%Ñ) 7 0 '':' '0 0 '' . #

U G*' '' '' 8, %)'0%%5 +,0' .'8%',0' '66/,%5')*'08''//-/*41/'$'6%'$/2 3+,)%'4*5,%0'0%%.'1.5%$')+%'(1),(/%'*&')+%'&'(%'%06%(,'//2'.%'$')+%'%2%/,50' +%2''$%''4*1')+%'0,C%'*&''6,.0'+%'5''.5'(*.;0,0)'*&'5,0)%.5%5'0%4'(%*10'-/'.50')+%'51()'*&'3+,(+'+'0'4%%.'*((/15%5' +%2'0+*1/5 '' G +,0'%B6$%00,*.'0,-..,&,%0')+%'018'*&')+%'6+20,('/E1=),%0'*&''.',.5,7,51'/''.5',0'0*8%),8%0'10%5''0'02.*;.28*10'3,)+' "'' %'06%'9'*&''' +'4,)' '' +'4,)' '.5'' '' +'4,)

G '& ' '10%0'$-%' 7' $' $

[! 'A'/6''4/**5H'F8 '' (%//H''.5'6 6*7' '8%'01$% ? -',.0)$18%.)'42')+%','5'*&'3+,(+')+%'.184%$'*&'(*$610(/%0',.''-,7%.'7*/18%'*&'4/**5'('.'4%'0(%$)',.%5 & ' ('' = '8%)+*50'%86/*2%5'&*$)+,0'*4>%()'(*.0,0)',.'8'9,.-''5%&,.,) ,=,/.),*.'*&''' (%$)',.'E1'.),)2'*&'4/**5''.5'(*1.),.-')+%'.184%$'*&'4/**5(*$610(/%0',.''(%$)',.'7*/18%'*&')+,0'5,/1),*.'.%$*$5)'3+*'*$,-,.')%5')+%'8%)+*5'5$%3',8,&*$8'/,.%0'*&'d/1)%5'4/**5'16*.''0/,5%''.5''&)%$,)'3'0'5$2'(*,8)%5')+%'(*$610(/%0',.''(%$;)',.'/%.-)+'*&',.%'$'8%$'0140),)1)%5'&*$)+%0%'/,.%0'3+')'8'2'4%')%$8%5''6,//'$2(%//H''.5'*)',1''.5''/'00%C'%86/*2%5''(6,//'$2')14%''.5''8,%$0%*6%'6$*7,5%53,)+''.'%2%6,%(%'$1/%5',.'0E1'$%0''2%8'0140),)1)%5'&*$)+%'6)+'&*(*1.),.-')+%'.184%$'*&'4/**5

)',.' 8*5,&,('),*.0')+%' 5,/1),..-' '66'$')10' ,0' 0,8,/'$' 41)' *&' 5,&&%$%.)' ('6'(,)2' '.5')+%' /')%$'/' 5,8%.0,*.0' *&')+%'7*/18%' *&' 5,/1),*.' %B'8,..%5' '$%' *4)',..%5' .*)'42' '' 8,($*0(*6%' %2%6,%('%'41)'42'/,.%0'%.-$'7%5'16*.')+%'= 0 0' 0/,5%' ')'+%' 4*))*8' *&')+%' (%//'*.' 3+,(+')+%' (*$610(/%0' E1,(9/2'&'//' +%',.0)$18%.)' (' .')+10' 4% 10%5' 3,)+' .2' 8,($*0(*6%' '.',8; 6*$)'.)' (*.7%.,%.(%' ,.' 6$'(),('/' 10%' +%' '/)%$'),*.' ,.')+%' ('6'(,)2' *&')+%' 5,/1),..-' 8%'01$%0' &%(,/,)')%0')+%' (*1.),..-' '.5' 6$*; 7,5%0' '' 8 1(+' 0,8 6/%$' 8*5%' *&' 0)')%8%.)' *&')+%' $%01/)' +%'66'$')10' 3+,(+' ,0' 8'5%' 42' '390/%2'(*.0,0)0' *&' A8R' '6,6%))%'-$'51')%5')*' PPF' (14,(' 8,//,8%)%$0'&*$' 8%'01$,..-')+%' 5,/1),..-' 0*/1),*.H A<R' '' ('6,//'$2')14%' &*$' 8%'01$,..-')+%' 4/**5'(*.)',...-' &,7%' 14,(' 8 8 9' A9R' '' 0 8'//' -/'00'>'$' '.5' 0),$$%$' &*$' 8'9,..-')+%' 5,/1),*.'H '.5' A R')+%' (%//' &*$' (*1.),..-' > 8 8' 5%%6' '.5' $1/%5' ')')+%' 4*))*8' ,.' 0E1'$%0' %'(+' Q\' 8 8' ,.' /%.-)+' '.5' 4$%'5)+' +%' 0/,5%' 4%'$,..-')+%' (%//' ,0' &,B%5' *.' '' 0 8'//' 8%)'/' 6/')%')*' 72+,(+')3*' 06$,..-0' '$%' ''))'(+%5'H)+%0%' 9%%6')+%' (*7%$' -/'00',.'6*0,),*.'' .5'0%(1$%'1.,&*$8,)2',.'),)0' 6$%001$%' *.')+%' (% ' '.5')+%$%&*$%' ,.')+%' 5%6)+' *&')+%' (*.)',.'/,E1,5

'$,*10'0*/1),*.0' +'7%'4%%.'%86/*2%5' &*$ 8'9,..-')+%' 5,/1),*.' +')'3+,(+')+%' 3$,)%$' +'0' &*,85')*' '.03%$' 4%0)'' 0' 5,&&%$%.),'),..-' 8*0)' (/%'$/2')+%' $%5' '.5' 3+,)%' (*$610(/%0' (*.0,0)0' *&' 01/6+')%' *&' 0*5,18' ! '-$'.0'H `(%),(' '(,5' 8' 5$'(+8H 5,0),//%5' 3')%$' L' *1.(%0

.' 10,..-')+%' +0%8'(2)*8%)%$' '' 5$*6' *&')+%' 5,/1),*.',0' 6/'(%5',.')+%' (%.)$%' *&')+%' (0 H)+%' (*7%$ -/'00'.5'06$,..-0' '$%' '66/,%5H '.5',.'' &%3' 8,.1)%0')+%' (*$610(/%0'+'7%' 01.9')*')+%' 4*))*8'*&')+%' (%//''.5' '$%' 0%%.'/2,..-' 3,)+,.')+%' 0E1'$%0' +%' 5,/1),*.' *&' L' (8 8'*&'4/**5',.' PPF' (8 8'*&'0*/1),*.',0' 8',.'<HH'H'%'(+'0E1'$%'(*.)',.0')+%' (*$610(/%0' &$*8''7*/18%'*&'5,/1),*.'+< 8 8',.'*.%''.5' Z8 8 8',.'%'(+'*&')+%' *)+%$' 5,8%.0,*.0G')+')',0'@'(14,('K' 8 8 '*$')+%' b!!@6'$)' &' '(14,(' 8 8 1)')+%' 5,/1),*.'.'4%,..-' ,.'@!!')+,0'7*/18%'*&' 5,/1),*.'(*.)',.0>10' HHHH8' (8'*&' 4/**5' +%'.184%$'*&' (*$610(/%0',.' '' 0E1'$%' 81/),6/,%5'42' 8HH HHH',0')+10')+%' .184%$',.'' (14,(' 8,//,8%)%$'*&' 4/**5G)+%' (*88*.'8*5%'*&' 0)')%8%.)' .' *$5%$')*' /,8,)' %$$*$')+%' .184%$'*&' (*$610(/%0',.')%.' 0E1'$%0'0+*1/5' 4% (*1.)%5' '.5')+,0' .184%$' 81/),6/,%5'42' 8H*HHH',0')+%' .184%$'6%$' (14,(' 8,//,8%)%$' +%' '7%$'-%' .184%$' 8' +%'/)+' ,0' '4*1)' F!!! !!!' /**5'*&' .*$8'/'$,(+;.%0 0')+10' (*.)',.0' '4*1)' F!' (*$610(/%0' 6%$' +0%8'(2)*8%)%$' 0E1'$%' +%$%&*$%')+%' .18; 4%$',.')3*' 0E1'$%0' *&')+%' ,.0)$18%.)' 3,/' '/3'20' $%6$%0%.)')+%' 6$*6*$),*.'*&')+%' (*$; 610(1/'$'$,(+.%00' (*86'%5'3,)+')'*&'.*$; 8'/' 4/**5' Ae' 8HHRG)+')',0')+%' 6%$(%.)'-%' 6$*6*$),*.')*' .*$8'/')',0')+%$%&*$%' (*.; 7%.,%.)')*')'9%')+%' 7*/18%' *&' 4/**5' $%6$%; 0%.)%5'42')+%')3*' 0E1'$%0' DHHHH<' (14,(' 8,//,' 8%)%$R' '0')+%' 0)'.5'$5' 7*/18%' *$' 0+0%8,(

1.,)< *$',.0)'.(%',)',0'&*1.5')+')')+%' 4/**5' 5,/1)%5'6$%0%.)0',.')%.'0E1'$%0'?MF' (*$610(/%0' *$' MF',.')3*' 0E1'$%0'A0+)%8,('1.,)'<R'Q)',0' MF' 6%$' (%.)')' (*86'$%5'3,)+')+%' .*$8'/' *' /%'$.')+%'.184%$'6%$'(14,('8,//,8%)%$'3%'+'7%' *./2')*' 81/),6/2' "MF' 42' ! !!!'e'?MF! !!!

.' (*1.),..-')+%' 3+,)%' (*$610(/%0',&')+%2' '$%'.*)',.'(*.0,5%$'4/%'%B(%00',)',0' 8*0)'(*.; 7%.,%.)'&,$0)')*' '0(%$)',.')+%' .184%$'*&' $%5' (*$610(/%0' 6%$' 0E1'$%' '.5'.*)%' +*3' 8'.2' 0E1'$%0' '$%'(*.)',.%5',.''&,%/5'*&')+%' 8,($*; 0(*6%' &')+%.')+%' &*(10',0'$',0%5'0*')+')')+%' (*$610(/%0' 4%(*8%'.5,0),.()')+%' 3+,)%' *.%0'&$*8')+%,$',-+%$'$%&$'(),..-'6*3%$'3,/' '66%'$/,9%'4$,-+)'6*,.)0''.5')+%' .184%$',.' '0%$,%0'*&',%/50'('.'%'0,/2'4%'(*1.)%5' *$' %B'86/%')+%' .,1.4%$'*&'$%5'(*$610(/%0'6%$' 0E1'$%'+'0'4%%.'&*1.5')*'4%' !'.5')+%'&,%/5' (*.)',.0' F'0E1'$%0')+')',0'D!!'(*$610(/%0'6%$' &,%/5' %.'&,%/50'(*.)',.' F'3+,)%' (*$610(/%0H)+%'6$*6*$),*.'*&'3+,)%')*' $%5'3, ')+%$%&*$%

4%')*' [@@= Fe/')*' !!

b ,)+),0'66'$')10'3%'8'2'$%'5,/2'0(%$;)',.' 3,)+,.' '' 08'//' /,8,)' *&' 1.'7*,5'4/%' %$$*$')+%' (*$610(1/'$' $,(+.%00'*&')+%'4/**5' '.',86*$)'.)'%/%8%.)',.'8'.2'8*$4,5'0)')%0' 01(+'0'.0%8,''H '.5'3%' (.'+')10'0(%$)',.')+%' ,.5,(',)*.0'&*$' '.5'*40%$7%')+%' %&&%()' *&')+%$'6%1),(' '-%.)0')',0'+*3%7%$'7%$2' 5%0,$'4/%',.')+%0%' ('0%0')*' '0(%$)',.''/0*')+%' $,(+.%00'*&')+%' (*$610(/%0',.'+0%8*-/*4,.'A0%' .= **.*, d R' *)+'%/%8%.)0'4%,..-' '0(%$)',.%5' '.5'0)')%5',.')+%' 0'8%')%$80' A6%$(%.)'-%R')+%' E1'/,)2'*&' %'(+' (*$610(/%' 8'2'4%' %B6$%00%5',.')+%'&*$8'*&''&$'(),*.' &')+%' 4/**5' (*.)',.0' D!'6%$' (%.)'*&' (*$; 610(/%0' .5' !'*&'+0%8*-/*4,..')+%' '7%$'-% 07'/1%'<*&'%'(+' (*$610(/%' e' *$&')+%' .*$' 8'

+%'+0%8'(2)*8%)%$'8'2'/0*'4%'%86/*2%5' &*$)0(%$)',..-')+%'-/*4*,5'$,(+.%00'*&'8,/9' *$*)+%$'/,E1,50

¼ , ' '1

' [' A'/6''4/**5H '.5'), '' 7*8,)R " , '' $' P H %$' $ "

- . 'P$* 3' $-' +$$7' 7 / > 7 '$' ' .) "'$-'*$)+ 7'#$ 7 $

,' ' G 008*$$+'-%' ,.)*')+%' 0)*8'(+' 8'2' '$,0%H ' $*8')+%' /'2,..-'*6%.'*&' '.')$)%$2' @' $*8'7%.*10' *$' ('6,//'$2'(*.-%0),*.'*&')+%' 81(*10'8%8; 4$'.%' "' $*8' '10%0'&&%(),..-')+%' 4/**5' ,)0%/&' 0*')+')',)')%.50')*')$'.015%)+$*1-+')+%' 7%00%/0'1.5%$'6$%001$%'*&')+%'(,$(1/'),*. ' +%' 8*0)'&$%E1%.)' ('10%' *&' +0%8')%' 8%0,0',0'.'1/(%$'*&')+%' 0)*8'(+')'*((1$0' '((*$5,..-')*')+%' /')%' $' $,.)*.' ,.' '4*1)' *.%)+,$5'*&'//')+%'('0%0'*&'-'0)$,('1/(%$')+' (*8%'1.5%$')$%')8%.)' +%'4/%%5,..-'101'//2')'9%0 6/'(%' 0+*$)/2' &)%$' '' 8%'/' '.5')+%' E1'.),)2'$%>%()%5'7'$,%0' -$%')/2' .' 0*8%' ('0%0',',0'0*'08'//')+')',)'8'2'$%E1,$%' ('$%; &1/'%B'8,.'),*.')*' 5,0(*7%$',)H 3+,/0)' ,.

)+%$0' %.$8*.0' E1'.),),%0' '$% 7*8,)%5' '.5' *&)%.' '/0*' 6'00%5')+$*1-+')+%' 4*3%/0' +% 6/%.,(' ',,%,2',0')+%' 0*1$(% 3+%.(%')+%' 4/%%5; ,.-' 8*0)'&$%E1%.)/2'6$*(%%50'41)',)' 8'2' '$,0% &$*8')+%' (*$*.'$2')+%' 016%$,*$' 62/*$,(' *$' 8*$%' $'$ /2'&$*$E')+%' 4/**5 7%00%/0' *&' 0*8% *&')+%'.%,-+4*1$,.-' *$-'.0' 01(+' '0')+%'6'.; ($%'0'/,7%$' *$ 06/%%.')*' 3+,(+')+%' 0)*8'(+' +'0' 4%(*8%'))'(+%5' '.5' 3+,(+' 8'2'&*$8')+%' 4'0%' *&')+%' 1/(%$' /)+*1-+' ,)' ,0' 8*0)' '6')*' (((1$',.' (+$*.,(' ('0%0',.0)'.(%0'+'7% 4%%.' $%(*$5%5' ,.' 3+,(+' ' /'$-'7%00%/'+'5' 4%%.'/',5' 6%.' 42' .' 1/(%$' 0*' 08'/' '0')*' $%E1,$%' ('$%&1/'0%'$(+' &*$',)0' 5%)%(),*.')' 8 10)'4%'+*8%',.'8,.5')+')'%B)%.0,7%' 4/%%5; ,.-0' 8'2')'9%' 6/'(% 3,)+*1)' '.2'7*8,),.-' '.5')+%'0*1$(%' *&')+%' &%)'/ /.%00' 4%' *7%$; /**9%5' 1(+' *'0%0' '$%' .*)' *&',.&$%E1%.)' *((1$$%.(%' '.5' 3'$.')+%' 6$'(),),*.%$')+')' +%'0+*1/5'4%'*.')+%' '/%$)' 3+%.%7%$'0,-.0' *&' +&&,8*$$+'-%' 6$%0%.)')+%8 0%/7%0' '.5')+')'+% 0+*1/5'.*)'$%/2')**' 8 1(+' *.')+%' 40%.(%' *&' 6',.' '.5'7*8,),.-' .'('.(%$'*&')+%'0)*8'(+' 6$*&10%' +%8*$$+'-%',0'/%00'(*8*.')+'.',. 0,86/%'1/(%$H)+%' /'$-%$'7%00%/0' 4%,.-'6$*4; '4/2'(*86$%00%5'42')+%' .%3 -$*3)+'3+,(+' *$5,.'$,/2' (*88%.(%0' ,.')+%' 0148 1(*10'),001%',8 8%5,')%/2''4*7%')+%8' 1)' ''(*.; 0)'.)' **C,.-'*&'4/**5',0' *.')+%' (*.)$'$2' 8*$%' (*88*.')+'.',.' 0,86/%' 1/(%$'),*. +,0' 4/**5' '()%5' *.' 42')+%' -'0)$,(' >1,(% (*.0,)1)%0')+%' 0(*&&%% -$41.5'< 7*8,),.-'*&')+%' */5%$' 1)+*$0')0' *(((1$%.(%' 10%5')*' 4%/**9%5' 16*.'0'6')+*-.*8*.,(' *&' 8'/,-; .')' 5,0%'0%' 41)',)' ,0' .*3' 9.*3.')+')',)0' 6$%0%.(%' *./2'0+*30')+')'+%' 4/%%5,.-'+'0')'9%.' 6/'(% 0/*3/2' .5',.' 08'/' E1'.),),%0' ')' ',8,%' (('0,*.'//2'6$*&10%'+'%8*$$+'-%)'9%0'6/'(%'&$*8')+%'$16)1$%'*&'.' '.%1$208' ,.)*'+%'0)*8'(+H '.5',.' '('0%'3+,(+'()'.% 1.5%$')+%' 3$,)%$0' .*),(% ')'+%' *.5*.' *06,)'/' &')'/ 7*8,),.-'*&' 4/**5' $%01/)%5' &$*8')+%'6%$&*$'),*.' *&')+%' '*$)'' 42' ''&,0+; 4*.%)+')'+'5'4%(*8%',86'()%5',.')+%'*%0*; 6+'-10

@' *.-%0),*.' *&')+%' 6*$)'/ 020)%8' ,0' '' 7%$2'&$%E1%.)' ('10%'*&'+0%8')%8%0,0' +% 8*0)'8'$9%5' '.5'&')'/ ('0%0' *&')+,0'9,.5' *((1$'/*.-'3,)+'6/1--,.-'*&')+%'7%.''6*$)'% *$',)0'/'$-%'4$'.(+%0'3,)+'4/**5 (/*)0'*$(' .; (%$*10' 8')))%$' 1(+' *'0%0' '$%' 7%$2' $'$%' .5'7*8,),.-'*&'4/**5'&$*8'7%.*10' (*.-%0;),*.'*5',.'$,/2'$%01/)0'&$*8'(,$$+*0,0'(+$*.,((*.-%0),*.''.5'*)+%$'5,0%'0%0'*&')+%'/,7%$',. 3+,(+')+%' 6*$)'/ (,$(1/'),*.',0' *40)$1()%5' '.5' ,.' 3+,(+' $%/,%&' ,0' *4)',.%5' 42' (*8; 81..(',*.'3,)+'7'$,(*0%'*%0*6+'-%'/7%,.0 *$%$'$'%/2')+%' /,9%' *((1$$%.(%' ,0' *40%$7%5' ,.' 6%$0*.0' 01&&%$,.-'&$*8'5,0%'0%5' +%')' %06%(,''//2'3+%$%')+%$%' ,0' .'$$*3,.-'*&')+%' 8,)$'/*$,&,(%' .'01(+' *'0%0')+%$%' ,0' -%.%; $'//2' ** %B,0)%.*%' *&' (+$*.,(' (')'$$+'/ -')0)$,),0' '.5',.' ' 6$*4'4,/,)2')+%'4/%%5,.-')'9%0'6/'(%'&$*8')+%' +0%8*$$+'-,%'%$*0,*.0'

R ' ')4# .' $ * 4* $ '+"'F)' # "' L $ ' ' ' ! '# ' '89:H 28

0*'(*88*.',.')+')'(*.5,),*.' .' *.%'&*$8' *&')+,0'5,0%'0%'%.*$8*10'E1'.),),%0'*&'81(10' '$%' 5,0(+'$-%5' *8%),8%0')+%$%',0'(*.; 0,5%$'4/%'4/%%5,.-',.')+%0%'('0%0'41)')+%2' '$%'5,0),.-1,0+'4/%'&$*8'1/(%$'42')+%'40%.(% &'6',.H 42')+%'7*8,),.-'4%,.-'*./2'*(; ('0,*.'/'H '.5'/0*'42')+%'&'(')+')'+%'4/**5; 0)',.%5'7*8,)'-%.%$'//2'&*//*30' '' 6$*&10% %7'(1'),*.'*&'(*/*1$/%00'81(10'.5',0'/3'20' *&''5'$9'(*/*1$' .'&%8'/%0')+10'&&%()%5')+%'('),'8%.,'/' 5,0(+'$-%' ,0'-%.%$'//2'6$*; &10%'H '.5')+%')'))'(90'*&'7*8,),.-'5*.*)' .%(%00'$,/2'(*,.(,5%' 3,)+')+%' 8%.0)$1'/ 6%$,*50')'+'0' /3'20'4%%.'+%/5')+')' +'%8')%8%0,0' 8'2' $%6/'(%')+%' 8%.0)$1'/ 5,0(+'$-%' ,)+*1)'5%.2,.-')+,0')+%'3$,)%$' +'0'.%7%$' 8%)'3,)+' '' 3%// 8'$9%5'('0%' *)')+%'9,.5' &&,8')%8%0,0'51%')*' (1)%' (*.; -%0),*.',0' /0*' '' (*.0)'.)'$%01/)*&',$$,)'.) 6*,0*.,.-

"' '%8')%8%0,0' /0*' '$,0%0' &$*8' ('10%0' '&&%(),.-')+%' 4/**5' '>R5' 6$%5,06*0,.-',)')' **C%')+$*1-+')+%' 3'//0' *&')+%' 7%,.0' *$(' 6,/; /'$,%0')' *((1$0',.')+,0' 3'2',.' 61$61$' 2%//*3' &%7%$' '.5',.' 0*8%' ('0%0' *&')26+10' .'>'$85,(%'3+%$%'4/%%5,.-'&$*8')+%' -180' '.5' *)+%$' 81(*10' 8%84$'.%0',0' 0*' *&)%.' *40%$7%5'/,&%' 8'2'4%'0155%./2'5%0)$*2%5'42' +'%8')%8%0,0' (%'0,*.' 2' '+'%8*$$+'-,(')%.5%.(2'8'.,&%0)0',)0%/&'0155%./2' 3,)+*1)' '66'$%.)' ('10%'' 0',.' '' ('0%'*40%$7%5'42')+%' 3$,)%$',.'3+,(+' '3*8'.' '4*1)'&,&)2'2%'$0' *&'-%' 3'0'&&%()%5' 3,)+' 0%7%$%' 4/%%5,.-&$*8')+%' .*0%'&*//*3%5'42'%B(%00,7%' 8%.; 0)$1'/5,0(+'$-%'*.')+%' (%00'),*.'*&' 3+,(+' 6$*&10%'+'%8')%&$,%0,0')**9'6/'(%'&$*8'3+,(+' 0+%' 0'.9' +%'+'5' .*'>'1.5,(%.*$*)+%$' '66'$%.)' ('10%'&*$'+%$' ,//.%00'.5' '&)%$' 5%')+')+%' 8*0)' %'$%&,,/'0($1),.2'&',/%5'&*' 5%)%()' 5,0%'0%',.' '.2'*$-'.' *')+,0'(/'00' *&'('10%0'3%'0+*1/5'6$*4'4/2'$%&%$')+%'+'%8' ')%8%0,0' *((1$$,.-',.' '(1)%')$*6+2' *&')+%' /,7%$' '.5',.' 62'%8,'' '0',.' '/' 6$*4'4,/,)2')+%'**C,.-'*&'4/**5')+$*1-+')+%'7%00%/0' '$,0%0' &$*8' (+' .-%0' %&&%()%5' ,.' ,)0' (+%8,('/' *$ 6+20,('/'(*86*0,),*.' '

!(! G %.%$'//2')+%'6')%.)' ,.' +'%; 8')%8%0,0' ,0' 0155%./2'))'(9%5'3,)+'&',.); .%00'((*86'.,%5'42''&%%/,.-'*&'3%,-+)' ')')+%'6,)' *&')+%' 0)*8'(+' H)+%' (*1.)%.'.(%' ,0' 6'/%')+%'61/0%' &%%4/%' (65' (*86$%00,4/%'.5' ,.'0*8%' ('0%0' '()1'/' 02.(*6%*((1$0' +,0')%')%8%.')%0' ,.'7*8,),.-'.5'$' -$%')%$ *$'/%00'E1'.),)2'*&'4/**5',0'$%>%()%5'&$*8')+% 0)*8'(+' +%.' '' /'$-%' 4/**5 7%00%/' +'0' 4%%./'/',5'*6%.''.5')+%' 4/%%5,.-'+'0')'9%.' 6/'(%'$'6,5/2')+%' 4/**5' 8'2' 4%' &/*$,5H 41)' -%.%$'//2')+%'+'%8*$$+'-%' -*%0'*.'0**0/*3/2')+')',)8%',0'-,7%.'&*$')+%''(),*.'*&')+%'-'0)$,(' >1,(%' 16*.',)' '.5' (*.0%E1%.)/2',)' ,0' *&' '' 5'$9'(*/*1$')',0'.*)'*&)%.')+')')+%0)*8'(+' ,0' (*86%)%/2'%86),%5'*$'6%$+'60')+%'4/%%5; ,.-'6%$0,0)0' ,.'08'//'E1'.),),%0''&)%$')+%' 7*8,),.-'+'0' (%'0%5'0*')+')')+%'0)**/0' '$%' -%.%$'//2'*&''5'$9'*$'6,)(+2'(+'$')(%$'&$*8')+%' '58,B)1$%' *&'4/**5')+')'+'0'6'00%5',.)*

)+%' ,.)%0), . %0 ' +%' +'%8 *$$+'-%' 8 '2' (%'0%' 0**. ' '&)%$')+%' 0)* 8 '(+' +'0' 4%%. ' %86),%5 ' *$)+%' 7* 8 ,),. -' *&' 4/**5' 8 '2' $%(1$' &$*8 '),8 %')*'),8 %' *$G ' .5')+,0' ,0' 7%$2' '6)')*' *((1$', ' -'0)$,('1/(%$G 8 *.)+0' *$' 2%'$0' 8 '2' %/'60%' 4%&*$%',)' - ', ')'9%0' 6/' (%

& G . ' 0*8 %' *'0%0' 3+%. ')+%' 4/**5'+'0' 4%%. ' 0/*3/2' %&&10%5' , .)*')+%' 0)*; 8 '(+')+%$%' 8 '2' 4%' 5,& ^(1/)2', . '5%)%$8 , . , . - ' 3+%)+%$')+%' 5'$9' (*/*1$' '$,0%0' &$*8' 4,/%' *$' 4/**5' +%' 8 ,($*0(*6%' *$' 06%()$*0(*6%' 3 ,/' 4%%. *1-+')*' 0%))/%')+,0' 6*, .)H *$')+%' /,E1,5' 8 '2' 4%' 4*,/%5' 3 ,)+' '/(*+*/' '. 5')%0)%5' &*$')+%' 4,/, '$2' 0'/)0')' ,0' . *)' '/3'20' %'02')*' '0(%$)', . ' 3+%)+%$')+%' 4/**5' +'0' (*8 %' &$*8')+%' /1 . -0' *$' &$*8')+%' 0)*8 '(+' '0')+%' 6'), %.)' ,0' 0*8 %), 8 %0' 0*' 81(+' '/'$8 %5')+')' &$*8')+%' (' . ; . *)' 0'2' 3+%)+%$',)' 3 '0' 4$*1-+)' 16' 42' (*1-+; ,. -' *$' 7*8 ,), . - ' 0' '' -%. %$'/' $1/%')+%' 4/**5' &$*8')+%' /1 . -0' ,0' &/*$,5' 8 ,B%5' 7$,)+' 81(10' '/9'/. %' ' . 5' &$*)+2H)+')' &$*8')+%' 0)*8 '(+' *&' 5'$9%$' (*/*1$' '(,5' , .)%$8 ,B%5' 3 ,)+'6'$), (/%0' *&'&**5' ' . 5', . ' 8 '00%0' - ', . ' +0%8*6)20,0' ,0' -%. %$'//2' 6$%(%5%5' 42' 0286;)*80' $%&%$'4/%')*' +%'$)' <)' /1 . -0' 01(+' '0' (*1-+' %B6%()*$'), *. ' . 5' 5206. *%'H +'%8 ')%8%0,0' 42')+%' 0286)*80' . 5, (', 7%' *&' -'0)$,(' *$' +%6'), (' 5,0%'0%' 01(+' '0')+*0%' 5%0($,4%5' '4*7%

" . ' ' 3))4 ! ' ' - . $4) + ' ' ! * * ' *$) ' / # "' ' -) ' # ' F) ') $ '# #4 7' ! ' 7 !') 4 7'-)$*' ! '# 4 ' '$ "' ' $' ' /)' # ' $-' ! '# ' $-'3) # 4 #)% 7' ' ' ' -) 94 "' - ' 5 !) ' ' /)$> # 7'-)$*' ! / #' #$ 3 $ '$)' #))!$ ' ! ' /$ + "' $-' ! ' + 7 3') 3' -)$*' ' $+)4# $ ' $-' ! ' /$) . '-)$*' ! ' $/ 3' $-')3 '))"' $)' -)$*' ! ' +4) 3' $-' 4)" * ' !$4 7' + / ' ' . 5 ' 7' ! ' / '#) -4 "' 5 #! 7 ! G +%$%' '/'$-%' E1' .),)2' *&' 4/**5' +'0' 4%%. ' %>%()%5' &$*8')+%' 0)*8 '(+')+%')$%')8%.)' 810)' 4%' 6$*86)' ' . 5' 5%(,5%5' +%' 6'),%.)' 0+*1/5' 4%' 8 ', .)', . %5', . ' ' $%; (1884%.)' 6*0)1$%' ' . 5' 9%6)' 6%$&%()/2' E1,%)' /' &**5' 810)' 4%' &*$4,55%. ' ' . 5' 6,%(%' *&', (%' 6/'(%5', . ')+%' 8*1)+')*' 01(9' &'&', .); . %00' 4%' 6$%0%.)',)' ,0' 4%))%$' . *)')*' -,7%' 4$' . 52' 3+, (+' '/8*0)' '/3'20' 4$, . -0' *. ' 7*8,), . -' 41)')*' '66/2' '88*. , '')*')+%' . *0;)$, /0' H *$', &' . %(%00'$2' ' . ' %. %8 '(*.)', . , . - ' 4$' . 52' 8 '2' 4%' -,7%.

+%' 4%0)' 0)26), (0' '$%' - ' , (' ', (,5' '/18' ' . 5' '(%)')%' &' /%'5' +%' - '//, (' '(,5' 8 '2' 4%' -,7%. ', , ' ! -$', ' 5*0%0' '/*. -' 3,)+' !' *$' F 8, . , 80' *&' 5,/1)%5' 01/6+8, %' (,5' ' . 5' 0+*1/5' 4%' $%6%')%5' &$%E1%.)/2' /18' 8 '2' 4%' 6$%; 0($,4%5', . ', . &10, *. ' *&' $*0%0' H ' . 5')+%' '(%)')%' *&' /%'5', . ' < -$', . ' 5*0%0' , . ')+%' 0+'6%' *&' ' 6, . ' *$' (*84, . %5' 3,)+' '(%), (' '(,5' , /' *&)1$6%.), . %', 0' '/0'*' 10%5' +%$%')+%' 4/%%5, . -' , 0' 0/, -+)' ' . 5')+%$%', 0' -**5' $%'0*. ')*' 4%/, %7%' ,)' '$, 0%0' &$*8' 6*$)' /' (*. -%0), *. ')+%' 4%0)')$%')8%.)', 0')*' -, 7%' '08'//' 5*0%' *&' ('/*8%/' &*//*3%5' 42' 01/6+')%' *&' 8 '-. %0, 18' ' . 5

7 4 7' 4 /!4) #' # 7' ' -4 $ ' $-')$ ' .)"' !) ' $)' -$4)' !$4) ' 4 ' /4)3 3' ' /)$74# 7

*$0*8%' 5'20' '&)%$' 0%7%$%' +'%8 ')%8%0, 0' 0)$, ()' E1, %)' 0+*1/5' 4%' 8 ', .)', . %5' . ')+%' ('0%'*&' 1/(%$*&')+%' 0)*8 '(+' *6, 18' 8 '2' 4%' 10%5' +%' 5, %)' 0+*, 55' 4%' 8*0)' ('$%&1//2' $%-1; /')%5H, &' . %(%00'$2' . 1)$,), 7%' %. %8 ')' '0+*1/5' 4%' 0140),)1)%5' &*$' &**5' 42')+%' 8*1)+' ' . 5' ' ' 61$-'), 7%0' '7*, 5%5' +%. ' 6*$)'/' (*. ; -%0), *. ' %B, 0)0' '' &$%%' '(), *. ' *. ')+%' , .)%0;), . '/' ('. '/' 0+*1/5' 4%' (*88%. (%5' '&)%$')+%' (%00'), *. ' *&')+%' +'%8*$$+'-%' 0*' '0')*' 5, 8; , . , 0+')+%' '8*1.)' *&' 4/**5' , . ')+%' 7%. *10' 020)%8' *&')+%' '/, 8%.)'$2' *$-' . 0

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% :` 3 & 'A')6' 4/**5H '. 5 , Y)H' ' 4*$4) ' 'g $' D % ( )' "

& # " ' 03%//, . -' *(('0, *. %5' 42' %&&10, *. ' *&' 4/**5', . ')+%' 0' (' *&')+%')1. , (''7'-, . '/, 0' *$', . ' '' (20)' (*. . %()%5' 3,)+')+%')%0), (/%

* $ ' ' !(! " ! ' =) . > $ '$-'+ $$7' '! * $$ ' * "' ' / # ' ' ! ! "' ' $-' ! ' /) ' $)' ' * "' 4#> # 7' $)' + '#$*+ 7' 5 !' !"7)$# $.'+$!' ' ' * "' + ' $## $ 7' +"' ' + $5 ' $)' +"' . $ ' --$) ' * 7' ') 3' / # "' ' $ 7' /) $ ' <)' 5 ! ' ! ' + $$7 . Y ') ' 7 7')' * "' ! / / ' $' -)$*' ! ' ## 7 ' 5$4 7' $-' ' . ' ' // 3' ' !"7)$# %' $) ' L !$4' "' 4#!' 5$4 7' ' ! * $# ' * "' 4/) . ' -' ! ' 5 ' $-' ! ' #') ' .)"' . #4) ' 7' ' . ' # > 3' ! ' /) 4) ' $-' ! ' !"7)$# ' -4 7' 3 . ' 5 " ' ! ' + $$7' --4 7' -' * ' ' 94 "' * = ' 5 ! ' ! ' - 4 7' $-' ! ' !"7)$# ' 7' $## $ ' !3! ')3 * ' 5 !$4' 7 > 4)+ # ' &' ' + ')3 ' ' 94 "' #$ 34 ') ' -$) * 7% - * * $ ' ' =# 7' ' ! ' 4 # ' . 3 ! % 7' / #' =47 $ ' $#> #4) ' $ ' ')' 4)- # ' $ * * ' -$) * 3' ") ' 7') 7) 3' ! ' #' =) * "' 7 ' 7' -) *

+%')%0), (/%' 6$%0%$7%0')+%' 0' 8%' $%/'), *. ')*')+%' $%8 ', . 5%$*&')+%')18*1$' '0', . '+25$*(%/%' 4%, . -' 0,)1')%5' ')' ,)0' 6*0)%$, *$6 = ')0' 6*; 0,), * . ' +*3%7%$' , 0' + ' %')*' 0, 8, /'$' /)%$'), *. 0

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'0*((1$,.'+25$*(%/%'3+,(+''$%'7%$2'5,&&,(1/)'*&'5%)%(),*.''*3,.-')*')+%'-$%')')+,(9%.,.-'*&')+%'6')0

* G '+'%8')*%%/%' 8 '2'4%'5,0),.; -1,0+%5'&$*8'' +25$*(%/%'42')+%' '40%.(%'*&')$'.06'$%.(2H)+%'*40*,.$%(+'$')()%$'*&')+%'&/1()1'),*.H)+%'+%'72'&%%/'*&')+%')18*1$'3+%.'4'/'.(%5',')+%'+'.5H''.5')+%'0155%.''.5''((,5%.)'/'8*5%'*&',)0'*((1$$%.(%'.'*/5'(+$*.,('('0%0',.'3+,(+')+%')1.,(''7'-,;.'/,0''.5',)0'%.7%/*6%0'+'7%'4%(*8%'81(+')+,(9%.%5''.5',.51$')%5')+%')18*1$'6*0;0%00%0'0*'$8'' (+'$')()%$''.5'&%%/0'0*'+%'72'.5'0*5')+')',)'07%$2'/,'4/%')*'4%8,0)'9%.'&*$''(+$*.,(''%./'$-%8%.)'*&')+%')%0),(/%H'.5')+%'5,'-.*0,0''')'//'),8%0'5,&&,;(1/)'.'0*8%',.0)'.(%0'('.*)'4%'0'),0^('*)*$,,2'8'5%'*1)'42')+%'8*0)'%B6%$,%.(%5'+'.50'+%'$%(*$50'*&'01$-%$2'&'8,0+'8'.2'('0%0',.'3+,(+'('0)$'),*.'+'0'4%%.'6%$&*$8%5'*3,.-')*''8,0)'9%.'5,'-.*0,0'K+%.'5*14)'%B,0)0',)'0+*1/5'4%'$%$.*7%5'42')+%',.)$*51(;),*.'*&''')$*('$'*$'42'.',.(,0,*.'4%&*$%'.2'0%$,*10'*6%$')',*.'01(+''0'('0)$'),*.',0'1.5%$)'9%.

! G= +%.'+'%8')*(%/%'01((%%50'''+25$*(%/%')+%'4/**5',&'08'/'.,'E1'.),)2'8,B%0'3,)+')+%'&/1,5'*&')+%'+25$*(%/%'3,)+*1)'6$*51(,.-',$$,)'),*.'+%'),.-%5'&/1,5'8'2'4%'$%8*7%5'42')'66,.-'.5')+%'*6%$'),*.'('.'4%'$%6%')%5''&)%$3'$50''),.)%$7'/0'c8),/)+%'&/85',0'&$%%'&$*8'5,0(*/*$'),*.'7%.'3+%.',&/'88'),*.''$,0%0',&')+%'0'('4%')'66%5''.5')%.0,*.'$%8*7%5''.5')+%'6'),%.)'4%'9%6)')'$%0)'3,)+',(%''66/,%5')*')+%'6')$')+%',.;&/'88'),*.'8'2'0140,5%'+%.'+*3%7%$')+%'4/**5'%&&10%5',0'/'$-%',.'E1'.),)2'.5'3+%.')+%',.&/'88'),*.',0'(1)%''.5')+$%')%.0'01661$'),*.')+%')18*1$'0+*1/5'4%'6$8()1$%5')',)0'166%$'6')$)''5,$%()*$',.)$*51(%5''.5')+%'0'(&$%%/2'/',5'*6%.'42',.(,0,*.'+,0'810)'4%'5*.%'3,)+'('$%'0*''0')*''7*,5'3*1.5,.-')+%')%0),(/%'+(+$*.,(''+'08')*'(%/%'3,)+''7%$2')+,(9%.%5'0'(' 810)'4%'(1)',.)*',.')+%'0'8%'3'2H'.5'/')%$'/'6*$),*.0'*&')+%'0'('8'2'4%'%B(,0%5'0*''0')*'/%00%.')+%'3*1.5'&*$'+%'/,.-'&'&$*8'*/5''-%'*$*)+%$'('10%0')+%'6'),%.)<0'-%.%$'/'(*.5,),*.'4%'1.&'7*1$'4/%'&*$%B(,0,*.'('0)$'),*.'8'2'4%$%E1,0,)%'+%'6$'(),),*.%$'810)'4%'$',.'8,.5')+')')+%')%0),(/%',0'0*8%),8%0'0,)1')%5',.'&$*.)''0',.'('0%0'*&',.7%$0,*.''.5',0')+%.'7%$2',/'4/%')*',.>1$2',.')+%'6%$'),*.'*&',.;(,0,*.''.5'%7%.',.')'66,.-

.(20)%5' 0%8')*(%/%``.(20)%5+=8')*(%/%',86+%0'.'%&/&'0,*.'*&'4/**5',.')+%'0'('*&'.'%.(20)%5'+25$*(%/%'+%')$%')8%.)',0')+%'0'8%'0')+')'$%E1,$%5'&*$'*$5,.'$2'+0%8')*(%/%

0%8')*(%/%'*&')+%' *$5 G /**5'8'2''/0*'4%'%&&10%5',.')+%''$%*/'$',001%'*&')+%06%$8'),('(*$5'(*.0),)1),.-'+0%8''')*%%/%'*&')+%'(*$5H*$',.''(20)',.')+%'(*$5'(*.0),)1),.-''+'%8')*(%/%'*&')+%'(*$5'1(+'('0%0''$%'7%$2'$'$%

'$' * , ' 3 $

' A'&B'$5_#' &/' 3,)+'4/**5R G '6%(1/,'$'&*$8'*&'4/**52')18*1$'*$''(*//%(),*.'*&'%B)$'7'0')%5'4/**5')')+')'0'1.5%$-*.%'(%$)',.'(+'.-%0')',0'*40%$7%5'8*$%'%06%(,''//2',.'(*.%B,*.'3,)+')+%'$')+%'7'-8'')+%'0('/6'.5')+%'8%.,.-%0'($! ! / ! ! ' /# Ć $)' $)' 0%8')*8''*&H4%2 %' 'H'.5'%! %

' A')6'$5^#' &/' 3,)+'4/**5H '*&')+%'%'$R G 6 ''+%'.0'.%'$H' $'' # " ' P '8' '&3 3 9' B '' # ''_ '##0 #2 ') "'' # /"# " & * ; G .'&&%(),*.'*&')+%'1$,(/%'3+,(+'*(%6$0'/8*0)',&'.*)'E1,)%'%B(/10,7%/2',.')+%',.0'.%''.5'(*.0,0)0',.')+%'%&&10,*.'*&'4/**5'*$'4/**52'0%$18'4%)3%%.')+%'('$),/'-%'.5',)0'6%$,(+*.5$,18')*'01(+''.'%B)%.)''0')*'&*$''5,0),.()'18*1$

* $ G .'8*0)'*&')+%'&%3'('0%0'*&'+0%8')*8''1$,0'3+,(+'+'7%'4%%.'614/,0+%5')*'0+*3')+')',0'5,0%'0%'8'2'*((1$',.')+%'0'.%')+%'5%0($,6),*.'-,7%.'*&')+%'6'),%.)0'$')+%$'6*,.)0')*')+%,$',.0'.,)2')+'.')+%$3,0%')',0'8*0)'(*8*.',.'('0%0'*&'-%.%$'/6'$';/20,0'.5'8'.,''A'(1)%''.5'(+$*.,(R'41)'/0*'*((1$0',.'8%/'.(+*/,''5%8%.),''.5',5,*(2')',0'*4*1)'&*1$'),8%0''0'&$%E1%.)',.'8%.''0',.'3*8%.H'.5'8*$%'*&)%.'&%%()0')+%'/%&)'%'$')+'.')+%'$,-+)'*8%),8%0'4*)+'%'$0''$%'&&%()%5'41)'0%/5*8'')')+%'0'8%),8%'+%$%3*1/5'0%%8')*'4%',.'8'.2'*$''/'*&')+%',.0'.%''8*$4,5'(*.5,),*.'*&')+%'7%00%/0'*$'*)+%$'),001%0'*&')+''1$,(/%'3+,(+'6$%5,06*0%0'*)*')+%'*((1$$%.(%'*&'+0%8')*8''&'(*.5,),*.'4%'6$%0%.)')*''0188,(,%.)'5%-$%%')+%'5,0%'0%'8'2''$,0%'06*.)'.%*10/2H,.'*)+%$'(')%0/0''7%$2'0/,-+)',.>1$2'8'2'4%'01&;&,(,%.)')*'('10%',)H3+,/0)',.'*)+%$0'7%$2'(*.;0,5%$'4/%'7,*/%.(%',0'.%(%00'$2'&*$',)0'6$*'51%),%8

!(! ' % G= +%5,0%'0%'&,$0)'8'9%0',)0%/&'%7,5%.)'42')+%''66%'$'.(%'*&''03%//,.-'*&'4*1)')+%'0,C%'*&''+*$0%4%'.H)+,0',0''/8*0)''/3'20'16*.')+%''.)%,*$'01$'&%(%'*&')+%'6,..''.5'101''//2',.')+%'.%,-+;4*1$+**5'*&')+%'&*00''*&')+%''.),+%/,B'+%'09,.'*7%$')+%')18*1$',0'-%.%$'//2'*&''$%55,0+'*$'4/1,0+$%5'(*/*1$'41)'8'2'4%'1.'/)%$5''),&,$0)H)+%')%86%$')1$%'*&')+%'%'$',0'0%.0,4/2'$',0%5$H')+%'03%//,.-',0'7%$2'6',.&1/''.5')%.5%$H')+%$%'',0'.*'%B)$'7'0',*.'*&'4/**5'&$*8')+%'(1)'.%*10'7%00%/0H''.5')+%')18*1$',0'.*)'*%5%8')*10'')')+,0'0)'-%H)+%'%&&10,*.'3+,(+'+'0')'9%.'6/'(%'4%)3%%.')+%'($),/'-%''.5',)0'6%$,(+*.5$,18'(*.0,0)0'*&'5'$9$%5'&/1,5'4/**5'.'$'$%'('0%0')+%'03%//,.-'5*%0'.*)',.($%'0%'&1$)+%$H')+%',.&/'8?$2'0286;)*80'0140,5%''&)%$'4*1)''3%%9H'40*$6),*.'-$'51''//2')'9%0'6/'(%H''.5'*,,/2''=-+)')+,(9%.,.-'$%8',.0'*$%'101''//2')+%')18*1$',.(($%'0%0'''.5'8'2'))',.')+%'0,C%'*&

' .5' +'4%$)' A M?@RH' '.5' 0140%E1%.)/2' &$*8')4%' 8%8*,$' 42' '2%$' A ? "R' 4*1)')+%' /'))%$' 6%$,*5' '/0*')+%' *40%$7'),*.0' 42' $14%' '.5' %/'&*.5' 0*.' '' 7%$8,.,&%$*10' (*.5,),*.' *&')+%' 4/**5' *&' 5*-0' ('10%5' 42' '' -$%')' .184%$*&'+0%8')*C*'' *&')+%'-%.10' . ' %B(,)%5' 81(+' '))%.),*.H 41)' 1.),/'E1,)%' $%; (%.)/2',)'3'0' .*)' 0*' 81(+' '0'0106%()%5')+')' 0,.1/'$'8,($*0(*6,('&,/'$,0%',.&%0)%5')+%'+18'.' 4*52' .' ?M@')+%'/')%' $' %3,0' '..*1.(%5')+%',86*$)' .')5,0(*7%$2'*&)+%*%B,0)%.(%'*&'.%' 8')*,5' 3*$80' ,.')+%' /,7,.-' +18'.' 014>%()' '/0*' ' 0 - %' '.5'4 $ ' % ' ! ' ' ' $&

\ ' ' '4/**5H' '.5' ' 1$,.%R G 6 '' $'P H %$'$# ' O " "

& (G)%8')1$,'' ,0' '' 0286)*8' *&' 8' .2'5,&&%$%.)' 8*$4,5' (*.5,),*.0' *&')+=' 020)%8' '.5' *&')+%')1,.'$2')$')(' +%' E1'.),)2' *&' 4/**5' 5,0(+'$-%5' ,.')+%' 1$,.%' 7'$,%0' -$%')/2' '.5')+%' '66%'$'.(%'*&'.%' 1$,.%' (*$$%06*.50' *8%),8%0',)' ,0' 5'$9' /*'5%5' 3,)+' (/*)0H' 0*8%),8%0',)' ,0' 8%$%/2' 08*92'*$*&'*''&',.)/2'6,.9'+1%')' ,0' '/3'20' '/418,.*10' '.5' (*$610(/%0'A*&)%.' '/)%$%5'42')+%''(),*.'*&')+%',/$,.%R' 8'2'4%'5,0(*7%$%5'42')+%'8,($*0(*6%'0*8%),8%0'4%(*8,='03*//%.' 0*8%),8%0'0+$1.9%.' +%'&*//*3,.-'$%')+%' 4%0)'))%)0'&*$'5%)%(),.-')+%'6$%0%.(%'*&'4/**5' ,.')+%'1$,.%'A R' B ' +%.'%E1'/ 6'$)0'*&'0,86/%'),.()1$%'*&'-1','(18'.5'*,/ *&')1$6%.),.%'$%'0+'9%.')*-%)+%$')*'8'9%'.' %81/0,*.'.'.5')+%'1$,.%',0' (')1),*10/2'55%5' '.',.)%.0%'4/1%'(*/*1$',0'6$*51(%5',&'4/**5' 4%'6$%0%.)' A@R ' " ' %$2' 8,.1)%'E1'.),),%0'*&'4/**5',.')+%'1$,.%'0+*3' '40*$6),*./,.%0'4%)3%%.' $'1%./,*&%$<0'/,.%0' '.5' ',.')+%'2%//*3'.5'-$%%.'*&')+%'06%(;)$18' ' (' ' (' ' '

+%'4/**5',.'+0%8')1$,'' 8'2'4%'5%$,7%5' &$*8')+%'1$%)+$'' &'0*' ,)' 6$%(%5%0')+%' 0)$%'8'*&'1$,.%'0*8%),8%0'&*$80'' /*.-')+,.'(/*)'.5'8'2'%0('6%,.')+%',.)%$7'/0'*&' 8,()1$,),*.' *8%),8%0',)' ,0'5%$,7%5'&$*8')+%'6$*0)')%-/'.5'*$')+%'4/'55%$' +%.',)' +'0'/',.',.')+%'4/'55%$'.5'4%%.'6*1$%5'1)' ,.'(*.0,5%$'4/%'E1'.),)2',)' ,0'*&)%.',.'(/*)0H '.5'3+%.')+%'1$,.%',0'7*,5%5')+%'&,$0)'6'$)' ,0'&$%E1%.)/2'(/%')+%'/'0)'/*'5%5'3,)+'4/**5' /**5'8'2'/0*'4%'5%$,7%5'&$*8')+%'1$%)%$' *$')+%'6%/7,0'*&')+%'9,5.%2' *8%),8%0'(*)0' ,.')+%'&*$8'*&'8*1/50'*&')+%0%'0)$1()1$%0' 8'2'4%'$%(*-.,0%5')'*)+%$',8%0')+%'4/**5' ,0'5%$,7%5'&$*8')+%'0140)'.(%'*&')+%'9,5.%2' '.5')+%.'(0',.)8')%/2'8,B%5'16'3,)+')+%' 8,.%'3+,(+'&$%E1%.)/2'(/%'$')+%'/'0)'/*'5%5'3,)+'4/**5' *'0)0' *&')+%')14%0

$ ' ' $ 'G' $%)+$'/ +0%8*$$+'-%',0'51%')*'/*('/,.&/'88'),*.'*$ $16)8%'*&'7%00%/0'*$')*'('/(1/10' $*0)'),*' +0%8*$$+'-%'8'2'4%'51%')*'1 8*8 0'8'/,-.'.)'*$' *)+%$3,0%')*',.&/'88'),*.'*'*$')*' 0($*&1/*10'''&&%(),*.'*&')+'}' *$-'.' %0,('/ +I%8*$$+'-%'$%01/)0'&$*8 8'/,-.'.)'5,0%'0% &$*8' 0,86/%' 7,//*10'-$*3)+',.&/'88'),*.' 1/(%$'),*.'.)14%$(1/'$ 5,0%'0%'*$')+%',$$,)';),*.'*&''' ('/(1/10' %8*$$+'-%'&$*8')+%' 8%)%$0'*$ 6%/7,0'*&')+%' 9,5.%2'8'2'4%'51%')*'+%'6$%0%.(%'*&'('/*1+'*$')*'*)+%$'('10%0' %8*$$+'-%'&$*8')+%' 9,5.%2'8'2'4%'51%')*'8'/,-.'.)'5,0%'0%')14%$(/%'01668'),7%' .%6+$,),0'*$')*')+%',$$,)'),*.'*&'($20)'/0'*$' '8*$6+*10'(*.($%),*.0'3,)+,.')+%'1$,..&%$' *10')141/%0' %8*$$+'-%'*((80'/0*'..'//')+%'&*$80'*&' $,-+)<0'5,0%'0%'%06%(.'//2',.')+%'%'$/20)'-%'*&')+%',.&/'88')*$2'&*$8' '.5')+%'57'.(%5'0)'-%'*&')+%'(,$$+*),(')' $%01/)0'&$*8'*7%$5*0%0'*&')86%.),.%'(+/*$')%' *&'6*)'00,8.''.5'('.)+'$,5%0''.5'&$*8'$16;)1$%'*&')+%'9,5.%2' *8%),8%0',)' ,0''' 8'..; &%0)'),*.'*&'6861$'' +%8*$$+'-,('' 8*$%' $'$%/2'*&'0(*$41)10H'*(('0,*.'//2',)'*((80' ,.')+%'(*80%'*&'*$'0'' 0%E1%/')*'%$16),7%' *$(*.),.1%5'&%7%$0')',0'050*'*((0,*.'//2' 7,('$,*10' %.'/' +0%8*$$+'-%'*((1$0',.' -26)' '8,),10'.'5'*)+%$'/*('/,),%0'.' (*.0%E1%.(%'*&')+%'%B,0)%.(%'*&''' 8,.1)%' 6'$'0,)%')+%'/+'$C,''+0%8')*4,'' 'Z :' ! + / $% ! " +%')$%')8%.)'*&+0%8')1$,'' 810)'7'$2''((*$5,.-')*')+%'/%0,*.')*' 3+,(+')+%' +0%8*$$+'-%',0'51%' 1)' 3+%$%')+% 0286)*8',0'0*'8-%.)'0')*'5%8'.5')$%'); 8%.)'&*$',)0%/&')+%'8*0)',86*$)'.)'6*,.)0')*' 4%' ')) %.5%5')*' '$%' $%0)' &$%%' $%/,%&*' &')+% 4*3%/0'.'5')+%'66/,(','.'*&',(%4'-0'*7%$)+%'0*1$(%'*&')+%'+'%8*$$+'-%H '/*.-'3,)+')+%',.)%$.'/'58,.,0)$'),*.'*&'0)$,.-%.)0'%0; 6%(,'//2'-'//,('(,5'%$-*)'*&$2%'6%$(+/*$,5%' *$'6%8,)$')%'*&',$*.')1$6%.),.%'*$'('(%)')%' *&/%'5'3,)+'*$3,)+*1)'*6,18' &')+%0%'5*' .*)'01((%%5')+%'014(1)'.%*10'.,.>%(),*.'*&' %$-*),.%',0'*&)%.'%&&,('(,(*10' 8-,('/',.)%$; &%$%.(%'8'2'4%'$%E1,$%5'&*$'$%/,%&*'02866;)*80'51%')*'(*'-1/'

'C ' @

% !8 &'31 % 3M'-$)*'$-' !> * '7/ 7 '4/$' ' + $)* '#$ 7 $' *&'!'+$$7' ' !

, ' G= 81$88'(*.; .%()%5'3,)+' .' '4.*$8'/ (*.5,),*.' *&')+% 4/**5' '0' ,.' .'%8,'' ' :7! / '.5' ' $'*, !

% ! %i ? ' ! $

5 , 'A*E,''4/**5H'.5'2&*' ' '' 4' R G '' '%8')*-/*41/,.G' +,0'0140)'.(%')+%'8*0)',86*$)'.)'6,-8%.)' ,.')+%'4*52'*((80',.')+%'$%5'4/**5(*%610(/%0' *&'3+,(+' 3+%.'5$,%5',)'&*$80'P!'6%$'(%.)')+,0'$%6$%0%.),..-'''*)*' '6%$'(%.)'*&'*$5,.; '$2'4/**5' .')+%'(*6610(/%0')+%'+'%8*-/*4,.' ,.&,/)$')%0')+%'(/*'8/%00'6$*%,5'0)$*'8'&$*8' 3+,(+',)' 8'2'4%'%B)$')0%5'42'3')%$'%)+%$' (+/*$*&*$8'*$'4,/%0'/)0')+10'&*$8,.-'''0*/1;),*.',.')+%'6/'08'H'4/**5'0*')$%')%5',0')%$8%5' 0/'92<')',0'*&''.'%B)$%8%/2'(*86/%'.')8%

,)0' 6%$(%.)'-%' (*86*0,),*.',.')+%' 5*-'4%,.-'%0),8')%5''}'!"D" ?F' 'M"@' D M' '@ ?'
' "P' ' "')',0')*' 4% $%-'$5%5''0''(*8;
6*1.5'*&' '' 6$*)%,5'0140)'.(%G-/*4,.''.5''
(*/*1$%5'4*52G+0%8')',1'3+,(+'(*.)',.0''//f
)+%',$*.'*&')+%'8*/%(1/%' +%'&*$8%$4%/*.-0'
)*')+%'-/*41/,.'-$*16')+*1-+',)0'%B')(' .')1$%'
,0'.*)'9.*3.H''.5')+%'/')%$''0''(*.0),)1%.)'
&'+0%8-/*4,.''66%'$0)*'5,&&%$'0/,-+)/2'&$*8'
)+%' 0%6'$')%5'+0%8'),.'6$%0%.)/2'5%0($,4%5'
+%'6$%(,0%'(+'$'()%$'*&')+%''00*(,'),*.'*&'
)+%0%')3*' 0140)'.(%0',6')+%'(*86*1.5'
3+%)+%$''0,86/%'8,B)1$%'*$''(+%8,('/
(*84,.'),*.',0''0'2%)'1.5%)%$8,.%5

0%8*-/*4,.'6$%0%.)0''0,.-1/'$'%B(%6),*.'
)*')+%'-%.%$'/'/'3'*&'5,&&10,*.',.'08 1(+'0'
)+*1-+',)'($20)'//,0%0',)'3,/f 0('$(%/2'5,&&10%'
)+$*1-+'8%84$'.%' (*.0,5%$'4/%'7'$,%)2'
,.')+%'0+'6%'*&')+%'($20)'/0',0'8%)'3,)+',.'
5,&&%$%.)'.,8'/0''.5'81(+'5,&&%$%.(%',.')+%
&'(,/,)2'3,)+'3+,(+',)'($20)'//,0%0.)%0H,.'8'.'
)+%2'*((1$'0'%/*.-')%5'6$,080'.'.5''$%
&*$8%5'3,)+'5,& *1/)2

+%'8*0)',86*$)'.)'6$*6%$)2'*&')+,0'(*8;
6*1.5',0',)0''&&,.,)2'&*$*B2-%.'.'0*8%
40(1$%'8'..%$')+,0'-'0'%.)%$0',.)''/**0%
(*84,.'),*.'3,)+'+0%8*-/*4,.',.')+%'/1.-0'
&*$8,.-' (# 0 '.'5',0')+%.'(*.;
7%2%5'42')+%'$%5'(*$610(/%0')+$*1-+*1)'+%
4*52'0%6'$'),.-'-',.'&&*8',)0'(*.7%2%$',.'
)+%',)001%0' +%'+0%8*-/*4,.')+10'5%6$,7%5'
*&',)0'*B2-%.',0'9.*3.''0' .'
0 # "''.5',0'*&''61$6+0+'(*/*1$'3+,/0)')+%'
B2+0%8-/*4,.',0'*&''0('$/%)',.)')',0'
)+10')+')'+%'5,&&%$%.(%',.'(*/*1$'4%)3%%.'
%$)%$,'/'.5'7%.*10'4/**5',0'8',./2')*'4%''(;
(*1.)%5'&*$' +%'06%()$''*&')+%0%')3*'9,.50'
&'+0%8-/*4,.''$%'(+'$')()%$,0),(')+')'*&')+%'
&*$8%$'4%,.-'5,0),.-1,0+%5'42')3*'40*$6),*.'
4'.50'*&'1.%E1'/'3,5)+''.5',.)%.0,)2'4%)3%%.'
)+%'0*/'$'/,.%0''.5' A,%',.')+%'2%//*3'
'.5'-$%%.'$%-,*.'*&')+%'06%()$18R'3+,/0)'
)+%'$%51(%5'+0%8*-/*4,.'6$%0%.)0'41)'0,.-/%
4'.5'*((162,.-'' 6*0,),*.'4%)3%%.')+%')3*'
*&')+%'*B,5,0%5'&*$8' ',0')*'4%'.*)%5')+')'
3+')%7%$'4%')+%'.')1$%'*&')+%'(*84,.'),*.'
)+')'%B,0)0'4%)3%%.')+%'*B2-%.'.'.5',)0'('$$,%$'
,)',0'01(+')+')'+%'-'0'$%)',.0',)0'6$*6%$),%0'
'0''-'0''.5')+%'1.,*.'8'2'4%'$*1-+/2'(*8'
68%5')*''8%$%'0*/1),*.'*&)+%'-'0',.''&/1,5'
+%$%',0'$%'0*.')*'4%/,%7%')+')')+%'*B2-%.;
('$$2,.-'6*3%$',0'8',./2',&'.*)'%.),$%/2'
6*00%00%5'42')+%'+0%8'),.'(*.0),)1%.)'0,.(%'
)+,0'0140)'.(%',0'('6'4/%'*&'4%,.-'*B,5,0%5'
'.5'$%51(%5',.''8',8%$'0,8,/'$')*'+0%8*;
-/*4,.',)0%/&H''.5'&1$)+%$')+,0'('6'4,/,)2',0'
(/*0%/2'5%6%.5%.)'*.')+%'6$%0%.(%'*&')+%',$*.'
G,$*.&$%%'+0%8'),.'+'78-'.*'01(+'6*3%$'
+%'0$%06,$')'$2'6,-8%.)'+(*$%%06*.5,.-')*'
+0%8*-/*4,.',.'0*8%'*&')+%',.7%$)%4$')''
(*.)',.0'(*66%$',.'6/'(%'*&',$*.
.*)+%$'(*86*1.5'*&')+,0'0140)'.(%'3,)+'
B2-%.',.'3+,(+')+%'-'0',0'81(+'8$%'(/*0%/2'
(*84,.%5',0')%$8%5' # $ 0 "H''.5''
0),X'8*$%'0)'4/%''00*(,'),*.')'9%0'6/'(%'4%;
)3%%.'+0%8*-/*4,.''.5'('$4*.,('*B,5%'3+,(+
)+10'6$*51(%0',)0'$'6,5/2'6*,0*.*10'%&&%()'
42'6$%7%.),.-')+%'*B2-%.('$$2,.-'6*3%$'*&'
)+%'4/**5' ,)$,('*B,5%'4%+'7%0',.''0,8,/'$'
&'0+,*.

%$)',.'7'$,'),'*.0'4*)+'E1'.),)',7%''.5'
E1'+)',7%'$%(*-.,0%5',.'5,0%'0%'41)'
1$9.*3/%5-%',.')+,0'5,$%(),.',0'8*0)'&$'-;
8%.)'$2' .''.0%8,'')+%''8*1.)'*&'+'08*'
-/*4,.',0'&$%E1%.)/2'5,8,.,0+%5'42''+'/&'
'.5',.'%B)$%8%('0%0')*'%7%.'/%00')+'.''
E1'$)%$'*&')+%'.*$8'/

+%+0%8*-/*4,.'8'2'4%/,4%$')%5'&$*8')+%'
0)$*8''*&')+%'(*$610(/%0''.5'5,00*/7%5',.')+%'
4/**5 6/'08''A+0%8*-/*4,.0%8,'R',&,.'//2''6;
6%'$,.-',.')+%1$,.%A+0%8*-/*4,.1$,'R')+*1-+'
(+,%&/2',.')+%&*$8'*&'8%)+'08*-/*4,.' +,0'
$%01/'&$%E1%.)/2'&*//*30'*.' 6*,0*.,.-'42'
'$0%.,1$%))%5'+25$*-%.'6+*06+*$10'('$4*/,('
'.5'0*8%*&')+%'8,.%$'/'('(,50'H'/0*'.')+%'
(*1$0%*&')26+10'&%7%$'620%.1''.5'0(1$72'
*$'&)%$'0%7%$%'41$.0''.5',.'0*8%*'0%0'*&'
>'1.5,(%')',0'6$*4'4/%')+')'(*,.(,5%.)'
(+'.-%0',.')+%'7'0(1/'$'%.5*)+%/,18'&'7*1$'
)+%'5,&&10,*.'*&')+%'6,-8%.)

)',0'&1$)+%$'0)')%5')+')',.'0*8%0%6),('
0)')%0'62'%8,''('.($18'*$,0''.5'%$20,6%/'0'
'.5''/0*',.'/%19'%8,''')+%'4/**5'3+%.'5$'3.'
&$*8')+%'4*52'0+*30''$%8'$9'4/%')%.5%.(2'
)*'($20)'//,0%'E1,)%'(*.)$'$2')*')+%'.*$8'/'
+,0'+'0'4%%.')'))$,41)%5')*')+%'6$%0%.(%',.'
)+%'4/**5'*&'0*8%'6%(1/,'$'&%$8%.)

+%'(+,%&'5%$,7'),7%0'*&'+'%8*-/*4,.'8'2'
.*3'4%'4$,%&/2'$%&%$$%5')*

AO'9%8'),.A J< J<;%H;RG 0%8'),.'
8'2'4%*4)',.%5'&$*8'$%5'4/**5(*$610(/%0'42'
)$%')8%.)'3,)+'(,50'*$'3,)+'0)$*.-'/9'/,0
)',0'.''8*$6+*10'5'$9 4$*3.'6*35%$',.;
0*/14/%',.'3')%$'/(*+*/'*$%)+%$'41)'$%'5,/2'
0*/14/%',.'('10),(''/9'/,0',.'01/6+1$,('*$
'(%),(',50''.5',.'(+/*$*&*$8' +%''(,5'
'.5''/9'/,.%0*/1),*.0'%'(+'-,7%''(+'$'(;
)%$,0),('06%()$18' +%'(,5'+0%8'),.',0'9.*3.'
'0'+0%8')*,.' '0*/1),*.'-,7%0''('+'$')%$,0;
),('*40*$6),*.4'.5',.')+%'06%()$18'5,&&%$%.)'
&$*8')+*0%'6$*51(%5'42'+0%8*-/*4,.'
&*$80''-$%%.'0*/1),*.'3+%.'4*,/%5'3,)+'
('10),('6*)'0+

AX'R 0%8,1'A >= 0> / = % OR G 0%8,.'
3+,(+'8'2'4%'6$%6'$%5'&$*8'5$,%5'+0%8*;
-/*4,.'42')$%')8%.)'3,)+'-/'(,'/'(%),('(,5'
,.')+%'6$%0%.(%'*&''./9'/,.%'(+/*$,5%',0'
'+25$*(+/*$,5%'*&'+0%8')8'')'($20)'/;
/,0%0')*/%$'4/2'$%'5,/2',.'.%%5/%0+'6%5'6$,08 0'
*$'$+*84,('6/')%0''.5')+10'4%('8%0'.''%'02'
8%'.0'*&'5%)%(),.-')+%'6$%0%.(%'*&'4/**5',.'
0)',.0'*&''5*14)&1/.')1$%' +%'($20)'/0'$%'
,.0*/14/%',.'3')%$'/(*+*/'(+/*$*&*$8'.5'
%)+%$'.5'0*/14/%',.'('10),('/9'/,0'.5'
4*/,.-'+25$*(+/*$,('.5'(%),('(,50
A('R 0%8')*,5,.'A J< JJ;LR'G'+,0'
0140)'.(%',0'*.%*&')+%'&*$80'*&',$*.&$%%'
+0%8')8'*&'.')1$'/'*((1$$%.(%''0'$+*84,('
6$,08 0'*$.%%5/%0'*&''$%5''*$-$%%.,0+$%5'
(*/*1$H''&'()'3+,(+'0+*30')+')'+%'(*/*1$'*&'
+0%8*-/*4,.',0'.*)'5%6%.5%.)'*.')+%',$*.'
)',0'*&'(*.0,5%$'4/%'6')+*/*-,('/,.)%$%0)

4%, . -'&$%E1%.)/2'&*1 . 5', . ' */5'%/*)0 ' ' . 5', . ')+%' ('7,)2' *&' $16)1$%5%' $ ' '&, ' . ' &*//,(/%0 ')', 0')+%' (' 10%' '/0*' *&')+%' 0)', . , . -' 0*' *&)%. ' 0%%. ', . ')+%' . %,-+4*1$+**5' *&'%B)$ ' 7 ' 0 '), * . 0' *&' 4/**5 ' 7 ' $2, . -' &$* 8' /% 8 * . 2%//* 3' 16')*' $%55,0+' 4/ ' *+

% 0 0 $ *' '/0*' (* .) ', . , . -' . *', $* . ' ' . 5' 6$*4 ' 4/2' ,0* 8 %$,(' W3,)+')+%' &*$%; -*, . -' 8 ' 2' 4%' 6$%6 ' $%5' &$* 8' + ' %8 '), . ' 42' +%'), . -' 3 ,)+' &.) . , . -' +25$*(+/*$,(' ' (,5 +%' $%/ '), * . 0+,6' *&' +%%8 *-/*4, . ' + ' %8 '), . ' +0%8 ')*,5, . ' . ' . 5' +0%8, . ')*')+%' 6, - 8 %.)0' *&')+%' 4*52', 0' +%' -$%')%0)' , .)%0)') ' *1/5' 0%%8')+')')+%' + ' %8*-/*4, . ' , 0')+%' 0*1$(%' *&' '//G4,/, '$2 ' 1$, . ' $2 ' ^(' ' (*. 0) ' .)' 5%0)$1(;),*. ' *&' $%5' (*$610(/%0' ,0') ' 9, . -' 6/' (%' , . ')+%' 06/%%. ' ' . 5'6$*4 ' 4/2' ' /0*' , . ')+%' 4*. % 8 ' $$*3 ' +%' +%%8*-/*4, . ' 3+, (+', 0' /,4%$ ')%5' &$*8')+%' 0)$*8 ' ' $%' (+%0')+%' /,7%$ ' 3+%$%')+%' -/*4, . ' , 0' 0%6 ' $ ')%5 ')+%' , $*. ' $%8*7%5 ' ' . 5' 4,/,$14, . ' &*$8%5 ' '*$8 ' /'1$*4,/, . ')+%' (+, %&'(*/*1$, . ' 8 '))%$*&')+%' 1$, . %', 0' 7%$2'0, 8 , /' $')*'4 ,,14, . ' ' . 5', 0' 5%$, 7%5' &$*8')+')' 0140)' . (%' *$ 5, $%()/2' &$*8' +' 08 '), . ' *$' +' 08*-/*4, . ' ,)0%/&' +%' 6, - 8%.)0' *&')+%' 4, /%' &)%(%0' ' . 5' 1$, . %' '$%')+%$%&*$%')*' 4%' $%-' $5%5' '0')+%' %B($%)%5' 3 ' 0)%' *&' +%%8*-/*4, . ' ,/, $14, . ' ,0' (/*0%/2' '//, %5')*' , &' . *)' , 5%.), ('/' 3,)+' +0%8 ')*, 5, . ℍ ' . 5' '' 6/' 2' *&' (*/*1$0G=)+% $%01/)' *&' *B, 5' ;), *. G8 ' 2' 4%' *4)' , . %5' &$*8')+%' /'))%$' 3+%. ')$%')%5' 3,)+' .), $, (' ' (, 5' 0, 8, /' $')*')+')' 6$*: 51(%5' 42')+%' 4, /% 6, = %.)0' 1. 5%$')+%' 0' 8 %' (*. 5,), *. ' +%' , . >%(), *. ' *&' +%%8*-/*4, . ' , .)*')+%' 4/**5', 0' &*//*3%5' 42')+%' 6$%0%. (%' *&' 4, /% 6, - 8%.)0' , . ')+%' 1$, . %' ' . 5' . ' , . ($%' 0%' *&' 4, +$14, . ' , . ')+%' 4, /%' %/' . , . ')+%' 4/' (9'6, -; 8%.)' *&')+%' $%), . ' ' +', $' ' . 5' 09, . ' ' . 5' *&)%. ' &*1. 5' . ' (*. . %B, *. ' 3,)+' . %3 -$*3)+0' %06%(, ; ''//2'3,)+')+*0%' *&' ' 8 ' /, -. ' .)' (+' $' ()%$' '/0*' '66%' $0')*' 4%' 5, $%()/2' 5$' %3. ' &$*8' +0%8*' -/*4, . ' +%' (*/*1$, . - 8 '))%$' *&')+%' 4/**5', 0' (%$)' , . /2' '00*(, ')%5', . ' 0*8%' 3 ' 2' *)+%$')+' . ')+')' *&',)0' *B2-%. (' . 2, . -' &1. (), *. ' W3,)+')+%' . 1)$,), *. ' *&')+%'), 001%0' , . ' (*. . %B, *. ' 3,)+')+%' *40(8$%' 41)' 1. E1%0), *. ' 4/%' , . &/1%. (%' *&' 6, - 8%.)0' L ' ' , $'

% ! 2+ 5 % ' D% + -/*4, . ℍ ' . 5' -% 6*7' '' 8%' 01$%R & # G . ' , . 0)$1 8%.)' &*$')+%' (/, . , ; ('/' %0), 8 '), *. ' *&')+%' 8*1.)' *&' +0%8*-/*4, . ' , . ' 4/**5 & ' 5 (" ! ' 94 "'$-'! * $3 $+ ' * "'+ ' #) 7' +"' * 3' ! ' * $4 ' $-')$ ' ' ! ' + $$7 ' $)' +"' $+). 3' ! ' 7 4 $ ' #)"' $' $+ #4) ' ' #) ' +> $)/ $ + 7' ' ! ' / #)4 * ' 0 ' (* ' ' < #$H ' & ' 3' & !)' $-' ! ' * ! $7 ' ' ! $5 .)' . + ' -$)' # # ' 4 ' * /)' * ! $7 ' ! . ' !) -$) ' + ' #$) . 7' 5 ! #!' 7 / 7' $ ' ' #$ * /) $ ' $-' ! ' #$ $4)' $-' 7 4 7' + $$7' 5 !' ! ' $-' 5 4> $ ' $-' #) * ' 7' / #)$ #) * ' "' ! ' #$ * + $ ' ! ' ' $-' + $$7 ' 7' . ' / #)4 * ' * "') "' + ' $+ 7' 6B ' 0 ' $ $4) 7' 7 # ' ! . ' + ' * / $" 7 &*$')+%' 0' 8%' 61$6*0%' A ' 2%8R' .')+%0%' 8%)+*50' '' -, 7%. ' 5, /1), *. ' *&' 4/**5', 0' 8 ' 5% ' . 5')+', 0' , 0' (*86 ' $%5' 3,)+')+%'), .)' *&')+%' 0)' . 5 ' $50' .')+%' +0%8*-/*4, . *8%)%$' 5%; 0, - . %5' 42')+%' W3$,)%$A' . 5' 8 ' 5%' 42' ' 390 ' /%2R')+%' 4/**5', 0' 6$*-$%00, 7%/2' 5, /1)%5' 1.), /',)' $%' (+%0')+%'), .)' *&' '' 0)' . 5 ' $5')+%' (*/*1$' *&' 3+, (+' (*$$%06*. 50') ' *' '' 5, /1), *. ' *&' 8' 6 ' $)' *&' +%' /)+2' 4/**5' , . ' !!' *&' 3 ')%$' +%' 5%-$%%' *&' 5, /1), *. ' . %(%00 ' $2')*' 8 ' 9%')+%')3*' (*$$%06*. 5' $%6$%0%.)0')+%' ' 8*1.)' *&' +008*-/*4, . ' +%' ' 66 ' $ ')10' (*. 0, 0)0' *&')3*')14%0' *&' %B ' ()/2' %E1 ' /' 5, ' 8%)%$ ' . 5' ' ' ('6, //' $2' 6, 6%))%' +*/5, . -' <H' (14, (' 8 8 ' &*$' 8%' 0, 1, . -')+%' 4/**5' ℝ . %')14%' ,0' &, //%5' W3,)+' ' 0)' . 5 ' $5' (*. 0, 0), . -' *&' -/2(%$, . %' >%//2' (*/*1$%5')*')+%' $%E1, $%5'), .) ' +%' *)+%$' ,0' -$ ' 51')%5' %' (+' 5, K7, 0, *. ' 4%, . -' %E1' /')*')+%' 7*/18%' *&' 4/**5')' 9%. ' D<H' (14, (' 8 8 R' 0*')+')' 8HH' 5, 7, 0, *. ' 0%E1 ' /' 8HH'), 8%0')+%' 7*/18%' *&' 4/**5' +%' 5, /1), *. ' , 0' 8 ' 5%' 42' ' ' 6, 6%))%' 0)*66%$' ' . 5' 5, 0), //%5' 3 ')%$ℍ)+%' . 184%$' *&' 5%-$%%0' *&' 5, /1), *. ' . %(%00 ' $2')*' 6$*51(%' (*$; $%06*. 5%. (%' 3,)+')+%' 0)' . 5 ' $5' , . 5, (')%0')+%' 6%$(%.)' -%' 6$*6*$), *. ' *&')+%' +%%8*-/*4, . ' *&')+%' 4/**5' %B ' 8, . %5' (*86 ' $%5' W3,)+' . *$8 ' /4/**5' *$' %B ' 86%')+%' 4/**5' *&' ' 6 '), %.) ' 4%, . -' 6$*-$%00, 7%/2' 5, /1)%5' , 0' &*1. 5')*' $%' (+')+%'), .)' *&')+%' 0)' . 5 ' $5' 3+%. ')+%' ' 8*1.)' *&' 3 ')%$' '55%5' (*$$%06*. 50')*' F5%-$%%0' *&' 5, /1), *. ℍ)+%' 4/**5' %B ' 8, . %5')+%$%&*$%' (*. ; ' , . 0' F' 6%$' (%.)' *&')+%' . *$8 ' /' E1 ' .),)2' *&' +%%8*-/*4, . ' +%' 8%)+*5', 0' . *' 5*14)' 0$*1-+ ' 41)' ,)' , 0' E1, (9' . 5' %'02' ,)+' ('$%') %' 0+*1/5' . *)' 4%' 8*$%')+' . ' F' 6%$' (%.)' *&' %$$*$')' , 0' 3%/')*' . *)%' . *)' *./2')+%' 6*, .)')' 3+, (+')+%'), .)0' 4%(*8%0, 8, /'$' 41)')+%' . 184%$' *&' 5%-$%%0' *&' 5, /1), *. ')+$*1-+' 3+, (+')+%2' '66%' $' '/, 9%' ' . 5')*')' 9%')+%' 8%' . ' +%' $%01/)' 4%, . -' '' 6%$(%.)' -%' , 0' , 8 8%5, ')%/2' '66+('4/%')*')+')' *4)' , . %5' 3,)+')+%' +%%8' (=*8%)%$' ! ' ! 1 ' 0 ' C @

U ' A %8*-/*4, . ℍ ' . 5') ')+%' 1$, . %R G ' ' %8 '), . 1$, ' & # " ' *$)+ 7' #$ 7 $ ' $-' ! ' 4) ') 4 3' -)$*' 7 3) $ ' $-' + $$7 ' #$)/4 # ' #!) #) 7' +"' #! 3 ' $-' #$ $4)' $-' ! ' #) $ ' ' #$ 94 # ' $-' ! ' /) > # ' $-' 3) 4 ' ' #$ 3' ')3 ' /)$/$) $ ' $-' ! ' * $3 $+ %' $* * ' / >)$=" * '% $ * * ' ') 4 ' $-' ! ' # $ ' $-' /$ $ %' 7' $ * * ' $# 7' U5 !' $!)' * $) ' 7 3)$4 ' " * / $ * ' 7' 7> 3' $' '- ') 4 * $ G %8*-/*4, . 1$, '' , 0' . *)' $%&%$; '4/%')*' ' . 2' 0)$1()1$' /' (+' . -%', . ')+%' 9, 5 . %20')' , 0' '' $%01/)' *&' 8*$4, 5' '(), *. ', . ')+%' 4/**5' (*. 0, 0), . -' %00%.), ''//2', . ')+%' 5, 0, .)%-$'), *. ' *&')+%' $%5' (*$610(/%0' 3+%$%42')+%' +%8*-/*4, . ' , 0' 0%)' &$%%')' +' 0' 4%%. ' *40%$7%5' , . ')+%' (*1$0%' *&' &%7%$0' 6' $), (1/' $/2' -1%' . 5' 0(' $; /'), . ' ' '/0*' '0' '' $%01/)' *&' , . 0*/'), *. ' ' . 5' , ')+%' 6' $*B20 8 ' /' ('0%0' '0' '' $%01/)' *&' (+, ' 1)4$%' 90' *&')+, 0' 5, 0%' 0%' +' 7%4%%. ' 5%0($, 4%5

'0'))' (9,. -' . %3/2' 4* 8 ' ,.& ' .)0 ' . ')+')'
5%0($,4%5' 42' ,. (9%/' *&' $%05%. I' , .' ?MP'
)3%.)2 &*1$'('0%0' *((1$$%5' ' . 5')3%.)2)+$%%'
6$*7%5'&')'/' +,0' 3 '0' %7,5%.)/2' 51%')*')+%'
'(),*.' *&' '' 06%(,&,(' 6*,0*.' %B,0),. -' , .')+%'
')%$. ,)2' *06,)'/' ')')+%'), 8 %' *+. +%, 8'
'/0*' 0+*3%5')+')' ,)' *((1$$%5' '0' '' $%01/)' *&'
0%7%$%' 41)' . *)' 06%%5,/2' &')'/' 4180' $' .0'
&,,0,*.' *&')+%' 4/**5' *&' * .%9,. 5'*&' . ,8 '/',.)*'
)+%' %,. 0'*&' . *)+%$' 8 '2' 01&&,(%')*' 6$*51(%',)'
$%*7%$' 8 ' . 2' 6,0*. 0' +'7%' 4%%. ' &*1. 5')*'
,. 51(%')+%' (*. 5,),*. ' 2' &'$')+%' 8*0)', 8 ;
6*$)' .)' *&')+%0%' ,0' (+/*$')%' *&'6*)'00,18 ' .'
)+%' %'0%' *&' (+,/5$%. ' *. %')*')3*' 5$'(+8 0' ,.'
)+%')3%.)2 &*1$' +*$. 0' ,0' '' 5'. -%$*10' E1'. ;
),)2H' ,.')+%' 51/)')+$%%' 5$'(+8 0' *$' 163'$50'
%B)')*' ,)' 41)' ')' '' /*. -' , .)%$7'/' $'. 9' *'$'
4*+(' +25$*(+/*$,(' 01/6+1$,(' ' . 5' 62$*-'//.*'
'(,50' ' . 5')+%' ,.+'/')," .' *&' '$0%. ,1$%))%5'
+25$*-%.' -'0' .' 3+')' 3 '2' 3%' '$%')*' %B;
6/',.')+%' '(),*.' *&')+%0%' 7'$,*10' 0140)' . (%0'
16*.')+%' 4/**5 5,0(0',0' '0' 2%)' &'$' &$*8' (/%'$'
41)')+%' &'()')+')')+%2' 5*' 0*' '()' ,0' &*//2' %0;
)'4/,0+%5

' ! ' G' +%' 9.5. %20' '$%
)+$*1-+*1)' *&' '' 5%%6' (+*(*/')%' (*/*1$' 3,)+'
$'5,')," .-' 0)$,'% *&' '' 5'$9%$'),.)' +%' 0%(;
),*. 0' 0+*3' 1. 5%$' '' /*3' 6*3%$' 5'$9' /,. %0'
Q(*$$%06*. 5,. -')*')+%')141/%0' ' . 5'06*)0' 8 '$9;
,. -')+%' '/6,-+,' .' 4*5,%0' ,)+' '' +,-+%$'
6*3%$' *. %' 8 '9%0' *1)')+')')+%')141/%0' '$%'
4/*(9%5'3,)+' -$' .1/'$'6,-8%.)'' . 5')+')')+,0'
5,0(+'$-%' ,0' %7,5%.)/2'&,$*8')+%' '/6,-+,'.'
)1&)0' +%$%' '$%' 0*8%),8%0' '/)%$')," .0' ,.'
)+%'06/%%.' ' . 5',')+%'4*. %0' ' . 5'+'%8*$$+'-%0'
,.)*'7'$,*10'),001%0

!(! G +%' (+,%&' (/,.,('/' &%')1$%0' *&'
+'%8*-/*4,. 1$,'' '$%')+*0%' $%&%$'4/%')*')+%'
1$,. %')' ,0' 5'$9' /,9%' 6*$)%$' *$' /,9%')+%'
0%5,8%.)' *&'6*$) 3,. %H0*8%),8%0' 4$*3. '/,9%'
(*&&%%' *$' '/8*0)' 4/'(9' +,0' (*/*1$' ,0' 51%'
8 ',./2')*' +'%8*-/*4,. ' ' . 5' 101'//2' &%3' ,&'
' . 2' 4/**5 (*$610(/%0' '$%' 6$%0%.)' 14%'
('=0' ' . 5' *B' ')% *&/,8%($20)'/0' '$%' *&)%. '
6$%0%.)' , .'/'$-%' .184$0' +%' 1$,1%'(*' -1;
/')%0' *. '+%'),. -' *$' *. ')+%' '55,)*. ' *&' . ,). ('
'(,5' 6%()$*0(*6,('//2' %B' 8,. %5' ,)' 0+*30'
)+%' &%')1$%0' (+'$')()%$,0),(' *&' +'%8*-/*4,. '
B2+0%8-/*4,. ' ' . 5'8%)+')8*-/*4,. ')+%$;
3,0%')+%' 6'),%.)' 0+*30')*9%. 0' *&' -%. %$'/
5,0(*8&*$)H -'0)$*,.)%0),. '/' 5,0)1$4' . (%H
>'1. 5,(%'8*$%'*$'/%00'6$*. *1. (%5H0*8%),8%0'
%. /'$-%8%.)' *&' 06/%%. ' ' . 5' 014(1)'. %*10'
+'%8*$$+'-%0H 3%'9. %00' *&'+%')$)H)%. 5%. (2'
)*' +26*0)'),(' (*. -%0),*. ' ,. ' ('0%0' *&' '' 4'5'
)26%'H 3,)+')+%$' 02 8 6)*8 0' *&' 5%6$%00,*. ' *$'
%7%. ' (*//'60%

& " ! '7 --) '-$)* '$-' ! *$'
3 $+ 4 ' ! . ' $' + ' 7 3 $ 7' -)$*' #!
$!) ' 7' -)$*' #) ' 7 ' 5 ! #!') >
+ ' ! ' /)$=" * '-$) ' ' 7 ! :
1!& 5 = 5)' $ &BH*)!

G '0%0' *&')+,0' 9,. 5' $'$%/2'
)%$8,. ')%' 1. &'7*1$'4/2' %B(%6)' 3+%. ' +'%8*;
-/*4,. 1$,'',0' 8 %$%/2'*. %' *&' 8 ' . 2' 02 8 6)*8 0'
,. '(*. . %B,*. ' 3,)+' 4/**5 6*,0*. , . -

! 'G' $*)%()," *. ' '-', .0)' 0%6),('
6$*(%00%0' *$' *)+%$' ('10%0',0' *&')+%' &,$0)',8;
6*$)'. (%' +%. ')+%' 02 8 6)*8', 0' 5%7%/*6%5'
&%$$1-,. *1 0'). *. ,(0'. 5'(+/*$,5%' *&' 8 8 *. ,18'
8 '24%')$,%5' 'C ' @

' 5 ' B ' 7 *)'
! ' ' '$*B208'/' '%8')," .'
1$,'
& G ' /)$=" * ' -- # $ ' $-'
! ' " * % * - 3' -'+"'#! 3 ' ' U
! '4) ' 7'/) # 7)"' ! ' 7 #!)3 ' $-'
! * $3 $+ %# 4 7' $* * ' +"' *) '
7' $* * ' +"' $!)' #$ 7 $ ' $ ' " '
7)* 7%' #$ 3' ' .*' $* # '
#! 3 ' '" ') #$3 7%' 7' #!) #) 7'
+"' ! '$## $ '$##4)) # '$-'#$ 4 $ '
7 4)+ # '5 !' 7 #!)3 ' $-' 7) ' + $$7>
7')

* 0 G +%' 8 *0)', 8 6*$)' .)' %B)$, . 0,('
('10%' *&')+%')%. 5%. (2')*')+,0' 5,0%'0%' ,0' 8 ';
/'$,*10' 6*,0*. H)+%' 8 *0)', 8 6*$)' .)' ('10%' *&'
)+%' 6'$*B208', 0' %B6*01$%')*' (*/5' *$' 3%)H'
41)')+%')%. 5%. (2' 8 '2' %B,0)' 3,)+*1)' 8 '/'$,'/
6*,0*. ' . 5')+%' '))' (9' 8 '2' *((1$' 6'$)'&$*8'
' . 2' 06%(,'/' %B6*01$%' 8 *. -0)', .)$, . 0,('
('10%0' 0%B' ,0' %7,5%.)/2', 8 6*$)' .)' &*$')+%'
5,0%'0%' ,0' '/8*0)' (*. &, . %5')*' 8 '/%0')' 8 '2'
*((1$', ' (+,/5$%. ' ' . 5' 8 '2' *(' ('0,*. '//2' $%(1$'
51$, . -' ''6%$,*5' *&' 2%'$0

0', . ')*+%$' &*$8 0' *&' +&&, 8 *-/*4, . 1$, ' ')+%'
02 8 6)*8', 0')$' (%'4/%')*' 5,0, .)%-$'), *. ' *&'
$%5' (*$610(/%0' 3,)+, . ')+%' (,$(1/'), . -' &/1,5'
+')')+,0' 8 '2' *((1$'/*('//2' +'0' 4%L. '6$*7%5'
%B6%$,8%.)'//2' 42' +$/,(+' %')," ''/, -';
)1$%' $*1. 5')+%' &, . -%$' *&' '' 6'),%.)' 3+*' 3 ']'
+'4/%')*')+%' 5,0%'0%' ' . 5')+%. ' (+,//%5')+%'
(*. -%0)%5'6'$)'42', 8 8 %$0, . -',)' &*$' '' E1'$)%$'
*&' '. ' +*1$', . ', (% (*/5' 3')%$' &)%$3'$50'
)$'. 0&%$$, . -',)' &*$' /, 9%' 6%$, *5')*')%6, 5'3')%$'
. ')+, 0' 6'), %.)',)' 3'0' &*1. 5')+')' 8 ' . 2' (*$;
610(/%0' 3%$%' 4$*9%. ' 5*3. ' 3+, /%' . *' 01(+'
%&&%()' 3'0' 6$*51(%5'%/0%3+%$%', . ')+%' 4*52' *$
, . ' +%'/)+2' 6%*6/%' ')', 0' 6$*4'4/%'+*3%7%$'
)+')',)' 0' (+, %&/2', . ')+%' /, 7%$')+')')+%' 5%0)$1(;
),*. ' *&' (*$610(/%0' *$5, . '$, /2')'9%0' 6/'(%H
' . 5',)' 0' 1. (%$)' . . ' 3+%)+%$',)' $%01/)0' &$*8' ''
5, $%()', . &/1%. (%'*6%$')," . -'16*. ')+%'(*$610(/%0'
*$)+$*1-+')+%' 6$*51()," . ' *&' 0*8%'(+%8,('/
0140)' . (%' . 5',)0' '(),*. ' 16*. ')+%8

! ' ' " ! ' 7 '
$ ' + 3' - ' !) ' ' $' . 7 # ' ' $'
! ' = # ' $-' "' $ * # ' #! 3 ' "'
! ' 7 " ' +4 ' !) ' ' .)"') $ ' $'
4/!$ ' ! ' -' ! ' 7 " ' 5) ' = * 7'
! "' 5$4 7' !$5' ! ' //) # ' * '5 !'
' $ /)$=" * '! * $3 $+ 4)

!(! G +,0' &*$8' *&' +0%8*-/*4, . 1$, ''
,0' 6'$*B208'/'41)' . *)' 5,0), . ()/2' 6%$, *5, (')'
8 '2' (*8 8%. (%', . ' (+,/5+**5' *$' 51$, . -' '51/)'
/,&%' +%' ')) ' (90' 8 '2' *((1$' *. (%')3, (%' *$'
)+$, (%'' 5'2' *. ' ')%$. ')%' 5'20' *. (%'' 3%%9'
*$' E1,)%', $$%-1/'$/2' +%' 6'$*B208' 8 '2'
(*8 8%. (%' 4$16)/2' 3,)+*1)' . 2'6$%8*. ,)*$2'
02 8 6)*8' 41)', 0' 8 *$%' (*8 8*. /2' 10+%$%5'
, . '42' '' &%%/, . -' *&' 1. %'0, . %00', . ')+%' /*, . 0' . 5

/,8 40' 42' 0+,7%$,.-' '.5' -%.%$'f (+,//,.%00' *8%),8%0',)' ,0'6$%(%5%5'42'0/,-+)'>'1.5,(%' &1$$%5')*.-1%'''.5'*)+%$'02 8 6)*8 0'*&'-'0)$,(')'$$+Hf '.5' 0*8%),8%0' '/41 8,.1$,'' 6$%; (%5%0'42' ''&%3'+*1$0'*$'' 5'2')+%'*((1$$%.(%' 6&+&&,8*-/*4,.1$,'' +%',))*$%' '4$16)'))'(90' &$%E1%.)/2')%$8,.)%'42')+%'5,0(+'$-%'*&')+%' 6%(1/,'$' 1$,.%')+%' 1.%'02'&%%/,.-0'+'7,.-' 0140,5%5'4%&*$%',)'$%(1$0H ''.5')+%'.%B)'1$,.%' ,0'.*$8'/'*$'.%'$/2'0*' .'0*8%'('0%0'' /41; 8,.1$,'' 6$%(%5%0'*$/,.-%$0'&*$' '),8%' '&)%$')+%'5,0(*/*$'),*.'+'0'6'00%5'*&&'' .'5'0*8%;),8%0',)'$%6/'(%0')+%' +0%8*-/*4,.1$,'' 0 L'&

+%'(+'$'()%$0'*&')+%'1$,.%''$%'7%$2'6%(1; /,'$')0'(*/*1$',0'/,9%'6*$)%$'*$'/,9%'8 1552' 6*$) 3,.%H',)0'06%(,&,(' -$'7,)2'$'.-%0'&$*8' ! F')*!?FH',)',0'(,5'*$&',.)/2'/9'/,.%H ',)',0'+,-+/2'/418,.*10H 0*8%),8%0',)'(*.;)',.0'%B(%00'*&'1$%''')')+$*30'5*3.'' (*6,*10'0%5,8%.)'3+,(+'(*.)',.0'7%$2'&%3' *$'.*'4/**5(*$610(/%0'41)'.*',8 8%.0%' ').*1.)'*&'-$'.1/'$'4/**5 6,-8%.)'3,)+' .18%$*10'14% ('0)0G+2'/,.%'*$'%6,)+%/,'/' *&)%.'/*'5%5'*$'(*')%5'3,)+' '8*$6+*10' -$'.1/'$'8'))%$'.5'3,)+'8,.1)%'($20)'/0' *&'*B'/')%'*&'/,8%' +%'(*/*1$',0'.*)'51%')*'4/**5(*$610(/%0'.*$')*'+%%8'),.'41)'*' +0%8*-/*4,.' .'0*8%'('0%0')+%'1$,.%',0'/%00' '&&%()%5'4%,.-'8%$%/2'/418,.*10''.5'.*)' 5%6*0,),.-'6,-8%.)')'8'2'4%'5*14)%5' 3+%)+%$')+,0'(*.5,),*.'0+*1/5'4%'558,))%5')*')+%'0'8%'('),-*$2'0')+%'5,0%'0%'1.5%$' 5,0(100,*.'41)'('0%0'3+,(+'+'7%'(*8%'1.5%$')+%'3$,)%$0'*40%$7'),*.'0%%8')*'0+*3')+')',)' ,0'%.),)/%5'0*')*'$'.9''.5',)'0'5%'/)'3,)+',.')+%''$),(/%'>10)'$%&%$%5')* '7%$2',.)%$%0),..-'6*,.)',.')+%'(/,.,('f+,0;)*$2'*&'+&&,8*-/*4,.1$,'',0',)0'$%/'),*.0+,6',0'.%,)+%$' (*.0)'.)'.*$'%B(/10,7%''.5')+%'6$%(,0%'/,.9' 3+,(+f'(*..%(0)'+%'8',0'0'2%)'.*)'(/'+'$/2' 5%)%$8,.%5'),/f')+%'(/,.,('f&'()'$%8',.0')+')'3+%.')+%'*.%'5,0%'0%'%B,0)0')+%'*)+%$',0' .*)',.&$%E1%.)/2'6$%0%.) & '' +%'*./2'5,0%'0%0'3,)+'3+,(+' ,.)%$8,))%.)'+0%8*-/*4,.1$,'',0',/9%/2')*'4%' (*.&*,85%5'$%+0%8')1$,''.5'$%.'f('/(1/10' *$-$'7%/' $*8')+%'&*$8%$',)',0'5,0),.-1,0+%5' 42')+%''41.5'.(%'*&')+%'4/**5 6,-8%.)'.5')+%'%B)$%8%$')2'*&'4/**5(*$610(/%0H &$*8')+%'/')))%$'42')+%'0+*$)'51$'),*.'*&')+%'')'(90')+%'6$%0%.(%'*&')+%'(+'$'()%$,0),(' 5%6*0,)' 3,)+')+%'&'()')')+%'6',.0''&&%()'4*)+'/*,.0' .*)'8%$%/2'*.%')',0'0*8%),8%0',86*$)'.)')*'5,0),.-1,0+')+%'8,/5%$'&*$80',.'3+,(+' 8%$%/2'/418,.1$,''*((1$0'&$*8'(*.-%0),*.' *$'&$*8'(*8 8%.(,.-',&/'8 8')*$2'$,-+)<0' 5,0%'0%')',0'.*)''/3'20'6*00,4/%')*'5,0;),.-1,0+')+%0%'51$,.-')+%'%'$/2'+*1$0'*&')+%' '))'(9H 41)')+%''8*,8)'*&'-%.%$'/'5,0)1$4; '.(%')+%'0')%'*&')+%')*.-1%')+%'0/,-+)' >'1.5,(%')+%'0155%.%00'*&')+%'*.0%)''.5')+%''40%.(%'*&'5$*602'-%.%$'//2'01&&,(%')*' 8'9%')+%'5,'-.*0,0'(/%'$ G +%'6$*-.*0,0',0'-**5',. 6'$*B208'/'+0%8*-/*4,.1$,''' '0')*')+%',.5,; 7,51'/'6'$*B208' +%')%.5%.(2')*')+%'5,0; %'0%',0''/0*.*)',.&$%E1%.)/2'-*)'$,5''&')' +'0'.*)'6$*7%5'&')'/',.'.2'('0%' 1)')' '66%'$0'0*8%),8%0')*'10+%$',.''$')*'(*.; 0),)1)%''.'%'$/2'02 8 6)*8'*&' $,-+)<0'5,0%'0%' G)+%'(,$$+*),('&*$8 ! G=,)+''7,%3')*'6$%7%.),.-')+%'))'(90',.5,7,51'/0'3+*'$%'014>%()')*' 6'$*B208'/'+0%8*-/*4,.1$,''0+*1/5'('$%&1//2' '7*,5'%B6*01$%')*'(*/5''.5'*7%$&'),-1%'*&' %7%$2'9,.5' +%2'0+*1/5')'9%'41.5'.(%'*&-**5'.5'%'0,/2'5,-%0)%5'&**5'0+*1/5''7*,5' &$%%10%'*&'/(*+*/''.5'0+*1/5'(/*)+%'3'$8/2' 0')+%'6'$*B208',0'06*.)'.%*10/2'$%(*7%$%5' &$*8'/,))/%..%%5'4%5*.%'%B(%6),.-'3,)+')+%' 7,%3'*&''//%7,'),.-')+%'5,0(*8&*$)'*&')+%' 6'),%.)'0+*1/5'-*')*'4%5'.5'4%'9%6)' 3'$8''.5'+'7%''41.5'.(%'*&'3'$8'5$,.90' .'$%06%()'*&'5,8,.,0+,.-'*$'$%8*7,.-')+%')%.5%.(2')*')+%'8'/'52'7'$,*10'$%8%5,%0' +'7%'4%%.'&*1.5'10%&1/''8*.-'3+,(+'8'2' 4%'8%.),*.%5'E1,.,.%')0)1$%'*&'(,.(+*.'' ,$*.'$0%.,(''.5'(+/*$,5%'*&''8 8*.,18 +'0'/0*'4%%.'&*1.5'10%&, 'C ' @ U G ' : B <H < FFB ' ' ' ,' 'D W-'4/**5H'.5'½C. ' 6$%5,06*0,),*.'&*$R'G' ' '8('$+''6+,/,'H '%8*$$+-,(' ,')+%0,0'H /%%5%$0'H 'P H %$'$# # -# & # G'(*.-%.)'/'5,0%'0%'*&)%.' +%$%5,)'$2'(+'$'()%$,0%5'42''')%.5%.(2')* ,8 8*5%$')%'4/%%5,.-0'3+%)+%$'06*.)'.%*10' *$')$'18'),(''.5')*'*40),.')% 03%//,.-0'*&')+%'>*,.)0 * G %.''$%&'$'8*$%/,'4/%')+'.' 3*8%.')*')+,0'5,0%'0%H)+%'6$*6*$),*.'4%,.-' '4*1)'%/%7%.')*'.%'K *8%.'3+*'01&&%$' &$*8'+'%8*6+,/,''0+*3'81(+'/%00')26,('f 06%(,8%.0'*&')+%'5,0%'0%')+'.'8%.''.5' $'$%/2'5,%'&$*8'+'%8*$$+'-%''/)+*1-+'&/**5; ,.-0'.5'6$*&10%'8%.0)$1'),*.'$%'(*8; 8*. +%'4%0)'0(%$)',.%5'('10%'*&'+'%8*6+,/,'' ,0'+%$%5,)'$2'6$%5,06*0,),*.' *')+%$'('10% ,0'9.*3.'3,)+''.2)+,.-'/,9%'(%$)',.)2' .''' 4/%%5%$'&'8,/2')+%'5,0%'0%'5%0(%.50')*')+% 4*20')+$*1-+')+%'8*)+%$0')+%'3*8%.'$%; 8',.,.-'E1,)%'+%'/)+2''.5''66'$%.)/2'&$%% &$*8''/f5,0%'0%'+%'&')+%$0'5*.*)'0%%8')*')$'.08,)')+%'5,0%'0%')*')+%,$'0*.0H ')'/%')' ,.0)'.(%0'*&')+,0'$%'$%' +%'3*8%.'*&' 4/%%5%$'&'8,/,%0'$%'$%8'$9'4/2'&%$),%/'*8% +'7%')+*1-+)'+'%8*6+,/,'')*'4%8*$%(*88*.' ..'%$8'.2'41)'+,0',0'6$*4'4/2'*3,.-')*')+%'-$%')%$')%.),*.'6',5')*')+%5,0%'0%',.')+')'(*1.)$2''0%0'+'7%'4%%.'8%)3,)+',.')+%'.5,'.'$(+,6%'-*'*$)+'8%$,(''')+%' (.5,.'7,'.'9,.-5*80'.5'%/0%3+%$%' +% 5,0%'0%',0'.*)'/,8,)%5')*')+%' $2'.'$'(%0''0')+%' %30''' %8,),(''),*.''$%0,.-1/'$/2' /,'4/%')*',)

!) G *' 8 *$4,5' '6; 6%'$' . (%0' +'7%' 2%)' 4%%.' &*1. 5' '&)%$' 5%')+' 3,)+' ' .2' . 0)' . (2' +%' 4/**5 7%00%/0' '$%' '66'$%.)/2' 1 . '/)%$%5' +%' (* .5,),* .' *&')+%' 4/**5'+'0' .*)' 2%)' 4%%.' 6$*6%$/2' ,. 7%0),-')%5')' 3*1/5' 4%' ,8 6*$) ' .)')*' '0(%$)',. ' 3+%)+%$')+%' . 1 8 4%$' *&' 3+,)%' (*$610(/%0' ,0' ,. (%'0%5' '*$ 5,8 ,. ,0+%5' ' . 5' 3+%)+%$')+%2' '$%' '/)%$%5' ,. ' (+'$'(%$' +%' 03%//, . -0' *&')+%' >*, .)0' '66%'$)*'+%' 51%')*')+%' %B)$'7'0'),*. '*&4/**5' 3,)+, . ')+%' '$),(1/'),* .

! (! G +%'&,$0)' 0,-. 0' *&' +0%8*6+ , '' '$%' (*8 8 *./2' 0%%.' 51$, . -')+%' &,$0)' 2%'$' *& +&%H' 4 .)' 0*8 %),8 %0')+%2' '$%' 5%/'2%5' 1 .),/')+%' 4%-,. . , . -' *&')+%' 0%(*. 5' 5%. .),),* . ' '0%0' * . ' $%(*$5' *&' '' 8 1(+'/')%$' '66%'$' . (%' *&')+%' &,$0)' 02 8 6)*8 0' '$%' . *)')$10)3*$)+2')' ,0' 7%$2' $' $%' &*$' 4/%%5,. -0')*' 4%' . *),(%5' ')' 4,$)+' +%$%' ,0' . *)+,. -' '4*1)')+%' 014>%()0' *& +'%8*6+,/,'' 3+%. ' . *)' 01&&%$,. -' &$*8' 4/%%5; ,. -')*' 5,0),. -1,0+')+%8' &$*8' *$5,. '$2' 6%$; 0*. 0' +%2' /**9' 3%//H ' . 5' . *)+,. -' '8,00' (' . '4%' 5,0(*7%$%5'42'6+20,('/%B' 8,. '),*. ',. ' (+%0)' *$' 4%//2

+%$%' '$%')+$%%' 3%// 8 '$9%5' 0 ' *& +'%8*6+,/,' K +%' &,$0)' ,0')+%' 8*0)')26,('/' . 5'(+'$')(%$,0),('. '3+,(+')+%$%',0''')%. 5%. (2')*' %7%$2' 9,. 5' *&' +'%8*$$+'-%')$'18'),(' *$ 06*.)' . %*10' ,.)%$0),),'/ *$ 016%$&,(,'/' +%' 03%//,. -' *&')+%' >*, .)0' ,0' 3%// 8 '$9%5' +,0' 5%-$%%' ,0' 0('$(%/2' %7%$' 0%%.' ,. ' 3*8 %.H 41)' ,)' ,0')+%' 8*0)' (*8 8*. ' 8*. -' 8 %. ')+%' 0%(*. 5' 5%-$%%' 06*.)' . %*10' +'%8*$$+'-%' &$*8')+%' 81(*10' 8%8 4$' . %0' *. /2' '$%'6$%0%.) ' +%')+,$5' 5%-$%%' ,. ' 3+,(+')+%')%. 5%. (2',0' /,))/%' 8 '$9%5' ,0' 0%%.' *. /2' '8*. -0)')+%' 3*8%. ' *&' 4/%%5%$' &' 8 ,/,%0H ' . 5'0+*30',)0%/&' *. /2'42'06*.)' . %*10' %((+28*0%0

P # 0 G 6*.)' . %*10' 4/%%5,. -0' '$%' 0*8%),8 %0' 6$%(%5%5'42'02 8 6)*8 0' *&'1. 101'/ &1/. %00' . 5' 6/%)+*$' ' +%' 81(*10' 8%8; 4$' . %0' 0166/2')+%' 4/**5' ,. ')+,0' ('0%H ,. ' (+,/5+**5'4/%%5,. -'&$*8')+%' . *0%',0')+%' 8*0)' (*8 8*. ' . 5' '/0*')+%' 8*0)' &')'/' '/)+*1-+' 4/%%5,. -0' &$*8')+%' 4*3%/' 8*1)+' *$' (+%0)' 8 '2' '/0*' *((1$' +%$%' ,0' *./2' *. %' 9. *3. ' ,. 0)' . (%' *&' 5%')+' &$*8' +'%8')1$,' +%')$'18'),(' 4/%%5,. -0'7'$2'81(+' ,. ' ,.)%. 0,)2' %7%. ' ,. ')+%' 0'8%' ,. 5,7,51'/' %')+' +'0' &*//*3%5'5,7,0,*. '*&')+%'&$. . 18'*&')+%')*. -1%' 7'((, . '),*. '/%%(+,. -' . 5')+%' %B)$'(),*. '*&' '')**)+' +,0'/'0)',0' '' 7%$2' (*8 8*. ' ('10%' *& 5%')+' &' '40(%00%0'4%*6%. %5'&1$,*10'4/%%5; ,. -' (*8 8*./2')'9%0' 6/'(%H '. 5')+%' 0'8%' *((1$0',&' '4/**5)18*1$'*$%B)$'7'0'),*. ' *& 4/**5'4%' ,.)%$&%$%5'3,)+

+%' 4/%%5,. -' ,0' . %'$/2' '/3'20' *'6 /'$2' '. 5' 8 '2' 9,/' ,. ' '' &%3' +*)10' *$' &)%$' 0*8% 3%%90' +%' E1' .),)2' *& 4/**5' /*0)' ,0' 0*8%;),8%0' %. *$8*10' &)%$')+%' 4/%%5,. -')+%' 6'),%.)0' '$%' %B)$%8%/2' '. '%8,(H '. 5')+,0' 0)')%' 8 '2' /'0)' &*$' 8*.)+0

%0,5%0' 016%$&,(,'/ 4/%%5,. -0' ,.)%$0),),'/ +'%8*$$+'-%0'%((+28*0%0' '. 5'4/**5)18*,10' 8 '2' 4%' *40%$7%5' 3+%)+%$' 06*.)' . %*10' *$')$'18'),(' '4$1,0%' 3+,(+' '+%' /)+2'6%$0*. 3*1/5' . *)' &%%/' 8 '2' &,//')+%' (*. . %(),7%'),001%' *&' '/,84' 3,)+' 4/**5H *$')+%' 4/%%5,. -' 8 '2' 4%' (,$(180($,4%5' ' . 5' &*$8' '')18*1$' ,. ; 0)%'5

2 "0' ' # '< " ? # '(+,%&/2' '&%%()0')+%' /'$-%$'>*, .)0')+%' 9. %%' 4%,. -' 8*0)' (*8; 8*./2' '))'(9%5' +%' >*, .)' 8*0)' (*8 8*./2' '&)%$' 0*8%', . >1$2'4%(*8%0'03*//%. ' . 5'6', . ; &1/' ' . 5' '66'$%.)/2' &,//%5'3,)+' &/1,5H)+%$%',0' &%7%$'H ' . 5')+,0' 0)')%' 8 '2' /'0)' &*$' 8' . 2' 3%%90' U%/'60%0' '$%7%$2' '6)')*' *((1$' 51$, . -' (*. 7' /%0(%. (%

& G +%' 5,'-. *0,0' *&' +0%8*6 , '' ,0' *&)%. ' %'02' &' '' 4*2' +'7%' 01&&%$=' $%; 6%')%5/2' &$*8' %'$/2', . &'. (2' &$*8' '41. 5'.)' 4/%%5,. -0G%06%(,' 2')$'18'),(G'. 5' &$*8' >*, .) '&&%(),*. 0')+%$%' (' . '4%' . *' 5*14)' *&')+%' 5,'-. *0,0')' ,0' 8'5%' 8*$%' (%$)', . '42')+%' %B,0)%. (%' *&' +%$%5,)'$2' 6$%5,06*0,),*. ' . ' 3*8%. ')+%' 5,'-. *0,0' 810)' 4%' 8'5%' 3,)+' 8*$%' ('$%' '0')+%2' '$%' 014>%()')*' '' +'%8*$; $+'-,(' 5,0*$5%$' 3+,(+' &,$0)' '66%'$0' '4*1)' 614%$)2'41)' 3+,(+',0' . *)'+%$%5,)',2

G +%'6$*-. *0,0',0' . *)'0*'0%$,*10' 3,)+'$%06%()')*'/,&%' '0' 3'0'&*$8%$/2')+*1-+)

! G +%)$%')8%.)*'&'+'%8*6+,/,'' ,. (/15%0' '/8*0)')+%' 3+*/%' 014>%()' *&')+%')$%')8%.)' *&' +'%8*$$+'-%' 1$-,('/ ,.)%$; &%$%. (%', . ')+%' 3'2'*&')+%'/,-')1$%*&' $)%$,%0' ,0' +*3%7%$' (*.)$' ,. 5,('%5' ,. ' (*. . %B,*. ' 3,)+'+'%8*6+,/,'' '0')+%'+'%8*$$+'-%', . '01(+' ('0%0',0' '/8*0)' %B(/10,7%/2' *' '6,//=2' *$')+%'0'8%$%'0*. ')+%' 58,. ,0)$'),*. '*&'%$-*)' 3,)+'' 7,%3')*' 4$,. -,. -' '4*1)' '' (*.)$'(),*. ' *&')+%' $)%$,*/%0' 3*1/5' . *)' 4%/,9%/2')*' 6$*7%' *&' 0%$7,(%' $%')8%.)' *1-+)')*' 4%' 5,$%()%5' %.),$%/2')*' 4$,. -,. -' '4*1)' '. ', . ($%'0%' . ' A'R')+%' $'6,5,)2'*&'(*'-1/'),*. ' ' . 5' ALR', . ')+%' &,$8. %00' *&')+%' $%01/),. -'(/*)' . ' *1$'6$%0%.) ' ,. *$' . (%*. ')+%' 014>%()' *&')+%'6')+*/*-2'*& +'%8*6+,/,'')$%')8%.)' 810)')'9%' (*-. ,0' . (%' *&' %7%$2' &' ()*$' 3+,(+',0' 9. *3. ')*', . &/1%. (%')+%' (*'-1/'4,/,)2' *&')+%' 4/**5' +%' &')()')+')' +'7%' 4%%. ' 0(%$)', . %5', . '(*. . %B,*. ' 3,)+', 0' 014>%()' '$%' '0' &*//*30' ' 5%&%()' , . ' (*'-1/'4,/,)2' 8 '2' 5%6%. 5' *. ' *. %' *$' *)+%$' *&')+%$' *&' ,.)%$' 8*0)' (1$0',&' '' 4/**5)18*1$'*$' %B)$'7'0'),*. ' *& 4/**5' 4%' ,.)%$&%$%5' 3,)+

C ' '' # '5" 0 " ' # / ' ' . " G +,0' 8 '2' (*. 0,0)' , . ' '5,8,. 1),*. ' *&)+%' '8*1.)' *&' '7',/'4/%' ('/(,18'0'/)0',. ')+%' 4/**5' %&%(),7%' (*'-1/'),*. ' '$,0,. -' &$*8')+,0' (' 10%' ,0')*' 4% 8%)' 42')+%' '58,. ,0)$'),*. ' *& /,8%0'/)0' 6$%&%$'4/2' ('/(,18' (+/*$,5% A/,E1*$' ('/*,' (+/*$,5,' ' '*C')*' *C' &*$' . ' '51/)H , . '=)*' '6,.)' *&'3')%$R' 3,. -')*')+%' 5,0'-$%%'4/%')'0)%' *&')+%' 0'/)' ,)' ,0' 4%0)' '58,. ,0)%$%5', . ')+%' &*$8' *&' . '%. %8' ' ' 8'6%$'(%.)' 0*/1),*. ' *&' ('/(,18'(+/*$,5%' 8'2' '/0*'4%' 66/,%5''0''/*('/0)26),(')$*. -%$'0*; /1),*. 0' '$%' . *)')*' 4%' $%(*88%. 5%5' '0' (*' -1; /'),*. ',0'$%)'$5%5' &)%$' '(%$)', . '6%$(%.)' -%*& ('/(,18'+'0'4%%. '%B(%%5%5' . '7,%3'*&')+%' &')')+')' ()',*. ' *&')+%' +8%0'/)',0' . *)' ,. 0)' .)' . %*10')+%' 0*/1),*. ' 810)' 4%' 66/,%5' *. ' ''')' 86*. ', . ' 01(+' '' 8' . . %$' '0')*'+, . 5%$')+%' &/*3, . -' '3'2'*&')+%' 4/**5' 3,)+' 3+,(+',)

(/*))%5' KU,,-' 4 .'*&'+0%8*6)20,0',0'8*$%;*7%$2'81(+'16*.'+%'.')1$%'*&'+%'5,0%'0%'3+,(+'+'0'6$%(%5%5')+%'+0%8*6)20,0'.'('0%0'*&'5%')+'&$*8'+'%8*6)20,0')+%$%''$%')+%'101''/'66%'$'.(%0'*&'5%')+'&$*8'+'%8*$$+'-%G'6'//*$'*&'*$-'.0'%86)2'.'5'(*.)$')(%5'7%.;)$,(/%0'^(' +%'4$*.(+,'/')14%0'*&'4*)+'/1.-0'$%&*1.5')*'(*.)','(/*)0' +%'+%'/)+2'6*$),*.0'&'B8-'$%&*1.5',.&/')%5'8'2'0*8%),8%0'4%&*1.5'+'7,.-'&*$')+%,$(%.)$$+0')+%')*',.+'/%5'4/**5'*$%'*$'/%00'4$*.(+,),0',0'/0*'.*),(%'4/%')',0'$'$%')*'&,.5'&')'/+'%8*6)20,0'3,)+*1)'+%'6$%0%.(%'*&'('7,),%03+,(+'$%'/0*'8*$%'*$'/%00'&,//%5'3,)+'4/**5'(/*)' .'/8*0)'%7%$2',.0)'.(%'*&'&')'/+0%8*6)2,0',.'6+)+,0,0'01&&,(,%.)'5,/,-%.(%'3,'5,0(*7%$'%,)+%$'.'.'.%1$208'*&''661/;8*.'$2'7%00%/'3,)+,.''('7,)2'*$'1/(%$'),7%'%$*0,*.'*$'/'(%$'),*.'*&''.%B6*0%5'7%00%/'+%'3$,)%$'+'0'&*1.5'01(+''(*.5,),*.'8'&,&)%%.'%'0%0'')'7'$,*10'-%0',.(/15,.-'*.%',.&'.)'0%7%.'8*.)+0'*/5

#'''#.!(G*'8*5,&,;(')*.',.'*1$'7,%30'$%06%(),..')+%'.')1$%'*&6+)+,0,0'('.'/%00%.')+%'0,-..,&,('.(%'*&'+'%8*;6)20,0''0'4%,.-'*.%'*&',)0'8*0)',86*$)'.)'6*0,),7%'0,-.0' +10'$%-'$5%5',)',0''3'$.,.-')+')'8'2'0*8%),8%0'0'7%''.5'7%$2'*&)%.'6$*/*.-' &%'42'5$'3,..-'*1$'%'$/2')%).),*.')*''(*.5,),*.')+')'8,-+)'*)+%$3,0%'$%8','.)**'/*.-'(*.(%'/%5H41)'/,-+)/2'(*.0,5%$%5''.5'('$%/%00/2')$%')%5',)',0'41)')+%'6$%(1$0*$*&'5%0)$1(),7%'5,0%'0%

&'G'%.1,.%'+'%8*6)20,0'('.'$'$%/2'4%'8,0)'9%.'42''09,//%5'*40%$7%$6$%0%.)''))'(9' +%'-1$-/,.-',.')+%'4$*.(+,')+%'/**0%'(*1-+'.'.5'$%6%')%5'%B;6%()*$'),*.'*&' 0# '#'4/**5''$%'E1,)%'(+'$'()%$,0),(' +%'4/**5',0'5,0),.()/2'%B;6%()*$')%5'3,)+'(*1-+'.*)'7*8,)%5H'.'.5',)0'E1'/,)2',0'5,0),.()/2'&$%0+'.*)'(+'.-%5' .'+0%8')%8%0,0' 3,)+' 3+,(+' +'%8*6)20,0' ,0'0*8%),8%0'(*.&*1.5%5')+%'4/**5',0'4$*1-+)'16'42'7*8,),.-'H,0'8*$%'*$'/%00'8,B%5'3,)+')+%'(*.)%.)0'*&')+%'0)*8'(+H'.5'0'7%'3+%.')+%'+'%8*$$+'-%',0'7%$2'$'6,5''.5''41.5'.)'6$%0%.)0''5'$9'-$18*10''66%'$'.(%'*3,.-')*')+%'(),*.'*&')+%'-'0)$,(&/1,5'16*.',)' %3 !'E')'8'2')*'!4%'*40%$7%5'))+')'+%'4/**5'5*%0'.*)'(*8%&$*8')+%'.*0%'1./%00''08'/'E1'.),)2'4%'6$*>%()%5')+$*1-+')+%'.*0)$,/0'3,)+')+%'06'08*5,('(*1-+'&'0'*&)%.'+'66%.0'.*'8%5,('/'))%.5'.)',0')+'.5')+%'8*8%.)*&')+%')'(9')+%'66%';'.(%*&')+%'4/**5',0'101'//2'01&&,(,%.)&*$5,'-.*0,0H'.5',&')+%'+%08*6)20,0'+'7%'4%%.')'/'(*6,*10''.2&1$)+%$%B6%()*$'),*.0&*$)+%'.%B)'&%3'+*1$0''$%'0'.-1,.%*10'+%'&'()'*&')+,0'0'.-1,.%*10'(*/*$'),*.'*&')+%'061)''+'7,.-'%B,0)%5'&(a$0*8%'+*1$0'*$''5'2'*$')3*'&)%$'''.'+0%8*6)20,0',0'6*0,),7%'%7,5%.(%'*&')+%'+0%8*6)20,0'+'7,.-'4%%.'-%.1,.%'.'('0%0'*&''+0%8*$'$+'-%'&$*8''/'$-%'61/8*.'$2'4$'.(+')+%'4/**5'4$*1-+)'16',0'5'$9''.5'7%.*10

)',0'7%$2',86*$)'.)',.',0%),-.')+%'('10%*&+0%8*6)20,0')*'4%''0'-%.)/%''0'6*00,4/%,.'6+20,('/'%B'8,.'),*.'%'('.'/,0)%.')*')+%'/1.-0',.&$*.)''.5')*')+%'+%')'3,)+*1)'8*7,.-')+%'6'),%.)'*$'$%E1,$,.-',+,8')*'4$%')+%'5%%6/2H3%'('.'8'9%''.*)%'&')+%)%86%$04)1$%H'.5')')+%'),8%'3%0+*1/5'5*'.*'8*$%

+%')+$*')'0+*1/5''/3'20'4%%B'8,.%5',.'5*14)&1/'('0%0'*&+0%8*6)20,0''0')+%'4/**5'3,//'0*8%),8%0'4%&*1.5')*'+'7%',001%5'&$*8''.'1/(%$')%5')*.0,/'*$%7%.'&$*8'%./'$-%5'7%00%/0'*.')+%'6*0)%$,*$'3'//'&')+%'6+'$2.B''#''+*3%7%$'8'2'4%'5%;&,.%5''0'#'''''0'.'('0%0'*&061$,*10'+0%8*6)20,0')+%$%',0'101''//2'5,0),.()%7,5%.(%*&''8*$4,5'(*.5,),*.'*&')+%0%'6'$)0'+%81(*10'8%84$'.%'*&')+%'&'1(%0',0'$%/'B%5H)+%'-180'$%'06*.-2''.5'*&)%.'4/%%5'3+%.')+%)%%)+'$%'4$10+%5',.')+%'8*$..-'*8%,),8%0')+,0'(*.5,),*.'*&'-180'$,0%0'&$*8',.01&&,(,%.)'))%.),*.')*')+%')%%)+'('$,*10)18600''.5'81(+')'$')'$'$*1.5')+%')%%)+'('10,.-',$$,)'),*.''.5'06*.-,.%00'*&')+%'-180'+%'6'),%.)0'$%'101''//2''.'%8,(''.50+*$)4$%')+%5''.5'*&)%.'(*86/','*&'8*$.;,.-'(*1-+'41)')+%$%',0'.*'%7,5%.(%*&'/1.-'5,0%'0%''+%'4/**50)',.%5'81(10',0'101''//2'%>%()%5',.')+%'8*$..-'*.'3'9,.-'*.'5'&)%.'%0('6%0'&$*8')+%'8*1)+'51$,.-')+%'.,-+)'0)',.,.-')+%'6,//*3'.'%B'8,.'),*.','),0'&*1.5')*'4%''6,.9'3')%$2'81(10'1.,&*$8/20)',.%5''.5'(*.)',.,.-'(*86'$'),7%/2'&%3'4/**5(*$610(/%0

!G40*/1)%'$%0)',0')+%'&,$0)+,.-')*'4%'*40%$7%5',.')+%')$%')8%.)*&''/'))'(90'*&'+'%8*6)20,0'+%'6'),%.)0+*1/5'/,%'5*3.'3,)+')+%'+%'5''.5'0+*1/5%$0'$',0%5'42'6,//*30'%'0+*1/5'.*)')'/9'+%$**8'0+*1/5'4%'9%6)'E1,%)'.5'(**/H)+%'4%5(/*)+%0'0+*1/5'4%'/,-+)'41)'01&&,(,%.)H'.5'3'$8)+'0+*1/5'4%'66/,%5')*')+%'&%%)'/,))/%',(%.')+%'8*1)+''*$'0*8%',(%5'3')%$')*'0,6'3,'%'0%')+%'(*1-+'.5')%.5')*'(+%(9'+88*$'$+'-%'+%'6'),%.)'810)',&'6*00,4/%'4%$%'001$%5''0')*')+%'40%.(%*&',881%5,')%5'.-%$'.5')+%0+**9')*')+%'020)%8'//'2%5'3,)+*1)')+%'10%*&'0),81/.)0'*8%),8%0'*6,18'8'2'4%10%&1//2'-,7%.'&*$)+,0'61$6*0%'51%$%-'$5'4%,.-'+'5')*')+%+'4,)0''.5',5,*02.($'0,%0'*&')+%'6'),%.)'.'(*6,*10+0%8*$$+'-%'))%.5%5'3,)+'0+*(9''08'//014(1)'.%*10',.>%(),*.'*&'8*$6+,.%,0'0*8%

+'.5')')+%'8*8%.)*&')+%'))'(9')+%'66%'$;'.(%*&')+%'4/**5',0'101''//2'01&&,(,%.)&*$5,'-.*0,0H'.5',&')+%'+%08*6)20,0'+'7%'4%%.')'/'(*6,*10''.2&1$)+%$%B6%()*$'),*.0&*$)+%'.%B)'&%3'+*1$0''$%'0'.-1,.%*10'+%'&'()'*&')+,0'0'.-1,.%*10'(*/*$'),*.'*&')+%'061)''+'7,.-'%B,0)%5'&(a$0*8%'+*1$0'*$''5'2'*$')3*'&)%$'''.'+0%8*6)20,0'+'7%'4%%.')'/'(*6,*10''.2&1$)+%$%B6%()*$'),*.0&*$)+%'.%B)'&%3'+*1$0''$%'0'.-1,.%*10'+%'&'()'*&')+,0'0'.-1,.%*10'(*/*$'),*.'*&')+%'061)''+'7,.-'4%%.'-%.1,.%'.'('0%0'*&''+0%8*$'$+'-%'&$*8''/'$-%'61/8*.'$2'4$'.(+')+%'4/**5'4$*1-+)'16',0'5'$9''.5'7%.*10

)',0'7%$2',86*$)'.)',.',0%),-.')+%'('10%*&+0%8*6)20,0')*'4%''0'-%.)/%''0'6*00,4/%,.'6+20,('/'%B'8,.'),*.'%'('.'/,0)%.')*')+%'/1.-0',.&$*.)''.5')*')+%'+%')'3,)+*1)'8*7,.-')+%'6'),%.)'*$'$%E1,$,.-',+,8')*'4$%')+%'5%%6/2H3%'('.'8'9%''.*)%'&')+%)%86%$04)1$%H'.5')')+%'),8%'3%0+*1/5'5*'.*'8*$%

+%')+$*')'0+*1/5''/3'20'4%%B'8,.%5',.'5*14)&1/'('0%0'*&+0%8*6)20,0''0')+%'4/**5'3,//'0*8%),8%0'4%&*1.5')*'+'7%',001%5'&$*8''.'1/(%$')%5')*.0,/'*$%7%.'&$*8'%./'$-%5'7%00%/0'*.')+%'6*0)%$,*$'3'//'&')+%'6+'$2.B''#''+*3%7%$'8'2'4%'5%;&,.%5''0'#'''''0'.'('0%0'*&061$,*10'+0%8*6)20,0')+%$%',0'101''//2'5,0),.()%7,5%.(%*&''8*$4,5'(*.5,),*.'*&')+%0%'6'$)0'+%81(*10'8%84$'.%'*&')+%'&'1(%0',0'$%/'B%5H)+%'-180'$%'06*.-2''.5'*&)%.'4/%%5'3+%.')+%)%%)+'$%'4$10+%5',.')+%'8*$..-'*8%,),8%0')+,0'(*.5,),*.'*&'-180'$,0%0'&$*8',.01&&,(,%.)'))%.),*.')*')+%')%%)+'('$,*10)18600''.5'81(+')'$')'$'$*1.5')+%')%%)+'('10,.-',$$,)'),*.''.5'06*.-,.%00'*&')+%'-180'+%'6'),%.)0'$%'101''//2''.'%8,(''.50+*$)4$%')+%5''.5'*&)%.'(*86/','*&'8*$.;,.-'(*1-+'41)')+%$%',0'.*'%7,5%.(%*&'/1.-'5,0%'0%''+%'4/**50)',.%5'81(10',0'101''//2'%>%()%5',.')+%'8*$..-'*.'3'9,.-'*.'5'&)%.'%0('6%0'&$*8')+%'8*1)+'51$,.-')+%'.,-+)'0)',.,.-')+%'6,//*3'.'%B'8,.'),*.','),0'&*1.5')*'4%''6,.9'3')%$2'81(10'1.,&*$8/20)',.%5''.5'(*.)',.,.-'(*86'$'),7%/2'&%3'4/**5(*$610(/%0

!G40*/1)%'$%0)',0')+%'&,$0)+,.-')*'4%'*40%$7%5',.')+%')$%')8%.)*&''/'))'(90'*&'+'%8*6)20,0'+%'6'),%.)0+*1/5'/,%'5*3.'3,)+')+%'+%'5''.5'0+*1/5%$0'$',0%542'6,//*30'%'0+*1/5'.*)')'/9'+%$**8'0+*1/5'4%'9%6)'E1,%)'.5'(**/H)+%'4%5(/*)+%0'0+*1/5'4%'/,-+)'41)'01&&,(,%.)H'.5'3'$8)+'0+*1/5'4%'66/,%5')*')+%'&%%)'/,))/%',(%.')+%'8*1)+''*$'0*8%',(%5'3')%$')*'0,6'3,'%'0%')+%'(*1-+'.5')%.5')*'(+%(9'+88*$'$+'-%'+%'6'),%.)'810)',&'6*00,4/%'4%$%'001$%5''0')*')+%'40%.(%*&',881%5,')%5'.-%$'.5')+%0+**9')*')+%'020)%8'//'2%53,)+*1)')+%'10%*&'0),81/.)0'*8%),8%0'*6,18'8'2'4%10%&1//2'-,7%.'&*$)+,0'61$6*0%'51%$%-'$5'4%,.-'+'5')*')+%+'4,)0''.5',5,*02.($'0,%0'*&')+%'6'),%.)'.'(*6,*10+0%8*$$+'-%'))%.5%5'3,)+'0+*(9''08'//014(1)'.%*10',.>%(),*.'*&'8*$6+,.%,0'0*8%

),8%0' *&' -$%')' 7 ' /1% ' 0)$,. -% .)' 8 %5,(,. %0'
(' .*)' '/3 '20' . %%5%5' , .' + '% 8 *6)20,0 ' %0;
6%(,''//2',.' '))' (90' ,.' 3+,(+')+%' +0 8 *$$+ ' -%'
,0' 6$%018 '4/2' ('6,//' $2H)+%2' 8 '2 ' +* 3%7%$ '
4% -,7%.' ,.' 01(+' ('0%0' ,.' 0 8 '//' 5*0%0 ' *'
4% $%'//2' 10%&1/' , .' + '% 8 *6)20,0 ' '0)$,. -% .)0'
8 10)' 4% -,7%.' , .' &1//' 5*0%0 ' +*0%' 8 *0)'
10%5' '$%' '(%)')%' *&' /%'5 ' &*1$' -$',.0 ' %7%$2'
)+$%%' *$' &*1$' +*1$0H '/18 ')3%.)2' -$',.0 '
3,)+' 5,/1)%5' 01/6+1$,(' '(,5 ')+,$)2' 8 ,.,8 0 '
%7%$2' &*7a$ +*1$0H -'/+(' '(,5 ')3%.)2')*'
)+,$)2' -$',.0' %7%$2' +'/& +*1$' *$' +*1$' &*$
)3*' *$')+$%%' 5*0%0 ' &*//*3%5' 42')%. -$',.'
5*0%0' %7%$2')+$%%' +*1$0H *>/' *&')1$6%.),.%'
)+,$)2' 8 ,.,8 0' %7%$2')3*' +*8$0' ,.' 03%%)%.%5'
8 1(,/'-%' *$' ,.' 8 ,/9' &*$' ' (*16/%' *&' 5*0%0 '
)+%.',.'+'/&' *$')+,$5' 5*0%0H /,E1,5' %B)$' ()' *&'
%$-*)' ,.'+'/& 5$' (/..'*$' 5$' (+8' 5*0%0 ' %7%$2'
)3*' *$')+$%%' +*1$0H)%.' *$' &,&)%%. 8 ,.,8'
5*0%0' *&')+%' 6% 8 ,)$')%' *$' 6%$01/6+')%' *&',$*.'
0*/1),*.' *$')+,$)2' *$' &*$)2' 8 ,.,8 0' *&')+%'
6%$(+/*$,5%' &$%%/2' 5,/1)%5' &')+%' '4*7% '
8 %.),*.%5' '0)$,.-%.)' $%8%5,%0' '/18 ' '.5'
01/6+1$,(' '(,5 '-'//,(' '(,5 ' .5' %$-*)' $%')+%'
4%0)' ,.')+%' -$%')%$' .18 4%$*&' ('0%0 ' (%)')%'
&' /%'5 ' ,0' /%00' '66+('4/%')' ('0%0' *&' /1.-'
+0% 8 *$$+'-%')+' .' ,.'4*3%/' *$9,5.%2' /%0,*.0'
$-*)',0')*'4%'6$%&%$$%5',.')+*0%' ('0%0',.'3+,(+'
3% ,.&%$')+')' '' (*.0,5%$'4/%' 7%00%/' +'0' -,7%.'
3 '2 ')' 8 '2' /0*' 4% -,7%.' ,.')+%' &*$8' *&'
%$-*),.G*.% +'/&')*')3*'-$',.0' +26*5%$8,(;
''//2'H 41)')+10'-,7%.',)'0*8%),8%0'('10%0'8 1(+'
/*('/',.&/' 8 8 '),*.' /'*&')1$6%.),.%',0' (%$;
)',./2'*.%'*&')+%'6*3%&1/'*&' 0)$,.-%.)0'
,.'61/8*.'$2'+0% 8 *$$+'-%' '.5' 8 '2'4%' 10%;
&1//2'+%/5',.'$%0%$7%' c=%.'&$%%/2'58,.,0;
)%$%5')+%'(*.5,),*.'*&')+%'1$,.%' 8 10)' 4%'('$%;
&1//2'.*)%5' '0%0' *&'+'% 8 *6)20,0' *./2'$'$%/2'
((1$',.'3+,(+',)',0' 3%//')*' -,7%' 8 %',$.'
'0)$,.-%.)0' 0' '' $1/%')+%2')%.5')*',.($%'0%'
61/8*.'$2'(*.-%0),*.H 41)',.'0*8%'('0%0',.'
3+,(+'+'% 8 *6)20,0' +'0' '')%.5%.(2')*' (*.;
),.1%'&)%$')+%'6'),%.)' +'0' 4%%.'4$*1-+)')*' ''
0)')%' *&' 6$*&'*1.5' .'%8,' ')+%' &,$0)' *1);
41$0)')+%2' 8 '2' 4%' 10%&1//2'-,7%.')+%,$'%&&%()'
4%,.-' ('$%&1//2'3')*>,%5' ,-,)'/,0' '' 5$1-'
0*8%),8%0' *&'-$%')'7'/1%',.'+'% 8 *6)20,0H ,)',0'
4%0)' '5'6)%5')*')+*0%' ('0%0',.'3+,(+')+%$%',0'
8 1(+'%B(,)% 8 %.)'*&')+%'(,$(1/'),*.' .'('0%0'
&*$',.0)'.(%',.'3+,(+')+%' +'% 8 *6)20,0' +'0'
4%%.'5%)%$8,.%5'42',.)%86%$'.(%'*$',.'&,B '
4/**5%5'6%*6/%' 42'%&&*$)'),.()1$%*&'5,-,)'/,0'
,.')3%.)2' *$')+,$)2 8 ,.,8' 5*0%0' 8 '2' 4%'
-,7%.' .' 01(+'('0%0',.'3+,(+')+%'6*$)'/
020)%8' ,0' 101''//2'(*.-%0)%5' 01/6+')%' *&'
8 '-.%0,18' '.'5'5,/1)%5'01/6+1$,(''(,5'8 '2'4%'
(*84,.%5' 3,)+')+%'5,-,)'/,0' '.5'-,7%.'%7%$2'
&*1$' *$'0,B' +*1$0' &*$' '' (*16/%' *&'5'20' *$'0*'
.')+%')$%')8%.)' *&' +'% 8 *6)20,0' ,)',0' 101''//2'
.%(%00'$2')*' (*1.)%$'()')+%' %&&%()' *&')+%'
'0)$,.-%.)'16*.')+%' 4*3%/0' 42'61$-',7%0' *$
/'B'),7%0' .' %.%8'' 8 '2' 4%' .%(%00'$2')*'
%.'4/%')+%' 4*3%/0')*' '()' %0,/2' '.5' 3,)+*1)'
0)$',.,.-' +%' 10%' *&')+%' 4%5 6' .' 8 10)' *&'
(*1$0%' 4%' %.>*,.%5
> *1.)%$,$$,)',*.',0' *&' -$%')' 7 ' /1%' ,.')+%

)$%')8%.)' *&' 8 '.2' ('0%0' *&' +'% 8 *6)20,0 '
(+,%&/2',.')+*0%' %'0%0' ,.' 3+,(+')+%' +'% 8 *$;
$+'-%',0'.*)' -$%')''.5'*((1$0',.')+%' (*1$0%' *&'
6+)+,0,0'4%,.-'51%%,)+%$')*'/*('/61/8*.'$2'
(*.-%0),*.'*$')*' '(),7%' +26%$'%8,'' *&')+%'
3'//0' *&' '' ('7,)2' +0)%$0' '$%' '0' '' $1/%'
4%0)' '7*,5%5',.' (*6,*10' + %8*6)20,0' 51$,.-'
)+%'0)'-%' *&'0+*(9' *.),.1*10' (*/5')*')+%'
(+%0)' ,0' 5%(,5%5/2')*' 4%' 5%6$%()%5' +%'
,.)%$8,))%.)' '66/,(',.'*&' (*/5' 8 '2' 0*8%;
),8%0' 4%' %86/*2%5' 41)' ,0' '' 8 %'01$%' *&'
5*14)&1/' %B6%5,%.(2
+%')%86%$')1$%' '.5' 61/0%' *&')+%' 6')%.)'
0+*1/5'4%' ('$%&1//2'3')(+%5'51$,.-'.'))'(9'
*&'+'% 8 *6)20,0' '.5'&*$5'20' '&)%$3'$50
+%5,%)' 8 10)' ')' &,$0)' 4%' $%0)$,()%5')*' (*/5'
.1$),)*10' &/1,50' +%')%.5%.(2',0')*' 9%%6'
6'),%.)0'01&&%$,.-' &$*8' +'% 8 *6)20,0' *.' (*/5'
0/*60' .5'(*/5'0*/,50'&*$)2 %,-+)'+*1$0' 3 '$8 '
.*)'+*)'&**5' 8 '2' 4%' '//*3%5'),8 1/' .)0'
%B(%6)',.'06%(,'/('0%0' 8 10)' 4%',.)%$5,()%5
+%')$%')8%.)' ' '*$' '# '
5%6%.50'16*.',)0' ('10%' .' 8*0)'
('0%0')+%'('10%4%,.-''. %8,' 3,)+' ''$%/'B%5'
'.5' 8*$4,5' (*.5,),*.','*&')+%' 8 1(*10' 8 %8;
4$'.%0''.'(,5'6$%6'$'),*.'*&',$*.'(*.)',.,.-'
0*8%(+/*$')%'*&'6*)'00,18' '.5'-/2(%$,.%'3,//
06%%5,/2'(1$%')+%' 8 '/'52' ,.()1$%'*&')+%'
'(%)')%'*$'6%$(+/*$,5%'*&',$*.' ''55%5')*''0 8 '//
0/%8*. 0E1'0+ ≤,0' '/0*' '.'%B(%//%.)' $%8%52'
+%.')+%'-18 0' '$%'06*.-2H)+%''55,),*.')*''
(+'/9'*$'(+'$(*'/')**)+ 6*35%$'*&&,.%/2'6*77'
5%$%5'9,.-*'*$'()%(+1'*$')+%' 55,),*.'*&'0*8%'
-/2(%$,.%'*&')'.,.,')*')+%')**)+ 3')%$'3,//
6$*7%' %&,&/('(,*10' 0)$,.-%.)' -'$-/%0' 3,//
01--%0)')+%8 0%/7%0',.'&,)),.-'('0%0H '.5'&,.,,)'
'.5'7%-%)'4/%0' 8 10)' 4%' 55%5')*')+%' 5,%)

/. ':

)U ' , ' 4/**5H '.5'
" ' '41$0)'&*$)+R G 7 ' $'" " '
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& # " +%' %0('6%' *&' 4/* 5' &$*8'
'.2'6'$)'*&')+%' (,$(1/'),*.' '.5',)0' 5,0(+'$-%'
&$*8')+%' 4*52
+%.'4/**5'%0('6%%' &$*8'.2'*&',)0'.')1$'/
$%0%$7*,$0',)',0' %,)+%$' %B)$'7'0')%5',.)*')+%'
.%,-+4*8,.-'*$-'.0' *$' ('7,),%0'*$&/*30'&$*8'
*.%' *&')+%' 01$&'('0%' *$' *$,&,('0%' *&')+%' 4*52'
.')+%/')%$' ('0%' *./2',0')+%')%$8'0+a8*$'
$+'-%≤ 0)$,()/2' '66/,('4/%' , ' *, A '
3' +,0' 5,0),.(),*.' +*3%7%$' ,0' .*)
'/3'20' ('$%&1//2'*40%$7%5H '.5'01(+'%B6$%0;
0,*.0''0'0(%$%4$'/+0%8*$$+'-%≤0+'%8*$$+'-%'
,.)*')+%' 6%$,('$5,18≤ '.5' 0+'%8 $$+'-,('
%$16),*.0≤ '$%' %86/*2%5',.' (*..%B,*.' 3,)+'
3+')' '$%' 8*$%' (*$$%()/2' '//%5' ('
" ' '4/**5
.6 ! '%8*$$+'-%',0''/8*0)'/3'20'
51%)*''0*/1),*.'*&'(*.),.1,)2'*&'0*8%'6'$)'
&')+%' (,$(1/')$2'020)%8'3+%)+%$' 42',.>1$2'
*$' 42' 5,0%'0%' '%8*$$+'-%' &$*8')+%' %B'
)%8 '01$&'(%*&')+%'4*52',0'3,)+'&%3'%B(%6;
),*.0')+%' $%01)'*&'3*1.50'*$' *)+%$'&*$8'*&'
,.>1$2H 41)' 1/(%$'),*.G%,)+%$' 0,86/%' *$

8 '/,- . ' .) G&$%E1% .)/2' / ' 20' *6% . ' '' 7%, . ' *$ ' . '' $)%$2H ' . 5' . %1$20 8 ' *&') + %' -$%')' 7%00%/0 ' ' . 5' %7% . ' *&') + %' + %' $) ' 8 ' 2' ' /0 *' - ,7%' $,0%') *' %B)%$. ' /' 4/%%5, . - ' %8 *$$+ ' -%' &$* 8' , . ;)%$. ' /' *$- ' . 0 ' * . ')+%' (* .)$' $2 ' ,0' 8 *0)' &$%E1% .)/2')+%' $%01/)' *&' 5,0%' 0%' ' 0 ' &*$' , . ; 0)' . (%' 1/%%$ ') , *. ' *$' . %1$20 8 ' *$' *&' (,$(1; / ') *$2' 5,0)1$4 ' . (%' 01(+' ' 0' (* . -%0), * . ' $%') %B(,)%8%.)' ' . 5' 0%7%$% %B%$), * . ' '$%')3 *' *&')+%' (+,%&' 5%)%$8, . , . -' ('10%0' *&' + ' %8 *$$+ ' -%' 42' 6$*51(, . -' -$%')' *$ 0155%. ' $,0%' *&') + %' -%. %$ ' / 4/**5 6$%001$%' 3 +%) + %$' 42' ('$5, ' (5,0)1$4 ' . (%' *$ 42' *40)$1(), *. ' *&') + %') %$8, . ' / 7%00%/0 ') + %2' 8 ' 2' /%' 5' %7%. ') *') + %' $16)1$%' *&' + %' /) + 2' 7%00%/0 ' *(' / 5,0)1$4 ' . (%0' *&') + %' 4/**5 6$%001$%' -,7%' $,0%' , ') + %' 0 ' 8 %' 3 ' 2') *' (*. -%0), *. ' *$ +26%$0%8, ' ' . 5' &, . '//2') *' + ' %8 *$$+ ' -%' + %' 6$, . (,6 ' / ('10%0' *&' + ' %8 *$; $+ ' -%0' *&') + , 0' (/'00' $%' 5,0% ' 0%0' *&') + %' + %' $) ' *&') + %' -$%') ' 7%00%/0 ' *&') + %' $%06,$ ') *$2' *$-' . 0 ' . 5' *&') + %' /,7%$ ' ' . 5' 0155%. ' 7 ' $, '), *. 0', . ') + %' ') 8 *06+%$, (' 6$%001$%' *$, . ') + %') %8 6%$ ') 1$%H ' . 5' 01(+' + ' %8 *$$+ ' -%0' $%' /0 *' , . ' 0 * 8 %', . ; 0)' . (%0' 1 . 5*14)%5/2' *&' ') / ' . ')1$%' %$) ' , . ' (*. 5,), *. 0' *&') + %' 4/**5' $%' 4%/,%7%5')*' 6$%5,06*0%') *' + ' %8 *$$+ ' -%' ' 0 ' &*$%B' 8 6/%' , . ' 0(1$72' 61$61$' ') + %' 8 ' /, - . ' .) ' &%7%$0' (+$*. , (' &, -+) <0' 5,0%' 0%' ' . 5' '/(*+*/,0 8 ' + %$%' ,0' 6$*4 ' 4/2' + * 3%7%$' ' ' /%0, *. ' * &') + %' 7%00%/ 3 ' //0' , . ' 0 * 8 %' * &') + %0%' 5,0%' 0%0' ' 6%(1/,' $' *. 5,), *. ' * &' 4*52' ,0' 9. * 3. ' ' 0') + %' # # 0' # ' *$' + ' %8 *6+, /, ' H ') + %' 014>%() 0' *&' 3 +, (+' %B+, 4,) ' ' 8 * . -0) ' *) + %$' &*$8 0' *&' 5%4, /,)2 ' ' $%8 ' $9 ' 4/%') %. 5%. (2') *' 6$*&10%' + 0%8 *$$+ ' -%' &$* 8') $, 7, ' / (' 10%0' ' ! ($ ' ' E G /%%5, . -' &$* 8') + %' 01$&' (%' *&') + %' 4*52' 3 + ') %7%$' ,) 0' *$, -, . ' , 0' 0, 8 6/2' (' //%5' # # 0 ' . 5' ,) 0' %B' () ' 0*1$(%' . 5' 0,)1'), *. ' '$%' *) + %$3, 0%' 5%&, . %5' . ') + %' (* .)$' $2' 3 + %. ' 4/**5' %0(' 6%0' 42' ' . 2' * &') + %' . ') 1$' / * 6%. , . -0' * &') + %' 4*52' ' . 5', 0' 5%$, 7%5' &$* 8' ' . ', .) %$. ' / * $-' . ') + + 0%8 * $$+ ' -5', 0' 5%0($, 4%5' 42' '' 06%(, &' . ' 8 %' '%8 * $$+ ' -%' &$* 8') + %' . * 0%' , 0' (' //%5' (H &$* 8') + %' %' $' # 0 H &$* 8') + %' 0) * 8 ' (+' # H &$* 8') + %' $%06, $') * $2') $' () ' # H ' . 5' &$* 8') + %' 1$, . ' $2') $' () ' # 2 ' /**5' 6' 00%5' ' " ' '&) %$' . 5%$ - *, . -' (%$) ', . ' (+' . - %0') *' 4%' $%; &%$$%5') *' , 8 8 %5, ') %/2' , 0' (' //%5' " ' " # 0 ' . ' 5' # 0 ' '$%') + %' . ' 8 %0' -, 7%. ') *' 6$*&10%' 4/%%5 8 -' &$* 8') + %' -%. ,) ' / * $-' . 0' , . ') + %' &%8 ' /%G ') ') + %' 8 %. ; 0) $1 ' / 6%$, *5' . 5' ') ' *) + %$'), 8 %0 ' $%06%(), 7%/2 & ' (" + %' / * (' / 6+%. * 8 %. '' 3 +, (+' ($' ()%$, 0%' + ' %8 *$$+ ' -%' &$* 8') + %' %B)%$. ' / 6' $)0' *&') + %' 4*52' 7' $2' 3,) + ') + %' 0*, 1(%' *&') + %' 4/**5' &',)' 6$*(%%5' &$* 8' . ' ' $)%$2' *&' (*. ; 0,5%$' 4/%' 0, C%',)' %0(' 6%0', . ') + %' &*$8' *&' '>%) ' 3 +, (+', 0' 0)$%. -) + %. %5') ' %' (+' 4%') ' *&') + %' 61/0%' ' . ' ' (), 7%' 061$) ' /**5' 5,0(+' $-%5' &$* 8' ' . ' *6%. %5' 7%, . ' %,) + %$' &/*30' , . ' . ' '41.5 ' . ' (*.), . 1*10' 0)$%' 8 ' *$' 3% 0' 16' &$* 8') + %' 5%6) + ' *&') + %'), 001%0' , . ' 3 +, (+') + %' 7%00%/ /, %0' '6, //'$2' + ' 08 *$$+ ' -%' , 0' -%. %; $' //2' 81(+' /%00' 6$*&10%' . 5' , 0' 8 *0)' &$%; E1%.)/2' 0%%. ' , . ') + %' &*$8' *&' **C, . - ' /**5' 6$*(%%5, . -' &$* 8' , .) %$. ' / * $-' . 0', 0' 7' $, *10/2' 5,0(+' $-%5' 42') + %' 0%7%$' / * 1) /%) 0' * 8 %;), 8 %0',) ' , 0', 8 8 %5, ') %/2' %B6%//%5' %06%(, ' //2' , &', . ' E1' .),) 2H *$,) ' 8 ' 2' %0(' 6%' %7%. ' 3 + %. ' , . ' 08 ' // E1' .),) 2 ' *3, . -') *' -$' 7,) ',) *, . ' ' 0', . ' + ' %8 *$$+ ' -%' &$* 8') + %' . *0%' *0) ' &$%E1% .)/2') + %' 4/**5' , 0' $%) ' , . %5' &*$' ''), 8 %' ' . 5') + %. ' ' (), . -' ' 0' '' &*$%, -. ' 4*52' , 0' %>%()%5H &*$' %B' 86%' , . ' 4/%%58 -' &$* 8') + %' 0) * 8 ' (+' 4*3%/0 ' 5$ 4/' 55%$ # G /**5' &/*3, . -' &$* 8') + %' 01$; &' (%' *&') + %' 4*52' 101' //2' 6$%0%.) 0',) 0' &' 8, /, ' $' (+' $' ()%$0' + %' (*/*1$' *&') + %' 4/**5' 3, //' 4%' 0(' $/%) ' 3 + %. ' ,) ' , 0' 5%$, 7%5' &$* 8' ' . ' ' $) %$2H 61$6/%' 3,) + ' '') %. 5%. (2') *' 4%(' 8 %' 0(' $/%) ' * . ') + %' 01$&' (%' 3 + %. ' ,) ' &/*30' &$* 8' '' 7%, . ' H ' . 5' *&' ''), .) ' , .) %$8%5, ') %' 4%) 3%%. ') + %0%') 3 *' (*/*1$0' 3 + %. ') + %' + ' %8 *$$+ ' -%' , 0' (' 6, //' $2' . ' '// ('0%0') + %' 4/**5' (*' -1/') %0' 8 *$%' *$' /%00' '41.5 ' .) /2' '$*1.5') + %' 0%') ' *&' + ' %8 *$' $+(-% . ' + ' %8 *$$+ ' -%' &$* 8' , .) %$. ' / * $-' . 0' * . ') + %' (* .)$' $2') + %' 4/**5' , 0' &$%E1% .)/2' (*' -1; / ') %5' H 8 *$%' *$' /%00' 8, B%5' 3,) + ') + %' &/1,50' *&') + %' 6' $) H *$' *) + %$3, 0%' '/) %$%5' 51$, . -' ,) 0') $' . 0,) ' + %' &*//*3, . -' '$%') + %' 6$, . (, 6 ' / (+' . -%0') + ') ' 4/**5', 85%$-*%0', . ',) 0' 6' 00' -%') *3 ' $50') + %' 0%7%$ ' / * 1) /%) 0' *&') + %' 4*52 G /**5' &/*3, . -' &$* 8') + %' (" ' / ' *$ &$* 8') + %' " ' " ' ,0' &$%E1% .) /2') +, . ' . 5' 3 ') %$2' , &') + %' + ' %8 *$$+ ' -%' + ' 7%' / ' 0) %5' &*$' . 2' /% . -) + ' *&'), 8 %' /**5' 5,0(+' $-%5' &$* 8') + %' ' " ', 0' *&) %. ' (*' -1/') %5' 4/' (9' ' . 5' 8, B%5' 3,) + ') +, (9' 81(10' . ' + ' %8 *$$+ ' -%' &$* 8') + %' # ') + %' 4/**5' 8 ' 2' 4%' 5%$, 7%5' &$* 8') + ') ' (' 7,) 2' &$* 8') + %' &' 1(%0' &$* 8') + %' $%06, $') *$2' 6', 00=%0' *$' &$* 8') + %' 166%$' 6*$), *. ' * &') + %' 5, -%0), 7%') $' () G%06%(, ; ' //2') + %' 0) * 8 ' (+' + %. ') + %' 4/**5' &/*30' &$* 8' 0* 8 %' 6' $) ' *&') + %' # ' ' 0') + %' -180') *. -1%' 6' /') %' *$' (+%%90',) ' , 0' 8 *$%' *$' /%00' , .), 8 ') %/2' 8, B%5' 3,) + ' &$*) + 2' 0' /, 7' ' ' . 5' 81(10' . ' + ' %8 *$$+ ' -%' &$* 8') + %' 7 ' 0 ' *$' &$* 8') + %' #') + $*1-+') + %' 8 *1) + ') + %' %>%() %5' 4/**5' 7' $, %0' %B) $%8%/2' , . ' 5, &&%$%.) ' , . 0) ' . (%0', ' 0 J B <H) H ' . 5' ! ! 3 ' '%8 *$$+ ' -%' &$* 8') + %' -%. ,) * 1$, . ', $2') $' () ' , 0' '/0*' 06%(, ' //2' 5%; 0($, 4%5' '%8 *$$+ ' -%' &$* 8') + %' 4*3%/0', 0' . *) ' 6%(1/, '$' , &') + %' 0*1$(%' *&') + %' 4/**5' 4%' . %' $') + %' ' . 10' *$' , &') + %' 4/%%5, . -' 4%' 7%$2' 6$*&10%H) ' 9, . -') + %' &*$8' 0*8%), 8%0' *&' '' -10+' *&' &$%0+' 3 ' $8' 4/**5' ') ' *) + %$'), 8%0' *&' '' 8%$%' $%5' 0) $%' 9' 16*. ') + %' &' %(%0' &') + %' 4/**5' 4% 5%$, 7%5' &$* 8' '' +, -+%$' 6' $) ' *&') + %' , .) %0), . %0') + %' '66%' $' . (%' *&'), ' 3 + %. ' 5, 0; (+' $-%5' 3, //' 4% 5, &&%$%.) ' %. %$' //2' ,) ' 0*' &' $' /) %$%5' 42') + %' ' (), *. ' *&') + %' 7' $, *10' , . ')%0), . %, /' (*.) %.) 0' '0') *' 4%' (*. 7%$) %5' , .) *' '' 4/' (9') ' $2' **9, . -' 8 '00' , ' $ 3' %00' &$%E1% .)/2') + %' 4/%%58 -' 8 '2' 4%0*' 6$*; &10%' '0') *' &, //' '' (*. 0, 5%$' 4/%' 6*$), *. ' *&') + %' 4*3%/' ' . 5' (/*) 0' *&' 4/**5' 8 '2') + %. ' 4%6 ' 00%5' '0' , . ' 0*8%' ('0%0' *&' + %8 *$$+ ' -%' , . ') 26+*, 5

&%7%$' +%' 6%(1/,'$' (+'$'()%$0' *&' " ' +'%8*$$+'-%' '$%' 5%0($,4%5' 1.5%$')+%' +%'5' *&' %'(+
4/**5' '$%' 5%0($,4%5' %/0%3+%$% ' 0%8*$$+'-%' &$*8')+%' ',.' /'$-%' E1'.),)2' (*.0,0)0' *&' 1.'/)%$%5' 4/**5')7+%)+%$' (*'-1/')%5' *$' .*)
$4 ' &F ! ' G' %%8*$' $+'-%0' ('10%5'42' 3*1.50' '$%' -%.%$'//2' 8*0)' 6$*&),0%' ')' &,$0)Ḥ '.5'1./%00')+%2' 6$*7%$'&')'/ 06%%5,/2'*$' '$%' '$),&,(,'//2' '$$%0)%5' -$'51'//2' (%'0%' .')+%' (*.)$'$2' +0%8*$$+'-%0' 51%)*' 5,0%'0%' '$%' &$%E1%.)/2',.0,-.,&,('.)' ')' &,$0)' '.5',.($%'0%',.' '8*1.)Ḥ*$')+%2' $%(1$' '-',.' '.5' '-',.' ,.' 7'$,'4/%' E1'.),)2
'.2'.')1$'/' ('10%0' (*.)$,41)%')*')+%' '$; $%0)'*&'+0%8*$$+'-%')+%' 8*0)',86*$)'.)'4%,.-' 3%'9%.,.-' *&')+%' &*$(%' *&')+%' +%' $)' 42')+%' /*00' *&' 4/***5Ḥ)+%' (*.)$'(),*.'*&')+%' (*')0' *&')+%' 7%00%/0' ')')+%' 0%')' *&'/%0,*.Ḥ)+%' (*'-1/';),*.' *&')+%' 4/**5G&,$0)' '$*1.5' '.5')+%.' 3,)+,.')+%' *6%.' 7%00%/Ḥ)+%' 6$%001$%' *&')+%' %B)$'7'0')%5'4/**5',.')+%'01$$*1.5,.-'),001%0H '.5')+%' ,.($%'0%5'(*'-1/'4,/,)2'*&')+%' 4/**5' '&)%$')+%' &/*3'+'0' (*.),.1%5'&*$'0*8%'),8%' +%'$%/,%&*&')+%'/*(''/5,0)1$4'.(%*&'6$%001$%' 42')+%' *((1$$%.(%' *&')+%' +'%8*$$+'-%' ,0' '/*.%01&&,(,%.)' ,.' 8'.2',.0)'.(%0')*' '$$%0)')+%' &/*3
*##' G +%' %&&%()0' *&'+'%8*$$+'-%' '$%' (+,%&/2' %B%$)%5'16*.')+%' 020)%8$'-%.%$'//2Ḥ '.5')+%2' '$%')+%$%&*$%' $%8'$9'4/2'1.,&*$8' 3+')%7%$' 8'2'4%' ,)0' /*('/,)2' +%' (,$(18; 0)'.(%0')+')' 8*$%' %06%(,'//2' '&&%()')+%' ,.;)%.0,)2'*&')+%' %&&%()0' *$'0286)*8 0' '$%')3*' .'8%/2')+%' '8*1.)' & 4/**5'/*0)' '.5')+%' $'6,5,)2'*&')+%' &/*3' K +%.' +'8*$$+'-%' ,0' ')' *.(%&,%%' '.5'6%$0,0)%.)'02.(*6%'$'6,5/2' %.01%0'6$*4'4/2'((*86'.,%5'42'(*.71/0,*.0' '.5'%.5,.-'06%%5,/2',.'5%')+'1./%00')+%'4/%%5; ,.-' %,)+%$' 06*.)'.%*10/2' (%'0%' *$' 4%' '$),; &,(,'//2''$$%0)%5' ' (3' +%' 0155%.' /*00' *&' *.%+'/&'*&')+%')*)'/' 8*1.)'*&'4/**5' ,.')+%' 4*52',0' 4%/,%7%5')*' 4%' 01&&,(,%.)'(/'10%' 5%')+' .')+%' *)+%$'+'.5'%.*$8*10' E1'.),),%0' *&' 4/**5' 8'2' 4%' /*0)' 3,)+*1)' ' &')'/' $%01/)' ,&')+%' +'%8*$$+'-%' 4%' 0/*3' *$' m&$%E1%.)/2' $%6%')%5' 3,)+' (*.0,5%$'4/%' ,.)%$' K8,00,*.0' %' /*.5),)*.' *&')+%' 014>%()' *&')+%' +'%8*$$+'-%')+%.'4%(*8%0' *.%*&'.'%8,' 7! 3' *$%' 8*5%$')%' 4/%%5,.-0' &$%E1%.)/2' $%6%')%5' 6$*51(%' &',.).%00' '.5' 8'2'('10%' '' (%$)',.'5%-$%%' *&' 6'//*$'3+,(+' 0+*$)/2' 5,0'66%'$0' *5%$')%' +'%8*$$+'-%0' &$*8' (%$)',.' 0,)1'),*.0' &*$' %B'86/%' &$*8')+%' .*0%' $%()18' *$' %7%.')+%' /1.-0' 8'2' 0*8%),8%0' $%8*7%' (*.-%0),*.' '.5' 4%' ');)%.5%5'3,)+' '&%%/,.-'*&' $%/,%&' '.5'3,)+' $%'/' 4%.%&,)
('/' %&&%()0' 5' *((1$',.' 0*8%' &*$8 0' *&' +'%8*$$+'-%' '%8*6)20,0',0' &$%E1%.)/2' (;(*86'.,%5'42',.+'/'),*.'*&' 4/**5' '.5' 8'2' /%'5')*',.&/'..')',*.'*$' 8*$%'(*86/%B'5,0%'0%' *&')+%' /1.-0' '%8*$$+'-%' ,.)*')+%' 1$,.,' &%$*8'1*10'/1400'('10%0' 6/1--,.-'*&')+%0%' '.5' 5,0(+'$-%' *&' 4/**5*'0)0' /**5' $%)',.%5',.' 8%' -%.%$')',7%'*$',.')+%' $%06,$')*$2'6'00'-%0' *((''0,*.=2' 4%(*8%0' 5%(*86*0%5' +%' 06%(,'/ 0286)*80' *&')+%' 0%7%$'/ &*$80' *& +'%8*$$+'-%' '$%' 5%0($,4%5' 1.5%$')+%' +%'5' *&' %'(+
! G= +%')$%')8%.)' *&' +'%8*$; $+'-%' &$*8' %B)%$.'/ 6'$)0' ,0' '' 014>%()' *& 61$%/2' 01$-,('/,.)%$%0)Ḥ 41)' ,)' 8'2'4%' 0',5')+')',.' ('0%0' *&' %8%$-%.(2' 8*5%$')%' 6$%0; 01$%'3,)+')+%' &,.-%$' *$' *)+%$' 8%'.0'*.')+%' 0%')' *&')+%' 4/%%5,.-' ,0' -%.%$'//2' 6$'(),('4/%' '.5' 01((%00&1/' '%8*$$+'-%' &$*8',.)%$.'/ 6')0' $%E=%0'06%(,'/)%')8%.)' (((*$5,.-')+%' 6')$),(1/'$' *$-'.' &$*8' +,(+',)' ,0' 6$*; (%%5,.-' +%'$%'5%$',0')+%$%&*$%'$%&%$$%5')*')+%' 0%7%$'/ $),(/%0'*.' 6,) Y, Ḥ ! B % ! % / ! (/ %) ,0*$5%$0' * &Ḥ ! ' 'Ḥ'.5' (= ' ' $$' 0 %' && A'E,' 4/**5Ḥ' .5')) ' 5' 41$0)' &*$)+R = 00*(,')%5' 3,)+' +'%8*$$+'-%' +%' 3*$5',0' '66+%5')*' (%$)',.'.&/'88')*$2'6$*51()0' *$')*' %&&10,*.0' 3+%.')+%2'(*.)',.'4/**5' '0' .'Ḥ O 0 ' " ' .'5')*' 7'$,%),%0' *&' (%$)',.' 5,0%'0%0' ,.'3+,(+'%B)$'7'0'),*.0'*$'+'%8*$$+'-%0'&$*8' &$%%'01$&'(%0'*((1$'&*$%B'86/%'# # 0 ' ('# # 0 ' " '.5'# ' # 0 ' &&, / 3 % ! ! ' ! ($ ' A'E)'' 4/**5Ḥ' .5' "' ' &/*3R G ' ,/%0Ḥ' $' $ ' # Ḥ %$'P # " & ' (G +%' +'08*$$+*,5' '7%00%/0' '.5' %06%(,'//2')+%' 7%,.0' 5,0)$,41)%5')*')+%' /*3%$'6')$'*&')+%' $%()18' '$%' 7%$2'/,'4/%')*' 4%(*8%'5,/')%5' '.5'7'$,(*0%'-,7,.-'$,0%')*' '' 5,0%'0%')%$8%5'# # ' $ ' +%.')+%' 6/%B10'4%.%')+')+%' 81(*10' 8%84$'.%' 3,)+,.')+%'%B)%$.'/06+,.()%$',0')+10'!&&%()%5')+%' +'%8*$$+*,50' '$%' 0',5')*' 4%' +%.')+%' 7%,.0'4%.%')+')+%' ,.)%-18%.)0' *1)0,5%')+%' 810(/%'$%'%./'$-%5')+%'+'%8*$; $+*,50'$%'('//%5' (" ' .)%$./'/'.5'%B;)%$./'+'%8*$$+*,50'7%$2'&$%E1%.)/2'(*%B,0) I (" 'P # G %8'2'5,0),.; -1,0+')3*'9,.50'*&'%B)%$.'/6,/%0GA8Ḥ)+%') " ' '.5'A<Ḥ)+%' " A Ḥ +%') " ' '(*.0,0)0'*&''0*)),0+'%%7')',*.'*&')+%'09,.'.'%'$')+%'8'$-.,'*&')+%' '.10'*&' '$*1.5%5'&*$8' '.5' '' 7,5'*$' 0+-+)/2'4/1%'),.-%' .'(1)),.-',.)*',)'3%' &,.5',0'&*$8%5'42' '5,/')%5'7%,.'*$'7%,.0' 3+,(+'&)%$',.&/'88'),*.'3,/Ḥ4%*((16,%5'42' ''5'$9 (*/*1$%5'(*'-1/18 A@Ḥ +%' " ' (" ' (*.0,0)0'*&''&/'))%.%5'6$*/*.-'),*.'*&'09,.'51%')*'+26%$;)$*6+2'*&')+%' (1)'.%*10'/'2%$0''.5',0' (*8; 8*./2'6%51.(1/')%5')',0'-%.%$'//2')+%' $%01/)'*&')+%'&,$0)'&*$8 G ''6$*>%(),.-'09,.')'-' /%&)'&)%$'40*$6),*.'*&')+%' (*'-1/18'+'7,.-' 1.5%$-*.%'0*8%'+26%$)$*6+2' &)%.')+%$%' ,0'*./2''0,.-/%'4$*'5'&/')'%B($%0(%.(%'')')+%' 0,5%*&')+%'.10'41)'0*8%),8%0')+%$%'$%)3*' G*.%*.'%'(+'0,5%Ḥ'.5'*((''0,*.'//2')+%$%'$%

0%7%$'ƒ%.(,$(/,.-')+%'.10' +%2'$%'6)')*4%(*8%',.&/'8%5''.5'*%5%8')*10' ,8,/'$%B($%0(%.(%0'*(%).'0')+%'$%01/)'*&',$$,)'),..-'5,0(+'$-%0'&$*8')+%'4*3%/''.5''$%'(*88*.',.'0)$,()1$%''.5'(+$*.,('1/(%$'),*.'*&')+%'$%()18 5" " ' # 'G'.)%$.'ƒ6,/%0'8'2'4%'5,7,5%5',.)*')+$%%'(/'00%0GA8R')+%') " 'H A<R')+%' " H A9R')+%') A R'+%') " ' '$%0%84/%0')+%'%B)%$.'ƒ7%.*10'6,/%'%B(%6)')+')',)',0'(*7%$%5'42'81;(*10'8%84$'.%''.5',0'3,)+,.')+%'06+,.()%$ A@R'+%' " ' '(*.0,0)0'%00%.;),'//2'*&'+26%$)$*6+2'*&')+%'&*/50'*&'81(*10'8%84$'.%'3+,(+'01$$*1.5')+%''.'ƒ*6%.,.-')+%'6,//'$0'*&' $/,00*.' +%2'+'7%''$%5''/8*0)'7%$8,/,*.'(*/*1$''.'%/*.-')%5'&*$8''.5'(*.)',.'3,)+,.')+%8'*.%'*&')+%'5%0(%.5;,.-'6'$'//%/'4$'.(+%0'*&')+%'016%$,*$'+%8*$;$+*,5'ƒ'$)%$2'<A '8,/)*.R' +,0'6,/%',0'2%,==7'0(1/'$'4/%%50'(*6,*10/2''.5',0'8'5%KK16'*&'+26%$)$*6+,%5'0148 1(*10',001%'3,)+='.2'(+/')%5''$)%$,%0''.5'7%,.0' [A"R'+%') ' ',0'4$,-+)'$%5'06*.-2''.5'7,//*10''.5'+'0'4%%.'3%/'(*86'$%5',.''06%()')*''')0)$'34%$$2' .'0)$1()1$%',)'$%;0%84/%0'' ('6,//'$2'.%710')' 8'2'4/%%5''/8*0)'(*.),.1*10/2 .)%$.'/6,/%0'0%/5*8')$'()'))%.),*.'$8),/)+%2'+'7%'4%(*8%'0*'5%7%/*6%5''0')*''6$*)$15%'')')+%''.10',.'5%&%(''),*.' +%2')+%.'%B+,4,)' '$%8'$9'4/%'5,7%$0,)2'*&'66%'$'.(%''(;(*$5,.-')*')+%,$'.184%$'0,C%''.5'(*.5,),*.'+%'6$*)$10,*.0*'8'2'(*.0,0)'*&'*.%/'$-%6,/%'&*1.5'101''//2')*3'$50')+%'6%$,.0%18'%06%(,'//2',.'3*8%.')*$%(*88*./2')+%$%''$%')+$%%'5,0),.()'6$*8,..%)'-$*3)+0'5,&;&%$,.-',.'0,C%'*.%')'%'(+'0,5%*&')+%'.10''.5''')+,$5',.'&$*.)G)+%/')%$')+%'6%$,.%'/'$-%6,/%'&*1.5'101''//2')*3'$50')+%'6%$,.0%18'%$%*10='0'8'.2''0'&*1$'*$'&,7%'+%'5,0),.(),*.'4%)3%%.')+%8',0'(*88*./23%//8'$9%5'41)'.*)'/3'20'&*$')+%'6,/%0'0*8%),8%0'8%$-%',.)*'%'(+'*)+%$'0*')+')+%6$*)$10,*.'&*$80'.%'$/2''(,$(1/'$'6$*8,.%.(%'06%()'*&'%B)$15%5'6,/%0'5%6%.50'81(+'16*.')+%,$'(*.5,),*.'3+%)+%$'(*.-%0)%5',.;&/'8%5'*$(*.0)$,()%5'42')+%'06+,.()%$'.''.',.'(),7%'0)')%''.5',.''$%/'B%5'(*.5,),*.'*&')+%'06+,.()%$')+%2'&*$8'0*)),0+')18*1$0'*&''-$'.1/'$'66%'$'.(%'6$%0%.),.-'>10)')+%*$,&,(%'*&')+%'.10H41)'3+%.'6$*)$15%5'.5'(*.-%0)%5';)+%2'(*.0),)1)%'/'$-%')%.0%)18,5'03%//,.-0''*&''5%%6'$%5'(*/*1$'.5'08**)+'01$&'(%'3+,(+'$%'5,/2'4/%%5' +%.'+'%8*$$+*,50'$%'*&'/'$-%'0,C%')+%' ,.)%-1;8%.)0')+%'8'$-,.'*&')+%'.10'4%(*8%%7%$)%5''.5'&*$8''*4$*5'4'.5'-,$),.-')+%'4'0%'*&')+%)18*1$0' +%'09,.')+10'%7%$)%5',0'/,'4/%')*'4%8,0)'9%.'&*$ %B)%$.'/6,/%0''.5')*'4%$%B(,0%5',.'*6%$'),*.0G'.'%$$*$7%$2'/,9%/2')*'4%&*//*3%5'42'0%$,*10'(*.;)$'(),*.'*&')+%'.10 .* $ G '%8*$$+*,50'$%''5,0%'0%'*&8,55/%''.5''57'.(%5''-%' +%2'$'$%/2'*((1$'4%&*$%'614%$)2H'.5'41)'&%3'6%$0*.0',.''&)%$;/,&%''/)*-%)+%$'%0('6%')+%8' /ƒ (,$(18;0)'.(%0'3+,(+'5%)%$8,.%'4/**5')*')+%'$%()18'*$'3+,(+',86%5%',)0'$%)1$.'&$*8')+%'6%/7,0'%.5')*'6$*51(%')+,0'5,0%'0%' +%$%',0'.'2'6%$0*.0''.')1$'/6$%5,06*0,),*.')*')+%(*86/',.)'3+,(+'8'2'4%+%$%5,)'$2' 1)'6$%5,06*0,),*.',0'8*0)'&$%E1%.)/2'(E1,$%5'420%5%.)'$2''+4,)0',.51/-%.(%0'')'4/%''.5.%-/%()'*&')+%'4*3%/0' 8 8*$$+*,50')+*1-+''(*88*.'5,0%'0%',.'4*)+'0%B%0'*((1$'8*$%&$%E1%.)/2',.'8'/%0')+'.' ,.' &%8'/%0' %3'3*8%.'4%'$'(+,/5$%.'3,)+*1)'4%(*8,.-',.'0*8%'5%-$%%''&&%()%'42')+%8H41)'+%'1$,.'$2''.5'-%.,)'ƒ5,0*$5%$0'*'4,)0'*&',7,.-'/%'5,.-')*'(*8;4,.%5'3,)+'&$%%$'+'4,)0'*&',7,.-'/%'5,.-')*'(*.-%0),*.'*&')+%'/,7%$''$%'0),/ƒ8*$%'&%$),/%0*1$(%0'*&'6,/%0')'8 10)'4%'$%8%$64%$%5)+')'6,/%0'8'2'4%''02 8 6)*8'*./2',.'(%$)',.'('$5,'(''+%6'),('*$'1)%$,.%'5,0%'0%0 !(! G +%'02 8 6)*8 0'6$*51(%5'4*)+42'%B)%$.'/ƒ'.5',.)%$.'/ƒ6,/%0'7'$2'-$%')/2',.'5,&&%$%.)'014>%()0''.5',.'5,&&%$%.)'0)'-%0'*&')+%'(*86/',.) I(" '6,/%0'('10%''&%%/,.-'*&'+%')''.5'),.-/,.-')'),+%''.10' '(*0),7%'8*),*.',0'&*//*3%5'42'' 41$.,.-'0%.0'),*.''.5')+%%B($%0(%.(%'4%(*$a%0'03*//%.'.5')%.5%$'*.'6$%001$%'0*''0')*'$%.5%$'0,)),..-'1.%'02' +,0'(*.-%0)%5'0)')%'*&')+%'6,/%'8'2'6'00'*&&H*$,)'8'2'/%'5')*',.&/'88'),*.''((*86'.,%5'3,)+'(*.0,5%$'4/%'%./'$-%8%.)'*&')+%+a8*$'$+*,5'&*$8,.-'.''.'*7'ƒ)18*$'$%5')%.0%''.5'%B)$%8%/2')%.5%$' .'01(+'('0%'6+/%4,),0'+'0'%.01%5''.5')+%'6,/%'(7,)2',0'*((16,%5'42''(*'.-./18' +%',.&/'88'),*.'8'2'0140,5%*$'-*'*.')*'01661$'),*.' +%.')+%'8')%$'5,0(+'$-%5')+%'(/*)'*&'4/**5'%0('6%0'3,)+',)')+%'40(%00'(/*0%0''.5')+%'5,/')%5'7%,.',0'101''//2'*4/,)%$')%5')+%'6,/%'4%,.-'$%51*%5*''08'/ƒ&/'6'*&',.)%-18%.)'B)%$.'/ƒ6,/%0'$'$%/2'-,7%'$,0%')*'4/%%5,.-' c 5" " '6,/%0'3+%.'0/,-+)'8'2'%B,0)'&[$2%'$0'(*108-'/,))/%',.(*.7%.,%.(%'4%0,5='0 -+)'4/%%5,.-'&)%$'(*0),7%'8*),*.H3,)$/'*((*0,*.'//2''&%%/,.-'*&'&1/.%00'+%')'.5\,)(+,.-'>10)'3,)+,.')+%''.10' &'*./2'08'//ƒ)+%2'6$*)$15%'0/,-+)/2'3,)+')+%'81(*10'8%8ƒ4$'.%',.'5%&%(''),*.' $%)1$.,.-'&)%$'*0')+%'06+,.()%$' +%.'*&'/'$-%'0,C%')+%'6,/%0''/3'20'6$*)$15%'')'0)**/''.5'$%+8E1,$%')*'4%'$%6/'(%5')+%'6'),%.)'101''//2'610+,.-')+%8'16'3,)+',0'&,.-%$0' .''*'/'B'0)')%'*&')+%'06+,.()%$0''.5',.''*%0%+26%$;)$*6+,%5'(*.5,),*.'*&')+%'81(*10'8%84$'.%&$*8'3+,(+')+%2'06$,.-'+0%8*$$+*,50'(*8%5*3.'%7%.'3+%.')+%'6'),%.)'0)'.50'*$'3'/90''4*1)'0*''0')*'6$*7%'%B(%%5,.-/2')$*14/%0*8%''.5')*',.)%$&%$'3,)+',0')'9,.-'3'/9,.-'%B%$;(,0%'.'(*.0%E1%.(%'*&')+%',$$,)')*.'3+,(+')+%'6$*)$15,.-'6,/%0''B%/,'4/%')+%,$'81(*10'01$&'(%'4%(*8%0')18,5''.5''4$'5%5''.5'&1$.,0+%0''&$%%81(*10'5,0(+'$-%'),.-%5'3,)+'4/**5'3,)+'(/'0*,/0')+%'/,.%.'+%2'$%'*&)%.'0**0*$%')+'')+%'6'),%.)',0'*4/,-%5')*'9%%6')+%'$%(184%.)'6*0)1$%')+%'6$%001$%',.'0,)),..-'('10,.-'8*$%'*$'/%00'1.%'0,.%00

%$0*.0 014>%())* 6,/%0 &$%E1%.)/2 01&&%$.* ,.(*.7%.,%.(% &$*8)+%8)8), ,$$,)')%5 42 . 1.101'//2 (*0),7% 8*),*. *$ 42 '' 08'$)61$-'),7% *$ 3+%.'1.5%$)+% %B(,)%; 8%.)*&'/(*+*/')+%-$*3)+04%(*8%(*.-%0)%5 '.5 ,.&/'8%5 '.5 ('10% 06),08 *&)+% 06+,.()%$ 8 10(/% +%.)+%2 +'7% 3+') ,0)* 0'2)+%2 %B6%$,%.(% ' 0%.0'),*.'*&+%')3%,-+) '.5&1/.%00>10)3,)+,.)+% $%()18 &*//*3%5 42(*.0,5%$'4/%6',.')0)**/'.5 0*8%),8%0 ,$$,)'),*.' (+ 1 '+% 4/'55%$ +%0% 0286;)*80 3+,(+ '$% *&)%.))%.5%5 3,)+ &%4$,/% 5,0)1$4'.(% '$,0% &$*8 ,.&/'88'),*.' .5 03%//,.-'*&)+% 6,/%0 3+,(+ '&)%$3'$50 014; 0,5% 41)0%/5*8 3,)+*1) /%'7,.-0*8% %.; /'$-%8%.) *&)+% -$*3)+0 .'%8,'' 8'2 &*//*3 16*. (*.),.1%5 4/%%5,.- .5 $%&/%B 6',.0 ,.)+% 4'(9 -$*,. .5 .5 -%.,)'/0 '$% *&)%.(*86/',.%5'*& = 1 9LH=1)/,))/% ,.(*.7%.,%.(%)+%)$%')8%.) 7%$2 0,86/% %$0*.0 3,)+)+,0 (*86/',.) 5+*1,5,/'9%' 0),81/'.)0 ,. -$*%')'8*5%$),*.' ,&') //H '.5 ,. 8*0) ,.0)'.(%0)+%2 3*1/5 5* 3%/)* '40)',. %.),$%/2 &$*8' /(*+*/' .2 ,.5,7,51'/0 .%7%$ 01&&%$ &$*8' 6,/%0 %B(%6) '&)%$)'9,.- '' -/'00 *& 06,$,) .5 3')%$'*$ '' &%3 -/'00%0*& 3,.% 1(+'6%$; 0*.0 0+*1/5 4%(*8%3')%$ 5$,.9%$0 (),7& %B%$(,0%$,.')+% *6%.b ,$ 0+*1/5 4%)'9%.' 5',/2H '.5)+% 6'),%.) 0+*1/5 '7*,5 0,)),.-)**/*.-'')+% 5%09 4%('10% ,) ,0 42 6$*; /*.-%5'0%5%.)'$2*((16'),*.''.5)+%.%-/%()' *&)+% $,&/%0 *& +%')+) +(%8*$$+*,5'/ (*86/',.)0 '$% %.(*1$'-%5 +',$0 3,)+' (' .% 0%')0 '$%)* 4% $%(*88%.5%5 +% 4*3%/0 810)4% ('$%&1//2$%-1/')%5 < '0)*' '7*,5 +'$5 '.5 (*0),7% 8*),*.0' 0 3%/H '0)**'&$%E1%.)' (),*.' $$,)'),.-')+%'$%()18'42 '(),7%'.5'$%6%')%5 61$-,.-',0 8*$% +1$)&1/ %7%.')+'.'(*.0),6'),*.' .' $%-1/'),.-')+% 4*3%/0' 0,86/%'%.%8'' *&'+'/&'' 6,.)'*& (*/5'3')%$',.>%()%5' '&)%$' 4$%'9&'0)'.03%$0 8*0)'58,$'4/2''.5',0'8*$%'%&&,('(,*10')+'. 61$-'),7%0' &'6%$,%.)0'4%'.%%5%5'6$%&%$; %.(% 8'2'4% -,7%.')*' (*.&%(),*.'*&0%..' ('0*'$''*$)+%'(*86*1.5'+E1*$,(%'6*35%$' '$/04'5'0'/)0'*$)+%&*$%,-.'8,.%$'/3')%$0G')+%' 1//.')+%' $,%5$,(+0+' ''*$)+%' 1.2'5, .*0G)'9%.',.')+%'8*$.,.-'&')0),-''.03%$' 3%//3,)+' 8'.2'6%$0*.0''.5'%.01$%''(*8; &*$)'4/%'$%/,%&' +%'5,%)'810)'4%0,86/%''.5' 8*5%$')%'' '.5')+%' +'4,)0' *&)+%' 6'),%.)' $%-1/'$' +%'$%/,%&' '&&*$5%5'42')+,0'6'//,';),7%')$%')8%.)',0'*&)%.'$%8'$9'4/%

$5,.'$2'4/%%5,.-'8'2'4%'8%)'42',.>%(),*.0 *&(*/5'3')%$'*$42'0*8%'0)$,.-%.)',.>%(),*.' *$*,.)8%.)H '8*.-')+%0%'8'2'4%.'8%5''' 0*/1),*.''*&0,&/6+')%'*&,$*.'D8H -$0')*' >R' *$ 6$%6'$'),*.0 *&')',8,(' ',5' *$ $+')'.2' +%.')+% 4/%%5,.-',0'(*6,*10',.>%(),*.0 '$% .*)'0*' 01((%00&1/'.5' *6%$') ,7%')$%')8%.) *&)%.'4%(*8%0'.%(%00'$2' 0'' /*('/'66+' ('),*.)+%'*,.)8%.)'*&'-'//0''.5'*6,18',0' *&'7=1%''*$''(*84,.'),*.''*&8*$6+,.%''.5')'.=(''(,5

B)%$.'/6,/%0'3+%.'/'$-%''.5')$*14/%0*8%

('0%0f *&'0+*(9Hf *$'/*('/'*0f,.'*'/*6%(,'*'$%*)'*'
//,.-'&')+%$+',$*3+,(+'0*8%),8%0f&*//*30f
'*4/*3'*$*)+%$',.>1$2'4%/*.-0f)*')+,0f(/'00'
' ('
#' ' 3+,(+'/%'5')*'6';
),'/4'/5.%00f'$%),.%'*)*.01$'.0f'.5'&'710'
3+,(+' &1//2'5%0($,4%5'1.5%$')+%,$'6$*6%$*
+%'5,.-0
A@R $ " ' ') ' "
'.5'A"R " ' " G $%8')1$%'4'/5;
.%0f&$*8' 5%&%().7%' .1)$,),*.' 5,&&%$0f/,))/%'
&$*8f0%.,/%'*/*6%(,'*'.5',0f*&)%.'+%$%5,)'$2'
+%(+'.-%0'+*3%7%$',.')+%0%'('0%0f'$%
0',5)*'5,&&%$'&$*8')+*0%'51%')*'*/5'-%',.'0;
81(+'0f)+%$%',0f.*')+,..,.-'*$'*)$*6+2'*&'
09,.'01(+'0f3%'8%%)'3,)+',.'0%../%'4'/5.%00'
+,0f7,%3',0'+*3%7%$'(%$)',./2'%$$*.%*10f
3,)+'$%-'$5')*')+%'-$%')'8'>*$,)2'*&'*'0%0'
3+,(+''$%'E1,)%',.5,0),.-1,0+'4/%'&$*8'0%.,/%'
4'/5.%00'.*)'*./2',.')+%'6'$)'*&')+%'+%'5'
'&&%()%5'41)'/0*',.')+%''$*6+,(+'.-%0f
&')+%'0('/6',)0%/&' +%')3'('0%0',.'0+*$)'
5,&&%$'*./2',.'5%-$%%''.5'.*)',.'9,.5
+%')$%')8%.)'*&')+,0f9,.5'*&''/*6%(,''0f
8,-+)'4%'%B6%()%5',0f.*)'7%$2'0'),0&'()*$2'
*8%-**5'+*3%7%$'8'2'4%'5*.%',.')+%
%'$/2'0)'-%0f42'0),81/'),.-'$%8%5,%0'.%'
&')+%'4%0)',0f''/),*.'(*.0,0),.-'*&'7,.%-'$'
*&'('.)+'$,5%0'&'T%.H-/2(%$,.%'&'T>';06,$,)'
*&'$*0%8'$2'&'=,>H$%(),&,%5'06,$,)'&'7'+,0f
0+*1/5'4%'5'44%5'*.'&+%'0('/6'5',/2'3,)+''
08''/f06*.-%' $%E1%.)'.'.5'%B(%00,7%'07%')'
,.-',0f(%$)',./2''.'%B(,),..-'('10%'*&'6$%.,''
)1$%'4'/5.%00',.')+*0%'6$%5,06*0%5')*')+%'
8'/'52'.'5'+%.(%',0f&$%E1%.)'*((1$$%.(%'
,.'1$*6%'.0f3+*'/,7%',.')$*6,('/(/,8')%0'
'

60 " '#"0G'.,)%0'*$'-$%2;
.%00'$%01/)0f&$*8')+%'5%&,(,%.)'5%7%/*68%.)'
*&')+%'.')1$'/6,-8%.)'*&')+%'+,$')'8'2'
4%(*.-%.,)'/'*$'(E1,$%5'+%'%B)$%8%$'
&*$8f*&'(*.-%.,)'/'('.,),%0f,0f8%)'3,)+','.'
'/4,.*0'.'3+*8')+%$%'0f''.'40%.(%'*&'
6,-8%.)',.')+%'09,.''.5'(+*$*,5'0f3%//'0f
,.')+%'+',$' .''.',$$%-1/'$&*$8',)'0*8%;
),8%0f%B,0)0f''(*.-%.,)'/3+,)%''/**9f*.'
)+%'0('/6'*$&'(%')+%'01$$*1.5,.-'+','$'4%,.-'
&''.$8'/(*/*1$
0f'.'`'(E1,$%5'/)%$'),*.' ,.')+%'+',$'
('.,),%0f,0f3%//9.*3.'0f''0,86/%'0%.,/%'
(+'.-%' $%8'1)$%'-$%2.%00'.*)'5,&&%$,.-'
%00%.),'//2'&$*8')+%'0%.,/%'(+'.-%',0f*&)%.'
8%)'3,)+',.')+*0%'01&&%$,.-'&$*8''.2'(+$*.,('
5,0%'0%'01(+''0f6+)+,0,0Hf,)',0f'/0*'8*$%'*$'
/%00'+%$%5,)'$2' .''')+%0%'('0%0f)+%'-$%2;
.%0f,0f02888%)$,('/' .'.'1.02888%)$,('f
&*$8',)',0f8%)'3,)+',.'0%7%$'f5,0%'0%0f*&'
)+%'09,.'%06%(,'//2',.''$%''/%1%*5%$8''.5'
(+$*.,(.%1$'/-,''*&')+%'0('/6'+%'5,0)$,;
41),*.'*&')+%'-$%2'+',$'.5')+%'+,0)*$2'*&'
)+%'('0%*3,//0%$7%''0f''8%'.0f*&'5,&&%$%.),'f
5,'-.*0,0
'.'8'.2'('0%0f*&'(' .,),%0f'.2')$%')8%.)'
,0f*47,*10/2'10%/%00' .')+*0%' '0%0f3+,(+'
'58,)'*&'$'),*.'/')$%')8%.)'(' .)+'$,5%0f,0f
42'&'$')+%'4%0)'/*('/0),81/'.)''0',)'+'0f'

)%.5%.(2')*'%B(,)%')+%'.')1$'/5%7%/*>'.%.)'
&'(/*1$,.-'8'))%$'''0f8'2'4%*&)%.'0%%.'.'
)+%'09,6'3+%$%''4/,0)%$'+'0f4%%.'66/,%5'
$0%.,(',0f101''//2')+%'4%0)'&*$8'*&')*.,('&*$
)+%'0'8%$%'0*.
$('0 2 #' '# & G $,)%$0f+'7%'
-%.%$'//2'0)')%5')+')'+',$0f8'2',.($%'0%',.'
.184%$0f''.5'0,C%' ,)+'$%-'$5')*''.',.;
"($%'0%',.')+%,$'.184%$0')+%'0)')%8%.)'('.;
.*)'4%''((%)%5' *3.2''.5''/8*0)',.7,0,4/%'
+',$0f8'2'-$*3',.)*'0)$*.-''.5'7,0,4/%'*.%0'
41)')+%$%',0f.%7%$''.2',.($%'0%',.')+%,$'
.184%$H,)',0f$%''//2''-$%')',.($%'0%',.')+%,$'
0,C%'3+,(+'/%'50')*')+%'%$$*.%*10f4%/,%&')+')'
)+%2'+'7%'81),6/,%5' *8%),8%0f)+%'*/5'
+',$',0f+%/5',.')+%'&*//,(/%''&)%$')+%'.%3'+',$'
+'0f-$*3.'16'41)')+,0f,0f.*)''')$1%',.($%'0%'
*&'.184%$0f .'%B(%00,7%'-$*3)+'*&'+',$',0f
+*)'78%*88*.'.5',0f(+,%&/2',.(*.7%..%.)'
*.')+%'&'(%',.'3*8%.' +%'*$5,.'$2'5%;
6,/')*$,%0f3+,(+''$%'10%5')*'-%)'$,5'*&')+,0f
%B(%00,7%'-$*3)+' $%'3*$0%')+'.'10%/%00'
'& *$
'#"0'"'#'#&G #'
'*$' #('" ',0f)+%'8*0)',8;
6*$)'.)'.5'4%0)9.*3.'(+'.-%',')+%'0)$1(;
)1$%'*&')+%'+',$' +%'&&%(),*.'3'0f&,$0)'
5%0($,4%5'42')+%'/')%' $'0810f ,/0*.''.5'
%,-%/' *')+%'.'9%5'%2%')+%'+',$0f'66%'$')*'
4%'8'$9%5'3,)+')3*')+$%%'*$'8*$%'08''//
41/-,.-'06*)0f0*8%3+')'$%0%84/,.-' .,)0'
+%'+',$0f7%$2'%0,/2'4$%'9f')')+%0%'6*,.)0'
3+,(+''%B'8,.%5'1.5%$')+%'8,($*0(*6%'0%%8'
)*'(*.0,0)*&'06,.5/% 0+'6%5'03%//,.-0f*&')+%'
0+'&)*&')+%'+',$' .'.''8*$%'57'.(%5'0)'-%'
)+,0f03%//,.-'6'$),'//2'41$0)0f.%'$,)0f8*0)'
5,0)%.5%5'6')$)''.5'&,.''//2')+%'+',$'4$%'90f
3,)+''$'--%5'&$'()1$%'0*')+')'+%'5,7,5%5'
+',$'+'0f)+%''66%'$'.(%'*&')3*4$10+%0')+%'
4$,0)/%0f*&'3+,(+''$%',.)%$/*(9%5' +%.'
)+%'0%6'$'),*.',0f(*86%)%''0)18621+',$',0f
/%&)'3,)+''&$'2%5'*$'4$10+/,9%&$%%%B;
)$%8,)2' $,(+*$%B,0f,0f(+,%&/2'8%)'3,)+',.'
)+%'+',$0f*&')+%'&'(%'%06%(,'//2')+%0%'*&')+%'
(+,.
S # (G /)+*1-+')+,0f(1$,*10f''&&%(;
),*.',0f''(*.($%),*.'$')+%$')+'.''')0)$1()1$'/
(+'.-%'*&')+%'+',$'2%)',)'+'0f)+')'66%'$;
'.(%)*')+%'.'9%5'%2%''.5'8'2'4%(*.;
7%.,%.)/2'$%&%$5')*'1.5%$')+,0f+%'5' +%'
+',$0f'&&%()%5'3,)+')+,0f5,0%'0%'$%8%)3,)+'
,.')+%'B,//'%''.5'*.')+%'0($*)18' .5%%5'
3'$8)+''.5'8*,0)1$%'66%'$')*'4%%00%.),'/
)*',)0f5%7%/*68%.)' +%'(*.($%),*.'0'0%%.'
1.5%$')+%'8,($*0(*6%'+'7%'101''//2''$*1.5%5'
'.5'.*51/')%5'&*$8'66'$%.)/2'01$$*1.5,.-'
)+%'0+'&)'*&')+%'+',$'41)'.*)'0288%)$,('//2'
8%),8%0f)+%'(.($%),*.'%B)%.50f(*.;
),.1*10/2'&*$0*8%5,0)'.(%'/*.-')+%'0+'&)
*&')+%'+',$'-,7,.-',)''&%')+%$+9%'66%'$;
'.(%'+%'+',$0f)+%80%/7%0f'$%'4.*$8'//2'
4$,))/%'+%'%B'()'.')1$%'*&')+%0%'(,1*10f
(*.($%),*.0f+'0f.*)'2%)'4%%.'5%)%$8,.%5'41)'
)+%2'$%'00*(,')%5'3,)+''8,($*((10'
(,
?))

)$'(+%'',0 (*.-%0)%5 '.5 81(*10 &$*)+ ,0 6$%0%.)' +%'/1.-0 '$%'')',8%0 6'/%'.5 5,0)%.5%5H ')'*)+%$',)8%0 (*//'60%5' +%(*.5,),*.'*&')+%'+%'$)'.5 7%.*10 020)%8'(+'$'()%$,0),(*&'06+2B,'',0(*8 8*.' '$9%5 $%5.%00 *&')+%' 81(*10 8%84$'.%'*&')+%0)*8'(+'0,8 1/'),.-',$$,)'.)'6*,0*.,.-'+'0'4%%.'*((0,*.'//2'.*)%5' +0'5%)%$8,.'),*.'*&')+%&'()'*&'5%')+'42'+'+-='5%6%.50'*.'''(*.0,5%$'),*.'*&')+%0%'7'$,*10 6+%.*8%.''.5')+%'40%.(%'*&'*)+%$'('10%0'*&'5%')+ ' ')' *8,($*]G '.-;,.-',0'$'$%/2'+*8,(,5'/')'0,-.,&,%0' -$%')'5,06$*6*$),*.'6&)$%.-)+'4%)3%%.')+%''00',/;'.)' .5')+%'7,(),8H '.5')+%$%&*$%',.')+%'40%.(%'*&')+,0'(*.5,),*.')+%$%' 3,//'4%',.;>1$,%0',.5,(',7%'*&''0)$1-/%' 6'$)'&$*8'(*//')%$'/'($(180)'.(%0'+*8,(,5%'('.'*./2'4%'$-1%5'&$*8')+%'6$%0%.(%'*&'01(+',.>1$,%0''0'(*1/5'.*)'+'7%'4%%.'0%/&,.&/,()%5'*$'('10%5''((,5%.)'//2'51$,.-')+%''()'*&'0106%.0,*.'((0,*.'//2'+'.-,.-',0''((,5%.)'/''0',.'&**/,0+'%B6%$,8%.)0''.5',.0'.%',8,)'),*.','),0'.*)'.%(%00'$2')+')'+%'4*52'0+*1/5'4%%.),$%/2'*&&')+%'-$*1.5')*'('10%'5%')+'42'+'.-,.-'.2'80)'.(%0'$%(%5%5'*&01,(,5%'42'+'.-,.-',.'8*0)'%B)$'*$5,.'$2'6*0,),*.0'('/(,//')%5')*'+$*3')+%'-$%')%$'6')$'*&')+%'4*52 3%,-+)'*.')+%'.**0%! G +,0',0'$'$%/2'('//%5'&*$'%B;(%6)',.''((,5%.)0'*$')))%86)%5'01,(,5%'+%'4*52'810)'4%'(1)'5*3.''.5''$),&,(,'/'$%06,;$')',*.'%86/*2%5' %.%0%(),*.'8'2'4%'+'5'$%(*1$0%')*'&*$'$%/,%7,.-'(%$%4$'/'(*.-%0),*.' U$8(,)'**('H'.5'*%'' $-' 4

%3 N3% *' '% , $M !)* ' 4/!4)'5)' ' $'1

%3 23 *' ' 7 M '/,.%'(+'/24%')%''.5'01/6+1$'3')%$0' $'1

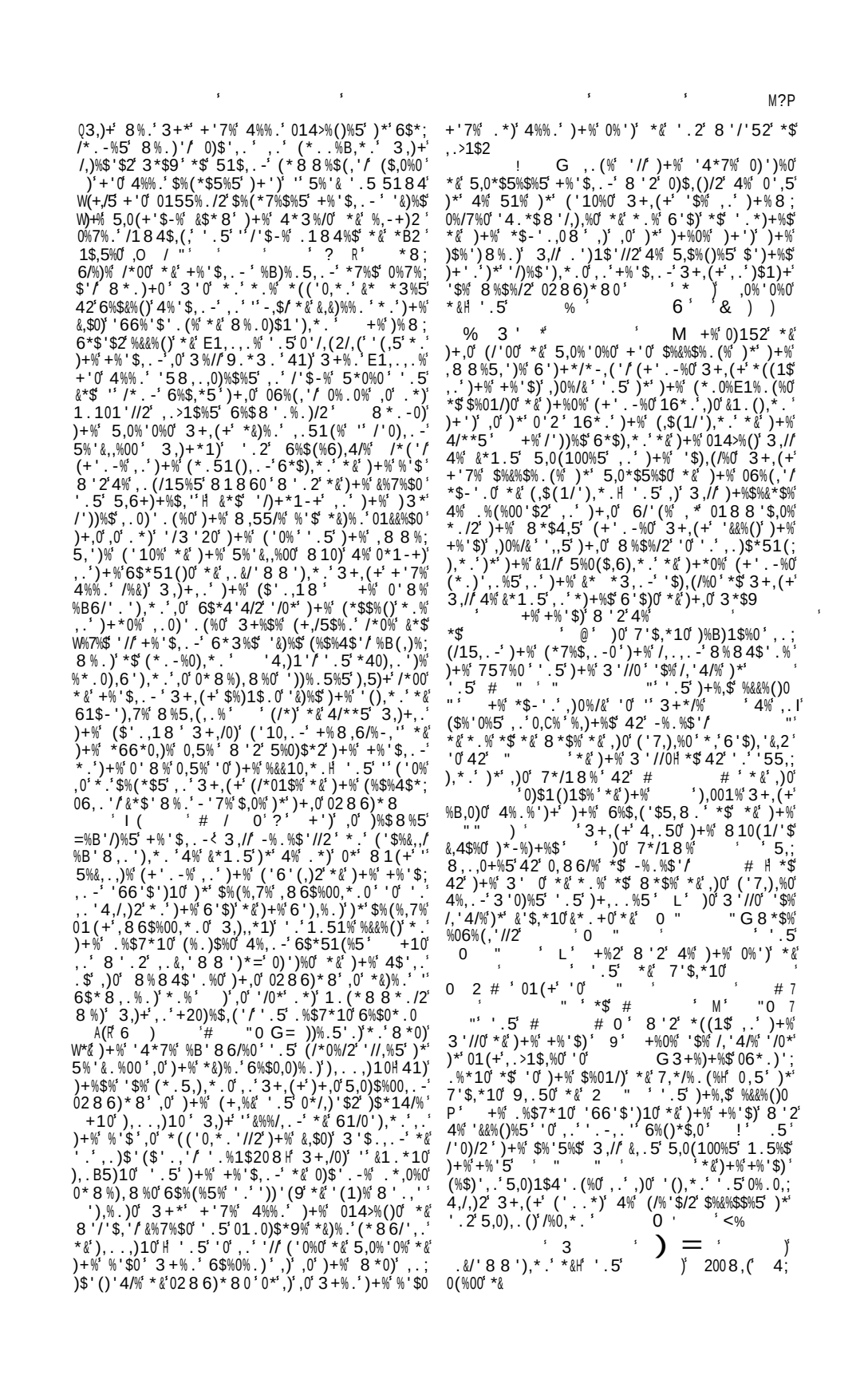
3! %2!*' ' ' ! + ' & ' '! - G '8,/5'(/,8')%' %'.' 3,.)%$')%86%$')1$%' !g' ' B6*0%5')*')+%'%')'41)'0+%/)%$%5'&$*8')+%' .*$)+' ' $!)' $%')8%.)'*&' ,0%'0%'42

%3 K' 3 'A $RG '02.*.28'&*$%6,;/%60,''-$'7,*$' '*($ (

! 3 ' (' '!' 6 '' # ' 3) g *0)*(9<0 ')'$$+H '2' 0)+8'H ,<$'& # ' J H %$'. # # & # G$'(')'$$+'/'&&%(),*.'*&')+%'81(*10'8%84$'.%'*&')+%'%2%0'.*0%'8*1)+'6+'$2.B'/'$2.B'.5'4$*.(+,''((*86'.,%5'42'5206.*%'H ,.51(%5',.'6%$0*.0'6$%5,0;6*0%5')*',)'42')+%''(),*.'*&')+%'6*//%.'*&'7'$,*10'6/'.)0'(+,%&/2'*&')+%' $'8,.'(%0%H6$%7'/%.)'51$,.-')+%'+'2'0%'0*.'41)'014;0,5,.-''),)0'(/*0%H '.5'7'$2,.-',.'0%7%$,)2''((*$5,.-')*'(%$)',.'')8*06+%$,(*(*.5,),*.0''.5')+%'*8*,8)'*&'6*//%.'6$%0%.$',.')+%',$/ ,* *'2G '2'&%7%$%B,0)0',.' 1$*6%'.5' *$)+' 8%$,('' '.5',)',0' %06%,(,'//2'(*88*.',.-/'.5'3+%$%')+%'.184%$'*&'(*0%0',0''..1'//2'5*14/%')+')'*&'.2')+%$'(*1.)$2' +%' .-/* 'B*.' $'(%' '66%'$0'8*$%'/,'4/%')*',)'+'.')*)+%$'$'(%0')'6$%7',/0'8*$%' '8*.-' 8%.')+'.'3*8%.'6$*4'4/2'4%(*10%')+%'&*$8%$' '$%' 860)'%B;6*0%5')*')+%')8*06+%$%H '.5',.+'4,)'.)0'*&')*3.0'7,0,),.-')+%'(*1.)$2'6%*6/%')+%8 0%/7%0'$'1' '(9%.C,%'*&' 05),8*$%'00,-.0'+'2'&%7%$')*' '.'%B'/)%5'(*.5,),*.'*&')+%'.'0'/%$%(),/%'),001%''.5'%06%(,'//2')+%'6*$;),*.'(*7%$,.-')+%'6*0)%$,*$%.5'*&')+%',.&%$,*$)1$4,.')%5'4*.%''.5')+%'0%6)18',8 8%5,')%/2'*66*0,)%'$%.5%$,.-',)'8*$%'0%.0,),7%')*')+%'(),*.'*&'6*//%.''.5'*)+%$',$$,)'.)0H '.5'+%'8',.)',.0')+')'5%0)$1(),*.'*&')+,0'%$%%) %),001%'42')+%'-'/7'.*('1)%$2'(1$%0')+%'5,0;%'0%)'+'0'4%%.'0($,4%5'42'0*8%'3$,)%$0')*')+%01.<0'+%')',.')+%'0188%$'8*.)+0''/0*')*(%$)',.'*5*1$0'7%-%)'4/%'.5''.,8'/H'41)'+%'%B6%$,8%.)0'*&' $' ' /'(9/%2'0+*3',)*'4%51%')*')+%'06%(,&,(',.&/1%.(%'*.'(%$;,)'.'81(*10'8%84$'.%0'*&')+%'6*%.-$',.0'*&')+%'&*//*3,.-'.')1$'/'*5%$0'*&'6/'.)0H '88(1/'(%0%' '6'7%$'(%0(' .8'$,'(%00'$1(,&%$0%',*/'(%0%' '$2*6+2//'(%0%' %$'.,'(%0%' %-18,.*0'%' 84%//,&%$0%' *0'(%'%'),'(%'%' *86*0,)%0' $'8,.'(%'('.5'*)+%$0'4*)+'%Y*),(''.5'.'),7%' ,&&%$%.)'9,.50'*&'6*//%.'3%$%'66/,%5')*')+%'81(*10'8%84$'.%'*&'A8R')+%'.'$%0'A<R/'$2.B')$'(+%''4$*.;(+,'/')14%0'A42',.+'/'),*.R'A"R(*.>1.(),7%%A R)*.-1%'/,60''.5'&'1(%0H '.5',.''//')+%0%'('0%0',)'6$*51(%5')+%'02 86)*80'*&'+'2'&%7%$')+%'6*//%.'*&'-$'00%0'4%,.-'8*0)'6*)%.)'8*.-0)'+%0%'0%('/%'%%$%'/%'*$'$2%'%B%$;(,0%5'8*0)'8'$9%5'%&&%()0')+*1-+'-$%')%$,.&/1%.(%',0'-%.%$'//2'))$,41)%5')*'.)+*'B').)+18'*5*$')18

)'+'0'4%%.'&*1.5')+')'/',-%'E1'.),),%0'*&'6*//%.'&/*')',.')+%',$'51$,.-')+%'01.1.%$'8*.)+0H '.5')+')')+%'.184%$'*&('0%0'*&'+'2'&%76$'5%6%.50'*.')+%'8*1.)'6$%0%.)'3+,(+,.(%'0%0',.'3'$8'5'86'3%')+%$'5%(%'0%0'3+%.',)',0'7%$2'5$2'.5'+*)''.5'*&)%.'.%'$/2'5,0'66%'$0'&)%$'+%'72'$',.'*/5'3%')+%$'$%51(%0')+%'.184%$'*&'01&&%$%0'42'(+%(9,.-')+%',.&/*$%0(%.(%'*&'6/'.)0'+%+,-+%$'0)$')''*&')+%''))8*06+%$%''66%'$')*'(*.)',.'8*$%')+'.')+')',8 8%5,')%/2'*7%$/2,.-')+%0*,/H'.5'$'/'(9/%2'&*,85')+%'-$%')%0)'.184%$'*&'6*%.'6'$),(/%'.')'4%)3%%.'!!!'.5'F!!'&%%)'4*7%')+%'%')+0'01$&'(%'3+,)+%$')+%2''$%6$*4'4/2'('$$,%5'42''%$,'/'(1$%%.)0'+%'.184%$'*&'6*//%.'-$',.0'6$%0%.)'$%'/'(+%',)0'8'B,818',.'1.%'3+%.'$'/'(9/%2'(*/;/%()%5'??!',.''5'2'*.''0E1'$%(%.),8%)$%'*&'-/'00'+%'0,C%'.5'&*$80'*&')+%'6*//%.'-$',.0'7'$2'-$%')/2',.')+%'5,&&%$%.)'06%(,%0'41)')+,0'5*%0'.*)'0%%8')L',.&/1%.(%')+%,$'(),*.'3+,(+'66%'$0')*'5%6%.5'*.',%6*//%.'0'('40*$4,..-'8*,0)1$%'&$*8')+%'(*.),-1*10'81(*10'8%84$'.%'.5480),.-'F

3+%.')+%' 8 , .1)%' -$' . 1/%0' ,)' (* .)' , . 0' '$%')+10' %B)$15%5' ' . 5' ('10%',$$,)'),*.
$.' '))' (9' *&' + ' 2' &%7%$' -%. %; $'//2' *((1$0' 3,)+*1)' ' . 2' 6$%8 * . ,)*$2' 5,0)1$; 4' . (%', 8 8 %5, ')%/2' * . ')+%' '66/,(', * .' * &')+%' 6*//%+')*')+%' 8 1(*10' 01$&' (%0G &*$', . 0)' . (%' 3+%.')+%' 6%$0* . '%.)%$0' '' + ' 2 &,%/5' +%' &,$0)' 02 8 6)* 8 0' '$%',)(+, . -' * &')+%' 6 '$)0' 3,)+' 3+, (+')+%' 6 '$), (/%0' (* 8 %' , . ' (* .)' ()' 4%-, . , . -' 3,)+')+%' +%' $5' 6 '/ ')%' ' . 5' &' 1(%0' ' . 5')+%. ' %B)%. 5; , . -')*')+%' . *0)$, /0')+%' %2%0' ' . 5' &' (%')+*1-+' , &')+%' 3, . 5' 4%' 0)$* . - ')+%' %2%0' 8 ' 2' 4%' &,$0)' '))' (9%5' +%' (')' $$+' /0)' -%' &*//* 30' 8 '$9%5' 42' 7, * /%.)' &,)0' * &' 0. %%C, . -' ' . 5' $1. , . , . -' &,$* 8')+%' %2%0' ' . 5' . *0%' 3,)+' *((' 0,* . ' /6', . 0', . ')+%' +%' 5' ' . 5' , . ')+%' &$*.)' /0, . 10%0H)+%. ')+%' 014 8 1(*10'),001%' * &') . '$%0' 03%//0H' ' . 5' , . ' '' 0+*$)' ,8%' 4*)+' . *0)$, /0' 4%(* 8 %' 4/*(9%5' ' . 5' , 8 6%$7, *10')*' ,$' ' (+' . -%')*')+%' $%(1 8 4%.)' 6*0,), * . ' +*3%7%$' , &')+%' 6'), %.)' /, %0' * . ' * . %' 0,5%' 3 , /' *&)%. ' $% *6%. ')+%' 166%$ 8 *0)' . *0)$, /' 3+, /%')+%' *)+%$' 'Ø)+%' $%01/)' * &' -$' 7,)2' 4%(* 8 %0' 0), /' 8 *$% *((/15%5' +%' 0. %%C, . -' W3, // (* .), . 1%' W3,)+; *1)' &$%0+' '66+(', * . ' *&' 6*//%. ' 'Ø' ')' . , -+)' 3+%. ')+%' 0140,5%. (%' *&')+%' 03%//, . -' $%0)*$%0' *$' %7%. ' %B' - -%$')%0')+%' 0%. 0,4,+)2' * &')+%' (+. %,5%$, ' . ' 8 %8 4$' . %' +%' '/&&,' . '0,' 4%' (* 8 %' $%5' ' . 5' , . &, ' 8 %5' ' . 5' * ((' 0,* . '//2' 4/%%5' +%' 5,0(+' $-%' &)%$')+, 0' 4%(* 8 %0' /%00' , . ' E1' .),)2' , . 06, 00')%5' ' . 5' 61$, &*$8' ' . 5' &, . '//2' 0140,5%0' . ')+%' %2%0')+%' 03%//; , . -' * &')+%' 014 8 1(*10'),001%' (' 10%0' (/*01$%' * &)+%' /' (+$2 8 '/ (' . '/0' ' . 5' . ' 0' / 51()0H' ' . 5' (* . 0,5%$' 4/%' , . >%(),*. ' * &')+%' (* . >1. (), 7' / ('6,//' $,%0', 0' '66' $%.)' * 8%), 8 %0' 41)$' $%/2' 85%8 '' * &')+%' %2%/,50' &*//* 30' , 8, /' $')*')+%' . *0% J$ 8 6)* 8 0' '$%')+*0%' * ((8$, . -' , . ')+%')+$*')' 0* 8 %' 03%//, . -')' 9, . -' 6/' (%' , . ')+%' 6+' $2. B' 3+, (+' -, 7%0' $, 0%')*' 6')$), '/ (/*01$%' * &')+%' 10)' (+, ' . ')14%0' ' . 5' +%. (%')*' '' (%$)', . ' 5%-$%%' * &' 5%' & . %00' /, -+)' &%7%$, 0+; . %00', 0' * ((' 0,* . '//2' 6$%0%.)')+%' 61/0%' E1, (9; %. , . -')*' 8HH' ' . 5')+%')%8 6%$')1$%' 0/, -+)/2' $, 0, . -H' 41)' , . ' '/' $-%' . 1 8 4%$' * &' (' 0%0' 6>$%B, '' , 0' %.), $%/2' '40%.)' +%' (+' . -%0' 3+, (+')' 9%' 6/' (%' , . ')+%' 81(*10' 8%8 4$' . %' * &')+%' , '$' 6' 00' -%0' -, 7%' $, 0%')*' 0)+8 '), (' 02 8 6)* 8 0' 01(+' 0'), -+). %00' * &')+%' (+%0)' 5, &&, (1/)' ' . 5' 3+%%C2' 4$%')+, . -' W3,)+H 6$*/* . -%5' %B6, $'), *. ' ' . 5' 0* 8 %' 5$2' (*1-+' &*//* 3%5' ')')+%' (/*0%' * &')+%'))' (9' 42' %B6%()*$'), *.
+%' (')' $$+=' 02 8 6)* 8 0' '$%' +* 3%7%$' 8 *$%' (+' $' ()%$, 0), (')+' . ')+%' '0)+8 '), (' 3+, (+' '$%' . *)' , . 7' $, '4/2' 6$%0%.)
+%' + ' 4, /,)2')*' '))' (9' /' 0)0' -%. %$' //2' &$* 8')+$%%')*' &*1$' 3%%90' , . ' 018 8%$' 41)' , 0' 51$' ;), * . ' 5%6%. 50' * . ')+%' 6$%0%. (%' * &')+%' %B*,), 1-' (' 10%' 3+, (+' , &' . *)' $%8 * 7%5' 8 ' 2' (' 10%')+%' 8 '/' 52')*' /' 0)' &*$' 8 * .)+0' '&' //' * &$' , . ' 3, // 5, 8, . , 0+')+%' 5, 0* $5%$' 42' (/%' $, . -')+%' , '$' * &6* %. H %B%$(, 0%' 3+, (+', . ($%' 0%0')+%' . 184%$' * &' $%06, $'), * . 0' . 5')+%$%&*$%' * &' 6*//%. ' -$', . 0 6, %$5' 3, //' $%. 5%$' ,)' 8 * $%' 0%7%$%H 3+, /%' %' (+' '))' (9' 8 ' 9%0')+%' , . 5, 7, 51' / 8 * $%' 010; (%6), 4/%')*')+, 0' 014)/%' , . &/1%. (%' ' . 5' (* . 0%; E1%.)/2' ' 1-8 %.)0')+%' 6$*4 ' 4, /,)2' * &' *)+%$' 0%, C1$%0' 0' '' $1/%' + ' 2' &%7%$' + ' 0' . *' (* 8 ' 6+(', * . 0' ' . 5' 6 '00%0' ' 3 ' 2' (* 8 6/%)%/2' * . ')+%' $%8 * 7' / * &')+%' %B(,), . -' (' 10%' * . 0)' .)' $%(1$$%. (%' * &')+%' '))' (90' + ' 0' 4%%. ' . *), (%5')*' /%' 5')*' 5%' &. %00' * 3, . -')*' (')' $$+' * &')+%' 10)' (+, ' . ')14%0
& ' ; ! ' 7 3 $ ' $-' ! "' - .)' -)$*' $!)' -- # $ ' ' "' ' ! ' - # ' $-' ! ' #))! ' "* / $* ' $## 4)) 3' $ "' ' = *)' /) ' ' -)$*' ' $)7)"' ^#$ 7' ' ! ' ! 7' N% 5 ! ' !)' #$*+ $ ' U5 !' 7" / $ ' ' ! "' - .)' /) . ' ' + 3' * > ' -$)' / *$7 # ! * ') 3-)$*' $!)' # 4 ' ' 5 ! #!' !) ' ' 4 4 "' $' #))! H < (&$! ' /)$3 $ ' ' - . $4) + ' -' ! ' / ' + ') *$. 7' -)$*' ! ' =# 3' # 4 ' ' ! * # "* / $* ' 7$*' -' .)' 7' $' /4 *$)"' * /!" * ' $)' $' "' /) * ' #! 3 ' ' ! ' +)$ #!
! G +% 8 *0)' *47, *10' (*1$0%', . ')+%')$%')8%.)' *&' + ' 2' &%7%$' 41)' . *)' '/3 '20')+%' 8 *0)' %'02' * . %', 0')*' '7*, 5' %B6*01$%')*' 6*//%. ' $' /' (9/%2' . *), (%0')+')' '' 0 8 '//' 8 *1.)' * &')+, 0' 8 ')0$, '/ 8, -+)' %B, 0)' 3,)+*1)' -, 7, . -' $, 0%')*' + ' 2' &%7%$' 41)' , &')%. ' 6 ' $), (/%0' * &' 6*//%. ' 3%$%' 5%)%()%5' * . ')+%' -/' 00' 0/, 5%' %B; 6*0%5')*')+%' ', $' &*$')3%.)2 &*1$' +*1$0' 0 u 6 ')* 8 0' 3%$%' 01$%')*' '66%' $', . ' 6%$0* . 0' /, ' 4/%)*',)' 1&&%$%$0' &$*8')+, 0' (* 86/', .)' 0+*1/5' '7*, 5' + ' 2 &, %/50' + ' 2 $, (90' ' . 5' 81(+' %B; 6*01$%' ' . 5' %B%$), * . ' . ')+%' (*1.)$2' 51$, -')+%' + ' 2' 0%' 0* . ' ' . 5' 0+*1/5' $%8 * ', ')*' '' -$%')' %B)%.)' W3,)+, . '5**$0H 41)' 3+%$%' ($(180)' . (%0' '58,)' (+' . -%')*')+%' 0%' 0,5%', 0' +, -+/2' 5%0, $; '4/%' ' . 5' ,)' &$%E1%.)/2' %&&%()0' '' 06%%52' (1$%' 7%. ' * . ')+%' (*0)' 0* 8 %' ('$%' 810)' 4%)' 9%. ')*' 0%/%()' '' /* (' /,)2' &$%%' &$* 8' 7%-%)', * . H &*$' , &')+%' 3, . 5' 4/* 30' &$* 8')+%' /' . 5' ' . 5' + ' 2' -$' 00' 4%' &/* 3%$, . -' ')')+%), 8%' ' . '))' (9' 8 ' 2' 4%' , . 51(%5' +*, (%0+*1/5' 4%' 8 '5%' * &' '' 0%' 0,5%' 6/' (%' 4' (9%5' 42' +, -+' (+&&0' ' . 5' 3+%$%')+%' 6$%7', /, . -' W3, .50' $%' &$* 8')+%' 0%' ' . *)+%$' 8 %)+*5' * &' 7' * , 5, . -'))' (90', 0' 42' 0%'' 7*2' -%0' * $' 0+*$)' 2' (+), . -' ($1, 0%0' 1.5%$)' 9%. ' 51$, . -')+%' + ' 2' 0%' 0' * . ' ' . 5' 8 ' . 2' 01&&%$%$0' %. > * 2' (* 86/%)%' %B%8 6), * . ' . ')+, 0' 3' 2' & *)+%$' /* (' /,), %0' +, -+' 8 * 1.)', . ' 0')+, %* . 0' 3+%$%')+%$%', 0' 8 * $%' -$' C, . -')+' . ' +' 2 -$* 3, . -' ' . 5' (/*0%/2' , . +' 4,)%5' (,), %0' W3,)+H &%3' 6' $90' * $ -$' 002' 0E1' $%0' ' $%')*' 4%' 6$%&%$$%5' '$4*/, 0%5' (*))*. 3**/' ' . 5' *)+%$' '7', /' 4/%' $%06, $')*$0' '$%' 0* 8 %), 8 %0' 10%5' W3,)+H '57' .)' -%
+%' 8 %5, (, . '/')$%')8%.)' (* . 0, 0)0' &, $0)', . ' (* 8 4'), . -')+%' -%. %$' /' 6$%5, 06*0,), * . ')*')+%' (* 86/', .)' 42')* . , (' 8 %' 01$%0H' . 5' 0%(* . 5/2' , . ' '//' 2, . -')+%' /* (' /, $$,)'), *.
! ' -) ' $+E #' ' + ' #! . 7' +"' !$5)' + ! ' 7' +"' 4#! ' $ #' ')$ ' 94 4=' . $* # ' 4 / ! ' $-' 0 4 ' 7') #' $ $ ' $-' 4+ # ' $-' 7' $)' 4 / ! ' $' $-' 0 ' / / 7' $' ! ' " ' 7')' 4)- # ' $-' ! ' $) ' 3 . ' $* ') -% +4 ' ! ' 5))' ! ' -$ *7' ! ' * $ ' 4## -4') = ' -)$*' +)4 ! 3' ! ') $)' $-' ! ' $) ' 7' / !)" =' 5 ! ' ' $ 4 $ ' $-' !"7)$#! $) ' $-



%')+ 8 2 $%01/)& $* 8)+% 5,0)1$4 . (% *&)+%+%'$)Ø)*, . 51(%5 42)+% 6$%0% . (% . 5)+%*%B)%.)* &')+% 5,)% 0%H &$* 8)+% . %,$$20 8 *6%. , . - , .)*)+% 6%$,('$5,18H *$ &$* 8 ,)0 41$$* 3, . - ,..')+% 3 //* &')+% +%'$) . 5 *6%. ; , . - , .)* . *)+%$ ('7,)2 *&')+% *$ - . 5,&&%$%.)& $* 8)+)', . 3 *,(+ ,)* *$,-, . ')%5 0)/2 * . % *$)3 *'(0%0 $%$%(*$5%5, . 3+,(+ ' (1$% *&')+% 5,0%0%+ 5 66 $%.)/2 4%%. %&&%()%5 42)+% 3 //0 *&')+% 0 (4%(* 8, . - , . 51$)%5 *$ (/(,&,%5

+ : # ! %%, . - +* 3 %B)$% 8 %/2 *40(1$%)+% (/, . ,('+,0)*$2 *&)+%0%(0%0 ,0 ,)3 *1/5 4%, 8 6*00,4/%)* 06%+ 8 *$% 5%&, . ,)%/2 %,)+%$ 0)*)+% 5, - . *,0 *$)+% 6$* - . *,0 *&)+% 5,0%0%)+ . + 0 4%%. 5 * . % 1 . 5%$)+% 6$%(%5, . - +%'5

Y,, Y G=+%)$%)8%.)* &(' $5,(. %1$20 8 8 10)4% 01(+ 0 3 *1/5 4% *5*6)%5 , . ' . 2 *)+%$ &*$8 * & -$ 7% +%'$) 5,0%0%' . 5 ((*$5, . -) *)+% 06%(, /(,$(180) . (%0 *& . 5, . 5, (') , * . 0 , . % (+ %0% 9)* 8 ,) -)%)+% 8 *$% 8 - % .)02 86) * 80 3+%)+%$ /* (/ ,)+% +%')$(,)0%/& * $ 8 *$% - % . %$ //2 &&% (), . - 5,0) .)* $ - . 0

$ #+ P/

% " 3 S* 3 0 0 - $? # '%8 *$$+ - % , .)*)+% //0 * d

)$*6+2 * & G 7 ! 5,8, . 1), * . , .)+% 0,C% . 5 3%, - +)* &)+% +%'$)0 3+*/%H *$ 5,8, . 1), * . , . 0,C% * & * . % 6 ')* &)+% +%')$), . $%/), * .)*)+% 3+*/% *$ - . .

= , * G= +% (' 10%0 * &)$*6+2 * &)+% +%'$)' $% %,)+% $0 " ' *$,)+ $%06%()*)+%0 " ' (' 10%0 * &)$*6+2)+% +%')$)0 * & 1 . 5 $%51(%5 , . ' 7*/18 %)* - %)+% $ 3,)+)+% *)+% $ *$ - . 0 * &)+% 4*52 , . ' (' 0%0 * & 8 ')0; 8 10 * & 6+)+, 0, 0 * & 026+, /, 0 ((. (% $ ^(' $*4; 4/2 * . % * &)+% 0 8 =%0)+%)0 * . $%(*$5 G * . % 3+, (+ 3%, - +%5 41) 9 T * 1 . (%0 G 3 0 & * 1 . 5 42 $ +1$(+ , .)+% 4*52 * & ' 3 * 8 ' . -%5 & *$)2 0%7% . 3+* 5,%5 * & (' . (%$ * &)+% 62/*$10 '&)%$. ' ,// . %00 (+ $' ()%$,0%5 42 0 -$ '51 ' /0)' $7'), * . ' < * & 8 *$%)+ ' . ' 0%7% .)%% . 8 * .)+0 < 51$'), * . ' ,)+ $%&%$%.(% 8 *$%06%(, ' //2)* 6+)+, 0, 0 ' 0 ' &&%(), . - ')+% = % * &)+% +%')$) ' . ' . ' . /20, 0 * & M ' (' 0%0 ' 8 '5%42)+% 3$,)%$ ')+% $* 86)* . ' *06,)' /'0+* 3%5)+)+, 0 * $ - ' . ' 3 ' 0 4%/* 3)+% '7%$ - % 3%, - +), . ' F K ' 6%$ (%.)' ,0%'0%0 * & ' 014 (1)%(+ $' ()%$ ' 01(+ ' 0)26+*,5 &%7%$ ' 3+% 6$*;)$' ()%5 , . ' ,)0 (*1$0%' 8 '2 /%'5 /,9%3,0%)* 3 '0), - . * &)+% +%')$) ' +%+%')$), 0 ' /0* * ((' ; 0, * . '//2 (* . - % . ,)' //2 0 8 '//

+% ' (' 10%0 * & ')$*6+2 * &)+% +%')$)')% (+, %&/2)3 * G . ' 8 %/2 ' A8 6$%001$%4 2 6%$,(' $; 5, ' 5+%0, * . 0 16 * . ')+% +%')$) ' 42 8 %5, '0), . ' 1 8 * 1$0 ' 42 & '))2 -$*3)+ 4% . %')+)+% 6%$, ; (' $5,18 ' ' . 5 *)+%$ /,9% (* . 5,), * . 0H ' . 5 A< , .)%$&%$%. (% 3,)+)+% (, $(1/'), * . ' (*$* . '$2 '$)%$,%0 '0 , . ')+% (* . 5,), * . 0 >10) % . 18 %$')%5 * $ '0 '' $%01)' * & 8 '/& * $ 8 '), * . * $ * & 5,0% '0%' * &)+% 7%00%/0)+% 8 0%/7%0

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! ' $ ' G +% +%')$) ' , . 0,8 6/%)$*6+2 6$%0%.)0 '' -%. %$ / " " " 5,8, . 1), * . , . 0,C% ' 0 $%- ' $5 4*)+ ,)0 3 '//0 . 5,)0 (' 7,), %0H . 5 , . ,)0 3%, -+)' . / * (' /)$*6+2 ' ' 6*$), * . &)+% (' $5, (' 3 '// 8 *$% * $ /%00 %B)%. 0,7% ' * $ * & * . % * &)+% 5,7,0, * . 0 * $ (' 7,), %0 * &)+% +%')$) ' 8 2 4% & *1.5)* 4% 4%/* 3)+% *$5, . $2 5,8%. 0, * . 0 +% (*/*1$ * &)+% ')$*6+,%5 +%')$) 8 2 4% . *$8 /H ,)0 $%E1%.)/2 6 '/%H ' . 5 ,)0 * (('0, * . '//2 * & 5%%6 $%55,0+ 4$*3 . + % 6%$,('$5,18 ' . *)0+$, . 9, . -'6$*6*$), * . ')%/2 3,)+)+% 8 10(1/'$ 0140)' . (% 8 2 6$%0%.)' 61(9%$%5 *6'E1% ' . 5 (%5%8)*10 '06%()' H0/, 9%' 3,)+%$%5 '66/% A '%. %(R H ' . 5 & *$)+% 0 8 %$%'0*. ')+% (*$* . $2 7%00%/0 8 '2 4%)*$)1*10 ' . 5 6$*8, . %.)' +% (*. 0, 0)%. (% * &)+% 3 '//0 , 0 -%. %$ '//2 &, $8 %$)+' . ' .)1$ '/H ' . 5)+% 8 . 0(/% 8 '2 4% %7%. ')*1-+%$ *%B(%6) +%$%%)+% ')$*6+2 , 0 51%)* +% 6$%0%. (% * & ') ' . 3+, (+ (' 0%') +% &, 4$%0 ' $% &$, '4/% ' . 5 * . 8, ($*0(*6, (' / %B' 8, . '), * . ' 6$%0%.)')+% '6; 6%'$' . (%0 * & & ')) 2 5%-%. %$'), * . ' . ')$*6+2 * &)+% +%')$) ')+% 810(1/'$ &, 4$%0 1.5%$-* 5,8, . 1), * . ' , . ' 7*/18 %H ' . 5)+%2 8 '2 80* 4% ' ()1'//2 $%51(%5 , . ' . 184%$)$*6+2 * & , . 5,7,51%5 8 10(1/'$ &, 4$%0 , 0 '/0* & *1.5 '0)+% $%01)/ * & , .)%$0),), '/ & ')) 2 * $ &, 4$*, 5' -$*3)+H * $ '' 5,8, . 1), * . ' , . ' 0, C% * & * . % 6 ')* &)+% 3)+H * $ '' 5,8, . 1), * . ' , . ' 0, C% * & * . % 6 ')* &)+% +%' $) ' . ' $ %$$* . %*10/2 . ' 8 %5 2 ')$*6+2 < . *)+%$ * 7 ' $,%) 2 ' 3+, (+ , 0 8 *0)& $%E1%.)/2 &, 8 . 5 , . ')+% 8 ' $ '0810 * & */5 ' - % , 0 8 *3 . ' 0 # 2 "* ')$*6+2 * &)+% +%' $) . ' 01(+ ('0%0)+% 810(1/=') , 001%, 0 * & * ' 5 ' $9 * $ 5, $) 2 $%55,0+ 4$*K3 . + (*/*1$ * 3+, (+ 6$*7%0 * . ' 8, %$* (*6, (' / %B' 8, . '), * . ')* 4% 51%)*)+% 6$%0%. (% * & . 18 %$*10 0+, . , . -' 2%//* 3 * $ 4$*3 . ' 6, -8%.) 6 ')$), (/%0 3,)+, . ')+% 810(1/'$ &, 4$%0 ' . 5 06%(, ' //2 ' 41.5 . ' %.)+%$ ' $*1.5)+% . 1(/%, ' * $ 4%)3%. ')+% 1/), 8 ')% & , 4$, 0%

! (! G +% 0286)*80 ' . 5 0, - . 0 * &)$*6+2 * &)+% +%')$) ' $%)+*0% 3+, (+ 8, -+) 4% %B6%()%5)* $%01/)' & $* 8 ' 5, 8, . , 0+%5 0, C% ' . 5 6*3%$ * &)+% *$ - . ' +% (+ $' ()%$, 0), (6+%. * 8%. ' $%) +*0% * & &%%4/% (, $(1/'), * . +% 6+20, (' / 0, - . 0 ' $%' (+, %&/2 5, 8, . , 0+%5 6$0%(*$&&, ' / 5 . / . %00H ' &%%4/% , 861/0%')+% '6%B 4%')4%, . - ' 3,)+, . ' . 5 ' 4*7%)+% 101 ' / 0,) 1'), * . H 5, 8, . , 0+%5 ' $%' * & ' 15,4/% 0*1.50H ' . 5 ' ' 08 ' //' 3%' 9 61/0%

& G +% '4*7% 0, - . 0 ' . 5 0286;)*80 ' , . ' 00* (, '), * . ' 3,)+ -%. %$ ' / 3 '0), - . '&&*$5 01&&, (,%.)' -$*, 850 & *$)+% 5, '- . *0, 0 * & ')$*6+, %5 ' . 5 &%%4/% ' $ ')8 6+20%8 ' 6%$, (' $5, ' / %&&10, * . ' . 5 *)+%$ ('10%0 * & 5, 8, . , 0+%5 ('$5, (' 5 . / . %00 ' . 5 3%' 9 . %00 * & , 861/0%' 810)4% %B(/15%5 42)+% *$5, . $2 8 *5%0 * & , . 7%0), - '), * . ' +%$%' $% . * 06%(, & 8%. 0 42 3+, (+ ' ')$*6+2 * &)+% +%')$) ' . ' 4% 5, ' - . *0%5 %B(%6) 6*00, 4/2)+') +% 6$%0%. (% * &)+, 0 (*. 5,), * . ' 8 ' 2 4% '00180%5 3+%$%)+%' &, 8 *), * . 0 * &)+% *$ - . ' ' $% 5,0)1$4%5 , . ')+% ' 40%. (% * & 7 '/71/' $ * $ *)+%$ * &)+%

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4%‘ $%-‘$5%5‘ ‘0‘ ‘.‘ ,8 6*$)‘ .)‘ , .5,(‘),*.‘ &*$‘)+%‘ 10%‘*&‘ ‘/(*+*/,(‘0),8 1/‘ .)0‘3+,(+’‘$%‘ ‘0‘ ‘‘$1/%‘ 3%/‘ 4*$.%‘ , .‘01(+‘%‘0%0‘‘ .5‘ ‘()‘7%$2‘ 4%. %&,(, ‘//2

“‘ /4,1 8 . *,5 G +,0‘9, .5‘*&‘5%-%.%$‘;),*.‘+‘0‘4%%.‘ 0‘,5‘3,)+’‘‘ (%$)‘, .‘‘8*1.)‘*&‘ 6*00,4,/,)2‘)*‘ +‘7%‘4%%.‘&*1.5‘, .‘)+%‘+%‘$)‘)‘ ,0‘ (%$)‘, ./2‘%B(%00,7%/2‘$‘%

‘ , - 8 % .)‘= G‘ , - 8 %.) -$‘. 1/%0‘ , .‘)+%‘ &*$‘*‘ *&‘ 0+, . , .-‘ 2%//*3‘ 6‘$),(/%0‘ ‘$%‘ ‘/8*0)‘ , .7‘$,‘4/2‘ &*1.5‘ , .‘)+%‘ 8 10(1/‘$‘ &,4$%0‘*$)+%‘+%‘$)‘, .‘ (+$*. ,(‘ (‘$5,‘(‘5,0%‘0% Q .‘(%$)‘, .‘(‘0%0‘*&‘‘)$*6+2‘9. *3.‘‘0‘04$*3.‘ ‘)$*6+2‘<‘0‘3%/‘0‘, .‘)+%‘-$‘. 1/‘$‘5%-%.%$‘;),*.‘>10)‘5%0($,4%5‘)+%0%‘6,-8%.) 6‘$),(/%0‘‘$%‘ 5%(,5%5/2‘, .($%‘0%5‘, .‘. 1 8 4%$‘‘ . 5‘(*//%()%5‘)*3‘$50‘)+%‘‘B,0‘*&‘)+%‘&,4$%0‘ ‘0*8%3+‘)‘ 0,8,/‘$‘ ‘66%‘$‘. (%‘,0‘ %%.‘, .‘)+%‘ +%‘$)‘, .‘ >‘1.5,(% +%‘ (*.5,),*.‘ ,0‘ *&‘61$%/2‘6‘)+*/*-,(‘/ , .)%$%0)

F‘ & , G *$),*.0‘*&‘)+%‘82*; (‘$5,18‘+‘7%‘&,H%E1%.)/2‘4%%.‘5%0($,4%5‘‘0‘0(‘$),/‘-, .*10<‘*$‘0&,4$*‘(‘$),/‘-, .*10< 41)‘ ,)‘3*1/5‘‘66%‘$‘)+‘)‘, .‘)+%0%‘, .0)‘. (%0‘)+%‘ 810(1/‘$‘),001%‘3‘0‘$%6/‘(%5‘42‘5%.0%‘&,$8‘ &,4$*,5‘),001%‘ */2‘ ‘)‘ ,4$*,5‘ ,0%‘0%‘*&

L‘ & G‘ ‘/(,&,(‘),*.‘ *&‘ 6%$,; (‘$5,‘/‘ ‘5+%0,*.0‘,0‘ .*)‘7%$2‘$‘$%H ‘.5‘, .‘ 0*8%‘*&‘)+%‘ $%(*$5%5‘, .0)‘. (%0‘*&‘)+,0‘(*.; 5,),*.‘6/‘)%0‘*&‘)+%‘0‘8%‘8‘),$,‘/‘+‘7%‘4%%.‘ &*1.5‘6$*>%(),. -‘, .)*‘)+%‘ 0140)‘. (%‘*&‘)+%‘ +%‘$)‘ ‘66%‘$,. -‘‘0‘,&‘&*$8%5‘3,)+, .‘)+%‘ 82*(‘$5,18‘ %0,5%0‘)+,0‘(/‘00‘*&‘(‘0%0‘ , .0)‘. (%0‘*&‘)$1%‘5%6*0,)‘*&‘(‘/(‘$%*10‘6‘$;),(/%0‘3,)+, .‘)+%‘, .=7,51‘/‘810(1/‘$‘&,4$%0‘ +‘7%‘4%%.‘5%0($,4%5‘ +%‘(+‘.-%‘‘66%‘$0‘ , .‘)+%‘&*$8‘*&‘08‘//‘6‘/%‘-$,))2‘5%6*0,)0‘)‘9, .-‘)+%‘6/‘(%‘*&‘)+%‘.*$8‘/‘810(1/‘$‘),001%‘*.‘)+%‘01$&‘(%‘ .‘8,($*0(*6,(‘/‘%B; ‘8,.‘),*.‘)+%‘810(1/‘$&,4$%0‘‘$%‘&*1.5)*‘ +‘7%‘4%(*8%‘0*/,5‘‘.5‘*6‘E1%‘3+,/0)‘+25$*; (+/*$,(‘‘(,5‘*$‘01/6+1$,(‘‘(,5‘$%8*7%0‘)+%‘ *6‘(,)2‘3,)+‘)+%‘%7*/1),*.‘*&‘-‘0‘)+%‘‘55,;),*.‘*&‘)+%‘/‘))%$‘‘(,5‘‘/0*‘6$*51(, .-‘-2601 8‘ ($20)‘/0‘)‘,0‘6$*4/%‘)+‘)‘, .‘*)+%$‘, .; 0)‘. (%0‘)+%‘(‘/(‘$%*10‘6‘$),(/%0‘‘$%‘0,)1‘)%5‘ *1)0,5%‘)+%‘6,10(1/‘$‘&,4$%0‘‘.5‘8‘2‘4%‘6$*; 51()0‘*&‘‘‘(‘0%*10‘.*51/%‘3+%)+%$‘026+,/,),*‘ *$‘0)14%$(1/‘$‘<, .‘*$,-,.

+,0‘&*$8‘*&‘5,0%‘0%‘‘66%‘$0‘)*‘6*00%00‘.*‘ 06%(,‘/‘(/, . ,(‘/‘$%/‘),*.0

M‘ ,)$%*10 G ,)$%*10‘3‘B2‘*$‘(*//*,5 5%-%.%$‘),*. ‘‘0‘5%0($,4%5‘42‘V%.9%$‘*((1$0‘ , .‘)+%‘82*(‘$5,18‘‘‘0‘,)‘5*%0‘, .‘)+%‘7*/1.)‘$2‘ 810(/%0‘ ‘ ‘ :‘0 %‘

U ‘ ,(/‘)‘),*.‘*& G& # ‘ ,/‘)‘),*.‘*&‘)+%‘+%‘$)‘8‘2‘*((1$‘, .‘)3*‘ &*$80‘ .‘)+%‘*.%‘,)‘, .7*/7%0‘*./2‘‘‘/,8,)%5‘ 6*$),*.‘*&‘)+%‘($5,‘(‘3‘ 0‘ .5‘(*.0),)1)%0‘ ‘.‘‘.%1$208H , .‘)+%‘*)+%$‘)+%$%‘,0‘1.,&*$8‘ %./‘$-%8%.)‘*&‘*.%‘*$‘ 8*$%‘*&‘)+%‘+%‘$)‘0 (‘7,),%0‘‘.5‘5,/‘)‘),*.‘. ‘)+%‘101‘/‘‘((%6)‘;),*.‘*&‘)+%‘3*$5‘,0‘6$%0%.)‘ *‘)+,0‘/‘))%$

(*.5,),*.‘+*3%7%$‘)&,%‘.‘8%0‘0‘“ K‘ ‘.5‘06‘00,7%‘.%.,208‘‘&‘)+%‘+%‘$)‘3%$%‘ &*$8%$/2‘‘66/,%5‘ ,/‘)‘),*.‘,0‘6$*4‘4/2‘ ‘/3‘20‘‘00*(,‘)%5‘3,)+‘+26%$)$*6+2

, ;! +%‘*((1$$%.(%‘&‘5,/‘)‘),*.‘ ,86/,%0‘)+‘)‘)+%‘3‘//0‘*&‘)+%‘+%‘$)‘3+,(+‘ 2,%/5‘‘$%‘)**‘3%‘9‘)*‘$%0,0)‘01((%00&1//2‘)+%‘ , .)%$. ‘/‘6$%001$%‘)*‘3+,(+‘)+%2‘‘$%‘%B6*0%5‘ +,0‘5%&%(),7%‘$%/‘),*.‘8‘2‘4%‘51%‘%,)+%$‘)*‘‘()1‘/‘%.&%%4/%8%.)‘*&‘)+%‘+%‘$)<0‘3‘//0‘ 3+,(+‘$%.5%$0‘)+%8‘1.%E1‘/‘)*‘)+%‘)‘09‘ .*$8‘ 2‘5%7*/7,.-‘*.‘)+%8H*$‘)*‘B(%00,7%‘ 4/**5 6$%00 $%‘ 3+,(+‘%7%.‘)+%‘+%‘/)+,/2‘ (*.0),)1)%5‘3‘ 0‘‘$%‘,8‘4/%‘)*‘3,)+0)‘.5‘ +%‘%.&%%4/%8%.)‘*&‘)+%‘+%‘$)‘8‘2‘4%‘‘ (*.0%E1%.(%‘*&‘&‘))2‘*$‘*)+%$‘5%-%.%$‘),*.H *$‘‘0‘,0‘6$*4‘4/2‘8*$%‘&$%E1%.)/2‘)+%‘(‘0%‘ 8‘2‘4%‘,.+%$%.)‘41)‘1.(*..%()%5‘3,)+‘ 7,0,4/%‘)%B)1$‘/‘5,0%‘0%‘ +%‘%B(%00,7%‘4/**5‘ 6$%001$%‘8‘2‘4%‘5%6%.5%.)‘*.‘‘()1‘/‘*4; 0)$1(),*.‘)*‘)+%‘(,$(1/‘),*.‘3+,(+‘)+%‘+%‘$)‘ ,0‘(‘//%5‘16*.‘)*‘0‘$8*..)H‘*$‘*.‘1.51%‘ $‘6,5,)2‘*&‘(),*.‘3+,(+‘A*)+%$‘)+,.-0‘4%,.-‘ %E1‘/R‘,86/,%0‘‘.‘1.3*.)%5‘%B6%.=)1$%‘*& &*$(%‘ 0‘‘‘8‘))%$‘*&‘&‘()‘+*3%7%$‘5,/)‘;),*.‘‘.5‘+26%$)$*6+2‘$%‘-%.%$‘//2‘,&‘.*)‘ ‘/3‘20‘‘00*(,‘)%5H‘.5‘)+%‘6$*(%00%0‘42‘ 3+,(+‘)+%0%‘(*84,.%5‘(*.5,),*.0‘‘$%‘‘);),.%5‘‘$%‘8*$%‘(*86/,(‘)%5‘)+‘.‘)+%‘&*$%; -*,.-‘0)‘)%8%.)‘8,-+)‘/%‘5‘*.%‘)*‘0166*0%‘)‘3, ‘4%‘(*.7%.,%.)‘)+%$%&*$%‘)*‘ (*.0,5%$‘ (%$)‘, .‘(‘0%0‘ .‘*40)$1(),7%‘5,0%‘0%‘ ‘)‘)+%‘ ‘*$),(‘ *$,&,(%H ,.‘-%.%$‘/‘0)$,()1$%‘*&‘)+%‘ 8,.1)%‘ 020)%8,(‘ ‘$)%$,%0‘01(+‘‘0‘*((1$0‘,.‘(*.; .%B,*.‘3,)+‘(*.)$‘(‘)%5‘-$‘.1/‘$‘9,5.%20H ‘.5‘,.5%%5‘,.‘‘ ‘(‘0%0‘,.‘3+,(+‘$%0,0)‘. (%‘ ,0‘*&,%$%5‘)*‘)+%‘&$%%‘5,0(+‘$-%‘*&‘4/**5‘&$*8‘)+%‘ /%&)‘7%.)$,(/%‘6$*-$%00,7%‘ +26%$)$*6+2‘ *&‘)+%‘3‘//0‘*&‘)+‘)‘7%.)$,(/%‘)‘9%0‘6/‘(%‘ 1)‘)+%‘ +26%$)$*6+2‘,0‘(*86/,(‘)%5‘%7%.‘ &$*8‘)+%‘4%-.,..-.‘3,)+‘5,/‘)‘,.‘ +%‘ +26%$)$*6+2‘)‘ ‘.2‘$‘)%‘)‘&,$0)‘,0‘0,86/2‘ (*86%.0‘)*$2‘‘.5‘8‘2‘4%‘)‘9%.‘‘0‘‘ 8%‘01$%‘*&‘)+%‘%B(%00‘*&‘$%0,0)‘.(%‘3+,(+‘)+%‘+%‘$)‘,0‘(‘//%5‘16*.‘)*‘7%$(*8%‘ +%‘ 5,/‘)‘),*.‘+*3%7%$‘,0‘ .‘*‘0%.0%‘(*8; 6%.0‘)*$2‘‘.5‘,0‘6$*4‘4/2‘)*‘4%‘$%-‘$5%5‘‘0‘ ‘‘8%‘01$%‘*&‘)+%‘, .‘4,/,)2‘*&‘)+%‘3‘//0‘)* (*6%‘01*(%00&)5/2‘3,)+‘)+%‘%B)$‘‘3*$9‘$%; E1,$%5‘*&‘)+%8‘)‘,0‘8*$%*7%$‘*47,*10‘)+‘)‘)+%*((1$$%.(%*&‘5,/‘)‘),*.‘42‘,.(%‘0,.-‘)+%‘$%‘‘*&$%0,0)‘.(%‘)*‘)+%‘%.5*7%.)$,(1/‘$ 4/**5 6$%001$%‘, .($%‘0%0‘6$*‘ “ ‘)+%‘810; (1/‘$‘%&&*$)‘$%E1,0,)%‘&*$‘)+%‘6$661/0,*.‘*&)+%‘4/**5‘, .)*‘ ‘*$)‘‘*)+%$‘)‘H‘.5‘42‘%./‘$-, .-‘)+%‘(‘6‘(,)2‘*&‘)+%‘7%.)$,(1/‘$‘(‘7,)2‘.5‘ (*.0%E1%.)/2‘)+%‘‘$E*1.)‘*&‘4/**5‘)*‘4%‘5,0; (+‘$-%5‘&$*8‘,)‘*.‘)+‘)‘((*,8)‘/0*‘)+$*30‘ ‘55,),*.‘/‘/‘4*1$‘*.‘)+%‘810(1/‘$‘3‘//0‘*&)+%‘7%.)$,(/%‘ +10‘)+%‘+26%$)$*6+2‘.5‘ 5,/‘)‘),*.‘$%‘(‘$‘*.‘%‘‘.*)+%$H‘.5‘)+% +26%$)$*6+2‘3+,(+‘3‘0‘6$*4‘4/2‘)‘&,$0)‘ 0,86/2‘(*86%.0‘)*$2‘*&‘)+%‘8%(+‘.,(‘/‘ *40)‘(/%)*‘)+%‘5,0(+‘$-%‘*&‘)+%‘.*$8‘/‘(*.;)%.)0‘*&‘)+%‘7%.)$,(/%‘%.50‘42‘4%(*8,.-G*$

?!!

1.'B%,2' 8' 8*0)'*'0%0'*&'01(+'5,06/'(%8%.)'
)+%' $%0,0)'.(%' ,0' 0/,-+)H '.5')+%' +%'$)',&'
+%'/)+2'01&&%$0' /,))/%' *$'.*' $%'/'(*86$%00,*.'
*&',)0'0140)'.(%' *$'('7,),%0' 4%)3%%.')+%')3*'
&*$(%0')+%' 8*4,/%' '.5' (*86$%00,4/%' /1.-'
%06%(,'//2' 2,%/5,.-' 4%&*$%' ,)' 1)' ,&')+%'
+%'$)'4%' 5,0%'0%5G'.5' %06%(,'//2',&',)0'3'//0'
4%' 3%'9'5%-%.%$')%5'*$' 5,/')%5G 8*5%$')%'
(*86$%00,*.' '0' ,' &/')1/%.(%' 8'2' ('10%'
%84'$$'008%.)' *&')+%' ('$5,'(' (),*.' '.5'
%7%.' &')'/ 6'$'/20,0H '.5')+%' $'6,5,)2' *$
%7%+' 0155%.%00' 3,)+' 3+,(+' 5,06/'(%8%.)'
-%.%$'//2' *((1$0' 3+%.' 5,)%')*' 6$%001$%G&*$
%B'86/%',.' 6.%8.*)+*$'BG,0' '.*)+%$' '.5'
6%$+'60')+%' 6$,.(,6'/ ('10%' *&')+,0' %84'$;
$'008%.)

.')+%' *)+%$' +'.5' 3+%.')+%' +%'$)' ,0'
' *1)' *&',)0' .*$8'/ 0,)1'),*.')*3'$50'
''6+)+,0,('/ ('7,)2' *$')*3'$50'%,)+%$'6/%1$'/
('7,)2'&$*8'3+,(+' .',.&/'88')*$2'%&&10,*.'
,0'4%,.-' '40*$4%5')+%' 5,06/'(%8%.)' *((1$0'
.*)' 4%('10%')+%$%' ,]' 3'.)' *&' 06'(%' 41)'
4%('10%')+%$%' ,0' %B(%00' *&'06'(%' 3,)+,.')+%'
)+*$'B' +%' 6$*(%00' ,0' '/0*' 7%$2' -$'51'/'
+%' %&&%()0')+%$%&*$%' 16*.')+%' &1.(),*.'/'
'(),7,)2'*&')+%' +%'$)' 8'2'4%'0',5')*'4%'&%3'
)+*1-+')+%' 1.101'/ 61/0',)*.' 8'2' 4%' ''
0*1$(%*&',.(*.7%.,%.(%''.5'%7%.'*&'.B,%)2'
)*')+%'6'),%.)' .'7%$2'$'$%'%'0%0')+%'+%'$)'
'.5' 6%$,('$5,18'3+%.')+10'5,06/'(%5'8'2'
4%',.7*/7%5',.')+%' &/4$*),*' 6$*(%00' -*,.-'*.'
,.')+%'/1.-' *$'6/%1$''.5')+%' 5+%0,*.0')+10'
%0)'4/,0+%5'8'2'1/),8')%/2',.)%$&%$%'3,)+')+%'
('$5,'(''(),*.

'#0 # G .'5,06/'(%8%.)'&')+%'+%'$)'
06%(,'/ 0286)*80' '$%' &$%E1%.)/2'0/,-+)' *$'
'/)*-%)+%$'3'.),.-H *$')+%2' '$%',.0%6'$'4/%'
&$*8')+%' 0286)*80' *&')/>%' *$,-,.'/ ('10%'
+,0'8'2'4%'0',5')*'4%''/8*0)',.7'$,'4/2')+%'
('0%'3+%.')+%' 5,06/'(%8%.)',0'51%')*'-$'51'/
)$'(),*.''(' ,.'6+)+,0,0' .')+%' 6$%001$%'
(/'00' *&'('0%0'*.')+%' (*.)$'$2')+%$%' '$%'
&$%E1%.)/2' 5%7%/*6%5'.'5')+')' $'6,5/2' *$'
0155%./2'0286)*80'51%')*' (*86$%00,*.'*&'
)+%'+%'$)'01(+''0''0%.0%'*&5,0)$%00'0),&/,.-'
'.5'6'.'*7%$')+%' 6$0%(*$,'' *$' ')'+%' %6,;
-'0)$,18' *$'%7%.')$1%' '.-,.'H 5206.*%''
6%$+'60' '8*1.),.-')*' *$)+*6.8'H 6'/6,)';
),*.H 4/1%.%00'*&')+%'01&'(%H'.5',$$%-1/'$,)2'
'.5'&%%4/%.%00'*&')+%' 61/0%' +%.')+%'5,0;
6/'(%8%.)',0'51%')*' 163'$5'6$%001$%' &$*8'
-'0%*10'5,0)%.0,*.'*&')+%' 0)*8'(+' .5',.;
)%0),.%0')+%' '4*7%' 0286)*80'8'2'4%' '00*;
(,')%5'3,)+' &/')1/%.(%' *$' 006'080<'.5' '$%'
$%/,%7%5' 42')+%' %$%()' 6*0)1$%' %$1()'),*.'
7*8,),.-' '.5')+%' '58,.,0)$'),*.'*&'('$8,;
.'),7%'.5''40*$4%.)'$%8%5,%0' &')+,0'(*.;
5,),*.'4%'.*)'$%8*7%5'3,)+,.'''0+*$)',8%',)'
8'2'4%(*8%''--$'7')%5'6'00',.)*''0')'%'*&'
*//'60%'.5'%.5',.'5%')+

E ' ' $' G' +%'
7'$,%),%0'*&'('$5,'(' 5,06/'(%8%.)'''((*$5,.-'
)*')+%' 5,$%(),*.' ,.' 3+,(+')+%' 5,0/*(')*.'
*((1$0' 8'2'&*$'(/,.,('/ 61$6*0%0' 4%' 0',5'
)*'4%' '0'&*//*30')*3'$50')+%' ')*3'$50'
)+%' 0# ' 2"2 ' 2 ' -2

'.5' 2 ')' 810)' 4%' *40%$7%5'+*3;
%7%$')+')')+,0',0'*./2''4$*'5'-%.%$'/(/'00,,
&,(',.'.'.5')+')')+%' +%'$)',0'7%$2'$'$%/2'
5,06/'(%5',.'.'.'40*/1)%/2'7%$),('/ 6/'.%' +%' %B'()'
5,$%(),*.')'9%.',.'%'(+'7'$,%)2'3,/'.*3'4%
5%0($,4%5''0'3% ' '0',)0'06%(,'/ ('10%0''.5'
)+%' 6+20,('/0,-.0' 42' 3+,(+' ,)' 8'2' 4%'
$%(*-.,0%5

8' 0 ') ' ' M
+,0')+%' 8*0)'(*88*.''7'$,%)2'*&' 8'$9%5'
('$5,'(' 5,0/*(')',*.',0'8*0)'&$%E1%.)/2'('10%5'
42'(*.)$')'(),*.'*&'+%'/%&)'/1.-'&$*8'.2'*&'
)+%'(*.5,),*.0'/$%'52'%.18%$')%5''.5'%&&$,'
0,*.0',.)*')+%' $,-+)'6/%1$'/ ('7,)2' ,-+)'
6.%18*)+*$'B''.5')18*1$0'(*.%()%5'3,)+'
)+%' $,-+)'0,5%'*&')+%'(+%0)'3,)+')+%'8%5,;
'0),.18''*$'3,)+')+%' $,-+)'/*4%'*&')+%'/,7%$'
'$%'/%00'(*88*.'(*.5,),*.0'/%'5,.-')*')+%
0'8%'$%01/)' +%'5,0)'.(%')*3'$50')+%'/%&)'
)*'3+,(+')+%' +%'$)',0'5,0/*(')%5'7'$,%0')+%'
%B)$%8%'/,8,)'4%,.-'6$*4'4/2')+%'7%$),('/
'B&//'$2'/,.%' 1$,.-',)0'6$*-$%00')*3'$50'
)+%' /%&)')+%' +%'$)',0'$*')')%5' '$*1.5',)0'
/*.-,)15,.'/ 'B,0'0*')+')'+)+%' $,-+)'7%.)$,(/%'
,0'8*$%'%B6*0%5''.)%$,*$/2H '.5')+%' '6%B',0'
8*7%5' ')' &,$0)' 0*8%3+')' 5*3.3'$50' '.5'
'&)%$3'$50'163'$50

+%'7,0,4/%' '.5'6'/6'4/%',861/0%',0'&*1.5'
)*')+%'/%&)'*&',)0'.*$8'/0,)1'),*.''.5'%,)+%$'
/*3%$'*$+,-+%$')+'.',)'*$'*.')+%'0'8%'/7%/'
3,)+',)'((*$5,.-')*')+%'5%-$%%'*&5,06/'(%;
8%.)' .'0*8%'*'0%0'51%')*'(*.)$')(,*.'*&'
)+%'/%&)'/1.-')+%',861/0%'8'2'4%'&*1.5',.'
'.2'*.%'*$',.''*&')+%'/%&)',.)%$(*0)'/06'(%0'
&$*8')+%'4'0%')*')+%'6%B'*&')+%'+%')'.'5'
*&'5,&&%$%.)'$+2)+8',.')+%'5,&&%$%.)'06'(%0'
&')+%'5,06/'(%5'+%'$)'4%')+%'0%')'*&'7'/71/'$
5,0%'0%')+$,/'8'2'4%'&%/)',.''.'B8101'/
0),)1'),*.'&*$'%B'86/%',.')+%'/%&)'B,//'
+%''$%'*&'6%$(100,*.51/.%0''',0'/)%$%5'
,.'*1)/,.%'4%,.-',.7'5%5'*.')+%'$,-+)'0,5%
%,)+%$'42')+%'58.%00'51%')*'%&&10,*.')+%$%
$'42'$%0.'.(%'51%')*'6.%18*)+*$'B'*$')*'
%.($*'(+8%.)'*&')+%'$,-+)/1.-4*$5%$H3+,/0)'
,)',0'%,)+%$')$'.06*0%5')*3'$50')+%'/%&)'B,//''
*$'4/%.5%5'3,)+'1..')1$'/51/.%00'*7%$')+%'
/%&)'/,8-' +%'('$5,'(' 0*1.50'$%'$%51(%5'
,.'/*15.%00'*7%$')+%'.*$8'/6$0%(*$5,''3+,/0)'
)+%2'$%'1.')1$'//2'/*15')*3'$50')+%'/%&)'
'B,//'' '.5'16')+%' /%&)' &$*.)')$1()1$'/
8))$81$0',&'6$%0%.)'$%'0,8,/'$/2')$'.06*0%5'
'0'$%-'$50')+%'0%')'*&')+%,$'(*.7%B,*.' '020)*/,(
81$81$'8'2'4%5%7%/*6%5''')+%'4'0%'*&')+%'
+%'$)'&$*8'80)*$),*.''*&')+%'-$%')'7%00%/0

<' 0) ' ' '
+,0'&*$8'*&'5,0/*('),*.''*&')+%' +%'$)',0')+%'
$%01/)'*&'%&&10,*.',.)*')+%'/%&)'6/%1$'/('7,)2H
&'(.)$')(),.-'6$*(%00%0'(*.%()%5'3,)+')+%'
$,-+)/1.-'*$'6/%1$''H *&'/%&)'6.%18*)+*$'BH
'.5'*&')18*1$0'*&')+%' /%&)'0,5%' *&')+%'(+%0)'
*$',.')+%' 8%5,'0),.18' +%' +%'$)' 8'2'4%'
5,06/'(%5')*3'$50')+%' $,-+)'0,5%'1.),/)+%'
,861/0%',0'&*,85',.')+%' 'B,//'$2'$%-,*.')+%'
)$1%'6%B')')+%'0'8%'),8%'4%,.-'5%6$%00%5

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_/,&R6/'(%8%.)' *&)+%'+%'$)' 3*1/5' 4%')*' $% 8*7%' ,)0' %')&&,%ℍ 41)' 3+%'('10%',0'*&')+%'.')8 K%'*&')$'(),*.')$%')8%.)' ,0' 7%$2' $'$%/2' (''//%5'&*$' %7%.' ,&' ,)' 3%$%' 6*00,4/%' .' U%6/'(%; 8%.)' 51%')*' 6$%001$%' '*.')+%'(*.)$'$2')$%');
8%.)' ,0' %&/%.' 1$-%.)/2' , .5,(')%5' 6%$&%()/2' 6$'(),('4/2' ' .5' .-+/2' 01((%00&1/' +%' 1.; 6/%'0'.)' 0%.0')',*.' *& 61/0')',*.' (*86/',.%5' *&' ,.' 0*8%' ,.0)' .(%0' *&' 5,06/'(%8%.)G&*$ %B'86/%',.' 6+)+,0,0G,0' &$%E1%.)/2' $%/,%7%5' 42' .' '001$'.(%'*.')+%'6'$)'*&')+%'6+20,(,'.')+')')+%'6'/6,)',),*.',0'*&'.*',86*$)ℍ ' .5'42')+%' '66/,(',)',*.'*&''0,86/%'6/'0)%$'(*.)',.; ,.-',$*.'4%//'5*..''*$*6,¢,8

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% 3 *' $' , ' M ' ' A)' C 0 "4 '" ' 0 - ' ' !%/ℍ %$'. D ' # ' ' P

& G +%' 6$*(%00' 42' 3+,(+')+%' 810(1/'$' &,4$%0' *&')+%'+%'$)' '$%'(*.7%$)%5' ,.)*' '' -$'.1/'$' &'))2' 8'))%$' +%')%$8' ,0' '/0*' 10%5')*' %B6$%00')+%'0)')%'*&')+%'+%'$)' ,.' 3+,(+')+,0' (+'.-%'+'0'4%%.' '((*86/,0+%5 . $ ' ' $ G +%' 6$*(%00' 42' 3+,(+')+%' 6$*)%,.' %/%8%.)0' *&' '.,8'/' 4*5,%0' ,.(/15,.-' 810(1/'$' &,4$%' '$%'(*.; 7%$)%5',.)*' -$'.1/'$' &'))2' 8'))%$' '0' %//' '0')+%' (,$(180)'.(%0' 1.5%$' 3+,(+')+,0' (+'.-%' *((1$0'+'7%' 4%%.' '/$%'52'0*' &1//2' 5,0(100%5' 1.5%$')+%'+%'5'*&'4 '& ')')',)' ,0' 1..%(%00'$2')*' $%6%')')+%',.&*$8'),*.' 3+,(+'3,//'4%'&*1.5')+%$%')'3,//'01&&,(%')*' 0'2'+%$%')+')'3+%.')+%'6$*(%00'*&'.1)$,),*.' ,0',.)%$&%$%5'3,)+',.')+%'),001%'*&')+%'+%'$)')+,0'(+'.-%')'9%0'6/'(%''.5',0'4%0)',//10)$')%5' ,.')+%' '*$' & '&*$8'*&'5,0%'0%'3+,(+' *((1$0'3+%.')+%'(*$*.'$2'(,$(1/'),*.',0'*4; 0)$1()%5' +,0',0'0%%.',.'('0%0',.'3+,(+')+%' *$,&,(%'*&')+%'(*$*.'$2''$)%$,%0',0'(*.)$')(%5' *$'3+%$%')+%$'),0',)+,(9%.,.-'*$('/(,&,(',)*.' *&'*.%'*&')+%').8 90'*$'*&')+%'4$'.(+%0'*&')+%0%'7%00%/0''.5',0'8*$%'8'$9%5'42'$%'0*.' *&')+%'&'()')+')+%'(*$*.'$2''$)%$,%0'5*'.*)' .'0)*8*0%'0'&$%%/2'42')+%,$'6$,8'$2'.'5' 0%(*.5'$2'4$'.(+%0'0'5*'$)%$,%0',.'*)+%$' 0,)1')',*.0'),//'0' $' 81%/' %)' +'0' 3%/'0+*3.' S '7*/',' ???R')+%$%'5*%0' %B,0)'&$%%'(*881.,(',)*.' +%'&'))2'(+'.-%' ,0'&*1.5')*'*((1$'..')+%'8*$%' '*$0 " 7 '&*$8',.')+*0%'5,0%'0%0',.'3+,(+')+%'7,)'/' 6*3%$0' '$%' /*3%$%5' '0' ,.' (%$)',.'&*$80'*&' (+$*.,('('(+%(),('5,0%'0%'%06%(,'//2',.'('0%0'*&' 6%$.,(,*10'.'%8,''0'5%0($,4%5'42' $' ,5.%2' *16/'.5' ' ' ') ' ' ?? R',.' 6*,0*.,.-'42'6+*06+*$10'*$' '&)%$' /*00' *&' 4/**5' .' (%$)',.'*)+%$'(*.5,),*.0'01(+' '0' '(1)% 06%(,&,(' &%7%$0')+%),001%'*&')+%'+%'$)' 4%(*8%0'0*&)%.%5''.5'1.5%$')+% 8,($*0(*6% 6$%0%.)0' '' -$'.1/'$' '66%'$'.(%'3+,(+',0'4%; /,%7%5'42'0*8%'6')+*/*-,0)0')*'4%''.',.(,; 6,%.)'0)'-%'*&'&'))2'5%-%.%$'),*.' %'8,-+)

'/0*' $%&%$')*')+%'8*$%' *$'/%00'5,&/10%5'&*$8' *&')2'5%-%.%$',*.'3+,(+')'9%0'6/'(%',.'('0%0' *&'%./'$-%5'+%')')+%'$%01/)' .*)' '0' *9,')'.092'0166*0%5''*&''5,0)1$4'.(%'*&')+%'.%$; 7*10'&$8(),*. '41)'*&')+%'^()')+')'+%0%'%.; /'$-%5'+%')0'$%E1,$%' ''/'$-%$'0166/2'*&')+%' 8')%$,'/0'&*$'.1)$,),*.')+'.'('.'4%'&1$.,0+%5')*')+%8'42')+%'(*$*.'$2''$)%$,%0'3+,(+',. 01(+'('0%0''$%'&$%E1%.)/2')+%80%/7%05,0%'0%5' 4*)+')')+%,$'*$,-,.''.5',.')+%,$'(*1$0%' '0)/2'&')2'5%-%.%$'),*.'*'*&'1.5')*'*((1$'&)%$'5%/,7%$2',.'0*8%',.; &*1.5')*'*((1$'&)%$'5%/,7%$2',.'0*8%',.; 0)'.(%0',.'3+,(+')+%'*$-'.'+'5'4%(*8%%.; /'$-%5'51$,.-'6$%-.'.(2')+10'%B6/'.,.,=''(%$;)',.'('0%0'*&'0155%.'5%')+'&)%$'6'$)1$,),*. $'%5&*$5'%.3,(9'+'0'5%0($,4%5'S '7*/',' ???ℍ &'))2'5%-%.%$'),*.'*((1$$,.-',. (*.0%E1%.(%'*&')+%'6$%001$%'%B%$(,0%5'42')+% 6$%0%.(%'*&'/'$-%'*7'$,'.')18*,.$0ℍ''.5'+%' '((*1.)0'&*$')+%'(*//'60%'3+,(+'0*8%),8%0' *((1$0'&)%$*'6%$'),*.'&*$')+%'$%8*7'/'*&')+%0%')18*1$0'42')+%'6$%0%.(%'*&'),0'/%0,*.' *&')+%'+%'$)<0'%B)1$%K %$)','*')+%$',($(180)'.(%0'(*..%()%5'3,)+')+%'*$,-.'*&')+%'5,0%'0%'$%E1,$%')*'4%8%.;),*.%5'+%$%'.'$%&%$%.(%')*' (')+%'5,0%'0%' ,0'8*$%'&$%E1%.)',.'8'/%0','.')+%'6$*6*$),*.' *&'.%'$/2')3*')*'*.%' ,)+'$%06%()')*' 0 ',.'+,0'*$,-,.'/'8%8*,$'*.')+,0'014>%()')+% 3$,)%$'&*1.5')+')'.%'$/2'*.%+'/&'*&''')+% ('0%0'*40%$7%5'3%$%'*7%$'0,B)2'2%'$0'*&''-% .')+%'/')%' $'25%.<0'7'/1'4/%'3*$9'*.' C ' '#'P ')+%'6$*6*$),*.')'0)'%5' *&'('0%0'1.5%$'0,B)2'2%'$0'*&''-%'0+*30''' /'$-%$'.184%$'*&'2*1.-'6%$0*.0'3+*0%+%')$)0' +'7%'1.5%$-*.%')+,0'(+'.-%''0''$%01/)'*& 3'0),.-'5,0%'0%G''$%01/)'3+,(+',0'%7,5%./2' 51%')*')+%'-$%')%$'('$%'3,)+'3+,(+'8,($*; 0(*6,('/%B'8,.'),*.0'*&')+%'+%'$)'+'7%'4%%.' 8'5%',.'$%(%.)',8%0' 0'$%-'$50' '' '*&')+,$)2)+$%%('0%0'&*$8%$/2'.*)%5' 42')+%'3$,)%$')+%'014>%()0'*&')+%'5,0%'0%'$% 0)')%5')*'+'7%'4%/*.-%5')*')+%'+,-+%$'$'.90' ,.'.,.%('0%0ℍ')*')+%'8,55/%'(/'00',.'%,-+)' ('0%0ℍ'.5')*')+%/*3%$'(/'00',.'0,B)%.'('0%0' +,0'%.18%$'),*.'(*.)$'0)0'3,)+')+%'6$*6*$;),*.',.'3+,(+'&')2'-$*3)+'66%'$0'*.')+% +%'$)ℍ0%7%.'*&&,&)%%.'('0%0'4%/*.-,.-')*')+% &,$0'(/'00ℍ0,B')*')+%0%(*.5ℍ'.5'*./2')3*')*')+%)+,$5' '))2'5%-%.%$'),*.'.5'&')2' -$*3)+'*.')+%'+%'$)''$%')+10'0%%.')*'*((1$' 1.5%$'8'$9%5/2'5,&&%$%.)'(*.5,),*.0' +%' /'))%$',0')+%'$%08)'*&')+%''((181/'),*.',.')+% 4/**5'*&')+%'%/%8%.)0'*&'&')ℍ)+%'&*8%$',0')+%'$%01/)'*&'5%('2'.5'5,0,.)%-$'),*.'*&),001%0

! ' $' ' G .' &'))2'5%; -%.%$'),*.')+%'+%'$)'3'0'&*1.5')*'4%%./'$-%5' ,.'4*1)')3*)+,$50'*&')+%'('0%0'$%(*$5%5' 4*)+'42'$' '25%.'.'5')+%'6$%0%.)'3$,)%$')',0'.*)',.&$%E1%.)/2'0,86/2'5,/')%5' *' &,.5''+%'$)')+10''&&%()%5'*&'.'7%$'-%0,C%

A$)'*4#!'.)"')4# .' 7'. 4 + ' B $)' * $ ' ' ') # '+"'F)'A'L'B$ '$'^)7$> . #4)'&4) $' 7' ' $' $' 477 ' F ! ℕ ' ! ' ' .$'= '/'2K2

or even occasionally below it, is not an exceptional occurrence. The colour of the heart's substance is pale, sometimes as pale as 'a dead leaf,' but more generally it is of a yellowish-brown or buff, or muddy pink colour. This discoloration is generally seen in spots or in patches; and though the whole heart may be pale, the spots, being still paler when seen beneath the endocardium, give the tissue a mottled look. The same appearance may be observed beneath the pericardium, and in the substance of the heart. With the progress of disease the spots run together, giving portions of the walls a uniform buff-coloured character, whilst the rest of the organ retains its ordinary aspect. The consistence also varies from that of mere flabbiness or softness, to such a condition as permits of the tissue being torn like wet brown paper. The organ then feels like a piece of wet chamois leather, or a wet glove. In other cases the heart retains in appearance much of its ordinary solidity, but the tissue breaks down on pressure, as does a lung consolidated by pneumonia. This is a state which occurs more frequently in hearts which are hypertrophied. In addition to these changes in size, colour, and consistence, others have to be noted. The fibrous character of the heart's structure, even to the naked eye, disappears; in some cases the tissue resembles that of a fatty or a boiled liver. In other instances the cut or torn surface has a granular appearance, not unlike that of the lung in an early stage of grey hepatisation. These different appearances may in a great measure be due to the greater or less fluidity of the oily matter present, as well as to the extent and degree to which the disease has advanced. Further varieties in appearance may be caused by the presence of a larger or smaller quantity of blood, or of its colouring matter, in the heart's texture or in its cavities, by which the lining membrane may

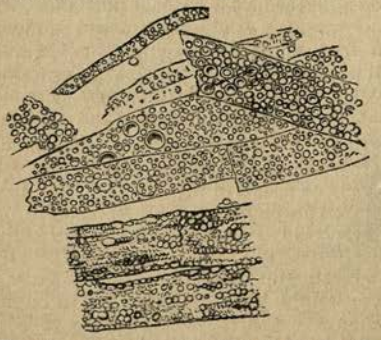

FIG. 60.—Fatty Degeneration of the Heart. × 400 diam.

in the latter case be dyed of a deep purple colour.

Microscopical characters.—The microscopical characters of this disease will be found so fully described under the head FATTY DEGENERATION, that it is needless here to do more than refer the reader to that article, and to the annexed figure (60), in which these characters are well seen.

All parts of the heart are subject to fatty degeneration, but not equally so. It is most frequently found in the left ventricle; next in the right ventricle; then in the right auricle; and least frequently in the left auricle. It is generally more evident in the columnæ carneæ, and in the inner layers of the muscular walls, than elsewhere.

EFFECTS.—Of the *structural* lesions which occur in the heart when it is the seat of fatty change, one of the most important is *rupture*, which was found in twenty-five out of sixty-eight cases of fatty or softened heart, the histories of which were collected by the writer. Partial rupture, leading to some effusion of blood in the tissue and the formation of what has been called *cardiac apoplexy*, is another condition which has been described. The clot in such cases, if it lose its colour, may produce the appearance of an encysted abscess; and a consecutive false aneurysm of the walls of the heart may be thus formed, as well as by the simple yielding of a portion of the softened cardiac wall. The involvement of the columnæ carneæ may lead to imperfect action of the valves. Valvular disease itself is not often present in connexion with fatty heart. Dr. Henry Kennedy, in a late interesting work on this subject, pointed out that the valves are affected only about once in nine cases; and he further shows that, when the valves are affected, it is chiefly the aortic valves that are involved.

Of the effects of fatty degeneration upon the *functions* of the heart, the most prominent are those which exhibit the weakened powers of the organ. *Coma*, preceded or not by giddiness, has been described by several writers in connexion with feeble powers of the circulation. The late Dr. Adams of Dublin has mentioned as many as twenty attacks in one of his cases of fat heart; and the writer has noticed the occurrence of even more frequent seizures. *Syncope*—'cardiac syncope'—is a term very frequently used by the older writers; and it is a term which may be well applied to the condition of faintness which is frequently found in connexion with fatty heart. In some cases the feeling of syncope amounts to little more than a simple sense of faintness—that the patient must fall if he do not lay hold of something. In other instances this symptom is accompanied by a feeling of impending death; and such patients do frequently die. In the cases collected by the writer, thirteen out of thirty-three died of what he proposed to call *syncope lethalis*, or 'fatal syncope;' and it would be possible, no doubt, now greatly to extend the number of cases that have proved fatal in this way. Death may result in such cases

&$* 8‘ (‘$5,‘ (‘&‘,//=%‘ ‘0‘ , . 5,(‘)%5‘ ‘&)%$‘ 5%‘)+‘ +2‘ ‘‘&,‘442‘+%‘$)‘ (* .)‘ , . , . -‘ 4/**5‘ , . ‘)+%‘ /%&)‘ 7% .)$, (/%Ĥ *‘ 3 + %$%‘)+%$%‘ ,0‘ ‘‘ /%00‘ ‘ 8 *1 .)‘ *&‘ 5%-%. %$‘),* . ‘ 5%‘)+‘ 8 ‘ 2‘$%01/)‘ &$* 8‘ ,$$%-1/‘ $ ‘ (),* . ‘ *$‘ 06‘ 0 8 ‘ ‘ . 5‘)+%‘ 7% .)$, (/%0‘ 8 ‘ 2‘ 4%‘ &* 1 . 5‘ % 8 6)2

6 ‘ ,0‘ ‘/0*‘ ‘ . ‘ %&&%()‘ *&‘ 5%-%. %$‘),* . ‘ ‘)‘ 8 ‘ 2‘ *((1$‘ , . 5%6% . 5%.)/2‘ *&‘ 02 . (*6%Ĥ *$‘ 4%, . -‘ ‘ 00*(, ‘)%5‘ 3,)+‘ 02 . (*6%‘ ‘ (* . 0),)1%0‘ 3+‘)‘ ,0‘ . ‘ 8 %5‘ " ‘ ‘ * ‘

+%‘ "‘ ,0‘ ‘/3 ‘ 20‘ ‘&&%()%5‘ , . ‘ (‘ 0‘ %0‘ *&‘ &‘))2‘ 5%-%. %$‘),* . ‘ ‘ . 5‘ 3%‘ &, . 5‘ %,)+%$‘ 0, 8 6/%‘ 4$%‘)+/%00 . %00‘ %7%. ‘ *. ‘ 0/, -+)‘ %B%$;),* . ‘ *$‘)+‘)‘ 6%(1/, ‘$‘ &*$8‘ 3+, (+‘ +‘ 0‘ 4%%. ‘ (‘ //%5‘ # " - ‘ "

! (! ‘ ‘ & G= +%$%‘ ,0‘ . *‘ 5*14)‘)+‘)‘ 8 ‘ . 2‘ (‘ 0%0‘ *((1$‘ , . ‘ 3+, (+‘ &‘))2‘ 5%-%. %$‘),* . ‘ ,0‘ &*1 . 5‘ , . ‘)+%‘ +%‘ $)‘ ‘&)%$‘ 5%‘)+‘ 3,)+*1)‘ ,)0‘ 6$%0%. (%‘ 51$, . -‘ /, &%‘ +‘ 7, . -‘ 4%%. ‘ 0106%()%5‘ ‘ +,0‘ $%01/)‘ ,0‘ &*1 . 5‘ 8 *$%‘ %06%(, ‘ //2‘ , . ‘)+*0%‘ , . 0)‘ . (%0‘ *‘ %B+‘ 10), . -‘ 5,0%‘ 0%‘ , . ‘ 3+, (+‘)+%‘ +%‘ $)‘ 6‘ $), (,6‘)%0‘ . ‘ 01(+‘ (‘ 0%0‘)+%‘ $%E1, $%8%.)0‘ *&‘)+%‘ 20)%8‘ 8‘ 2‘ . *)‘ 4%*‘ 1)‘ *&‘ 6$*6*$), *. ‘)*‘)+%‘ 6*3%$0‘ *&‘)+%‘ +%‘ $)Ĥ ‘ . 5‘ 5%‘)+‘ 8 ‘ 2‘ (* 8 %‘ *. ‘ 0/*3/2‘ ‘ . 5‘ , . 0, 5, *10/2‘ ,)+*1)‘ *1$‘))%.), *. ‘ 4%, . -‘ ‘))$‘ ()%5‘)*‘)+%‘ 0)‘)%‘ &‘)+, 0‘ *$- ‘ . ‘ ‘ ‘ 0%(*. 5‘ (/‘ 00‘ *&‘ (‘ 0%0‘ , . ‘ 3+, (+‘)+%‘ +%‘ $)‘ 01&‘ ‘ &%$0‘ &$* 8‘ 0* 8 %‘ /*(‘ /‘ (‘ 10%‘ ‘ 0‘ &*$‘ %B‘ 8 6/%‘ &$* 8‘ 5, 0%‘ 0%‘ *&‘)+%‘ (*$*. ‘$2‘ ‘$)%$, %0‘ 3/. /0)‘)+%‘ 020)%8‘ -%. %$‘ //2‘ 8 ‘ , .)‘ , . 0‘ ,)0‘ 6*3%$0‘ 8 *$%‘ *$‘ /%0‘ &1//2‘)+%‘ 4‘ /‘ . (%‘ 4%)3%%. ‘)+%‘ 020)%8‘ ‘ . 5‘)+%‘ &1. (), *. ‘ *&‘)+%‘ +%‘ $)‘ , 0‘ /*0)‘ ‘ . 5‘ 5, ‘ - . *0), (‘ %7, 5%. (%‘ *&‘)+%‘ (+‘ . -%‘)+‘)‘ +‘ 0‘ *((1$$%5‘ , . ‘)+%‘ (%.)$‘ /‘ *$- ‘ . ‘ 01&&, (, %.)/2‘ 5%‘ $‘ ‘ . 5‘ 6*, .)%5‘ 8 ‘ 2‘ 4%‘)$‘ (%5‘ 3,)+*1)‘ 5, &&, (1/)2‘ 8 *. -0)‘)+%‘ 02 8 6)*8 0‘ *&‘)+%‘ 5, 0%‘ 0%‘ 3%‘)+%. ‘ *40%$7%‘ 7‘ $, *10‘ $+*5, &, (‘), *. 0‘ *&‘)+%‘ 6+%. *8 %. ‘ ‘ *&‘ 5$*30, . %00‘ . ‘ 5‘ (* 8 ‘ Ĥ &‘ , .); . %00‘ . ‘ 5‘ 02. (*6%Ĥ 5, 0*$5%$%5‘ $%06, $‘), *. Ĥ 6‘ , . ‘ , . ‘)+%‘ $%-, *. ‘ *&‘)+%‘ +%‘ $)Ĥ ‘ . 5‘ &&, 0)1$4%5‘ 61/0‘), *. ‘ *$‘ %B‘ 8 6/%‘)+%‘ 6‘), %.)‘ (* 8 ; 6/‘ , . 0‘ , . ‘)+%‘ %‘ $/, %$‘ 0)‘ -%0‘ *&‘ 4%, . -‘ %‘ 0, /2‘ %B+‘ 10)%5‘ 6‘ $), (1/‘ $/2‘ 42‘ 8 *1 .), . -‘ ‘ 0(%.)0Ĥ +%‘ &%%/0‘ +%‘ 0‘ 20‘ 8‘ &&,)‘ *. ‘ $%‘ (+, . -‘)+%‘)*6‘ *&‘ ‘ ‘ &/, -+)‘ *&‘ 0)‘ , $0Ĥ)+*1-+‘ . *)‘ -, 552‘ +%‘ &%%/0‘ +%‘ 8 10)‘ &‘ //Ĥ)+*, =+‘ . *)‘ 4$%‘)+/%0‘ *$‘ &‘ , .), . -‘ +%‘ 0, -+0‘ 5%%6/2‘ . 5‘ 0%%90‘)+%‘ , $‘ . 2‘ 1 . 101‘ /‘ %B(,)%8%.)‘ *$‘ ‘ +%‘)%5‘ *$‘ ‘ (/*0%‘ ‘)8 *06+%$%‘ 6$*51(%0‘)+%‘ /, 9%‘ %&&%()0‘)‘)+%‘ 0‘ 8 %‘), 8 %‘)+%$%‘ , 0‘ *&)%. ‘ %B6%$, %. (%5‘ ‘ . ‘ 1 . (* 8 &*$)‘ 4/%‘ &%%/, . -‘ *&‘ (+*9, , =‘ *$‘ &1/; . %00‘ , . ‘)+%‘ (+%0)‘ . ‘)+%‘ , .)%$7‘ /0‘)+%‘ , . ; 5, 7, 51‘ /‘ 8 ‘ 2‘ 4%‘ &‘ , $/2‘ 3%

0‘)+%‘ 5, 0%‘ 0%‘ ‘ 57‘ . (%0‘)+%‘ ‘))‘ (90‘ *&‘ 3+‘)%7%$‘ 9, . 5‘ 4%(* 8 %‘ 8 *$%‘ &$%E1%.)‘ ‘ . 5‘ 0%7%$%‘ ‘ . 5‘ *&)%. ‘ 5, 0)1$4‘ ‘ . 5‘ 5, 0)$%00‘)+%‘ 6‘), %.)‘ ‘)‘ . , -+)‘ +%‘)%8 6%$‘ ,0‘ *40%$7%5‘)*‘ 4%(* 8 %‘ , $$,)‘ 4/%‘ +%‘ %B6$%00, *. ‘ *&‘)+%‘ &%‘)1$%0‘ &$%E1%.)/2‘ ‘ 66%‘ $0‘ ‘ . B, *10‘ ‘ . 5‘)+%‘ (*1.)%. ‘ . (%‘ 0‘ //*3‘ *6, *10‘ 6%$06, $‘), *. ‘ &$* 8‘ 7%$2‘ 0/, -+)‘ (‘ 10%0‘ 0* 8 %), 8 %0‘ (*/5. %00‘ *&‘)+%‘ %B)$%8,), %0‘ . ‘ 5‘ 03%//, . -‘ *&‘)+%‘ . 9/%0‘ ‘ 66%‘ $‘ ‘ 8 *. -0)‘)+%‘ , . (, 5%.)0‘ *&‘)+%‘ 5, 0%‘ 0%‘ +%‘ 61/0%‘ ,0‘ -%. %$‘ //2‘ ‘ &&%()%5Ĥ 41)‘ +*3 8 10)‘ . *‘ 5*14)‘ 5%6%. 5‘ , . ‘ ‘ -$%‘)‘ 8 %‘ 01$%‘ 16*. ‘)+%‘ 6‘ $)‘ *&‘)+%‘ +%&)$)‘ ‘ &&%()%5‘ ‘ . 5‘ *. ‘)+%‘ %B)%.)‘ ‘ . 5‘ 5%-$%%‘ *&‘)+%‘ 5, 0%‘ 0%‘)+%‘ 3$,)%$<0‘ *6, . . *. ‘ , .)%$8,))%. %%‘ ‘ . 5‘ , $$%; -1/‘ $,)2‘ ‘ $%‘)+%‘ 8 *$%‘ &$%E1%.)‘ ‘ /)%$‘), *. 0Ĥ 3%‘ 9. %00‘ ,0‘ ‘ . *)+%$Ĥ ‘ . 5‘ 0/*3. %00 G*&)%. ‘ $% 8 ‘ $9‘ 4/% G, 0‘ ‘)+, $5‘ X1, (9. %00‘ *&‘)+%‘ 61/0%‘ 8 *$%‘ %06%(, ‘ //2‘ 3+%. ‘ ,) ‘ , . ($%‘ 0%0‘ 3,)+‘ ‘ -%‘ + ‘ 0‘ 4%%. ‘ 53%/)‘ 16*. ‘ 42‘ $‘ %$ 8 %52‘ ‘ 0‘ ‘ ‘ 02 8 6)*8‘ 5%0%$7, . -‘ *&‘ ‘))%.), *. ‘ , . ‘)+%‘ 5, ‘ - . *0, 0‘ *&‘ &‘))2‘ 5%-%. %$‘), *. ‘ +%‘ , $$%-1; / ‘ $,)2‘ 8 ‘ 2‘ 4%‘ (*. 0)‘ .)‘ *$‘ ,)‘ 8 ‘ 2‘ ‘ 66%‘ $‘ ‘ . 5‘ 5, 0‘ 66%‘ $‘ +%‘ 3$,)%$‘ +‘ 0‘ 0%%. ‘ ,)‘ 6$%0%.)‘ 51$, . -‘)+%‘ 0/, -+)‘ 5, 0)1$4‘ . (%0‘ ‘ 4*7%‘ 5%; 0($, 4%5‘ Ĥ ‘ . 5‘ +%‘ +‘ 0‘ 0%%. ‘ ,)‘ 5, 0‘ 66%‘ $‘ ‘ /)*; -%)+%$‘ 3+%. ‘)+%‘ 6‘), %.)‘ 3‘ 0‘ , . ‘)*/%$‘ 4/%‘ +%‘ /)+‘)*‘ $%)1$. ‘ ‘ 0‘)+%‘ %&&%()‘ *&‘ ‘ . 2‘ 5%6$%00; , . -‘ (‘ 10%‘) ‘ +%‘ 8 *$%‘ 8 ‘ $9%5‘ 4%(‘ 10%‘)+‘)‘ (‘ 10%‘ 8 ‘ 2‘ 4%‘ &‘ $)*‘ *‘ , . %&&, (, %.)‘)*‘ ‘ &&%()‘ ‘ ‘ 0* 1 . 5‘ +%‘ $)‘ +%‘ &$%E1%. (2‘ 3,)+‘ 3+, (+‘)+%‘ 61/0%‘ , 0‘ ‘ &&%()%5‘ , . ‘ (‘ 0%0‘ *&‘ 5206%60, ‘ ‘ 8 *$%‘ %06%(, ‘ //2‘ , . ‘)+*0%‘ , . ‘ 3+, (+‘)+%$%‘ %B, 0)0‘ ‘ -*1)2‘ 5, ‘)+%0, 0‘ 0+*1/5‘ . *)‘ 4%‘ *7%$/**9%5‘ , . ‘)+%‘ &&, ‘ - . *0, 0‘ *&‘ &‘))2‘ +%‘ $)

+%‘ 4$%‘)+, . -‘ , 0‘ ‘ /3 ‘ 20‘ 8 *$%‘ *$‘ /%00‘ ‘ &; &%()%5‘ , . ‘ (‘ 0%0‘ *&‘ &‘))2‘ 5%-%. %$‘), *. ‘ *&‘)+%‘ +%‘ $)‘ . ‘ 0* 8 %‘ , .)‘ . (%0‘) 0‘) 1$4‘ . (%0‘ $%6$%0%.)%5‘ 0‘ ‘ ‘ 0%. 0%‘ *&‘ (+*9, . -‘ *$‘ 01&&*(‘ ;), *. Ĥ)+%‘ 6%$0*. ‘ &%%/0‘ 0‘ , &‘ +%‘ 3%$%‘ 4$%‘)+, . -‘)+$*1-+‘ ‘ ‘ 6*. -%‘ +%‘ 5, &&, (1/)2‘ , . ‘ 0* 8 %‘ , . ; 0)‘ . (%0‘ , 0‘ 0*‘ 0/, -+)‘ ‘ 0‘ 0(‘ $(%/2‘)*‘ 4%‘ $%-‘ $5%5Ĥ , . ‘ *)+%$0‘ 0*‘ 0%7%$%‘)+‘ 0‘ 8 ‘ ‘ /%0)‘ &&*$)‘ 6‘ $;), (1/‘ $/2‘ , . ‘ 8 *1 .), . -‘ ‘ 0(%.)0‘ , 0‘ 8 *0)‘ 6‘ , . &1/‘ ‘ 6%(1/, ‘ $,)2‘ 0* 8 %), 8 %0‘ *40%$7%5‘ , 0‘)+)‘)+%‘ ‘ 0(%.)‘ *&‘ ‘ ‘ -%.)/%‘ +%, -+)‘ , 0‘ 5, 0)$%00, . -‘ 3+, /%‘)+%‘ 6%$0*. ‘ (‘ . ‘ $%‘ 5‘ ‘ /*15‘ 3,)+*1)‘ , . (*. 7%; . , %. (%‘ ‘ (+‘ $‘ ()%$‘ *&‘)+%‘ $%06, $‘), *. ‘ &, $0)‘ 5%0($, 4%5‘ 42‘ $‘ +%2. %*&‘ 14/, . ‘ ‘ . 5‘ ‘ &)%$; 3‘ $50‘ 42‘ $‘)*9%0‘ , 0‘ 42‘ 0* 8 %‘ $%-‘ $5%5‘ ‘ 0‘ 5, ‘ - . *0), (‘ *&‘ &‘))2‘ 5%-%. %$‘), *. ‘ *&‘)+%‘ +%‘ $)‘)‘ , 0‘)+10‘ 5%0($, 4%5‘ 42‘ $‘)*9%0‘ 0 ‘ &*$8‘ *&‘ $%06, $‘)*$2‘ 5, 0)$%00‘ 6%(1/, ‘ $‘)*‘)+, 0‘ ‘ &&%(;), *. ‘ A&‘))2‘ 5%-%. %$‘), *. ‘ *&‘)+%‘ *&‘)+%‘ $)Ĥ ‘ (* . ; 0, 0), . -‘ *&‘ ‘ 6%$, *5‘ *&‘ ‘ 66‘ $%.)/2‘ 6%$&%()‘ ‘ 6. *%‘ ‘ 01((%%5%5‘ 42‘ &%%4/%‘ ‘ . 5‘ 0+*$)‘ , . 06, ; $‘), *. ‘ 0‘ 3+, (+‘ -$‘ 51‘ //2‘ , . (5%‘ 0%‘ , . ‘ 0)$%. -)+‘ ‘ . 5‘ 5%6)+‘ 1.), Ĥ)+%‘ $%06, $‘)*$2‘ ‘ ()‘ , 0‘ (‘ $$, %5‘)*‘)+%‘ +, -+%0)‘ 6,)(+‘ *&‘ 3+, (+‘ ,)‘ 0%%8 0‘ (‘ 6‘ 4/%‘ 3+%. ‘)+%‘ $%06, $‘), *. 0‘ 61$01, . -‘ ‘ 5%0(%. 5, . -‘ 0(‘ /%‘ $%-1/‘ $/2‘ 5, 8, . , 0+‘ 1.), Ĥ)+%‘ (* 8 %. (%; 8 %.)‘ *&‘ ‘ . *)+%$‘ 6. (%Ĥ 6%$, *5 ‹ $‘ ‘ 25%. ‘ , . ‘ 3$,), . -‘ *. ‘)+, 0‘ 014>()‘ 8 %.), *. 0‘ ‘ (‘ 0%‘ , . ‘ 3+, (+‘ 51$, . -‘)+%‘ 6%$, *5‘ *&‘ ‘ 6. *%‘))+%$%‘ 3‘ 0‘ . *‘ (+‘ . -%‘ , . ‘)+%‘ +%‘ $)‘ ‹ 0‘ (), *. Ĥ ‘ 0%(* . 5‘ (‘ 0%‘ , . ‘ 3+, (+‘)+%‘ ‘ (), *. ‘ *&‘)+%‘ +%‘ $)‘ . 5‘)+%‘ 61/0%‘ 1. 5%$3%.)‘ . *‘ (+‘ . -%‘ 51$, . -‘)+%‘ 6%$, *5‘ *&‘ ‘ 6. *%‘ ‘ . 5‘ 5206. *%‘ Ĥ 3+, /0)‘ , . ‘ ‘)+, $5‘ (‘ 0%‘ 51$, . -‘)+%‘ 6‘ $*B20 8‘ *&‘ 5206. *%‘ ‘)+%‘ +%‘ $)‹0‘ (), *. ‘ 3‘ 0‘ $%8‘ $9‘ 4/2‘ , $$%-1/‘ $‘) 0+*1/5‘ 4%‘ 0)‘)%5‘ 3,)+‘ $%-‘ $5‘)*‘)+, 0‘ 0J1. 6)*8‘)+‘)‘)+*1-+‘ &$%E1%.)/2‘ 6$%0%.)‘ ,)‘ , 0‘ 42‘ . *‘ 8 %‘ . 0‘ (+‘ $‘ ()%$, 0), (‘ *&‘ &‘))2‘ 5%-%. %$‘), *. ‘ *. /2‘) ‘ , 0‘ 42‘ 0* 8 %‘ 0‘ , 5‘)*‘ 4%‘ 8 *$%‘ &$%; E1%.)/2‘ ‘ 00*(, ‘)%5‘ 3,)+‘ 5, 0%‘ 0%‘ *&‘)+%‘ ‘ *$)‘ ‘ ‘ $, *10‘ %B6/‘ . ‘), *. 0‘ *&‘)+, 0‘ 6+%. * 8 %. *. ‘ + ‘ 7%‘ 4%%. ‘ -, 7%. ‘ $‘ ,))%‘ C # ‘ O "

the muscular fibres—an appearance often found in the auricles.

Microscopical appearances.—When a portion of heart suffering from fatty growth in a high degree is examined with the microscope, it will be found that where the growth is most advanced, that is, towards the external surface, very few muscular fibres can be seen, and that the very wide intervals between them are occupied by fat-cells (see fig. 61). Proceeding inwards, the muscular fibres become more evident; the fat-cells become fewer; and, finally, we reach the muscular fibres beneath the endocardium, with a few fat-cells lying here and there amongst them. It is worthy of note that the fibres, though overwhelmed by fat, may still retain their organisation. In all cases, however, the course and direction of the fibres are more or less modified and distorted. The fact that the fibres still exist, though concealed, affords an explanation of the persistence of the heart's action in those instances in which the muscular walls appear to a greater or less extent replaced by fat. It might also be mentioned that small masses of fatty tissue sometimes

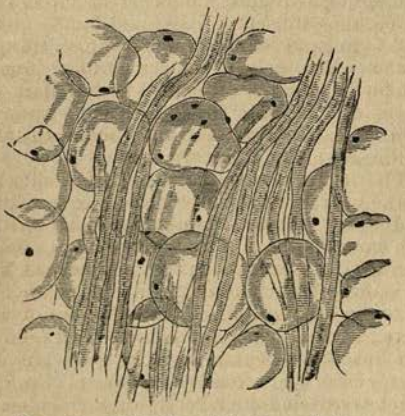

FIG. 61.—Fatty Growth in the substance of the Heart. × 400 diam.

appear beneath the endocardium, varying in size from that of a pin's head to that of a pea. The writer has seen these little fatty tumours in cases where there was a considerable, but not an excessive, amount of fat upon the surface of the heart.

EFFECTS.—The fat accumulated on the heart and in its substance may be supposed to act mechanically; and by its pressure upon the muscular fibres, on the nerves, and on the blood-vessels, to impede the function of the organ, embarrass its nutrition, and produce those effects which may be briefly enumerated as—a languid and feeble condition of the circulation, with a sense of uneasiness and oppression in the chest; embarrassment and distress in breathing, drowsiness, even coma; syncope; perhaps angina pectoris; it may be death. Rupture of the heart sometimes results. Such an enumeration of evils, in which there is no evidence of any other lesion of the heart's texture, save an accumulation of fat, would suffice to render this condition a source of very grave import; but we cannot always be quite clear on the subject, because in the particular cases quoted it is possible that some degeneration of the muscular fibres may co-exist. It would be well, therefore, not to dwell too much on such effects as proceeding from and dependent on fatty growth alone.

DIAGNOSIS.—The presence of an excessive deposit of fat about the heart must, in a great measure, be a matter of inference during life. Where one or more of the effects mentioned above as having been noticed in cases of this kind are present; when the pulse is small and weak; when the first sound of the heart is feeble, and the impulse weak; when the extent of dulness on percussion is increased; and when these phenomena occur in a fat person, it may be inferred that the heart is too fat.[1] But, on the other hand, it must not be overlooked that these symptoms and signs may be found in cases of fatty degeneration of the walls of the heart, in cases where the amount of fat-tissue is but moderate. Nay, more, as already stated, both conditions are often present in the same heart, thus rendering distinctive diagnosis impossible. It is said that the presence of water in the pericardium may be confounded with the presence of fat upon the heart; but the history and general features of the case in the former condition should be sufficient to prevent all difficulty in the diagnosis. *See* PERICARDIUM, Diseases of.

TREATMENT.—The treatment of fatty accumulation on the heart is so intimately associated with the subject of the formation of fat in general, that this point can be discussed with more advantage in its wider relations (*see* OBESITY). Whilst the treatment directed to this point is being carried out, we can do little more for the heart itself than aim at giving strength to the portion of its texture still available for duty—by tonics,

[1] Dr. Henry Kennedy, of Dublin, in a lately published special monograph on *Fatty Heart*, states that the points upon which the diagnosis of fatty growth on the heart mainly turn are the following: 'First, a large full pulse, beating at the natural standard of frequency; secondly, evidence derived from percussion of the heart's dulness being more extended than natural; thirdly, the possible presence of a soft systolic murmur over the aortic orifice, occupying the first sound of the heart only, and leaving the second normal; and, lastly, the condition of the individual as to his being fat or otherwise' (p. 39). The present writer hesitates to agree with Dr. Kennedy as to the condition of the pulse generally, and certainly this description will not apply in the cases of those persons of small frame, with small arteries, who often become obese and present symptoms of fat-heart after the middle period of life.

)+%‘ &*$(%‘ ‘.5‘ &$%E1%.(2‘ *&‘)+%‘ 61/0%‘ ‘.5‘ 8*$%‘ %06%(,‘//2‘)+%‘ ‘8*1.)‘ *&‘)+%‘ 6%$,; 6+%$‘/‘ $%0,0)‘.(%‘ ()$‘0,.-‘ ,.‘)+%,$‘)14%0‘ 5,/,=)‘),*.‘ *$‘ (*.0)$,(),*.‘)+$*1-+‘)+%‘ 7‘0*; 8*)*$‘ *$‘ 5,/‘)*$‘ .%$7%0‘ ‘15‘,.5,$%()/2‘)+%‘ (*86%.0‘),*.‘ ‘.5‘ $%/,%&‘ ‘&&*$5%5‘ 42‘)+%‘ ‘40)$‘(),*.‘ *&‘ &/1,5‘)+$*1-+‘ ‘(),7,)2‘ ,.‘)+%‘ ‘/6,-+,‘.’)1&)0‘ *&‘)+%‘ 9,5.%20‘ ‘$%‘)*‘ 4%‘ 51/2‘ (*.0,5%$%5‘ *$%*7%$‘)+%‘ 810(1/‘$ 0140)‘.(%‘ *&‘)+%‘ +%‘$)‘,)0%/&‘ ,0‘.*1$,0+%5‘ 42‘)+%‘ 4/**5‘(,$(1/‘),.-‘,+‘)+%‘ (*$*.‘$2‘‘$)%$,%0‘ ‘.5‘)+10‘ 4%(*8%0‘ 010(%6),4/%‘)*‘)+%‘ E1‘/,)2‘ ‘.5‘(*.5,),*.‘ *&‘)+%‘ 4/**5‘ 0*‘ 5,0)$,41)%5H‘ +%.(%‘ ‘‘ 4/**5‘)**‘ $,(+‘ ,.‘ &,4$,.‘ $ $%5‘ -/*41/%0‘ ‘.5‘)+%$%42‘ ,.51(,.-‘ 6/%)+*$‘ &$%E1%.)/2‘ (‘10%0‘ *7%$ ‘(),*.‘ *&‘)+%‘ +%‘$)‘ ‘.5‘6‘/6,)‘),*.‘ ‘3+,/0)‘,.‘ ‘.$%8,‘‘ ‘5%&,(,%.)‘ ‘8*1.)‘ *&‘ 4/**5‘,.51(%0‘ ‘‘ 3%‘9‘ ‘.5‘*&)%.‘ %B(,)%5‘ ‘.5‘,$$%-1/‘$‘ ‘(),*.‘ +%‘ 6$%5,0; 6*0,.-‘ (‘10%0‘,.‘ ‘55,),*.‘)*‘)+*0%‘ ‘/$%‘52‘ .‘8%5‘ 8‘2‘)+%$%&*$%‘ 4%‘ (/‘00%5‘)+10 A R‘ +*0%‘(*.5,),*.0‘ ‘(),.-‘)+$*1-+‘*$‘16*.‘ Q)+%‘ .%$7*10‘ 020)%8‘ 01(+‘ ‘0‘)+%‘ -%.%$‘/‘ %B+‘10),*.‘*&‘)+%‘ .%$7*10‘ 20)%8‘ ‘//‘ &*$80‘ *&‘ $%&/%B‘ ,$$,)‘),*.‘ 7%.%$%‘/‘ %B(%00%0‘ 7‘,.‘ /*.-,.-0‘61$6*0%/%00‘*((16‘),*.0‘ ‘.5‘ ‘810%; 8%.)0‘6$*)‘()05‘8%)‘/‘%B%$(,0%‘ ‘$40),.%.(%‘ &$*8‘ ‘5%E1‘)%‘ $%6*0%‘ ^(‘ *‘)+%0%‘ 810)‘ 4%‘ ‘55%5‘)+%‘ 06%(,‘/‘)%86%$‘8%.)‘ ‘.5‘6%$; 0*.‘/‘6%(1/,‘$,),%0‘*&‘)+%‘ ,.5,7,51‘/‘ ‘(*.; -%.,)‘/‘ $ 016%$,86*0%5‘ 3‘.)‘ *&‘ 7,-*1$‘ -%.%$‘/‘ 5%4,/,)2‘5%&*$8,),%0‘ *&‘)+%‘ $,40‘.5‘ 06,.‘/‘ (*/18.‘ ‘‘ 08‘//‘ 3%‘9‘ +%‘$)‘ 1)%$,.%‘ ,$$,)‘),*.‘+20)%$,‘‘52.‘8,(‘ &%7%$0‘ ‘.5‘)+%‘ 06%(,‘/‘ 0‘.,)‘$2‘,.&/1%.(%0‘ 1.5%$‘ 3+,(+‘)+%‘ ,.5,7,51‘/‘ ,0‘ 6/‘(%5‘ A<>‘ +*0%‘ (*.5,),*.0‘ ‘(),.-‘16*.‘)+%‘ -%.%$‘/‘ 4/**5 0166/2‘*&‘)+%‘ 4*52‘‘.5‘ (*.0%E1%.)/2‘ ‘&&%(),.-‘)+%‘ 06%(,‘/‘ 4/**5 0166/2‘*&‘)+%‘ +%‘$)‘01(+‘ ‘0‘)+%‘)1$-,5‘ ‘.5‘6/%)+*$,(‘0)‘)%0‘*&‘-$*00‘&%%5%$0‘5%6$‘7%5‘ 0)‘)%0‘(‘10%5‘ 42‘4‘5‘ ‘.5‘5%&,(,%.)‘5,%)‘ ‘.5‘ ‘ ‘&*$80‘*&‘4/**5 5,0*$5%$‘ ‘0‘ ‘.‘%8,‘‘-*1)‘ 0(1$72‘ ^(‘ 8*.-0)‘)+%‘ ,8 8%5,‘)%/2‘ %B; (,),.-‘(‘10%0‘8‘2‘4%‘.‘8%5‘8%.)‘/‘0+*(9‘*$ 5,0)$%00H‘ 6$*)$‘()%5‘ ‘.5‘ $8101‘/‘ 6+20,(‘/‘ %B%$),*.H‘ 7‘$,*10‘ ‘$),(/%0‘ *&‘ 5,%)‘ ‘0‘)%‘ ‘ (*&&%%‘^(H)*4‘((*‘,.‘ %B(%00H 8‘.2‘ 8%5,; (,.%0‘‘0‘ ‘(*.,)%‘ ‘.5‘5,-,)‘/,0H‘ ‘0‘ ‘/0*‘ 6$*; /*.-%5‘ ‘40),.%.(%‘ %B6*01$%‘)*‘ (*/5‘ ‘ ‘.5‘ .*)‘4/2‘4/*30‘*.‘)+%‘%6,-‘0)$,18

! (! G .‘ #) 7‘ */4 ‘ 7 > # 3‘ ‘ ‘$-‘3) ‘/ !$) ‘ $)‘ 4)> #!)3 7‘ #)#4 $ ‘ ‘4 4 "‘ $# 7‘ 5 !‘ ‘) ‘$-‘5 *) 7‘ "*/$* ‘ L ! ‘) /7 "‘$-‘ # $ ‘ ‘4/) 77 7‘ 4#!‘ ‘-4 ! 3‘$-‘ ! ‘- # % ! ‘ 7‘/ ‘$-‘ ! ‘ ! 7‘5 !‘ ‘ $‘$-‘ ‘5 ! 00 3‘$)‘)4 ! 3‘4/5)7‘$-‘ ! ‘ $4 7‘$-‘ ! ‘ !) % 7 * ‘$-‘. $ ‘5 !‘/ ! $/ ! $+ % 7‘ "‘ 7 #"‘ $‘ " #$/ ‘ 7‘ $‘ # * * "‘/) / >) $ ‘5 !‘ #$ 7‘ ! .) 3‘ . $ * ‘)) ‘ # ‘ ! ‘P$4)"‘*4# ‘*$) ‘ / # "‘ $-‘ ! ‘ $5)‘ =) * ‘* "‘) - ‘ $‘ # ‘ $‘ ! ‘ ! ‘3 ‘+ #$* ‘ $) 3‘$)‘ ! ‘ / ‘ 3) / ‘ 7E # ‘ $+E # ‘ $‘ 7"‘ L -‘"‘ ‘ !) ‘ ‘ !)‘/) " ‘ $)

7%$),-*‘ +%‘ $%06,$‘),*.‘)+*1-+‘.*)‘-%.%; $‘//2‘ %84‘$$‘00%5‘ 8‘2‘ 4%(*8%‘ ,$$%-1/‘$‘ ‘.5‘*66$%00%5‘6$%0%.),.-‘)+%,$‘)14%0‘ ‘‘0+*$)‘ ,.06,$‘),*.‘3,)+‘ ‘‘6$*/*.-%5‘%B6,$‘;),*.H 41)‘0+*1/5‘)+%‘$,-+)‘+%‘)$)‘4%‘(*.-%0)%5‘ ,.5%6%.5%.)/2‘*&‘ ‘.2‘ &$%E1%.(2‘*&‘ (‘$5,‘(‘ ,861/0%‘)+%‘4$%)+,.-‘8‘2‘4%‘ ‘((%/%$‘)%5‘ ‘.5‘ ‘((*86‘..%5‘ 3,)+‘ 5206.*%‘‘ *$‘ %7%.‘ ‘6.*%‘‘‘.5‘‘‘0+*$)‘5$2‘(*1-+‘ //10)$‘),*.0‘ *&‘)+,0‘ (/‘00‘ *&‘ 0286)*80‘ *&)%.‘ *((‘ ,.‘)+*0%‘*&‘0‘.-1,.%‘.5‘.%$7*10‘)%86%$‘8%.)0H‘.5‘ 8‘2‘4%‘)+%‘ $%01/)‘ *&‘ 7,*/%.)‘ ‘.5‘)**‘ 6$*)$‘()%5‘%B%$(,0%‘*&‘%8*),*.‘/%B(,)%8%.)0‘ *$‘ *&‘)+%‘ *7%$,.51/-%.(%‘,.‘ 0),81/‘.)0‘ *$‘ &**5‘ 3+%.‘ ‘00*(,‘)%5‘3,)+‘ /,7%0‘ *&‘ ,5/%.%00‘ ‘.5‘,.‘(),7,)2‘ +*1/5‘)+%‘ ,.($%‘0%5‘,8; 61/0%‘ 4%‘ ‘00*(,‘)%5‘ 3,)+‘ $+2)+8,(‘/‘ 5,0;)1$4‘.(%‘)+%$%‘ ,0‘ &*$‘)+%‘ 8*0)‘ 6‘$)‘ (*.; 0(,*10.%00‘*&‘)+%‘%B,0)%.(%‘*&‘ 01(+‘ 0)‘)%0‘ 8*$%‘ %06%(,‘//2‘*.‘)+%‘ &,$0)‘ ,.-$%00‘*&‘)+%‘ ‘))‘(9‘0*‘)+‘ ,)‘ 4%(*8%0‘‘‘0*1$(%‘*&‘ 81(+‘ ‘.B,%)2‘ ‘.5‘%7%.‘*&‘)%$$*$‘ ,.51(,.-‘)+%‘0%/&; (*.7,(),*.‘*&‘)+%‘%B,0)%.(%‘*&‘*$-‘.,(‘5,0%‘0%‘ +%‘ +%‘5 0286)*80‘ ‘/0*‘ 4%(*8%‘ 8*$%‘ 8‘$9%5‘‘.5‘ ‘00*(,‘)%5‘3,)+‘ /*(‘/6‘,.0‘.5‘ / ‘ 3+,/0)‘)+%‘ 4$%‘)+,.-‘,0‘ 8‘$9%5‘ 42‘0,-+,.-‘‘15‘ *&)%.‘ 4%(*8%0‘/%0; 0%.%5‘,.‘ &$%E1%.(2‘ +%‘ ,$$%-1/‘$‘ &*$8‘ *&‘ .%$7*10‘6‘/6,)‘),.-‘+%‘$)‘,0‘ *&)%.‘ ‘00*(,‘)%5‘ ‘/0*‘3,)+‘+‘%8,(‘5,0%‘0%0‘‘.5‘3,)+‘ .%$7*10‘ ‘&&%(),*.0‘ ‘0‘ (+*$%‘ ‘ 5,0)1$4‘.(%0‘51%‘)*‘ 8‘0)1$4‘),*.‘ 7(‘ +%.‘ 01(+‘ 5,0%‘0%0‘ ‘0‘ 0(1$72‘*$‘(+/*$*0,0‘%B,])‘)+%‘ ‘))‘(90‘4%(*8%‘ 8*$%‘ 6%$0,0)%.)H)+%$%‘ ,0‘ ‘.‘ ,.($%‘0%‘ *&‘ 6%()*$ ‘(*86/,(‘),*.‘*‘*7%.‘)*‘ 5206.*%‘H)+%‘ +%‘5‘(+%‘ ,0‘ 0*8%),8%0‘0*‘4%3,/5%$,.-‘)+‘)‘)+%‘ 8,.5‘4%(*8%0‘ ‘/‘$8%5‘3,)+‘7‘-1%‘ ‘6; 6$%+%.0,*.0‘*&‘ 5‘.-%$‘ 3+,(+‘ -,7%‘ $,0%‘)*‘ -%.%$‘/‘ $%0)/%00.%00H)+%‘ ,.)%-18%.)0‘*7%$)+%‘$%-,*.‘*&‘)+%‘+%‘$)‘‘0‘3%/‘‘0‘*&‘)+%‘&‘(%‘ ‘.5‘%7%.‘*&‘)+%‘ %B)$%8,),%0‘8‘2‘4%(*8%‘ 61&&2‘.5‘*%5%8‘)*10‘%06%(,‘//2‘,‘(‘0%0‘*& %B)$%8%‘ +/*$*0,0‘3,)+‘%./‘$-%8%.)‘*&‘)+%‘)+2$*,5‘-/‘.5‘ ‘.5‘%B*6+)+‘/8*0‘3+%$%‘)+%‘ 8*$4,5‘(*.5,),*.0‘,.51(,.-‘)+%0%‘8‘2‘ ‘/0*‘ 6*00,4/2‘(‘10%)+%‘,$$%-1/‘$‘6‘/6,)‘),*.‘

+%.‘ &1.(),*.‘/‘5,0*$5%$‘ *((1$0‘3,)+‘ ‘‘ 5,8,.,0+%5‘,861/0%‘)+%‘ -%.%$‘/‘ 0286)*80‘ -$*16‘)+%8 0%/7%0‘1.5%$‘.B,%)2‘.5‘/*3.%00‘ *&‘06,$,)0‘*$‘()1‘/‘5%06*.5%.(2‘3,)+‘8%.)‘/‘ ‘.5‘4*5,/2‘,.(‘6‘(,)2‘&*$‘ %B%$),*.H &/‘)1/%.)‘ 5206%60,‘ 3,)+‘ (*/5‘ (/‘8 82‘ %B)$%8,),%0H‘ ‘.*$%B,‘*$‘ 8‘2‘4%‘5%6$‘7%5‘ ‘66%),)%H %B; +‘10),*.‘ 3,)+‘)%.5%.(2‘)*‘ &‘,.)0%H‘ ‘.5‘ 0+*1/5‘,$$%-1/‘$,)2‘*&‘ (‘$5,‘(‘ (),*.‘4%‘7%$2‘ 8‘$9%5‘)+%$%‘ 8‘2‘4%‘ ‘‘0%.0‘),*.‘*&‘6$0%‘ (*$5,‘/6‘,.‘ ‘/%0‘$%‘8*$%0142%()‘)*‘)+,0‘ &*$8‘*&‘&1.(),*.‘/‘5,0*$5%$‘)+‘.‘&%8‘/%0‘‘.5‘ ,)‘(+,%&/2‘*((1$0‘,.‘6%$0*.0‘+‘7,.-‘‘.*$8‘//2‘ 08‘//‘ .5‘&%%4/%‘+%‘$)‘‘*$‘3+%$%‘‘0)‘)%‘*& -%.%$‘/‘.%$7*10‘5%4,/,)2‘,0‘016%$,86*0%5 +%.‘)+%‘5,0),.(),7%‘&%‘)8%‘*&‘&)8(),*.‘/ 5,0*$5%$‘,0‘$+2)+8,(‘/‘%$$*$‘‘.5‘)+,0‘,0‘‘6; 6$%(,‘4/%)*‘)+%‘6‘),%.)‘)+%‘06%(,‘/‘0286)*8‘ ,0‘)+‘)‘*&‘%B)$%8%‘ ‘.B,%)2‘%7%.‘)*‘)+%‘&%‘$ *&‘,86%.5,.-‘5%‘)+H *((‘0,*.‘//2‘‘0,.-/%

]' ' ' ? "

0*1.5' 8 '2' 01--%0)' $')+%$')+' .' +'7%' ''
0+'$6'$,.-,.-')* .%H 3+,/%')+%'0%(*.5',0'6$*;
/*.-%5

A<R ,)+' $%06%()')*' %$$*$0' ,.' # #
" ' 0%6'$')%/2' (*.0,5%$%5',)' 8 10)' +%$%6
4% .*)%5')+')')+%' (+,%&' .5' (+'$')()%$,0),(
%$$*$0' 8 '2' 4% (/'00,&,%5' 1.5%$')+%' 5,0),.()'
+%'50' *&' ,$$%-1/'$,)2' .5' ,.)%$8,))%.(%'
$$%-1/'$,)2' 8 '2' +%' ,.')+%' &*$(%' *$' ,.')+%'
&$%E1%,,(2'*&'*.%'*$' 8*$%'4%')0'.5'6$%0%.)0'
)+%' 8 '.2'7'$,%),%0' 3+,(+'''3'.)' *&'.*$8'/
1.,&*$8,)2' 8 '2'01--%0)H)+%' 8,.1)%' .5'
6'$),(1/'$' %.18%$'),*.'.' *&')+%0%' ,0' $')+%$
0'),0&2,..-')*' (1$,*0,)2')+'.',.0)$1(),7%')'
,0' 01&&,(,%.)')*' 0'2')+')' %7%$2' 7'$,%)2' *&'
,$$%-1/'$' &,$%E1%.(2' 8 '2'*(((1$'H 3+,/%'3,)+'
(%$)',.' 4%')0' &*$(%' 8 '2' 4%',.($%'0%5' *$'
5,8,..0+%5' *8%),8%0')+%$%' '66%'$0')*'4%'
''9,.5'*&'*$5%$',.'$+2)+8,('/5,0*$5%$0G=)+')'
,0K0+*$)'0%$,%0' *&'7'$2,.-',$$%-1/'$,),%0' 8 '2'
$%-1/'$/2'01((%%5' %'(+' *)+%$H)+%$%' 8 '2'4%'
''&/1))%$,..-'*'$)$%84/,.-'*$')+')'7,4$')*$2'*$
7%$8,(1/'$'8*),+'.')*'3+,(+')+%')%$8')0)+$,//<
+'0'4%%.'-,7%.' $1%',.)%$8,))%.(%',0'.*)'
0*'&,$%E1%.)' '0',$$%-1/'$,)2H 41)'3+%.''..)%$;
8,))%.(%'5*%0'*((1$',)'0'-%.%$'//2''00*(,')%5'
3,)+',$$%-1/'$,)2' +%0%' 5,0)1$4'.(%0' 8 '2'
4%' *./2' 8*8%.)'$2' *$' /*.-'51$'),*.'
0/,-+)'*$'(*.0,5%$'4/%H41)+*3%7%$')+,0' 8 '2'
4%')+%,$' (+'$')()%$' ,0' 5%)%$8,.%5'42')+%'
,$$%-1/'$,)2',.')+%' $%(1$$%.(%'*&')+%'020)*/%'
'.5')+%'(*.0%E1%.)'6$*/*.-'),*.'*$%)'$5,.-'
*&')+%'6%$,*5'*&',.)%$8,00,*.',.')+%'020)*/%
+%'6+20,('/'%B'8,.'),*.'*&'),.0'&*$8'*&'
&1.(),*.'/5,0*$5%$'0+*30'.*'8'$9%5'6%(1/,;
'$),)%0'%B(%6),.-')+*0%*&'020)*/,(',$$%-1/',,)2'
*')+%'%'$',0'$%7%'/%5',$$%-1/'$,)2',.')+%'$%;
(1$$%.(%'.5'51$'),*.'*&')+%'0*1.50'&,$*8'
)+%'0/,-+)%0)'66$%(,'4/%'6'10%')*')+%'8*0)'
$'6,5'a5'(*.&),0%5')$%84/,.-'3,)+'7%$2'
8'.,&%0)''/)%$'),*.0',.')*.%''.5'6,)(+' +%'
0*1.50'-%.%$'//2''$%',.%.0,&,%5')+%'&,$0)'
0*1.5'4%,.-'0*8%),8%0'+%,-+)%.%5')*')+%'
%B)%.)'*&''0+'$6'9.*(9H3+,/0)')+%'0%(*.5'
0'7%',.',.)%.0,)2',0'.*)'8')%$,'//2''/)%$%5'
.'%B)$%8%'(0%0')+%$%'8'2'4%0*'81(+'7%.;
)$,(1/'$',$$%-1/'$,)2''0')*',.51(%',.'6/'(%'*&'
0*1.50'.',// 5%&,.%5'&,$%8,).0H '.5'0*'81(+'
&*$(%''0')*'6$*51(%''8%)' ,%'$,.-,.-'3,)+'
''$144,.-'81$81$'*.')+%'020)*/%' +10')+%'
,8 61/0%'*&')+%'+%'$)'3+,(+',.'+%'/)+',0'
$'$%/2'66$%(,'4/%'.5',)0'&,.(),*.'.%7%$'
$%06%(),7%/2'4%(*8%0*')*')+%')*1(+'.5')*'
)+%'%'$H'.5')+%'4.*$8'/0*1.50'8'2'%B,0)'
)*'01(+'.'%B)%.)'0')*'%.),$%/2'*40(1$%')+%'
.*$8'/&,$0)'0*)85

(('0,*.'//2')+%$%',0'8%)'3,)+'.'.'66$%;
(,'4/%'$+2)+8,('/5,0)1$4'.(%',.')+%'61/0%'
3+,(+',0'.*)'&*1.5')*'%B,0)',.')+%'+%'$)G'
' "' +%'+%'$)'*./2',.5,(')%0'
,$$%-1/'$,)2'*&'6*3%$H'.5'0')+%$%',0'*((';
0,*.'/'&',/1$%'*&'&*$(%',.')+%''/$%'52'3%'9'
020)*/,(' (*.)$'(),*.0')+%',861/0%',0'.*)'(*8;
81.,(')%5')*')+%''$)%$2')')+%'3$,0)' +%0%
&'/0%',.)%$8,00,*.0''((*86'.2,.-',$$%-1/'$,)2'
8*0)'&,$%E1%.)/2'*((1$'3+%.')+%'+%')$)',0'*6;

6$%00%5'42'&/')10',.')+%'.%,-+4*1$,.-'7,0(%$''
*$',0'%B(,)%5'42',.>1$,*10''$),(/%0'*&'5,%)'
'0')%''*$'42')+%'10%'*&')*4'((*'+%'0%.0';
),*.'(*881.,(')%5')*')+%'6'),%.)',0')+')'*&''
5,0'-$%%'4/%&/1))%$'*$'0)1884/,.-'*7%$'<*&')+%
+%')'3+,(+')%.50')*''/'$8''/)+*1-+'+'4,)
8'2')*''(%$)',.'%B)%.)''8%/,*$')%')+%')%$$*$
+2)+8,('/',$$%-1/'$,)2'*((')*.'2'='
6%'$0''0''.*$8'/(*.5,),*.'+'7,..-''/,&%;
/*.-'%B,0)%.(%' *8%'('0%0''$%'8'$9%5'42'
.'%B)%.0,*.'*&')+%'6'10%'3,)+' .0)%'5,.%00'
&')+%&20)/,(',861/0%H*)+%$0'42',)0''66=%.)'
%B),.(),*.'0*')+')')+$%%'%B,0)0''5'6,5,)2'*&'
4%')0'5%&2,.-'''.'/20,0G=)'(+2('$5,'H 41)'
)'(+2('$5,'' /0*'*((1$0%,)+%$''0'.'+'4,)1'/
0)')%''*$',.'6'$*B2080' ' $6 + J'
+%$%',0',.')+%0%'('0%0'101'//2''08'/'3%'9'
+%')'3,)+'020)*/,(',861/0%5%7*,5'*&%.%$-2'
)+')+%0%'(/'00%0'&'('0%0'6$%0%.)')+%'$%;
8'$9'4/%'&%')1$%'*&'/*0,.-'81(+'*&')+%,$'5,0;
),.(),7%',$$%-1/'$,)2'3+%.'1.5%$')+%',.&/1%.(%'
*&''&%4$ %')'(9H)+%'0/*3'61/0%'4%(*8%0'
E1,(9%$'.5'8*$%'0)%'52')+%'$'6,5'*.%'/%00'
&$%E1%.)'.5'8*$%'5,0),.()H41)')+%'0%.0';
),*.')*')+%',.5,7,51'/,0'.%7%$)+%/%00'.*)'0*'
(*8&*$)'4/%''0'3+%.')+%+%')<0''(),*.',0',.'
,)0')'')'*&'.*$8'/',$$%-1/'$,)2

A9R 1.(),*.'/5,0*$5%$'*((')0,*.'//2''0;
0188%0')+%'&*$8'*&'%,)+%$',.($%'0%5'*$'*&'
5,8,..0+%5' T 2 '3+,/%')+%'&*$(%''.5'
$+2)+8' $%8','.' .*$8'/' '(+' *&')+%0%'
(*.5,),*.0'8'2'4%'(*.-%.,)'/'.5'6$*6$')*'
)+%',.5,7,51'/'*$'8'2'4%')+%'$%01/)'*&''4;
.*$8'/',.&/1%.(%0' +%'&1.(),*.'//2'&%0)'
4%')',0'-%.%$'//2',.51(%5'42'*)+%$'5,0%'0%0'
'0'&%7%$'5,'4%)%0')14%$(1/*0,0'^('.5',0'
,.5,(',7%'*&',.>1$2')*'.*$8'/,..%$7'),*.'
+%'0/*3'.5'5$'3/,.-'4%')',0'-%.%$'//2'8%)'
3,)+'3+%$%')+%'.%$7%6*3%$',0'+%'/)+2'41)'
)+%+%'$)',)0%/&',0'3%'9'*$&'))2H*$')+%$%',0'
''6%$7%$)%5',..%$7'),*.'1.5%$')+%',.&/1%.(%'
&'5,-,)'/,0''(.,)%'*$',.>1$2')*')+%'-'.-/,*.'(
020)%G''4/*3',.')+%'%6,-'0)$,18'*&&%$,.-'
'&'8,/,'$'%B'86/%

AR 5" 0 " ' 2)/ ' '$%'&$%E1%.)/2'
+%'$5',.'&1.(),*.'/5,0*$5%$0'*&')+%'+%')$)'
'.5'8*$%'%06%(,'//2',.')+*0%'('0%0'*&'+0%8,%
5,0*$5%$'3+%$%')+%'020)*+%',861/0%',0',.;
($%'0%5'3,)+'$+2)+8,('/',$$%-1/'$,)2' +%0%'
81$81$0'+'7%')+%'06%(,'/'(+'$')()%$0'101' 2'
')')'(+%5')*'01(+'0)850' +%2''$%'020)*/,('
4'0,(' 3,)+'(*.51(),*.',.')+%'(*1$0%'*&')+%'
-$%')'7%00%/0' +%$%',0'.*'6%B81$81$H
41)')')+%'6%B'02.(+$*.*10/2'3,)+')+%'4'0,('
81$81$')+%'&,$0)'0*1.5',0'(/%'$/2'5%&,.%5'
3,)+''8%)' ,*'$,.-,.-'0%(*.5'0*1.5' +%'
)*.%*&')+%0%'81$81$0',0'810,('/'(**,.-'0*&)'
*&'/*3'6,)(+' +%'0%')',0',.')+%'*$),('7'/7%0'
'.5''0''$1/%')+%2''$%''/3'20''((*86'.,%5'
3,)+'6'/6,)'),*.')+,0'6'/6,)'),*.'8'2'4%'
6%$0,0)%.)'3+,/%')+%'81$81$0'.*)'0*'
+%'81$81$0',.'(+/*$*0,0''.5'06''.'8,'
'.5'3+%.')+%2''((1$'..'%+*$$+0%8,'''.5'
/%19'%8,''+'7%')+%,$'0%')'&*$')+%'8*0)'6'$)'
,.')+%'61/8*.'$2'7'/7%0'.5''$%'.*)')$'(%;
'4/%',.')+%'(*1$0%*&')+%'/'$-%$'$)0%$,%0H)+%2

?

41)’ %7%.’,8 8 %5,’)%’ 5%’)+’ b +%.’&1. %),*. ’/ 5,0*$5%$’ ,0’)+%’ (* .(* 8 ,)’ .)’ *&’ 0(1$72’ *$’ ’ .0 8 , ’ ’)+%’ 6$*- . *0,0’ ,0’ . *)’ ’/3 ’20’&’7*1$; ’4/%’),/’ ,. ’)+%’ 2*1 . -’ ’ .5’ 8 ,55/% ’ -%5’)+%$%’ ,0’ -**5’ (+’ . (%’ *&’ 1/), 8 ’)%’ $%(*7%$2’ ℍ &*$’,&’)+%0%’ 5,0% ’0%0’ 4%’ 01451%5’)+%’&1. (),*. ’/ 5,0*$5%$’ 0140,5%0 ’ +%. ’ *((1$$,. -’ ,. ’)+%’ ’ -%5’ *$’ ,. ’)+*0%’ +’7,. -’ ’’ (* .0),)1),*. ’/)%. 5%. (2’)*’ +26*(+*. 5$,’0,0 ’ *$’ 3 +%.’ ’00*; (,’)%5’ 3 ,)+’)$1()1$’/ 5,0% ’0%0 ’ *$’ %B(,)%5’ 42’ ,. &/’ 8 8 ’),*. 0’ *&’)+%’ %. 5*(’ $5,1 8 ’ ’’ /%00’ &’7*1$’4/%’ 6$*- . *0,0’ 8 10)’ 4%’ -,7%. ’ 1. (;),*. ’/ $+2)+ 8 ,(’/ ,$$%-1/’$,)2’ &*$’)+%’ 8 *0)’ 6’$)’ 5*%0’ . *)’ ,. 5,(’)%’ 5’ . -%$’ 41)’,)’ 8 ’2’ 5*’ 0*’ ,&’ ’00*(,’)%5’ 3 ,)+’ 0*8%’ *40(1$%’ 0)$1()1$’/ /%0,*. ’ %7%$)+%/%00’ (’0%0’ *&’ 0, 8 6/%’ &1. (;),*. ’/ 5,0*$5%$’ 0*’ 0%7%$%’ ’0’ ’66’$%.)/2’)*’ ,. 5,(’)%’ ’. ’, 8 8 %5,’)%/2’ &’)’/)%$8 ,. ’),*. ’ 6$*7%’&*$’)+%’ 8 *0)’6’$)’ 8 ’. ’-%’4/%’ ’ . 5’$%; 01/)’,. ’ ’’$%0)*$’),*. ’)*’ +%’/)+’ +%’ &$%%5*8’ *&’)+%’ +%’$)’ &$*8’ ’ ’ -,)’),*. ’ . ’ . 5’ *)+%$’ ,. 5,(’),*. 0’ *&’ 5,0%’0%’ 4%&*$%’ . 5’ &)%$’ . ’ ’))’(9’,0’ 51%’ *)0’ 4%,. -’ ’’ . *$8 ’/ ’. 5’,8 ’ ,.>1$%5’*$-’. ℍ ’. 5’)+*1-+’/,’4/%’ 51$,. -’ ’. ’ ’))’(9’)*’)+%’ 8 *$4,5’ ,. &/1%. (%0’ *&’ 06’0 8 0’ ’. 5’ %*. -%0),7%’ /*’5,. -’ ,)’ 0),/’ 8 ’2’ 4%’ ’’ +%’/)+2’ *$-’. ’ +,0’ +*/50’ 3+%)+%$’)+%’ 6%$,*50’*&’ 8 0*$5%$’ 4%’ 0+*$)’ *$’ 6$*/*. -%5’*(; (1$$,. -’$’$%/2’*$’&$%E1%.)/2’$%(1$$,. -’ +%2’ ’$%’ 5,0)$%00,. -’ 41)’. *)’ 5’. -%$*10 # `` +%’)$%’)8 %.)’ *&’ &1. (),*. ’/ 5,0*$5%$0’*&’)+%’+%’$)’ 0+6 /5’+’7%’ $%&%$%. (%’ 6$,8 ’$,/2’)*’)+%’ 8 ,),-’),*. ’*&’)+%’ 02 8 6)*8 0ℍ ’. 5’ 0%(*. 5/2’)*’)+%’ 6$%7%.),*. ’*&’)+%,$’ $%; (1$$%. (%’ 42’ ’7*,5’. (%’ *$’ (1$%’ *&’)+%’ %B(,). -’ ’ (’10%0 " ’ "0’ # ’ / (G 1. (;),*. ’/ 5,0*$5%$’ 3,)+’ ,. ($%’0%5’ ,8 61/0%’ ’(; (*8 6’. ,%5’ 42’ ’((%.)1’),*. ’ *&’)+%’ 0%(*. 5’ *1.5’ ,0’)*’ 4%’ 8 %)’ 8 ’,. /2’ 42’ 5%6/%)*$2’ 8 %’01$%0’ &’)+%’ 02 8 6)*8 0’ 6$%0%.)’ ’. ’06%()’*&’1$-%. (2’7%. %0%(),*. ’ ,0’ (’//%5’&*$ℍ 41)’*)+%$3,0%’)+%’6$*8*),*. ’ -%. %$’//2’*&’)+%’ 0%($%)*$2’ . 5’%B($%)*$2’&1. (),*. 0’%06%(,’//2’)+$*1-+’)+%’ 6*$)’/ ’. 5’$%. ’/ 020)%8 0’ ’. 5’)+%%. &*$(%8%.)’*&’’$%-1/’)%5’$8 0),8 1/’),1-’ 5,%)’$2’ ’%$’)+%’ 8%’01$%0’)*’ 4%’ $%0*$)%5’)*’ +%’ 8%5,(,. %0’)+10’,. 5,(’)%5’ ’$%’)+%’ ’/9’/,. %’ 5,1$%),(0’ ’. 5’)+%’0’/,. %’ ’6%$,%.)0’ ’. 5’%,)+%$’ (*/(+,(18’*$ 8%$(1$,’/0’ ,. ’ *((’0,*. ’/ ’/)%$; ’),7%’5*0%0’ +%. $’6’5,5,)2’*&’ ’(),*. ’,0’016%$’ ’55%5’)+%$%’ ’$%’)3*’(/’00%0’*&’$%8%5,%0’)*’4%’ $%0*$)%5’)*G%,)+%$’0%5’),7%0’*$’)+%’%B(,)’.)0’ *&’)+%’,. +,4,)*$2’. %$7*10’,. &/1%. (%0’*&’)+%’ 7’-10’ &’)+%’&*$8%$’ ’(*. ,)%’4$*8,5%’*& 6*)’100,18’ 5,/1)%5’ +25$*(2’. ,(’ ’(,5’ ’. 5’ /*4%/,’’ ’$%’)26%0ℍ *&’)+%’/’))%$’5,-,)’/,0’ ’. 5’ 0)$*6+’.)+10’ ’$%’)+%’ 8*0)’ $%/,’4/%ℍ 41)’ (*. 7’//’ 8 ’$,. ’ ’5*. ,5,. ’ ’. 5’ 0(,//’,. ’ ’$% 8%8 4%$0’*&’)+%’0’ 8%’ -$*16’ +%. ’)+%$%’,0’ 5,8,. ,0+%5’,8 61/0%’*$ 8 ’/. 1)$,),*. ’*&’8 10(/%’)+%’(’10’),*. ’ ’0’,. ’06’. 0%8,’’*$’0(1$72’8 10)’ 4%’ 8 %)’ ’. 5’)+%’ $%8 %5,%0’)*’ 4%’ ’5*6)%5’ ’$%%,)+%$’)+%’ 0%5’),7%0’ 3,)+’ 0),8 1/’.)’ ’(),*. ’ 01(+’ ’0’ 4$*8,5%’*&’ ’8 8*. ,18’ *$’(’ 86+*$’ *$’)+%’ . %$7,. %’ 0),8 1/’.)0’ 01(+’ ’0’ 08 . 41/ 7’/3’. ’ *$’ (’0)*$’ 1. (),*. ’/ ’*$),(’ 8 1$8 1$0’-%. %$’//2’ ’001 8 %5’)*’ 4%, . 5,(’),7%’ *&’ 06’. 0%8,’’ ’$%’)*’ 4%’ 8 %)’ 42’ 4/**5’)*. ,(0’ *&’ 3+,(+,$*. ’,0’)+%’)26%ℍ 41)’ 0*8 %),8 %0’)+%2’ 3*1/5’ ’66%’$’)*’ 4%0)$,()/2’. %1$*),(’, . ’ *$,-, . ’ ’0’, . ’ 0*8 %’ &*$8 0’ *&’ (+/*$*0,0’ 3+%. ’)+%’ . %$7, . %’)*. ,(0’ $%6$%0%.)%5’ 42’ ’$0%. ,(’C, . (’ *$’ 6+*06+*$10’ ’$%’ 6$%&%$’4/%’ +%’ (’10%’ *&’ , .)%$8 ,))%. (% ,0’ *&)%. ’)*’ 4%’ &*1. 5’, . ’)+%’ ’410%’ *&’)%’’ A)+%’)’0), . -’ +’4,)R’ . 5’ *&’)*4’((*ℍ *)+%$3,0%’,)’,0’-%. %$’//2’)*’ 4%7,%3%5’ ’0’ ’. %$7%’ &’,/1$%’)*’ 4%’ $%8%5,%5’ 42’)*. ,(0’ %06%(,’//2’ ’7*8*. ,’’ ’. 5’0), 8 1/’.)0’ +%. ’,$$%-1/’$,)2’ *. ’)+%’ *)+%$’ +’. 5’3+%)+%$’ 3,)+’, . ($%’0%5’*$ 5,8, . ,0+%5’, 8 61/0%’,0’ 8*$%’)+’. ’ 6$*4’4/2’ 51%’)*’ . ’,$$,)’4/%’0)’)%’ *&’)+%’02 8 6’)+%), (’*$, .)$, . 0,(’(’)%$,’(’ -’. -/, ’ ’ ’$,0, . -’, . ’ 0*8%’, . ; 0)’. (%0’ A’0’, . ’ -*1)ℝ’ &$*8’, $$,)’), 7%’ (’10%0’ 3,)+, . ’)+%’ 4/**5’ 0%5’),7%0’ ’. 5’ %06%(,’//2’)+%’ ’/9’/, . %’ 0%5’),7%0’ ’$%’ (’//%5’ &*$’ &’,)’ 4%’ , . 51(%5’ 42’ ’’)%8 6*$’$2’ 6’$%0,0’ *& ’)+%’, . +,4,)*$2’(%.)$%0’3+%)+%$’*&’)+%’ 7’-10’ *$’)+%’ -’. -/, *. ’ *&’ 153, -’ 0), 8 1/’.)0’ ’$%’ . %%5%5’ +%’ ’410%’*&’5, -.)’/,0’ ’. 5’)+%’/,9%’ 6$*51(%0’,$$%-1/’$,)2’&,$0)/2’*&’)+%’61/0%’)+%. ’ *&’)+%’+%’$)’ +,0’4%(*8%0’)+%$%&*$%’)+%’ 3’$. , . -’. *)%’, . ’)+%’ ’58, . ,0)$’),*. ’*&’5, -. ;)’/,0’ℍ 4%//’5*. ’ ’ *. ’)+%’ (*.)$’$2’ %B(,)%0’)+%’ (),*. ’*&’)+%’+%’$)’)+$*1-+’)+%’ 8*)*$ -’. -/, ’ ’ . 5’ (’. ’ 6’$)/2’ ’. 1/ 8 %’, . +,4,)*$2’ . %$7*10’ 6*3%$’ 3+%. ’/,0’ . *)’, . &/1%. (%5’ &$*8’)+%’ 8 %51//’$2’ (%.)$% " ’ "’ # ’ (G +%’ 6’$*B208’4%, . -’ ’//’2%5’,)’,0’)+%. ’3%/’)*’ %B; ’ 8, . %’ (’$%&1//2’, .)*’)+%’ 0)’)%’ *&’)+%’ +%’/)+’ 0*’ ’0’)*’ ’0(%$)’, . ’, &’)+%$%’ 4%’ . 2’*&’)+*0%’5,0; *$5%$%5’ (*. 5,),*. 0’3+,(+’8 ’2’6$*4’4/2’+’7%’ 4%%. ’,)0’%B(,), . -’(’10%’ 206%60, ’’,0’)*’ 4%’ $%; /,%7%5’)+%’/,7%$’,0’)*’ 4%’0%)’$,-+)’)+%’1)%$,. %’ &1. (),*. 0’ ’$%’)*’ 4%’ $%0)*$%5’)*’ $%-1/’$,)2’ /*’5%5’ 4*3%/0’ $%/,%7%5’ 6/%)+*$’’ 01451%5ℍ 06’. 0%8,’’ . 5’ (+/*$*0,0’0)$%. -)+%. %5’, .)*’ +%’/)+ℍ %B+’10),*. ’(*86%. 0’)%5’&*$’ ’. 5’5%; 4,/,)2’(*1.)%$’()%5ℍ ’. 5’)+%’*7%$3*$9%5’8 10)’ 0%%9’$%. *7’),*. ’, ’. ’6%$*. 0’6$*.)*’)+%’0%5,0*$5%$0’8 ’. 2’ 6$%(’1),*. 0’0+*1/5’4%’*40%$7%5’ +%’2*1. -’ ’. 5’)+%’6/%)+*$,(’ 8 10)’ ’7*,5’ %B)$%8%0’ &&’ 5,%)’ ’. 5’%B%$(,0%ℍ)+%’&**5’0+*1/5’4%’ 8*5%’. ’ $’)%’, . ’E1’.),)2’. 5’1.0, 8 1/’), . -’, . ’E1’/,)2ℍ,’ ’. 5’ %B%$(,0%’ 0+*1/5’4%’ 1. &’),-1, . -’ ’. 2ℍ,; (+,%&/2’)’9%. ’, . ’)+%’ *6%. ’ ’,$’ *)’ ’. 5’ ,// ’& 7%.),+,)%5’ $**8 0’ ’. 5’)+%’ 6*0)6*. %8%.)’ *& 0/%%6’ 42’ /’)%’ +*1$0’ 0+*1/5’ 4%’ %06%(,’//2’ ’7*,5%5’ ’(’$%&1/’ 8%.)’/ 5,0(,/. %’0+*1/5’ 4%’ *40%$7%5ℍ ’. 5’)+,0’ 8 10)’ 4%’ 0*1-+)’ ,. ’’ +%’/)+2’%B%$(,0%’*&’)+%’4$’, . ’ ’. 5’ $%0)$’, . ; , . -’42’ ’’ 3%// *$5%$%5’, .)%/%()1’/ (1/)1$%’)+%’)%. 5%. (2’)*’ 7’, . ’, 8 ’-, . , . -0’ ’. 5’ %8*),*. ’/ 6’00, *. 0’ +%’ (*. 0),)1),*. ’//2’. $%7*10’ ’. 5’ ,$%,)’4/%’, . ’ 8, . 5’ 8 10)’ 0%51/*10/2’ ’7*,5’ %B; (,), . -’ 0,)1’),*. 0’ ’0’ 3%// ’0’ %B+’10),*. ’ 42’ *7%$3*$9’ +%’0/1--,0+’. 5’+26*(+*. 5$,’(0’ 8 10)’ $%0,0)’)+%’)%8 6)’),*. 0’)*’ ,. ’(),*. ’ 0%%9, . -’)*’ *7%$(*8%’)+%0%’)%. 5%. (,%0’ 42

5,%5' '7,*/%.)' 5%')+' 6$%0%.)%5')+,0' 0* ('//%5' **.%%.)$,%' +26%$)$*6+2H 41)')'01(+'+%')$)0' 4%('8%' $%/'B%5' '.5' 0+*3%5')+%' .*$8'/ 0,C%'*&'('7,),%0' '.5')+,(9.%00' *&'3'//0' &)%$' 8'(%$'),*.' *9,)'.092' '.5' '84%$-%$' '(9.*3/%5-%')+%'$'$,)2' *&'(*.(%.)$,(' +26%$;)$*6+2' 41)'+,.9',)' 5*%0' 0*8%),8%0' *((1$' +%$%' (' .' 4%' /,))/%' 5*14)')+')' " " ' # # ' *&')+%' 7%.)%,(/%0' +'0' .*' $%'/ %B,0)%.(%' +%' '66%'$'.(%0' 3+,(+' +'7% -,7%.' *$,-,.')*')+%')%$8' '$%' 51%',.')+% -$%')' 8'>*$,)2' *&',.0)'.(%0')*')+%' *((1$$%.(% *&' 0 ' ,.')+%' 810(/%'*&')+%'7%.),(/%' 3+,(+'+'0'('10%5'&,$8'(*.)$')(),*.' '.5')+10' 5,8,.1),*.')*' '/8*0)' *4/,)%$'),*.' *&')+% ('7,)2' &' '+%')$)' 6$%0%.),.-'01(+'0,-.0'4% 0*'9%5' &*$' 0*,+%' +*1$0' ,.' 3'8' ')%$' ' -%./%'5,/')',.'3,)+')+%'&,.-%$'3,/' $%0)*$%)+%'7%.)$,(/%')*',)0' .*8'/5,=.0,*.0' +% /%&)'7%.)$,(/%'8'2'0,81/')%'(*.(%.)$,(+26%$;)$*6+2',.'0*8%'('0%0'*&'.,,)$'/'0)%.*0,0'3+%.')+%'5,0%'0%'+'0'5%7%/*6%5',.'%'$/2'(+,/5+**5' +%'7%.)$,(/%'+'0'.*)' $%(%,7%5',)0' .*$8'/ 4/**5(*.)%.)0'.'5'5%7%/*68%.)'+'0'6$*; (%%5%5'5,06$*6*$),*.')%/2',.')+%'$,-+)'(+'8; 4%$0'.5')+%'/%&)'1$,(/%' +%'('7,)2'*&')+% /%&)'7%.)$,(/%'+'0'+10'4%%./%&)'$%/')',7%/2' 08'/'),/'+%'),8%'*&'5%')+' .'/,+%'8'..*$' ,.' (*.-%.,)'/ 0)%.*0,0'*&')+%'61/8*.'= ' '$)%$2')+%' 0# '7%.)$,(/%' +26%$)$*6+,%5',.' ,.)$'1)%$,.%'/,&%'8'2'0*' (*.),.1%''.5',)0' ('7,)2'.*7%$' 4%(*8%'5,/')%5')*')+%'.*$8'/ %B)%.)' +%'7%.)$,(/%0'' $%' 81(+'8*$%'&,$%' E1%.)/2'+26%$)$*6+,%5')+'.')+%''1$,(/%0''.5')+%'/%&)'7%.)$,(/%'8*$%'&$%E1%.)/2')+'.')+% $,-+)41)')+%'$,-+)''1$,(/%'8*$%'&$%E1%.)/2')+'.')+%'/%&)'.5(/%G=3+,(+'/'0)'0+*30')+% (+'.-%'7%$2'0%/5*8' ' 26%$)$*6+2'*&')+%'/%&)'7%.)$,(/%' ! ' $' ' " +%'3+*/%'+%'$)' '66%'$0')*'4%%/*.-')%5''.5')+%''6%B6*$),*.' *&')+%'/%&)'7%.)$,(/%'%06%(,'//2'6$*/*.-%5' +%'3'//0'*&')+%'/%&)'7%.)$,(/%''.5')+%',.)%$; 7%.)$,(1/'$'0%6)18'' $%')+,(9%$'.5'&,$8%$')+'.',.')+%'.*$8'/')+%'0%6)18'8'2'41/-% ,.)*')+%'$,-+)'7%.)$,(/%'5,8,.,0+,.-',0' ('6'(,)2'.5'%7%.'6$*51(,.-'')1'/*4; 0)$1(),*.'*&',)0'(*.10A*')0K R'.')$'.07%$0% 0%(),*.')+%')+,(9%.,.-'.5'41/-,.-'*&')+% 0%6)18'$%'7%$2'8'.,&%0)')+%'$,-+)'7%.;)$,(1/'$'('7,)2'6$%0%.),.-')+%'66%'$'.(%'*& ,)'($%0(%.),('66%.5'-%')*')+%'/%&)'(+'84%$, ' $ G ,$' ,%+'$5' X1',.'S2 "'S ' ?M@R'+'0'(/'00,; &,%5')+%' ("0'('10%0'*&'+26%$)$*6+2')85%$')+$%%'+%'50G") ' # ' '.5" 7) H' 8*.-0)'") '('10%0''$%'6$*/*.-%5' 8%.)'/'%B(,)%8%.)'*$'0)$',.''.5')+*0%'%8*;),*.'/'(*.5,),*.0'3+,(+'6$*51(%'&$%E1%.)'6'/; 6,)'),*.' +%' ,8 8*5%$')%' 10%'*&'0)$*.-' (*&&%%')%''*$'06,$,)1*10'/,E1*$0'8,-+)'(*8% 1.5%$')+,0'+%'5')',0'.*)',.''//'('0%0')+')' '+%'$)' 3+,(+'4%')0'&*$'/*.-'6%$,*50')'.' '4.*$8'/'$')%' *&'$'6,5,)2'4%(*8%0'+26%$;)$*6+,%5',.'0 8 1(+'0')+%'-%.%$'/.1)$,),7% 6$*(%00%0'8'2'4%&%%4/%'*$',86%$&%()',.'0*8% 6%$0*.0''(),7%'*$'7,-*$*10',.'*)+%$0' .'('0%0' *&'$'6,5'+%')$')A)'(+2('$5,'R')+%'3$,)%$'&*1.5' %7,5%.(%0'*&'%./'$-%8%.)',.')+$%%'*./2'*1)' *&'0%7%.)2&,7%'('0%0H,.'0*8%')+%'+%')$)' 0%%8%5'%7%.'08'//%$')+''.')+%'.*$8'/' .' $'7%0<0' 5,0%'0%'3+%.')+%$%'+0'4%%.'4'; .*$8'/'$'6,5,)2'*&'+%')$'6%$0,0)%.)'*$'6'$; *B208'/'&*$'0% K%$'/2%'$0')+%'('$5,'('$%'' +'0'4%%.'0*8%),8%0'&*1.5'+*)'/'$-%$')+'. ,85%$'(*.5,),*.0'*&'+%'/)+''.5',.'8'.2'*'0%0')+% %B'8,.'),*.'+'0'5%8*.; 0)$')%5'.*'8*$4,5'(+'.-%' +%>10)('.; (/10,*.')+%$%&*$%'0%%80')*'4%')+')'&*$')+% 6$*51(),*.'*&'+26%$)$*6+2'*&')+%'/%&)'7%.;)$,(/%',.'('0%0'*&'.%$7*10'%B(,)',*.')+%$% 810)'4%'.'155,),*./'$'6,5,)2G' %,)+%$''),1(9%.,.-'*&')+%'$)%$,%0'*$''7'0*; 8*)*$',$$,)',*.'('10,.-'(*.)$'(),*.'*&')+%,$ 810(1/'$'3'//0'3+%$%42')+%'.)$' '$)%$,'/)%.0,*.',0',.(%'0%5'*$''E1'.),)2'*$'E1'/,)2' *&'4/* 5'&&*$5,.-'4%))%$'.1)$,),*.' &')+% 4/**56$%001$%'4%''$'*$'4%/*3')+%'.*$8'/')+%'$'6,5/2'4%'),.-'+%'$)'5*%0'.*)')%.5')*' +26%$)$*6+2 A<R' 8*.-0)'8%(+*.)(1/'*$6J',('/'('10%0' '$%''//')+*0%'*40)$1(),7%'(*.5,),*.0')*'4% 06%(,'//2'%B'8,.%5'6$%0%.)/2' ,*/%.)'.5' /*.-(*.),.1%5''')+/%),(' *$'*)+%$'%B%$(,0%0'; 3+,(+'.*)'4/2''((%/%$')%')+%'(*.)$'(),*.0'*&')+%'+%')$)' *$'6$*51(%'%B(%00,7%'4/**5 6$%0' 01$%'8'2'4%'8%.),*.%5'+%$%')'+'0'4%%.' 6*,.)%5'*1)'+')'-$%')'810(1/'$'%B%$),*.'; 3,)+')+%''$80',0'06%(,'//2'6$*.%')*'('10%' +26%$)$*6+2''0',.')+%'%'0%'*&'+'88%$8%.' ^(' $*/*.-%5'3*$9,.-',.''4%.)'*$'(*.; 0)$',.%5'6*0,),*.',0'/0*'8%.),*.%5''0''('10%'K .'0*8%('//,.-0'.5'(*.5,),*.0',.'3+,(+' 810(1/'$'%&&*$)',0'0%7%$%'+26%$)$*6+2'*&')+% /%&)'7%.)$,(/%',0'6$*.%')*'((1$G 0' *$.,0+' 8,.%$0'A%'(*(9R'53%//%$0',.'+,//2'$%-,*.0' %06%(,'//2')+*0%'((10)*8%5')*'('+%'72' /*'50'A ,,.C,.-%$' //41))R' 0)*.%8'0*.0' 0/'1-+)%$%$0'A%25%.R' .'8'.2'('0%0',)',0' 6$*4'4/%')+')')+%')3*'&'()*$0'>10)'8%.),*.%5' G=.%$7*10'%B(,)',*.' '.5'810(1/'$'*7%$; 0)$',.G(*84,.%)*'6$*51(%')+%'+26%$)$*6+2' *' 8'2'4%'4%0)'%B6/',.%5')+%'0,-.0' '.5 0286)*80',.')+%'('0%0'*&'0,$$,)'4/%'+%'$)'<*& 0*/5,%$0'51$,.-')+%' 8%$,('.' ,7,/3'$'A '' *0)'R')+*0%',.'*1$*3.' **)' 1'$50'3+*' ('$$,%5'+%'72'((*1)$%8%.)0'A 2%$0R' '.5')+*0%',.')+%' $'.(* %$8'.'3'$'A $'%.)C%/R AO%%' (5 /' +%'%B(,)%8%.)'*&' '0*/5,%$0' /,&%'(* *6%$')%0' '0' '' ('10%'3,)+')+%'810(1/'$ %%&*$)'3+,(+'8'2'4%'%B(%00,7%''.5'%,)+%$'6$*; /*.-%5'*$'7,*/%.)'.5'&,)&1/')',0' '0,-.,&,; ('.)'*40%$7'),*.'*&' ,$0(+')+')')+%$%' +'0 4%%.' ' .*)'4/%',.($%'0%',.')+%' 6$*6*$),*.' *&'+%'$)5,0%'0%0'.,'' (*8 81.,)2')'),8%0' *&'-$%')'6*/,),('/'.5'0*(,'/'%B(,)%8%.)' +,0' 3'0'*40%$7%5',.' $'.(%'585.-')+%'-$%')' % 7*/1),*.''.5''&)%$')+%'6*/,),('/=)',*.'*& ?"!',.' *8%'&)%$? ?',.' ,(,/2,.' ?D!' '.5',.')+% $-%.),.%')')%0''&)%$)+%'6*/,),('/ (*.&10,*.''.5'(,7,/3'$

,0' /*15' '.5' 8 '2'+'7%' '$,.-,..-' (+'$' ()%$Ĥ ,)' 8 '2' 0* 8%),8 %0' 4%')+%' *.*/2' *.%' *&')+%')3 *' .*$8 '/ 0*1.50' '15,4/%' .')+,0' 0,)1'),*.',' ,0' 81(+' /*15%$')+'.' *7%$')+%' 0%(*.5' /%&)' ,.)%$06'(%' A)+%' (*8 8%.(% 8%.)' *&')+%' 61/; 8*.'$2' '$)%$2Ĥ 1./%00')+%' 7%.)$,(1/'$' +26%$;)$*6+2',0' '((*86'.,%5'42'8,)$''/',.01&&,(%.(2' &' 3,)+' %7,5%.(%' *&' 6*3%$&1/' /%&)' 7%.)$,(/%' '.5' &,$8' '$)%$,%0')+%' '*$),(' 0%(*.5' 0*1.5',0' .*)' /*15'41)' 51/' '.5',// 6$*.*1.(%5')+%$%' ,0' 0)$*.'-6$*4'4,/,)2')+')'+)+%' '*$),(' (1060' $%' 03*//%.'*$')+,(9%.%5'&$*8'5,0%'0%' .'/')%$' 0)'-%0' *&')+26%$)$*6+2' 3+%.')+%' 8 10(1/'$' .%' *&')+%' /%&)' 7%.)$,(/%' ,0' ,86',$%5')+%' 0*1.50' *&')+%'+%'$)'8'2'+'7%' '')$,6/%' $+2)+8' $%0%84/,.-')+%'('.)%$,..-'*&''+*$0%G)+%'# 2' '0' ('$%&1//2'0)15,%5'42' *)',.' +,0',0' %06%(,'//2'*40%$7%5',.')+%'+26%$)$*6+2'00*; (,')%5'3,)+'$%.'/' 5,0%'0%' '.5',.')+%' +26%$)$*6+2'3,)+'5,/')'),*.' '((*86'.2,.-'-'0)$*' +%6'),('5%$'.-%8%.)

+%' ' ,0'&%/)')*' 4%' 6$*/*.-%5Ĥ)+%' '$)%$2',0'&,$8' '.5'$%0,0),..' '.5',)0' (*')0' 8 '2' 4%')+,(9%.%5' .')+%' +26%$)$*6+2'$%; 01/),.-'&,*8' 810(1/'$' *7%$0)$',.')+%' 61/0%' ,0' /'$-%' '.5')+%$%' ,0'.*' 5,($*),08' .'(+$*..('$%.'/' 5,0%'0%' '8')%$,'/' (*')0' 4%(*8%')+,(9; %.%5')+%' '86/,)15%' *&')+%' 61/0%' ,0' 8'.,; &%0)%5' ,.'/%00' 5%-$%%')+%' 7%00%/' 4%,.-' &%/)' +'$5' $%0,0),.-' '.5' &1// 4%)3%%.')+%' 4%')0' .'0*8%' *'0%0')+%' &1//%0)' &*$(%' %B%$)%5' 42')+%' &,.-%$' 8'2' &','/')*' %.),$%/2'*4/,)%')+%' 61/0%' '.5'*.')+%' 5,0)'/' 0,5%' *&')+%' 6*,.)' (*86$%00%5')+%' 3'//' *&')+%' ')%$2' 8'2' 4%' &%/)' (2/,.5$,('/' '.5' &,$8' .')+%' +26%$;)$*6+2' '00*(,')%5'3,)+' '*$),(' 0)%.*0,0')+%' 61/0%' ,0' 0*8%*3+')' '$$*3' '.5'-$'51'/*4*)+' ,.',0' $,0%' '.5' &'//' .')+')' 8'.,&%0)%5' 3,)+' '*$),(',..(*86%)%.(2',)',0' 0155%.' '.5' 6*3%$&1/',.',0',86'()' '-',.0)')+%' &,.-%$'41)' $'6,5/2' $%(%5,.-'0*')+')+%' '$)%$2' 0%%80' %86)2'4%)3%%.')+%'4%')0G,)',0')+%'(*//'60,.-' *$'3')%$+'88%$'61/0%

!(! ' (' 5! '' ((") 810)'.*)' 4%' &*$-*))%.')+')' 0,86/%' +26%$;)$*6+2' 8'2' %B,0)' 3,)+*1)' 6$*51(,.-'0286;)*80')$'(),..-')+%'))%.),*.'*&')+%'6'),%.)' '.5')+')')+%$%',0''.')1$'/')%.5%.(2')*'0*8%' 5%-$%%'*&' ('$5,'(' +26%$)$*6+2' 3,)+')+%' '57'.(%' *&' '-%' C " G .' 8*5%$')%' +26%$)$*6+2' 8'2' *1)' (*86/,('),*.')+%$%',0' 101'//2'%'02'.5'.')1$'/' 4$%')+,.-'3+%.')+%' 6'),%.)0' 4*52'.5'8,.5'$%')' $%0)' 1)' 8%.)'/' %B(,)%8%.)' *$' 4*5,/2' %&&*$)')' *.(%' ,.51(%0' 8*$%' *$' /%00' *&')%86*$'$2'5206.*%''.'0*8%'('0%0')+%'51%*%B6'.0,*.'*&')+%' $8-0' 8'2' 4%' 8%(+'.,('//2',86%5%5' 42')+%',.-' ($%'0%5' 7*/18%' *&')+%' +%'$)' .'%((%.)$,(' +26%$)$*6+2' 3,)+' 5,/')'),*.' 8*$%'06%(,'//2' 3+%.')+%' $,-+)' ('7,),%0' '$%')+10' '&&%()%5' 61/8*.'$2'(%.-%0),*.'.'.5'*%5%8''$%'101'//2' 6$%0%.)'.' .5')+%.' 8'$9%5'5206.*%'',0''6$*; 8,.%.)' .'.5'5,0)$%00,.-'02886)*8' 0# G' .'0,86/%'+26%$)$*6+2')+%$%'8'2'4%'.'*((';0,*.'/' 5$2',$$,)'),.-'(*1-+'.5',.'2*1.-

6/%)+*$,('3*8%.''' 3+%%C,.-' (*1-+' 8'2' 4% (*86/,.%5'*&' .'$,-+)0,5%%.%./'$-%8%.)0' 3+%.'61/8*.'$2'*40)$1(),*.' '.5'5$*60,('/ %&&10,*.0'016%$7%.%'(*1-+',0',.'8*0)' ('0%0' '' 7%$2'&$%E1%.)' .'.5'6',.&1/'55,),*.')*')+% *)+%$'0*1$(%0'*&'5,0(*8&*$)')*')+%'6'),%.)' P ' " ' # ' # $ # 0 M' 0%8 6)20,0'&$*8' ('6,//'$2'%.-*$-%8%.)' ,0' (*88*.'4%,..-'-%.%$'//2''(),7%''.5'0155%.' ,%8%2%$'6*,.)0'*1)')+')',.'/%&) +%'$)'+26%$;)$*6+2')+%$%',0'*&)%.''(),7%5,0)%.0,*.''.5' 0*8%),8%0'$16)1$%''*&')+%'4$'.(+%0'*&')+%' 4$*.(+,'/')%$,%0' .'/%&)'+Ĵ6$)$%$*6+2'3+%.')+%' (%$%4$'/')%$,%0''$%'06%(,'/)2'/,'4/%')*' -,7%'3'2' .'$,-+)0,5%%./'$-%8%.)'3,)+' 61/8*.'$2'*40)$1(),*.')+%'4/*(9'-%'8'2',.; &/1%.(%')+%'7%00%/0'*&')+%'/,7%$''.5')+%'6*$)'/' 020)%8'-%.%$'//2'0*' '0')*'6$*51(%'+)%8') %8%0,0'*$'8%/%%.+' 6,0)'B,0'8'2''/0*'4% 51%')*'('$5,'(' %./'$-%8%.)' 6 "',0' ''(*888*.'02886)*8',.''/'*$-'.,(' 5,0%'0%0' *&')+%'+%')$)' .'.5',0'*&)%.'7%$2'8'$9%5',.' ('$5,'(' %./'$-%8%.)0' +%/%'0)'%B(,)%8%.)' 4*5,/2'*$'8%.)'/'8'2',.51(%''-$%')%$'*$/%00' 5%-$%%'*&')+,0'02886)*8' 06%(,'//2',.'%((%.;)$,(' +26%$)$*6+2'3,)+'5,/')'),*.' 8*0)' 5,0;)$%00,.-'6'$*B2080'*&'6'/6,))'),*.''$%' '6')*' *((1$'&$*8',)8%')*')0' 4%(*8%'),8%' %0,5%0'4*5,/2''.'5' 8%.)'/' %B(,)%8%.)' *')+%$' (*.5,),*.0'01(+' '0',.5,-%0),*.'&/')1/%.(%'*$' .'*7%$/*'5%5' 0)*8'(+'$%'5,/2'('//'&*$)+')+,0'02886)*8' +%.')+%$%',0'81(+5,/')',*.')+%'6'/6,)';),*.'8'2'&','$$%-1/'$'.5',.)%$8,))%.)' .5' ,0')+%.'8*$%'6'$),(1/'$/2''7%$2'/'$8,.-'W 02886)*8

+%' " ' .5' / " ' 5%$'.-%8%.)0' '$% 7%$2',86*$)'.)' .')+%' +26%$)$*6+2'*&')+% /%&)'7%.)$,(/%''00*(,')%5'3,)+'(+$*.,(' $,-+)0 5,0%'0%')+%$%' 3,/' 4%' &*1.5')+%' (*6,*10 %B($%),*.' *&' '' 6'/%' 1$,.%' &' /*3' 06%(,&,(' -$'7,)2' /4188%.' 8'2' 4%' &*1.5',.'08'// E1'.),)2' .5'8'2'0*8%),8%0'4%'40%.)' .')+%' +26%$)$*6+2' 00*(,')%5' 3,)+' -'0)$*' +%6'),('5,0)1$4'.(%')+%'1$,.%'3,/' 4%'0('.)2' *&' +,-+' 06%(,&,(' -$'7,)2' *&)%.')+,(9' 3,)+ 1$')%0'(*.)',.,.-'81(+'1$%'' .5'5'$9' 3,)+)+%' (*,*.$,.-8')) %$' *&')+%' 1$,.%'*&')+%' 4,/% *$' *&' 4*)+

%$)',' ' *1-+)')' 4% 8%.),*.%5',' (*..%B,*.'3,)+')+%' *)+%$' 8*$% 5,$%()'0,-.0'*&'('$5,'(' +26%$)$*6+2' &&%/; ,.-'*&'&1/.%00'*$'6%$+'60'*&')+$*44,.-'8'2' 4%' &%/)' ,.')+%' +%'5' '&)%$' -$%')' 810(1/'$ %B%$),*.'*$' 8%.)'/' %B(,)%8%.)' .' 6$*; .*1.(%5'('0%0')+%$%' 8'2'4%' +%'5'(+%'$,.-; ,.-',.')+%' %'$0' 7%$),-*' 810(0% 7*/,)'.)%0' '.5' 5,0)1$4,.-' 5$%' 80' +%' 4$,-+)' '.5' 0+,.,.-' *$' 6%$+'60' 4/**50+*)' (*.8),*.' *&)+%' %2%0',0'.',.5,(',*.'*&')+%' +26%$0%8,'' *&)+%' (%$%4$'/' 7%00%/0

' 26%$)$*6+2' *&')+%' $,-+)' 7%. ;)$,(/% G k +% .*$8'/' 3%,-+)' *&')+%' $,-+)' 7%.)$,(/%',0' 6$*4'4/2' /%00')+'.'+'/&')+')' *&)+%' /%&)' A'7%$'-%' ..' 8%.' /%&)' 7%.)$,(/%' M'' -$'88%0'$,-+)' M@g ,.' 3*8%.Ĥ /%&)' 7%.;)$,(/%' F!' $,-+)' 7%.)$,(/%' D@' 1' '0)%/R

+%' ('6'(,)2' *&' _H+% $,-+)' 7%.)$,(/%' ,0' -%.%; $'//2' -$%')%$')+'.¯)+')' *&')+%'/%&)G'((*$5,.-')*' $%(%.)' $%0%'$(+%0' ,.')+%' 6$*6*$),*.0' *&' '4*1)' 0%7%.')*' 0,B' +%' 3'//0' '$%' &$*8' ''E1'$)%$')*' *.%)+,$5')+%')+,(9.%00' *&')+*0%' *&')+%'/%&)

.')+%' -$%,)' 8'>*$,)2' *&'('0%0')+%' $,-+)' 7%.)$,(/%' 4%(*8%0' +26%$)$*6+,%5' *./2' ,.' '00*(.'),*.'3,)+'' 8*$4,5'(+'.-%',.')+%'/%&)''.5'3+%.'01(+' +26%$)$*6+2' *((1$0' ,)' ,0' .%'$/2' '/3'20' '((*86'.,%5'42'5,/')'),*.' +%$%' '$%' %B(%6),*.0')*')+,0'$1/%''0'3,//'4%6$%0%.)/2'0%%.

+%' $,-+)' 7%.)$,(1/'$'3' ' 8'2'4%')+,(9;%.%5')*')+%'%B)%.)'*&'*.%',.(+',.0)%'5'*&')+%'.*$8'/')3*' '.5' +'/&'/,.%0H',)0' -$%')%0)'),+,(9.%00',0' ')',)0'4'0%' +%'(*/18.0%'('$'.%'%' *&')+%' &,-+)' 7%.)$,(/%' '$%' %7%.' 8*$%'+'4/%')*' +26%$)$*6+2')+'.')+%' 3' ' .'5,/')'),*.' 3,)+' +26%$)$*6+2')+%' (*/18.0%'('8%0%' 4%(*8%' 0)$%)(+%5' '.5' '))%.1')%5' +%'0140)'.(%'*&')+%'+26%$)$*6+,%5'/%&)'7%.;)$,(/%'(' .-%.%$'//2'4%')*'3,)+'%'0%'3+,/0)')+')' *&')+%' +26%$)$*6+,%5'$,-+)' 7%.)$,(/%',0' 101' 2')*1-+' '.5'/%')+%$2

' Y' #: $ .6 ! +%'$,-+)'7%.;)$,(/%'8'2'4%'*40%$7%5',.''' 0)')%'*&'0,86/%'+26%$)$*6+2',.G

A R' "0 " ' " ' ' #'# G'

+,%&'*&')+%0%',0'0)%.*0,0'*&')+%'61/8*.'$2''$)%$2' 3+,(+' ,.')+%' 8'>*$,)2'*&'('0%0'$%01/)0'&$*8'&(%)'/'%.5*('$5,),0' +%'*4;0)$1(),*.'8'2'4%'4%/*3')+%'7'/7%0')+%'(*.10'*&')+%'$,-+)' 7%.)$,(/%'4%,.-'.'$$*3%5' .'%'(+'('0%')+%'$,-+)' 7%.)$,(/%'4%(*8%0'+26%$;)$*6+,%5',.'(*.0%E1%.(%'*&')+%'*40)$1(),*.',.'&$*.)'.5')+%$%',0'.*'5,/')'),*.'*&')+%'(7,)2

A@R' .' # ' ' .5' " 7

'*$' ' " " ' '# ' "0 '

)+%',8:#%5,8%.)'*')+%' 61/8*.'$2'(,$(1;/'),*.'851(%0'+26%$)$*6+2'3,)+'5,/')'),*.'*&')+%'$,-+)'7%.)$,(/%

A9R' .')+%' 014>%()0'*&') ' ' "'')+%' ('6'(,)2'*&')+%')+*$'B',0'.%'$/2''/3'20'5,8,.,0+%5H')+%'/1.-0'' '$%' %86+2;0%8')*10''.5'*&)%.'01&&%$')+%$'6')+*/*-,('/(+'.-%0' +%')3*'4$'.(+%0'*&')+%'61/8*.'$2'$)%$2' 8'2'4%'1.%E1'/'*3,.-')*')+%'5,&&%$;%.(%0'*&'5%7%/*68%.)'*&')+%')3*'/,8-0' +%'$,-+)' 7%.)$,(/%',0'5,/')%5'0'3% ' '0'+26%$;)$*6+,%5

A R' I" ' "0' # ' ')) G)',0'$'$%/2')+')'%.5*('$5,),0''))'(90')+%'7'/71/'$' '66'$')10'*&')+%'$,-+)'0,5%'*&')+%'+%'$)'3,)+*1)')+')'*&')+%'/%&)'0,5%'6'$;),(,6'),..'.,'0),'-$%')%$'5%-$%%'%B(%6)',.'),.)$'1)%$,.%'/,&%'2$*8' $'83%' +'0'0+*3.')+%'-$%')'6$*4'4,)2')+')'3+%.'%.5*;('$5,),0''&&%()0')+%'7'/7%0'*&')+%'/%&)'0,5%',)'&$%E1%.)/2',.7*/7%0'/0*')+%' $,-+)')+*1-+')+%',.&/'8 8')*$2'(+'.-%0',.')+%'/')%$'8'2'4%'%7'.%0(%.)' 1(+'(10%'8'2'(*%6%$')%)*',86',$')+%' 810(/%'*&')+%'$,-+)'+%')$)' .5'+'0)%.'5 ')',.' .'0*8%'('0%0'A'.5')+%0%'.*)'7%$2',.&$%E1%.)/2R')+%' $%01/)' *&'%.5*;('$5,),0',0'0)%.*0,0'*&')+%')$,(106,5'*$,&,(%',.3+,(+'('0%')+%'$,-+)'7%.)$,(/%')%.50')*'+26%$;)$*6+2'$')+%$')+'.')*' 5,/')'),*.'3+ 0)')+%'$,-+)'1$,(/%4%(*8%0'-$%')/2'5,/')%5

AFR' +%'8*0)'(*88*.'('10%'*&'+26%$)$*6+2'3,)+'5,/')',*.'*&')+%'$,-+)'7%.)$,(/%',0' 7)' ' # ' ' ' # '# '

+%)+%$')+%$%'4%'8,)$'/'0)%.*0,0'*$'$%-1$;-,)',*.')+%'(*.0%E1%.(%0'$%'+26%$)$*6+2'*&')+%'$,-+)'7%.)$,(/%'(%0'+26%$)$*6+2'*((*.0%E1%.(%0'$%'+26%$)$*6+2'0,.-'&*$(%0''.5'5,/')',*.'*.''((*1.)'*&')+%'6%$0,0)%.)'*7%$0)$'1,.

(@' &F !(! ' # (# (' #

' ? ' P & T ' %./'$-%8%.)0'*&')+,0'7%.)$,(/%' "' 8'2'$%7%'/''$,85%5'08**)+.%00'*&')+%'%6,-'0)$,18'3,)+'6%$+'60'0*8%'41/-,.-'*&')+%'%.0,&*$8''.5'/*3%$'/%&)'(*0)'/'('$),/'-%0' +%'6%B4%')'8'2'4%'0%%.')*'4%'7%$2'5,&&10%5'%B)%.5,.-')*3'$50')+%',6'*&')+%'%.0,&*$8'('$),/'-%'('(,'/'7,5,)2',0'&$%E1%.)/2'0%%.H'.5'>1-1/'$'61/0'),*.'8'2'4%'*40%$7%5'3+%.')+%$%',0')$,(106,5'$%-1$-,)',*.' 6 "'*7%$')+%'/*3%$'6'$)'*&')+%'0)%$.18'5%)%()0'.',861/0%'3+,(+'&%%/0''0',&',8 8%5,')%/2'1.5%$')+%'+'.5''.5'101' 2'3'.)0')+%'+%'7,.-'(+'$'()%$'*&')+%',861/0%'*&''+26%$)$*6+,%5'/%&)'7%.)$,(/%'6,-'0)$,('61/0'),*.',0'*&)%.'7%$2'6$*.*1.(%5'+%'/,7%$61/0'),*.'.'01(+'('0%0'8'2'$%01/)%),)+%$'&$*8'7%.*10'$%-1$-,)'),*.'*$'&$*8'$,-+)'020)*/,('(),*.'%B%$)%5')+$*1-+')+%'5,'6+$'-8'.'"')+%',.&%$,*$'/,.%'*&'51/.%00',0'&*1.5')*'%B)%.5'/*3%$'5*3.''.5'&')+%$')*3'$50')+%'$,-+)'+'.'.*$8'/'0*8%),8%0'$%'(+,.-''.',.(+'*$'8*$%'4%2*.5')+%'$,-+)'0)%$.'/'%5-%'.'"')+%'0%(*.5'0*1.5'*7%$')+%'61/8*.'$2'7'/7%0',0'&*1.5')*'4%/*15%$')+'.'*7%$')+%''*$),('%('((%.)1'),*.'*&')+%'61/8*.,('%(*.5'0*1.5'+*3%7%$',0'.*)'0*'8'$9%5''0',.'%'0%0'*&'3%//'(*86%.0')%5'0%.*0,0'*$',.01&&,(,%.(2''')+%'8,)$'/'*$,&,(%'+%'*$/,%0%(.5'0*1.5',0'3%'9'.5')+*1-+'6'/6'),*.'8'2'5%)%()'''#&*$(,4/%',861/0%'')')+%'6%B'*&')+%'+%')$)')+%'$'5,'/'61/0%'8'2'4%&%/)'08''.5'(*.)$'()%5'.'0*8%'('0%0''')$,6/%'0*,85G)+%'0 G8'2'4%'+%'$5'*7%$')+%'$=+)'7%.)$,(/%'+%' ,.'+26%$)$*6+2'*&')+%$,-+)'7%.)$,(/%',0'101'//2'08''.5'%0,0;)'.)' +%$%',0''' 5,&&,(1/)2',.')+%'6'00'-%'*&'4/**5')+$*1-+')+%'61/8*.'$2'(,$(1,)''.5')+%'0166/2')*')+%'/%&)'(+'84%$0',0'$%51(%5',.''8*1.)H8*$%*7%$')+%'4/*65',0'86%$&%()/2'*B2-%.')%5'.5'(*.)',..-''.',851%6$*6*$;),*.'*&'('$4*.'5,*B,5%',)'0),81/')%0')+%'7'0*;8*)*$',.&/1%.(%0'.5'1-8%.)0')+%',.)$';'$)%$,'/')%.0,*.

' ,$6%$)$*6+2'*&'4*)+'7%.)$,;(/%0G3 7 ' +' U/ Z-! ,8;6/%+26%$)$*6+2'*&')+%+%'$)'8'2'-*'.'E1,%)/2'&*$''/*.-'),8%'>10)'4'/'.(,.-')+%'*40)$1(;),7%',.&/1%.(%'.5'-,7,..-'$,0%'*'')+%$'&*$8'*&'5,0%'0%'1)'3+%.'5,/')'),*.'(*;%B,0)0'3,)+'+26%$)$*6+2'6'/&,,)'),*.'5206.*%''7%.*10'(*.-%0),*.''.5'0%$*10'%&&10,*.0'$%)+%'*$5,.'$2'$%01/)0' ,0%'0%5'(*.5,),*.0'*&')+%'$)%$,%0'8'2'*((1$0,81/).%*10/2'*$

8 ' 2' 4% , . 51(%5' 42')+% /* . - (* .), . . 1%5' '55, ;), * . ' / 0)$' , . ' 61)' 16* . ')+% 8 ' 42' '' +26%$)$*; 6+, %5' +% ')' $%$%4$' / +0% 8 *$$+ ' -% *&)% . ' *((1$0' , . ' (* . . %B, * . ' 3 ,)+' '' +26%$)$*6+, %5' /%&)' 7% .)$, (/% ' '0' . . ' $, -+)<0' 5, 0% ' 0%H ' /)+*1 -+')+%$%' $%' '/3 ' 20' 6%$+ ' 60' *)+%$' &' ()*$0 ' 4%; 0, 5%0')+% ' 8 %$%' %B(%00, 7%' 6$*61/0, 7%' 6 * 3 %$' *&')+%' +%')' , . ')+%' 6$*51(), * . ' *&' '6*6/%B2 ' 1/8 * . '$2' . 5' -%. %$' /' (* . -%0), * . ' . 5' *%5%8 '' $%')+%' 101' /' '))%. 5 ' .)0' *&' 8 ,)$' /' /%0, * . 0' 3 ,)+' $, -+) 0, 5%' %. /' $-%8 %.)0' 1/; 8 * . '$2' +%%8 *$$+ ' -, *' , . &' $(), * . ' A)+%' 0* (' //%5' 06, $/$8 * . '$2' 6*6/%B2<? -%. %$' //2' $%01/)0' &$* 8 ' %. -*$-%8 %.)' *&')+%' 4$' . (+%0' *&')+%' 61/, >, * ' . '$2' 7%00%/0' ' . 5') '9%0' 6/' (%' , . ' (* . . %B, * . ' 3 ,)+' $, -+) +%')$' %. /' $-%8 %.)' ' . -1, . %*10' %B15'), * . ', . ')+%')$' ()*&')+%' 4$* . (+, ' /' 81(*10' 8 %8 $' . %' 8 '2' *((1$' , . ' /%&) +%')$' +26%$;)$*6+2' %$0* . 0' 01&&%$, . -' &$* 8' ('$5, '(+26%$)$*6+2' '$%' 6)')*' 4%' -$' 7%/2' '&&%()%5' 42' '(1)%' &%4$, /%' 5, 0%' 0%0' 4%('10%')+%' $%; 01/)' .)' '((%/%$'), * . ' *&')+%' +%')<0' (), * . ' , . ($%' 0%0')+%' 8 4' $$' 008 %.)' *&')+%' *$-' 8 ' &' (*1$0%' +26%$)$*6+, %5' ('$5, '(' 3 '//0' '$%014>%()')*')+%' &')) 2' A/%-%. %$'), 7%$ (+' . -%0' 5%0($, 4%5' %/0%3+%$% ' %$0 0 $' ' M 26%$)$*6+2' *&')+% 0# ' 1$, (/%' , 0' 0('$(%/2' %7%$' 8 %)' 3,)+' %B(%6)' , . ' 00*(, '), * . ' 3,)+' 5, /' ;)', * . ' * &')+%' ('7,)2' , 86/%' +26%$)$*6+2' , 0' * . /2' 6*00, 4/%' , . ')+%' ('0%' *&')$, (106, 5' 0)%. *0, 0' *((1$$, . -' , . ' , . &' .)' /, &%' 26%$)$*6+2' . 5' 5, /')', * . ' '$%' 8 '$9%5' , . ' ('0%0' *&' 8,)$' /5, 0% ' 0%' 4*)+' $%-1$-,)' .)' . 5' *40)$1(), 7%' +%' +26%$)$*6+2' , 0' , . ' -$%')%$' 5%-$%%' , . ')+%' *40)$1(), 7%' /%0, * . ' . ' 4*)+' 41)' %06%(, '//2')+%' /'))%$')+%' '1$, (/%' 8 '2' 4% 01&&, (, %.)/2' 6*3%$&1/')*' (' 10%' ''4' (9 &/*3' , .)*')+%' 7%. *10' (+' . . %/0' 42' ,)0' 020)*/%' ' . 5')+10' '' 7%. *10' 61/0'), * . ' 6$%020)*+(' , . ')1. %' , . ')+%' 7%, . 0' *&')+%' . %(9' 26%$)$*6+2' *&')+%' ' '1$, (/%' *((1$0' , . ' -$%')%0)' 5%-$%%' , . ' 8,)$' /' 0)%. *0, 0' . %' *&')+%' 3$,)%$0' +' 0' &*1. 5' , . ' 51/)' ' . ' 4*2' *&' , . , %' ''/%&)' '1$, (/%' 7' T, . -' , . ')+, (9. %00' &$* 8' *. %%, -+)+')*' *. % E1' $)%$' *&' . ' . (+G ')+%')+, (9. %00' , . ' 0* 8 %' 6' $)0' 4%, . -' . %' $/2')+')' *&')+%' $, -+)' 7%.)$, (/%' *&' . ' 51/)' ' . ' 0* 8 %' (' 0%0G, . ' (+, /5$%. G)+%' +26%$)$*6+, %5' '1$, (/%' 8 '2' 4%' *40%$7%5')*' (' 10%' ''5, 0), . ()' 6$%020)*+(' 61/0'), * . ' , . ')+%')+, $5' /%&)' , .)%$; (*0)' /' 06' (%' ')')+%' *1)%$' 6*$), * . ' *&')+%' ('$5, '(' 51/. %00' 0')+%' ('0%' 6$*-$%00%0' 5, /')', * . ' *((1$0' . 5')+%' 810(1/' $' 3' '4%; (* 8 %0')+, . ' . ' , . ($%' 0%' *&' 51/. %00')*')+%' /%&)' *7%$')+%' 0,)1'), * . ' *&')+%' /%&)' '1$, (/%' , 0' *&)%. ' 8 ' . , &%0)%5' * . ' 6%$(100, * . ' , . ' ('0%0' *&' 8,)$' /' 0)%. *0, 0 ' 26%$)$*6+2' *&')+%' 3 + * /%' +%' $) +, 0' , 0' 8 ' . , &%0)%5' , . ')+%' +, -+%0)' 5%-$%%' , . ' ('0%0' *&' (* 84, . %5' ' *$), (' . 5' 8,)$' /' 5, 0%' 0%H %,)+%$' 3 +%. ' ' $+%18 '), (' /%0, * . ' +' 0' , . 51(%5' 8,)$' /' . 5' ' *$), ('$%-1$-,)'), * . ' (*, (.5%.)' //2' *$' 3 +%. ')+%' , . ,), ' /' /%0, * . ' +' 0' 4%%. ' ' *$), ('$%-1$-,)'), * . ' ' . 5' 8,)$' /' , . ' 5%E1' (2' +' 0' $%01/)%5' &$* 8')+%' 4. *$8 ' /' , .)$' 7%.)$, (1/' 6%001$%' . ' 8,)$' /' 5, 0%' 0%' +* 3 %7%$' 3 +%.)+%' ' *$), ('7' /7%0' '$%' , .)' ()')+%' +26%$)$*6+2' ' . 5' 5, /')'), * . ' *&' 4*)+' 7%.)$, (/%0' 8 ' 2' 4%' 7%$2' (* . 0, 5%$' 4/%' , &&%$%. (%0' *&' *6, . . * . ' +' 7%' W4%%. ' %B6$%00%5' '0')*')+%' , . &/1%. (%' *&' 6%$, ' ''5 8 * . 0', . '5%)%$8, . , . -' +26%$)$*6+2' *&')+%' +%')$')' (' . '0(' $(%/2' 4%' 5*14)%5')+')6%$, (' $5,), 0', 0' ''6*%.)' &' ()*$*&' +26%$)$*6+2' 51$, . -')+%' 6%$, *5' *&' %+, /5+**5' ' +%')$' 6$%0%.), . -' 0, -. 0' *&' '/8*0)' 1. , 7%$0' /' 6%$, ; (' $5, ' /' ' &&, , %0, * . ' 3 , // 4%' *&)%. ' &*1. 5')*' %7, ; 5%. (%' ' ' &' $' -$%')%$' 5%-$%%' *&' +26%$)$*6+2')+' . ' (*1/5' 4%' '0($, 4%5')*' . 2' (*%B, 0), . -' 7' /71/' $' , 86%$&%()., * . ' +%. -')+%' 6%$, *5' *&' +%')$) -$*3)+' +' 0' (%' 0%5' , . ' &1//2' 51/)' &%')+%' (* . 0%E1%. (%0' 8 ' 2' 4%' 5, &&%$%.)' ' . 5' . *' +26%$)$*6+2' 41)' * . ')+%' (* .)$' $2' '0), . -' 8 ' 2' %. 01% $ G $1%' 810(1/' $' +26%$)$*6+2' *&')+%' +%')$' , 0' (*86%. 0')*$2' *$' (* . 0%$7' ;), 7%' +%' +%')$' *4%20')+%' /' 3')+')' 810(/%')%. 50')*' , . ($%' 0%' , . ' &*$(%' . 5' , . ' 5%7%/*6; 8 %.)' 3 +%. ' . ' *40)' (/%' , 0' , 86*0%5')*' ,)0' . *$8 ' /' 3*$9, . -' A0%% ' H ' . 5')' /7%0' . 5' $, &, (%0' $-' , 0%' 0%0' *&R' %' +' 7%' >10)' 0%% . ' 3 +')')+%' *40)' (/%0' '$%' , . ' +26%$)$*6+2' *&')+%' 5, &&%$%.)' 6' $)0' *&')+%' +%')$) ' 5, +%' *40)' (/%0' '$%' 5, $%()' 01(+' '0' 0)%. *0%0H ' . 5' +%. (%' 42')+, 0' (+' . -%')+%' +%')$)' , 0' %. '4/%5')*' *7%$(*8%' 5%&, (, %.)' 7' /71/' $' (), * . ' *$' *40)$1(), * . ')*')+%' 4/**5 (1$$%.)')+%' , . ($%' 0%5' 6%$, 6+%$' /' $%0, 0)' . (%' *&' $, -+)<0' 5, 0%' 0%' ' . 5' *&' %86+20%8 ' ')+%$' /%0, * . 0' '$%' , . 5, $%()' *$' $%/'), 7%' *40)' (/%0' 6' $), (1; /' $/2' 7' /71/' $' , . (*86%)%. (%' 3 +, (+' 6%$8,)0' *7%$ &, //, . -' *&')+%' ('7,), %0' ' . 5' 5%8 ' . 50' '' (*$$%06*. 5, . -' , . ($%' 0%' *&' 7, -*1$' , . ')+%' 020)*/, (' 5, 0(+' $-%' 3 +, (+' /%' 50')*' +26%$;)$*6+2 & G = . ' %B)%. 5%5' '$%' '*&' 51/. %00' 5, 06/' (%8%.)' *&')+%' '6%B 4%')' 5*3. 3 ' $50' ' . 5')*')+%' /%&)' ' . 5' '' 0/*3' +%' 7, . -' 020)*/, (' (), * . ' 3,)+' 1-8%.)%5' &*$(%' *&' , 861/0%' '$%')+%' (+, %&' 5, ' - . *0), (' 6+20, (' /' 0, -. 0' *&' ('$5, '(' +26%$)$*6+2' . ' "0' " ' # "' ')+%' /'0)' *&')+%0%' 0, -. 0' 8 ' 2' 0%%8')*' 4%' 6$%0%.)' 41)')+%' ((*86' . 2, . -' (* . 5,), * . 0' $%' 5, /2' %B(/15%' +26%$)$*6+2' %06%(, '//2')+%' . * . %B)%. 0, * . ' *&')+%' ('$5, '(' 51/. %00' . ' # 0' 8 ' 2' 8 '09' +26%$;)$*6+2' 3 +%. ' 6$%0%.)H ' . 5' "0 " 3 "' 8, -+)')+*1-+' * . /2' &*$' " 8 * 8 %.)' 01- -%0)' ,)' 3 +%. ' '40%.)' . ' ' "')+%)$, ' . -1/' $' 0+' 6%' *&')+%' '$%' '*&' 51/. %00' 3,)+')+%' 6%B' *&')+%')$, ' . -/%' 163 '$50' , 0' ' 5, 0;), . (), 7%' &%')1$%H ')+%$%' 3*1/5' 8 *$%*7%$' 4%W)+%+, 0)*$2' *&' . ' ' (1)%' 5, 0%' 0%' 3,)+' /' . (, . ';), . -' 6', . ' 5206. *%' ' *$' 01&&*('), 7%' 0%. 0'), *. 0' ' . 5' *)+%$' 02 8 6)*8 0' . *)' &*1. 5' , . ' 8%$%%. ; /' $-%8%.)' *&')+%' $)' 6 ' "' *$' " ' 3*1/5' 4%' 0), // 8*$%' $%' 5, /2' 5, 0($, 8, . ')%5' +%' 5, &&%$%.), ' / 5, '-. *0, 0' 4%)3%%. ' /%&)+%' $)' . 5' $, -+)+%' $)' . 5' $, -+)+%' $)' 0' 4%%. ' 01&&, (, %.)/2' 5, 0(100%5' , . ' 06%' 9, . -' *&')+%' 028 6)*8 0' . 5' 0, -. 0' C 7 " ' ' 0' 5, 0)8 -1, 0+%5' &$* 8' +26%$)$*6+2' , 0' (+' $' ()%$, 0%5' 42')+%' &%%4/%. %00' . 5' 5, &&10%

'57'.(%0')+%',.&/'8%5''$%'0'4%(*8%'8*$%'*6'E1%''.5'&,$8ℍ''.5'''&,4$,.*10'5%6*0,)',0'%.)'.-/%5'3,)+')+%,$'01$&'(%'+%.'')+%'%.5*('$5,),0'+'0'-*.%')+10'&'$'$%0*/1),*.',0'6$*4'4/2'$'$%ℍ''.5')+%'8*0)'(*88*.'$%01/)',0'3+')',0'9.*3.''0'0(+$*.,('7'/71/'$'5,0%'0%<)+')',0')+')'&&%()%5'6$)0''$%'/%&)'*'6'E1%'61(9%$%5''.5')+,(9%.%5'42'-$*3)+'*&'(*.;.%(),7%'),001%'3+,/0)')+%'7%-%)'),*.0'5%7%/*6',.)*'&,$8'&,4$*,5'*$'%7%.'('$')''-,.*10/,9%'4*5,%0'0''(*.0%E1%.(%'*&')+%0%'(+'.-%0')+%'7'/7%0'8'2'4%(*8%'81(+'/)%$%5',.'C%'.5'0+'6%''.5')+%'*0),''(*.)$'()%5''.5',$;$%-1/'$'0*')+')')+%'81)1'/'5'6)'),*.'*&')+%'6')0',0'-$%')/2'=0)1$4%5')+%$'$%01/)0'*&',.&/'88'),*.''$%'.*)'1.(*88*.',.')+%'6$*;-$%00'*&'%.5*('$5,)0'01(+'0'5+%0,*.0'4%;)3%%.')+%.%,-+4*1$,.-'0)$1()1$%0''.5'*00,;&,(',*.'*.''*$'(/(,&,(',*.'*&')+%'/)%$%5'),001%0''(%$'),*.'*&')+%'7'/7%0''.5'$16)1$%'*&')+%(+*$50%')%.5,.%0%'51$,.-')+%'0)'-%'*&'5,8,.;,0+%5'$%0,0)'.(%'1/(%$'),*.'01661$'),*.'<'.5')+%'&*$8'),*.'*&'.%1$208'$%'$%$'%7%.)0+%'8,($*0(*6,('/'66%'$'.(%0'*&',.&/'8;8')',*.''*&')+%'%.5*('$5,18'(*$%06*.5'3,)+')+%',895%2%'(+'$'()%$0'.')+%'%'$/2'0)'-%0')+%'6$*6%$',001%'*&')+%'%.5*('$5,18',0'03*//%.'42'+26%$0%8,''*%5%8''.5')+%''66%'$'.(%'4%)3%%.',)0'&,4$%0'*&''.184%$'*&'/%1(*(2)%0ℍ')+%'/')%$'$'6,5/2'81/),6/2')+'&*$8')+%'41/9'*&')+%'7%-%)'),*.0ℍ''.5')+%01$&'(%'6$%0%.)0'7'$,*10',(9.%00%0'*&'5%;6*0,)%5'&,4$,.'3+,(+',.',)0')1$.'8'2'4%(*8%*$-'.,0%5'+%'&1$)+%$'5%7%/*68%.)'*&'(*.;.%(),7%'),001%'-,7%0'$,0%')+')+%'*6'(,)2')+,(9;%.,.-''.5'61(9%$,.-'*&')+%'7'/7%0''.5')+'&*$8'),*.''*&'6%$8'.%.)'7%-%)'),*.0+%'%&&%()0'*&')+%0%'(+'.-%0'16*.')+%&1.(;),*.0'*&')+%'7'/7%0''.5')+%,$'66%.5'-%0'$%'5%0($,4%5',.')+%'$),(/%'/7%0''.5'$,&,(%0'*&',0%'0%0'*&''$),(/%0'*&'&,4$,.'.5'%7%.'*&')+%'7%-%)'),*.0''$%'*((')0,*.'//2'5%)'(+%5'&$*8')+%'%.5*('$5,18''.5'-,7%'$,0%')*'%84*/,08

6 7 ! +%'0286)*80'*&'%.5*('$5,),0''$%',.0%6'$'4/%'&$*8')+%'0286)*80'*&')+%'5,0%'0%'3,)+'3+,(+',)',0'00*(,')%5''.5')+%'5,'-.*0,0'*&',)',0'8'5%''/8*0)'%.),$%/2'&$*8')+%'6$%0%.(%'*&'6+20,('/'0,-.0'+10'&%7%$'6$*4'4/2'6$%(%5%0')+%''57%.)'*&'%.5*('$5,),0',.'%7%$2'('0%ℍ''.5',)'('.*)'4%'0',5')+')')+%'0,86/%',8%*86/,('%5'5,0%'0%',.''.2'$%06%()'&&%()0'%,)+%$')+%'62$%B,''*$''.2'*)+%$'%/%;8%.)'*&')+%'0'8%'*('/02 86)*80'$%'/8*0)'%E1''//2'$'$%'1./%00')+%'%.5*('$5,),0'/%'50')*'0%$,*10'/%0,*.''*&')+%'('$5,'('7'/7%0'0'/*.-''0*1.5''.5'5*%0'.*)',.7*/7%'5%%6%$'0)$1()1$%0'6',.',.')+%'+%'$)'6$'%(*$5,'/'5,0;)$%00'02.(*6%'0+*$).%00'*&'4$%')+''.5'*)+%$02 86)*80'*&'+%'$)5,0%'0%'%',8*)'4%'0',5')*'((1$''')''/'&$%E1%.)/2',.'%.5*('$5,),0'+%('$5,'('(*.)$'(),*.0''$%.%(%00'$,/2',.($%'0%5'',.'&,%E1%.(2ℍ''.5'6'/6,)'),*.''.5'5206.*%''8'2''((1$'"'8*7%8%.)'')'+'0'/'0)%5'0*'/*.-'0')*'$%.5%$')+%'7'/7%0',.(*86%).')'*$')*'*40)$1()')+%'*$,&,(%0ℍ*$3+%.')+%'82*('$5,18'*10',0'))'(9%5'8,5'5,/')'),*.'%.01%0'+%'02 86)*80'>10)'%.18%$')%5')+%.'8'9%')+%,$'66%'$'.(%'.'(+,/5$%.'$+%18'),(''%.5*;('$5,),0',0'6%(1/,'$/2'/')%.)''.5'/0*'5'.-%$;*10/2'6$*-$%00,7%'*$'$%(1$$%.)''*%'}'%'0286)*80'*&'%.5*('$5,),0'+'0'-*.%')+10'&'$'$%0*/1),*.',0'6$*4'4/2'$'$%ℍ''.5')+%'8*0)'(*88*.'$%01/)',0'3+')',0'9.*3.''0'0(+$*.,('7'/71/'$'5,0%'0%<)+')',0')+')'&&%()%5'6$)0''$%'/%&)'*'6'E1%'61(9%$%5''.5')+,(9%.%5'42'-$*3)+'*&'(*.;.%(),7%'),001%'3+,/0)')+%'7%-%)'),*.0'5%7%/*6',.)*'&,$8'&,4$*,5'*$'%7%.'('$')''-,.*10/,9%'4*5,%0'0''(*.0%E1%.(%'*&')+%0%'(+'.-%0')+%'7'/7%0'8'2'4%(*8%'81(+'/)%$%5',.'C%'.5'0+'6%''.5')+%'*0),''(*.)$'()%5''.5',$;$%-1/'$'0*')+')')+%'81)1'/'5'6)'),*.'*&')+%'6')0',0'-$%')/2'=0)1$4%5')+%$'$%01/)0'*&',.&/'88'),*.''$%'.*)'1.(*88*.',.')+%'6$*;-$%00'*&'%.5*('$5,),0'01(+'0'5+%0,*.0'4%;)3%%.')+%.%,-+4*1$,.-'0)$1()1$%0''.5'*00,;&,(',*.'*.''*$'(/(,&,(',*.'*&')+%'/)%$%5',001%0''(%$'),*.'*&')+%'7'/7%0''.5'$16)1$%'*&')+%(+*$50%')%.5,.%0%'51$,.-')+%'0)'-%'*&'5,8,.;,0+%5'$%0,0)'.(%'1/(%$'),*.'01661$'),*.'<'.5')+%'&*$8'),*.''*&')+%'%.5*('$5,18'(*$%06*.5'3,)+')+%',895%2%'(+'$'()%$0'.')+%'%'$/2'0)'-%0')+%'6$*6%$',001%'*&')+%'%.5*('$5,18',0'03*//%.'42'+26%$0%8,''*%5%8''.5')+%''66%'$'.(%'4%)3%%.',)0'&,4$%0'*&''.184%$'*&'/%1(*(2)%0ℍ')+%'/')%$'$'6,5/2'81/),6/2')+'&*$8')+%'41/9'*&')+%'7%-%)'),*.0ℍ''.5')+%01$&'(%'6$%0%.)0'7'$,*10',(9.%00%0'*&'5%;6*0,)%5'&,4$,.'3+,(+',.',)0')1$.'8'2'4%(*8%*$-'.,0%5'+%'&1$)+%$'5%7%/*68%.)'*&'(*.;.%(),7%'),001%'-,7%0'$,0%')+')+%'*6'(,)2')+,(9;%.,.-''.5'61(9%$,.-'*&')+%'7'/7%0''.5')+'&*$8'),*.''*&'6%$8'.%.)'7%-%)'),*.0+%'%&&%()0'*&')+%0%'(+'.-%0'16*.')+%&1.(;),*.0'*&')+%'7'/7%0''.5')+%,$'66%.5'-%0'$%'5%0($,4%5',.')+%'$),(/%'/7%0''.5'$,&,(%0'*&',0%'0%0'*&''$),(/%0'*&'&,4$,.'.5'%7%.'*&')+%'7%-%)'),*.0''$%'*((')0,*.'//2'5%)'(+%5'&$*8')+%'%.5*('$5,18''.5'-,7%'$,0%')*'%84*/,08

6 7 ! +%'0286)*80'*&'%.5*('$5,),0''$%',.0%6'$'4/%'&$*8')+%'0286)*80'*&')+%'5,0%'0%'3,)+'3+,(+',)',0'00*(,')%5''.5')+%'5,'-.*0,0'*&',)',0'8'5%''/8*0)'%.),$%/2'&$*8')+%'6$%0%.(%'*&'6+20,('/'0,-.0'+10'&%7%$'6$*4'4/2'6$%(%5%0')+%''57%.)'*&'%.5*('$5,),0',.'%7%$2'('0%ℍ''.5',)'('.*)'4%'0',5')+')')+%'0,86/%',8%*86/,('%5'5,0%'0%',.''.2'$%06%()'&&%()0'%,)+%$')+%'62$%B,''*$''.2'*)+%$'%/%;8%.)'*&')+%'0'8%'*('/02 86)*80'*&'%.5*('$5,),0'/%'50')*'0%$,*10'/%0,*.''*&')+%'('$5,'('7'/7%0'0'/*.-''0*1.5''.5'5*%0'.*)',.7*/7%'5%%6%$'0)$1()1$%0'6',.',.')+%'+%'$)'6$'%(*$5,'/'5,0;)$%00'02.(*6%'0+*$).%00'*&'4$%')+''.5'*)+%$02 86)*80'*&'+%'$)5,0%'0%'%',8*)'4%'0',5')*'((1$''')''/'&$%E1%.)/2',.'%.5*('$5,),0'+%('$5,'('(*.)$'(),*.0''$%.%(%00'$,/2',.($%'0%5'',.'&,%E1%.(2ℍ''.5'6'/6,)'),*.''.5'5206.*%''8'2''

8%.)'*&'.'%.5*('$5,'f4$1,)'*&'*$-'.,('*$,-,.'
51$,.-')+%' (*1$0%' *&'*.%' *&')+%' 5,0%'0%0'
'/$%'52'.'8%5' $*))f &1.(),*.'f 81$81$0'
)+%'4$1,)0' *&'7'/71/'$' ,.&/'88'),*.' 8'2'4%'
5,'-.*0%5' 1.5%$' 5,&&%$%.)' (,$(180)'.(%0G'
&,$0)'42')+%,$' /*('/,)2'3+,(+' ,0' 8*0)' &$%;
E1%.)/2')+%' 8,)$'f '$%'H 0%(*.5/2'42')+%,$'
)1.%'5,'0)*/,(' *$' >6$ '020)* (' 81$88 0'4%,.'
'/3'20'*$-'.,(H'.5')+,$5/2'42')+%,$''00*(,';
),*.' 3,)+' 6%$,('$5,'f &$,(),*.' +%' 06%(,'f
=(+'$')()%$0'*&'.*$-'.,(' 81$8,1k0'$%'5%0($,4%5'
%/0%3+%$%' +$*.,(' 7'/7,5'$'5,0%'0%' 8'2'4%'
5,'-.*0%5' &$*8' '(1)%'%.5*('$5,),0' 42')+%'
6$%0%.(%'*&'('$5,'(' %./'$-%8%.)''.5'8'.2'
3%// 9.*3.'0,-.0H*&'8'$9%5'('$5,'(' 0286;
)*80G%06%(,'//2'6',.''.5'5206.*%'H*&'(%$;
)',.' /%0,*.0G8,)$'/' 0)%.*0,0'&*$',.0)'.(%'
4%,.-'7%$2'$'$%/2' '(1)%' /%0,*.H' '.5'*&'
W7,0(%$'f (*86/,(')*.0' 1(+'8*$%'5,&&,(1/'
*&'5,'-.*0,0',0''(1)%'%.5*('$5,),0'*((1$$,.-'
,.')+%' (*1$0%' *&' (+$*.,(' 7'/71/'$' 5,0%'0%'
+'.-%'*&')+%' (+'$')()%$'*&')+%' 81$81$',&'
)+,0'+'7%'4%%.'6$%7,*10/2'9.*3'8'2'/%'5'
)*')+%' 0106,(,'.*'*&' &$%0+',.&/'88')',*.'41)'
('.*)'6*0,),7%/2'%0)'4/,0+')+%'5,'-.*0,0'*&',)0'
%B,0)%.(%' (1)%'%.5*('$5,),0',0'8*0)'&$%;
E1%.)/2'*7%$/**9%5'3+%.')+%' 6$,8'$2'5,0;
%'0%',0'0/')%.)'<G=6'$),(1/'$/2'$+%,1.'),08',.'
(+,/5$%.

G +%',88%5,')%' 6$*-.*0,0'*&'
'(1)%'%.5*('$5,),0',0'-%.%$'//2'&'7*1$'4/%'
'.5'8'2'4%'0'&%/2'%0),8')%5'42')+%' '40%.(%'
&'/('f 0286)*80' +%' $%8*)%' 6$*-.*0,0'
.')+%')+%$'+'.5''0'$%-'$50'4)+'/,&%'.5'
+%'/)+' ,0'4'5',.'0 81(+''0'%.5*('$5,),0'0*'
&$%E1%.)/2'%.50',.'(+$*.,(' 7'/71/'$' 5,0%'0%'
+,0'$%01/)',0'7%$2'*&)%.'5,&&,(1/)'*$',86*00,4/%'
W*' &*$%('0)' ' &%%4/%' 0*&)' '.5' 08**)+'
81$81$'*$' '' &%%4/%' '.5'-$'7%' 81$81$',0'
81(+'8*$%' /,9%/2')*' A ,0'66%'$')+'.'' '/*15'
%B)%.0,7%'3%// 5%&,.%5'4$1,)' +%'6$*4'4,/,)2'
*&')+%' 5,0'66%'$'.(%' *&' 5,'0)*/,(' 4'0,(
81$81$0',0'7%$2'08'//H,)'8'2'4%' 4%0)'
%0),8')%5'42')+%' '40%.(%'*&')%' %&&%()0'6$*;
51(%5'42''*$),(',.(*86%)%.(%'16*.')+%'+%'$)'
'.5'7%00%/0' 1$81$0'$%&%$'4/%')*' %.5*;
('$5,),0'5,0'66%'$' 8*$%'*&)%.',.'2*,8-'014;
>%()0')+'.',.''51/)0

! G +%')$%')8%.)'*&'(1)%'%.5*;
('$5,),0'+'0')*'4%'5,0(100%5'1.5%$')+$%%'+%'50'
G.'8%/2'&,$0)'6$%7%.),7%H 0%(*.5/2',88%;
5,')%'H '.5')+,$5/2'0140%E1%.)')$%')8%.)

'6)'')' " G +%.''6'),%.)'
,0'01&&%$,.-'&$*8' '.2'5,0%'0%'3+,(+'8'2'4%;
(*8%' (*86/,(')%5' 3,)+'%.5*('$5,),0' '.5'
%06%(,'//2',&'+%'4%'01&&%$,.-'&$*8' '(1)%'
$+%18'),08'%7%$2'8%'.0'81 0)'4%'*5*6)%5'
)*'6$%7%.)''0'&'$'0'6*00,4/%')+%'*((1$$%.(%'
&',.&/'88'),.''*&')+%'+%')$' +10',.''(1)%'
$+%18'),08',)',0''// ,86*$)'.')*'(+%(9'')*.(%'
)+%',.)%.0,)'%5'0%'42'$%(*1$0%')*'*.'%'
$'*)+%$'&')+%'0'/,(2/'(*86*1.50'*$'*)+%$'
8%'.0H&*$'%B6%$,%.(%'0+*30')+')'%.5*('$;
5,),0'3+%.'.)'5*%0'*((1$',''(1)%'$+%18'),08'
-%.%$'//2'8'9%0',)0''66%'$'.(%'3,)+,.')+%'
&,$0)'3%%9' -',.')+%'51$'),*.'*&')+%'6$,

8'$2'5,0%'0%'810)'4%'(1$)',/%5',&'6*00,4/%'
,.'081(+''0'%.5*('$5,),0''/)+*1-+',)'-%.%;
$'//2'66%'$0'%'$/2'8'2'6*00,4/2'*((1$''
'.2'6%$,*5'*&')+%'5,0%'0%' +10')+%'8%5,;
(,.'f6$%7%.),7%')$%')8%.)'*&'%.5*('$5,),0',.'
)+%0%'('0%0'$%0*/7%0',)0%/&',.)*')+%'8%5,(,.'f
)$%')8%.)'*&' '(1)%'$+%18'),08' .*)+%$'
6*,.)'*&'%E1'f,86*$)'.(%',.')+%'6$%7%.),*.'
&'%.5('$5,),0',0'5,8,.1),*.''*&')+%' ('$5,'('
'(),7,)2' %'+'7%' 0%%.')+')'+%' 6$%001$%'
3,)+,.')+%'+%')$)',0''.',86*$)'.)'&')*$',.'
)+%>('10'),*.''*&'%.5*('$5,),0H'.5')+,0'6$%0;
01$%'810)'4%'$%51(%'42'5,8,.,0+,.-')+%'
3*$9')*'4%'5*.%'42')+%'+%')$)'3,)+*1)'/*3%$;
,.-')+%'('$5,'('6*3%$' %0)'810)'+%$%&*$%'
4%'%.&*$(%5',.')+%' $%(184%.)'6*0)1$%G''.
%.5'3+,(+',0'101''//2''/$%'52'0%(1$%542')+%'
8%0%.(%'*&'('(1)%'$+%18'),08'*&')+%'>*,.)0'
B(,)%8%.)'*&'%7%$2'9,.5'+'0')*'4%'0)$,()/2'
,.)%$5,()%5' +%'6%$0*.'f (*8&*$)'*&')+%'
6'),%.)'810)'4%'C%'/*10/2'))%.5%5')*''.5'
6','.'$%/,%7%5'0*')+')'$%0)/%00.%00''.5',$$,;
'4,/,)2'8'2'4%'*7*,5%5H''.5'&*$')+,0'61$6*0%'
('$%&1//2'0%/%()%5''.*52.%0'8'2'4%'.%(%00'$2'
),81/'.)0'810)'4%'(1),*10/2'*$5%$%5H')+%'
4*3%/0'$%-1/'$/2''.5'&1//2'8*7%5H''.5')+%'
7'$,*10'0%($%),*.0'9%6)'0'(),7%'0'6*00,4/%
#' '' "0' "' - G /,%.'
%.5*('$5,),0'+'0'()1' 2'8'5%',)0''66%'$;
'.(%')+%'7'$,*10'8%'.0'>10)',.0,0)%5'16*.'
810)'4%'%.&*$(%5''0'$,-*$*10/2'0'4%&*$%'0*'
'0')*'5,8,..0+')+%',.)0,)2'*&')+%',.&/'88'
),*.''.5')*'/,8,)')+%'%B)%.)'*&' 1$&'(%',.c'
7*/7%5'K %0)',0'0),/f*&')+%'&,$0)',86*$)'.(%'
8%.)'f 0'3%/f 0'4*5,/2' +%'8%5,(,.'f
)$%')8%.)'*&')+%'*$,-,.'f5,0%'0%G%06%(,'//2'
*&'(1)%'$+%18',)08G=810)'4%'6%$0%7%$%5'
,.' *('/'66/,(',)*.0')*')+%'6$0%(*$5,''01(+'
'0'(')'6/'080'*$'/%%(+,.-',.'('0%0'*&'0)+%.,('
,.&/'88'),*.''$%'*&)%.'*&'-$%')'0%$7,(%' +%'
'58,.,0)$'),*.''*&'0),81/'.)0'3,/f$%E1,$%')+%'
-$%')%0)'('$%H%B(,)%8%.)'*&')+%'$)''*.')+%'
.%+'.5'4%,.-''7*,5%5'.5''*.')+%')+%$'
+'.5'5,-,)'/,0''88*.''*$'/(*+*/4%,.-'
%86/*2%5',&'02 86)*80'*&'('$5,'(' 5,0)$%00'
016%$7%.%'E1'/(1),*.',0'5%8'.5%5',.'
)+%'10%*&''.*5J8%0'3+,(+'8'2'4%',.5,(')%5'
)*'$%/,%7%5'0,0)$%00'(*..%()%5'3,)+')+%'>*,.)0H
'.5'/*('f '66/,(',)*.0'01(+''0'(*))*.3**/'
6*1/),(%0''(*.,)%''.5'4%//'5*..''0+*1/54%
%86/*2%5',.'6$%%&%.(%')*'6,18'(+/*$'/''.5'
*)+%$'('$5,'(' 5%6$%00'.)0

A(f' "' ' "' - MM R 4')+%'
6$,8'$2'5,0%'0%'01(+''0'$+%B,8'),08'+'0'
0140,5%5''.5')+%'$%0)*$'),*.''*&')+%'7'$,*10'
&1.(),*.0',.5,(')%0')+')'(*.7'/%0(%.(%'+'0'
(*88%.(%5')+%'6+20,(,'.'810)'.*)'&*$-%)'
)+%'0)')%'*&')+%'%.5*('$5,18'3+,(+'+'0'
$%(%.)/2'4%%.'.&/'8%5''.5'3+,(+',0'0),/f
,.''(*.5,),*.''*&'-$%')'6+20,('f 3%'9.%00'
''.5')+%'0%')'*&'.%3'(%// -$*3)+'.0)%'5'*&'
1$-,.-')+%'6')%.)')*'0,)'16'.5'3/$'4*1)'
1.5%$')+%0%'(,$(180)'.(%0''0'810)'+'7%'
4%%.'&$%E1%.)/2'5*.%1.5%$')+%'0$,7'f 8%;
)+*50<*&')$%')',.-''(1)%'$+%18'),08'3%'
0+*1/5'$%(*88%.5''7%$2'-$'51'f $%)1$.')*

%B%$(,0%' '.5')+%' 8*0)' >%'/*10' '7*,5'.(%' *&' '()1'/' %B%$),*.' +%$%' ('.' 4%' .*' E1%0),*.')+')' ')')+,0' 0)'-%' $%0)' &*$' 0%7%$'/' 3%%90' ,0' *&' 8*$%' ,86*$)'.(%')+'.' 8%5,(,.'/')$%');
8%.)')')+%$' 0'8%'),8%'7'$,*10')*.,(' .5' *)+%$' $%8%5,%0' 0+*1/5' 4%'%86/*2%5
G' 4.*1+'/.' -(41*-'+'& '9 '/,-.'.)' .5*('$5,),0H ,6+)+%$,),(' ; 5*('$5,),0'H $'I" / '3 H %$' 5" 3 ' 0" 'I"
2 G .'*1)%'014'(1)%'*$(+$*.,(' ,.&%(),7%' 5,0%'0%'(+'$'()%$,0%5'42'1/(%$'),*.' *&')+%' %.5*('$5,18' *$'42'7%-%)'),7%' -$*3)+' 16*.',)
(.6 G /(%$'),7%'%.5*('$5,),0'*((1$0' 8*0)' &$%E1%.)/2'4%)3%%.')+%' '-%0' *&')3%.)2' '.5' &*$)2'41)',0'.*)' 1.(*8 8*.' ,' (+,/5$%.' *$%' 3*8%.' 01&&%$')+'.' 8%.' ,' (*.0%; E1%.(%' *&' ,)0' &$%E1%.)' *$,-,.' ,.' 61%$6%$'/' 5,0%'0%' ,I%7,*10'7'/71/'$'5,0%'0%'5,0),.()/2' 6$%5,06*0%0K)*',)
.' %B(,),.-'('10%' 0*8%),8%0' ('.*)' 4%' 5,0(*7%$%5' .' 8*0)' ,.0)'.(%0' +*3%7%$' 1/(%$'),7%'%.5*('$5,),0',0'41)'6'$)' *&' '-%.%; $'/0%6),(' *$' 620%8,(' 6$*(%00' +%' (*8 8*.' 0*1$(%0' *&',.&%(),*.' '$%'0%6),(' 3*1.50'61%$; 6%$'/')+$*84*0,0'62/%6+/%4,),0' *'),),0' 8%5,'' 3,)+')+$*84*0,0' *&')+%' '00*(,')%5' 0,.10%0' '(1)%' *0)%*82%/,),0'-*.*$$+(%'',.>1$,%0' '.5' 1/K(%$'),*.' *&')+%' 1$%)+$'' '.5' 6$*0)')%G=.' (*..%B,*.'&*$',.0)'.(%' 3,)+' 0)$,()1$%' '.5' >%')+%)%$,08H '/0*' '(1)%'6.%8*.,'' '.5'61/; 8*.'$2' -'.-$%.%' '(1)%' $+%18',08' '.5' *)+%$' '(1)%' 06%(,&,(' 5,0%'0%0' +%'6$,8'$2' /%0,*.'8'2'4%0*'0/,-+)'0')*'%0('6%*40%$7'),*.
' 3$ & G '/,-.'.)' %.; 5*('$5,),0' '0')+%' .'8%' ,0' (*8 8*./2'%8; 6/*2%5' (*86$%+%.50' '' 7'$,%)2' *&' 8*$4,5' (*.5,),*.0' ,.' (*..%B,*.' 3,)+')+%' +%'$)' 3*' *&')+%0%' '$%'&',$/2'5,0),.(),7%')+%' 7) '.5')+%)' 0) '.5')+%2'8'2'4%' (*.7%.,%.)/2'0%/%()%5'&*$'5%0($,6),*.'0'4%,.-')+%' 8*0)'5,7%$0%')26%0'4%)3%%.'3+,(+')+%$%' /,%' '.184%$'*&',.)%$8%5,')%'&*$80
.')+%')'&*$8')+%'%.5*('$5,18' 6$%0%.)0'08'/' '$%'0'3+%$%')+%' 6$*6%$')001%' +'0' 5,0'66%'$%5'/%'7,.-'4%+,.5',$'0+'//*3' $'--%5'%$*0,*.0' +,0'(+'.-%'*((1$0'8*0)' &$%E1%.)/2',.'(*..%B,*.' 3,)+')+%' 8,)$'/' 7'/7%0'.'5'*6%.,.-',.(/15,.-')+%' '1$,(1/'$ '06%()'*&')+%(1$)',.0'.5')+%'/,.%'*&'))'(+; 8%.)' *&')+%' 7'/7%0G6'$),(1/'$/2')+%')3*' (*88,001$%0' *&')+%' 0%-8%.)0'.5')+%' '.;)%$,*$'06%()'*&')+%'.)%$,*$'0%-8%.)H '/0*')+%' '*$),('1060H 6'$)0'*&')+%0%6)18'.5'-%.%$'/ %.5*('$5,'/01$&'(%H '.5')+%'6'6,//'$2'810; (/%0'.5'(+*$50%')%.5,.%00' +%'%.5*('$5,18' *&')+%'$,-+)'7%.)$,(/%',0'$%/')7,%/2'8*$%'&$%; E1%.)/2',.7*/7%5',.'8'/,-.'.)')+'.',.'0,86/%' %.5*('$5,),0
+%'%'$/,%0)'0)'-%'*&')+%'8*$4,5'6$*(%00' 8'2'0*8%),8%0'4%'*40%$7%5'' 0'08'/' 2%/; /*3,0+'*6'(,),%0'*&')+%'%.5*('$5,18' 1)' '0''$1/%')+%'01$&'(%',0'&*1.5'/$%'52'%$*5%5' 6$%0%.),.-''' 08'//',$$%-1/'$'*7'/'(,$(1/'$ *$/,.%'$'1/(%$H ,)0' $'--%5'-$%2'4'0%'(*7%$%5 3.)+' '' /**0%' &$,'4/%')+$*8410H ,)0' %5-%0' &$,.-%5'3,)+'7%-%)'),*.0'03*//%.'.5' 1.5%$8,.%5' 1(+'.'1/(%$',.($%'0%0' 41)'0/*3/2',.'$%'41)',)'$%'5,/2'57'.(%0' ,.)*')+%'5%6)+'*&')+%'),001:' '7'$,%)2'*&' 0%(*.5'$2'(+'.-%0' 8'2')+%.'*((1$G'(1)%' 7'/71/'$'.%1$208'(*86/%)%' 6%$&*$'),*.'*&')+%'7'/7%0'4,85'.)'7%-%)'),7%'*$&1.-'),.-' -$*3)+0'.'5' 01661$'),*.'3+,(+'%.50' ,.' '(1)%'('$5,'('.%1$208'*$,.'(*86/%)%' 6%$; &*$'),*.'*&')+%'6'$,%)%0
+%')0 '&*$8' *&'8'/,-.'.)' %.5*; ('$5,),0',0'$%'5,/2'$%(*-.,0%5'6*0)' '42' '' 6$*8,.%.)' '.5'6*00,4/2'%B)%.0,7%'-$*3)+' *&'6*/26*,5'/'7%-%)'),*.0','.'(*..%B,*.'101; '//2'3,)+')+%' '1$,(1/*7%.)$,(1/'$'*6%.,.-')+%'.%,-+4*1$,.-'01$&'(%'*&')+%'/%&)''1$,(/%' '.5')+%'1$,(1/'$'06%()'*&')+%'8,)$'/'0%-; 8%.)0' %00'&$%E1%.)/2')+%''*$),('7'/7%0' '$%',.7*/7%5' .'%,)+%$'0,)1'),*.')+%'7%-%; ')',*.0'&*$8'' /'$-%'8'00'*&'0*&)'-$*3+' '/8*0)'(+*9,.-')+%'8,)$'/'*$),'(*6%.,.-' 3+,/0)'6*$),*.0'*&',)'8 10)'+'7%'&/*')%5''.5' 3'7%5',.')+%'4/**5($$%.)'.5'42')+%,$' (*.)'()'*$',86'()'51$,.-')+%'('$5,'(*8*7%; 8%.)0'+'7%',.>1$%5')+%'.%,-+4*,1,.-'*$'*6; 6*0%5'01$&'(%0'*&')+%'%.5*('$5,18')+%$%'0%);),.-'6'&$%0+'5,0%'0%'*&')+%'0'8%9,.5' +%' 01$&'(%0'*&')+%0%'7%-%)'),*.0''$%'0*8%,8%0' ('/(,&,%5
.'4*)+'&6$80'*&'8'/,-.'.)'%.5*('$5,),0',)' ,0'*47,*10')+')'51$,.-'/,&%'6*$),*.0'*&')+% 5,0%'0%5'%.5*('$5,18'.5')+$*84,'0'3%/' '0')+%,$'&/1,5'6$*51()0'3+%)+%$'*.''' 08'// *$'*.''' /'$-%'0('/%'810)+'7%'4%%.'$%'5,/2' 5%)'(+%5'*$'3'0+%5'*&&'.5'('$$,%5''0'%84*/' ,.)*')+%$'6')0'*&')+%'(,$(1/'),*.
.''55,),*.')*'K)+%'/%0,*.0'>10)'5%0($,4%5')+%'+%'$)'82'6$%0%.)'' 7'$,%)2'*&'8*$4,5' (+'.-%0')',0'.' ')'/%'0)'MF6%$'(%.)'*&' ('0%0'A .0*8H)+%'0%')'*&'(+$*.,('7'/71/'$' 5,0%'0%' .5''00*(,')%5'%./'$-%8%.)H 0*8%;),8%0'*&'(*.-%.,)'/'8'/&*$8'),*.' +%'82*; ('$5,18'8'2'4%'03*//%.'.5',.''0)')%'*& -$'.1/'$ 5%-%.%$'),*.'/,9%' *)+%$' 7,0(%$'/ 0)$1()1$%0H *$',)'6$%0%.)0''.184%$*&'08'// %84*/,('+0%8*$$.'-,(' ,.&/'8%5'*&')/2$ 5%-%.%$')%5''$%'0' %$,('$5,),0',0'0*8%),8%0' '00*(,')%5
I ',0'*.%'*&')+%' %00%.),'/'.')*; 8,('/'(+'$'()%$0'*&'1/(%$'),7%'%.5*('$5,),0')'*((1$0'8*0)'*&)%.',.')+)06/%%.'9,5.%20' '.5'+%')'41)'8'2'4%'/8*0)'1.,7%$0'/' .')+%'7%-%)'),7%'&*$8'*&')+%'5,0%'0%')+%'%84*/' 8'2'4%'0*'/'$-%' 0')*'4%' '$%0)%5'%7%.',')+%'45*8,.'/'*$)'H)+%',4,'/'4$'(+,'/'.5' *)+%$'7%00%0'*&')+%'/,840'$%'&)%.'*((/15%5' '0'3%/'0')+%'06/%,('$%.'/'8%0%.)%$,(' (%$%4$'/''.5''' 7'$,%)2'*&')%$,%0',.'*)+%$' 6')0'*&')+%'4*52' .')+%'61$%/2'1/(%$'),7%')26%'*&')+%'5,0%'0%')+%'%84*/,' '$%'81(+' 08'//%$''.5')+%,$'%&&%()0''$%'*./2$%(*-.,0%5' '42',.&'$()0',.'7'$,*10'(*.'),*.0' *&'(+'.-%' *8%),8%0')+%0%'0%(*.5'$2'&*(,' 6$*(%%5')*' '40(%00G01661$'),7%'8%.,.-,),0' ,0'&',$/2'(*88*.' +%'09,.''.5'81(*10

8%84$'.%0')+%' 0%$*10' 8%84$'.%0')+%' 7%00%/'3'//0''.5')+%'$%),.''$%'/0*'&'7*1$,)%' 0%')0' *&'8,.1)%'%84*/,08''.5'+'%8*$$+'-%' +%'/1.-0' '$%' 6%(,'//2' '&&%()%5',.' 0*8%'('0%0'61/8*.'$2' %84*/,08''.5',.&'$(),*.''((*86'.2' 1/(%$'),7%' %.5*('$5,),0' *&')+%'$,-+)' (+'84%$0'*&')+%'+%'$)'+'0'*$,-,.')%5' +%'/*('/'%&&%()0'*&',.&%(),7%'%84*/,08''((1$'S '%B)%.0,7%/2',.'1/(%$'),7%'%.5*('$5,),0'.'8%/2'+'%8*$;$+'-%'0*&)%.,.-''.5'(1)%'.%1$208'%.5,.-',.'&')'/'$16)1$%' '*! $!.'''(*.0,5%$'4/%' 6$*6*$),*.'*&'('0%0'*&'1/(%$'),7%'%.5*('$5,),0'8,($*'*$-'., 80'$%&*1.5'4*)+',.')+%'7'/71/'$'/%0,*.'85',.')+%'%84*/,''.5',.&'$()0' *'/%00')+'.')%.'5,&;&%$%.)'9,.50'*&'*$-'.,080'+'7%'4%%.'5%;0($,4%5',')+,0'(*..%B,*.')+%'(+,%&'*&')+%0%'4%,.-')'6+2/*((10'62*-%.%0'1$%10'.5'/410H)$%6)*((10'62*-%.%0H ,6/*(((10'6.%18*.,'%H''.5' '(,&/10')14%$(1/*0,0 ,($*(((,'!.' $'+ '-$4 7' '!'#)#4 3'+$$7' ' ' ! ! (' G .',)0'(/,.,('/'(+'$')()%$0'8';/,-.'.)'%.5*('$5,),0',0'%,)+%$',''.'' 0%7%$%'.'.5'&')'/ 8'/'52'3,)+' 8'$9%5/2')26+*,5'/&%')1$%0H *$'ALR'' 5,0%'0%'*&' 7 ' ' # " ' (*1$0%'62'%8,(',.'(+'$')()%$'*((''0,*.'//2'%.5,..-',.'$%(*7%$2'+%0%')3*'&*$80'('//'&*$'0%6'$')%'5%0($,6),*.'A'R (1)%' 0$6+*,5'/' '/,-.'.5*('$5,),0 G .')+,0' 7'$,%)2' *&')+%'5,0%'0%')+%'6'),%.)',0'0%,0%5'3,)+' '' $,-6$'3+%.'66'$%.)/2',.'-**5'+%'/)+' *$'51$,.-'(*.7'/%0(%.(%'&$*8''.'(1)%',//.%00G6'$),(1;/'$/2'$+%18'),08H ,.' *)+%$',.0)'.(%0')+%'*)+%$'6+%.*8%.''*&0%7%$%'&%7%$'$%'AX1,(9/25%7%/*6%5'.5')+%'6'),%.)'(*86/',.0'*&'8'/',0%'5%4,/,)2''.5'('$5,'(5,0)$%00H 41)'&*$')+%'&,$0)')3*'5'20')+%'8%5,('/')%.5'.)'6$*4'4/2'&',/0')*'8'9%''(*86/%)%'5,'-.*0,02`)+%'%.5'*&')+,0',8%')+%'6'),%.)<0'(*.;5,),*.'+'7,.-'4%(*8%0)%'5,/2'3*$0%')+%'('$5,'(0*1.50''$%'&*1.5')*'4%',861$%H)+%2'0+*$)/2'4%(*8%8 $81 ,0+H '.5'6$*4'4/2'*.')+%'.%B)'5'2''.'%.5*('$5,'/81$81$',0'5%;7%/*6%5'020)*/,(*'$'5,'0)*/,('0),/'(+'.-%&,,/,'.',)0'(+'$'()%$0' +%'-%.%$'/02 86)*80'.*3'4%-,.')*''0018%''')26+*,5')26%' +%'6'),%.)'/,0'+%/6/%00/2'*.'+,0'4'(9H)+%')%8;6%$')1$%'$,0%0')*' ! gH)+%')*.-1%'')'&,$0)&1$$%5'4%(*8%0'5$2''.5'4$*3.H0'$5%0'&*$8H)+%'$%06,$'),*.'4%(*8%0'+1$$,%5'6*00,4/23,)+')+*$'(,('6',.0'.5'+'%8*$$+'-,('461)'H''.5'0*8.*/%.(%'0%)0'',.'4$*9%.'42'/*3'81))%$,.-'5%$,18'>')(),)'),*.0'.5'014'01/)10' +%'06/%%.',0'%./'$-%5''.5')%.5%$'01--%0),.-',.&'$(),*.' +%'4*3%/0'8'2'4%$%/'B%5' +%'9,.',0'7,0,)%5'42'+%'72'03%')0''.5'8'2'4%(*8%'(*7%$%5'=,)+''6%(1/,'$6%)%(+,'/'%$16),*.' +%'1$,&)%'6'00%5'.')1;$'//2'*$',.(*.),.%.)/2'*$'3,)+5$'3.'3,)+')+%'(')+%)%$',0'&*1.5')*'(*.)'/,.'4/**5''/41;8%.'.5'7'$,*10'8,($*'*$-'.,080'+%'*6+)+'/8*0(*6%'$%7%'/0'$%),.'/'.5'*)+%$',.)$''*(1/'$'+'%8*$$+'-%0'/%%5,.-')'9%06/'(%&$*8')+%'6'$*'),),0''$)+$,),0'6%$,('$5,),0''.5>'1.5,(%' %..-,),0''00*(,')%5'3,)+'+%'5;'(+%'.5'5%/,$,18''.5'%.5,.-',.'(*8''0'8*$%'(*88*.''.5'-,7%0''%3'*$'5,&&%$%.)'06%()'*')+%'('0% '/,-.'.')%.5*('$5,),0'*&')+,0'0%7%$%')26%'8'2'4%'0','5')*'/3'20')%$8,.')%',.'5%')+''&)%$''58'),*.'*&'/%00')+'.'&*1$)%%.'5'20H,)K+'0'4%%.'9.*3.')*'%.5'&')//2',.')3*'5'20' +%'(*),$0%'3+,(+')+%'5,0%'0%'61$;01%0',0'*.%'*&'0)%'5,/2',.($%'0,.-'-$'7,)2'4$*9%.'*./2'42'%E1'//2'*8,.*10'(*86/,(';),*.0',.')+%'&*$8'*&'8%.,.-,),0'+'%8*$$+'-%0'*$'0155%.'6'$'/20,0'$%&%$'4/%')*'(%$%4$'/+'%8*$$+'-%' %$2'$'$%/2')+%'5,0%'0%'6'00%0',.)*')+%'014'(1)%'*$'(+$*.,('&*$8+%'62$%B,''4%/*.-0')*')+%'(*.),.1%5')26%')+%'8'B,818'$,0%'4%,.-'!g'*$'!Fg'3,)+''5',/2'$%8,00,*.'*&'*4*1)'*.'5%-$%%'.'0*8%',.0)'.(%0',)'8'2'.*)'%B(%%5'8H8g'*$'%7%.'9%%6'(/*0%')*'.*$8'/' ,)+')+%'&%7%$'8'2'4%'00*(,')%5'$%6%')%5'$,-*$0'&*//*3%5'42',.($%'0%5'6$*0$)',.''.5'0)16*$' +%'6+20,(('/0,-.0'(*..%()%5'3,)+')+%'+%')$)'+'7%''/$%'52'4%%.'$%&%$$%5')*' +%'%.5*('$5,'/81$81$' 101'//2'020)*/,(''.5'8,)$')/'=)'5%7%/*60'1.5%$*40%$7'),*.'(+'.-%0'./*15;.%0'.5'X1'/,=7'5'2'42'5'2'.5'8'2'//%$%,.&*$(%5'42''0%(*.5'8 81*7%$'.*)+%$'6')$' &)+%6$0%(*$5,'' &')$'(%5')*')+%$,-+)'0,5%*&')+%'+%')$)',)',0'*&'06%(,'/0,-.,&,('.(%' ((''0,*.'//2')+%'81$8,$$',0'40%.)'01--%0),.-''6'$,%)'/%0,*.' +%'$'5,'/61/0%'6$%;0%.)0' //')+%'(+'$')()%$0' *&')+%')26+*,5'0)')%'3,)+',.($%'0,.-'6$*0)$'),*.'$')+%$')+'.')+*0%' *&'.2'6'$),(1/'$'&*$8'*&'7'/71/'$5,0%'0%' +%'0*('//%5'09,.'0%$16),*.'(*.,0,0)0'*&',.%'$%55,0+'06*)0'3,)+'6'/%$'(%.)$%$%6$%0%.),.-')+%'0%')'*&''881)%'%84*/10'+%'0,.-0'*&'6/%1$,02'61/8*.'$2',.&'$(),*.'$-'.-$%.%'*$'%7%.'*&'62*6.%18*)+*$'B'$%'0*8%),8%0')*'4%'5%)%$8,.%5AFR 14'(1)%''.5' +$*.,(' '/,-.''.)'.5*('$5,),0G=+,07'$,%)2'*&')+%'5,0%'0%'4%'$0'41)'/,))/%'016%$&,(,('/'$%0%84/'.(%',.'),0'(/,.,('/'(+'$')()%$0')+%'0%7%$%'&*$8'>10)'5%0($,4%5'')0''-%.%$'/'&%')1$%0'$%')+*0%'*&'014'(1)%'*$'(+$*.,('('$5,'('5,0%'0%''((*8;6'.,%5'3,)+'62$%B,'''.5'81/),6/%'%84*/,08''%')5,0%'0%',0')+%'(%.)$'/'&'()'*.'3+,(+'$%'016%$'55%5')+%'6+%.*8%.''*&'-%.%$'/.,&%(),*.'+%$%'',0'.*'6$*0)$'),*.'1.),/)+%'/')0)H.*')26+*,5'/'06%()'+%'6'),%.)',0''.'>8,('0'//*3'6**$/2''.5'+%'3')0)%'0)%'5,/2H41)'+%'0,)0'16',.'4%5'$%'50'%.;-'-%0',.'(*.7%$0'),*.',.)%//,-%.)/2'.5'(+%%$;&1//2''.5'8'2'%7%.'$%0%.)'0)$,()')%')8%.)'+%'6+20,('/'0,-.0'(*..%()%5'3,)+')+%'+%')$)'(*.0,0)'8'8/2'*&''3%//5%7%/*6%5'%.5*('$5,'/81$81$'6*00,4/2'$%&%$'4/%')*''6$%7.5*('$5,'/81$81$'6*00,4/2'$%&%$'4/%')*''6$%7,*10'7'/71/'$/%0,*.'41)'(+'.-,.-',)0'(+';$'()%$0'&$*8'),8%')*'),8%1.5%$*40%$7'),*.

)' ,0' 101'//2' 020)*/,(' '.5' 8 ,)$'/Ĥ *(('0,*.; '//2' '*)),(' 020)*/,(' *$' 5,'0)*/,(' *$' 8 ,)$'/ 6$%020)*/,(Ĥ '.5' ,)' 8 '2' 4% 0155%./2' '/)%$%5' *$' (*86/,('()%5' 42')+%' 5%7%/*68%.)'*&' ''&$%0+' /%0,*.',.')+%' +%'$)'01(+' '0' $16)1$%' *$' 6%$; &*$'),*.' +%'61/0%'7'$,%0' -$%')/2

+%')26%' *&' 62$%B,'' ,.' &1//2' 5%7%/*6%5' ('0%0' *&',6'/,-.'.)'%.5*('$5,),0' *&' 014'(1)%' (*1$0%' ,0' 8 '$9%5/2'$%8,))%.)' *$' %7%.',.)%$; 8,))%.)' +$%%'&*1$' *$' %7%.'0,B'5%-$%%0' *&' '' $,0%' '.5' &'// A4%)3%%.' P?g' '.5' !@g')*' ! gR 8'2'4%$%(*$5%5'5',/2'&*$'3%%90' *.'%.5' .')+%$',.0)'.(%0')+%' 5,0)1$4'.(%' *&')%8; 6%$')1$%')'9%0')+%'&*8'*&',$$%-1/'$'4*1)0' *& 62$%B,'' (*86/,(),..-')+%' 5*3.3'$5' (*1$0%' *&' '0%7%$%' ('0%' *&'7'/71/'$' 5,0%'0%' *8%' 6'),%.)0' 01&&%$' &$*8' $%6%')%5' $,-*$0' 1.%B; 6%()%5' '.5',$$%-1/'$' &*//*3%5' 42' 6$*&10%' 03%')0' .5'6$*0)$'),*.

+%' *)+%$'6+%.*8%.'*&'-%.%$'/ ,.&%(),*.' '$%' 8',./2'0,-.,&,('.)' *&' %8 4*/,0 Ĥ 6',.' '.5')+%' 6$*6%$'6+20,(' /0,-.0' *&',.&'$(),*.'*&)+%' 06/%%8'.5'/1.-%'4/**5',.')+%'1$,.%'/*00' *&' 61/0')*.'.'.')+%' ')%$,%0' *&')+%' /,840')+%' 5% =/*68%.)' *&' '(1)%' '.%1$208' 3,)+' 0140%E'%.)' $16)1$%' '.5'%7%.'-'.-$%.%' *&)+%'%8$%8,),%0' +,0'%/%8%.)' *&')+%'5,0%'0%' -,7%2',)' '' 6%(1/,'$/2'1.(%$)',.'.5'6$*)%'.' %+'2'()%$',)0' (*1$0%'4%,.-'&*$',.0)'.(%'015' 5%.)2',.)%$$16)%5'42')+%' 5%7%/*68%.)' *& 0%7%$%'+0%8*$$+'-%',.)*')+%'6%$,)*.%'/'('7,)2' '6*00,4/2',.)*')+%'4$',.'3,)+'6'$'/20,0'.5' %*8''%.5,.-',.'$'6,5'5%')+

+%' 51$'),*.'*&')+,0'5,0%'0%',0'/8*0)',.l' 5%&,.,)%')' %B)%.50' &$*8' 0,B' *$' %,-+)')*')3%/7%'*$'0,B)%%.'3%%90Ĥ,.'*.%'('0%'*&' R$' ' %.$2' $%%.<0',)'/'0)%5'%,-+)%%.'8*.)+0' +%' 6$*-$%00',0'7%$2'0)$,9,.-' +%'6'),%.)'0)%'5,/2' 41)'/8*0)',86%$(%6),4/2'/*0%0'0)$%.-)+'&/%0+' '.5' (*/*1$' ,)+'7%$2'&%3'%B(%6),*.0')+%' 5,0%'0%')%$%8,.')%0',.'5%')+'.5'01(+'6'),%.)0' '0'+'7%' $%(*7%$%5'3%$%'/%&)'705)+'6%$8'.%.)' +%')5,0%'0%

$ G .')+%'/%00' 0%7%$%')26%' *& 1/(%$')7,7%' %.5*('$5),0' A'0' ,.')+%' 8*$%' &'8,/,'$' 1/(%$0'*&')+%',.)%-18%.)0R' 6*$),*.0' *&')+%'.*1$,0+%5'5%-%.%$')%5' *$' /*3/2' *$-'.,0%5'&,4$*,5')001%' *&' (+$*.,(' 7'/71/'$' /%0,*.0' 4$%'9'5*3.',.'0%$,*10',86',$8%.)' *&)+%' -%.%$'/ +%'/)+',.' '(1)%' 5,0%'0%' '.5',.' *)+%$' 1.&'7*1$'4/%' (*.0),)1),*.'/0)')%0' A0%6 $' ' '6$' 3' 14>%()%5')*'(*.; 0)'.)'0)$',.'' .5',86')+%'1/(%$*10'01$&'(%0' %B)%.5' $')+%$')+'.'+%'/' %0)'4/,0+'*.' '.5' '$*1.5')+%8' '.',.($%'0,.-'-$*3)+'*&'7%-%)';),*.0''.5')+%0%'4%(*8%')+%' 0*1$(%'*&'81/;),6/%'%84*/,0 8' .'('0%0' *&')+,0'9,.5'.*' 8*$4,&,(' 8,($*'*$-'.,08 0' $%' 6$%0%.)Ĥ)+%' 5,0%'0%'$1.0' '' (*86($')7,7%/2' 0/*3' (*1$0%Ĥ '.5' $%(*7%$2' 8'2' *((1$' .')+%' '(1)%')26+*,5'/')26%'*&')+%' 5,0%'0%',)' '66%'$0')+')')$1%' (*.)'-,'' 5%$,7%5' &$*8' 0*8%' *47,*10' 0*1$(%' A)+%' 06$,8'$2'/%0,*.'<'<)'%)%$,.-')+%' 4/**5')/1*1-+'0*8%'1.9.*3.'(+'..%/' A0,5,*;6')+,('<'0%))/%' *.')+%'%.5*('$5,18'3+%)+%$ 6$%7,*10/2'5,0%'0%5'*$',.>1$%5n6*00,4/2'%7%.

3+%.',.)'()' +%'*$-'.,08 0'&/*1$,0+'*.')+,0' 0*,/'0+%5')+%,$'6$*51()0' ,.)*')+%'(,$(1/'),*.' '.5'6/'.)'%84*/,(' (/*.,%0'*&')+%,$'*3.'9,.5' '0' 81/),6/%'&*(,'*&' 5,0%'0%')+$*1-+*1)')+% 4*52' +,0'6$*(%00',0'.%(%00'$,/2'00*(,')%5' 3,)+'' 0%6),(%%8,''*&'' 8*$%' *$' /%00' 0%7%$% 9,.5'((*$5,..-')*')+%'.')1$%'*&')+%'*$-'.,08 0' '.5' %84*/,' *8%' 1)+*$,),%0' 5%.2')+')')+%'*$-'.,08 0' '$%')+%' %00%.),'/'(10%'*&')+% 8*$4,5'6$*(%00' .5',)' 810)'4%'(9.*3/%5-%5')/>')')+%'&1//'.5'(*86/%)%' 6$**&'*&')+,0'(*.; .%B,*.',0'.*)'2%)'%0)'4/,0+%5

& G *3')+')' 8'/,-.'.)' %.5*; ('$5,),0' +'0' 4%%.'0*' ('$%&1//2',.7%0),-')%5' ,)0'$%(*=,),*.'*1-+)'.*)')*' 4%' '))%.5%5'3,)+' 81(+'5,&&,(1/)2' +%' '(1)%' &*$8' +'0')*' 4% 5,'-.*0%5'&$*8')26+*,5'&%7%$' '(1)%')14%$; (1/*0,0''.5'*)+%$,.&%(),7%5,0%'0%0'4%/*.-,.-')*',)0' 3.')26%' +%'5,'-.*0,0'101'//2')1$.0' *.',)0'*00*(,'),*.'3,)+'0*8%'6$,8'$2'5,0%'0%' '.5'*.')+%'$%01/)'*&'' 6+20,('/'%B'8,.'),*.' *&')+%'+%'$)' .5')+%'(*$%()',.)%6%)'),*.'*&' .2'81$81$')+')'8'2'4%5,0(*7%$%5' 1/(%$')7%' %.5*; ('$5,),0' 8'2'%0('6%'$%(*-.),)*.' %6%')%5' $,-*$0')+%')26%'*&'62$%B,'')+%' (+'$'()%$' *&')+%'06*)0'.5')+%'*((1$%.(%'*&' $%),.'/ +%%8*$$+'-%0'3,/'&1$)+%$' 0%$7%')*'%B(/15%)26+*,5'&%7%$' .5')14%$(1/*0,0' +%.'5%; /,$,18' .5'*)+%$' (%$%4$'/ 0286)*80' '$% 1$-%.)' /(%$')7%'%.5*('$5,),0'+'0'4%%.'8,0;)'9%.'&*$0(%$%4$'/ $+%18')08'<'.5'0,86/% 8%.,.-.,)0

+%' 014'(1)%' .5'(+$*.,(' &*$80' '$% 06%; (,'//2'/,'4/%')*'4%'(*.&*1.5%5'3,)+''.184%$ *&'5,0%'0%0'3+,(+'6$%0%.)''0,8,/'$')26%'*& 62$%B,''6'$),(1/'$/2')+%'8'.2'6')+*/*-,('/ (*.5,),*.0'3+,(+'1.5%$/,% *40(1$% 6%$0,0)%.)' 62$%B,''01(+''0'/')%.)')14%$(1/*0,0Ĥ /286+; *8''Ĥ (+$*.,('01661$'),*.',.'(*..%B,*.'3,)+')+%' /,7%$'6$*0)')%'4*3%/I'9,5.%2',.)%$.'/ %'$'/J1.6+'),(-/'.50''.5'(*.%(),7%'),001%0Ĥ '.5''/0*'026+,/,0' +%%B,0)%.(%''.5'(+'.-% &)5'(+'$')(%$'*&')+%'81$81$')+%'0155%.'%8; 4*/,080''.5')+%'40%.(%'*&'*)+%$'/*('/'0,-.0' '/'.,5,(')%')+%'('$5,'('0%')'*&')+%'5,0%'0%' $*8'8'/'$,'',)'(.'/'4%'5,0),.-1,0+%'42')+% +,0)*$2'42')+%'40%.(%'*&'6%$,*5,(,)2',.')+% $,-*$0'.5'&%7%$'0'3%//'0'42')+%'('$5,'(' 81$81$

8%'&')+% -$'7%0)'(*86/,(',*.0'*&')+,0' &*$8'8'2'&*$''8*8%.)'4%'8,0/%'5,.-'01(+' '0'7,*/%.)'+%'5'(+%'%.5,.-',.'(*8''$%&%$; '4/%')*')+%'5%7%/*68%.)'.5'$16)1$%'*&'%8; 4*/,(',.)$'($'.,'/'.%1$208' B6%$,%.(%)%'(+%0'10')*'4%'6$%6'$%5'&*$'%7%$2'6*00,4/% 7'$,%)2'*&'02 86)*8'8''5,0%'0%'*&'3+,(+'' 0)$,9,.-'&%')1$%',0'7,0(%$'/%84*/,08 G +%'6$*-.*0,0'*&'(1)%'8'/,-; .'.)'%.5*('$5,),0',0'6$'(),('//2'+*6%/%00' .')+%'014'(1)%'&*$8')+%'6$*06%()'.0'41)'/,))/% 4%))%$' *3%7%$'(*.&,5.)'.5'(+%%&1/)+%6'),%.)'8'2'4%''),$0)')+%'5,0%'0%'3,/'01$%/2',&'/*3/2'%B+'10')+%'0)$%.-)+''.5'8'2'')' '.2'6%.*5'$'6 2'6$*7%'&')'/42'0*8%(*8; 6/,(',*.K' &')+>%)%86%$')1$%'&'//'.5'4%(*8%

/%0 $%8,))%.)',&)+%$,-*$ (%'0%' .5 6';
),(1/'$/2 ,& 3%,-+)' .5 0)$%.-)+ ,.($%'0%'
+*6% 8'2 4%-,.')+*' $,0%)+')+%* ('0% 3,//
6$*7% *.% *&)+% 7%$2 &%3 %B(%6),*.0' .5
1/),8')%/2 $%(*7%$ 1)+% 6$'(),),*.%$
8 10)*)&*$-%)+%6$%('$,*10 .')1$%*& 01(+
,8 6$*7%8%.)' .5')+%,.(*8 6/%)%.%00 *&)+%
$%(*7%$2 ')+%4%0)

G +% &',/1$% *& 7%$2 8% .0
& (1$%+,)+%$)' %8 6/*2%5',.' (1)% 8 /,-.' .)
%.5*('$5,),0 0%$7%0)* ,8 6$%00 *.' 10)+%
,8 6*$)'.(% *& 6$%7%.),7%)$%')8%.)' $'
.0*8 1$-%0)+% .%(%00,)2 *& 6$*)%(),.-')+%
014>%()0 *& (+$*.,(' 7'/71/'$ /%0,*.0 '-',.0)
C2).*),(' 5,0%'0%0 '.5' '/0*' *& '))%.5,.-',.'
)+%8' 3,)+' 06%(,'/ ('$%)*')+%)$%')8%.)' *&
01661$'),*.' +%.' 1/(%$'),*.' +'0 (*8;
8%.(%5')+% ('0% 8 10)' 4% 8'.'-%5'*.')+%
-%.%$'/ 6$,.(,6/%0 '66/,('4/%)*' ' ' '(1)%
06%(,&,(' &%7%$0)+% 4%0)' 6*00,4/% .1$0,.-'
'41.5'.(% *& &**5' .5' '' &$%% 0166/2 *&
0),8 1/'.)0 4%-.-'6$*7,5%5' $%0+2 ,$',0' %0;
0%.),'/ H'.5',&')+% 5,0%'0% 4%)$'(%5')*'0*8%
%$$*$ *& 0',)'),*.',)' 8'2 4% '57,0'4/%')*
)'9%)+%$,09',.7*/7%5',.'(+'.-,.-')+%$**8'
*$ %7%.')+% +*10%',.'3+,(+')+% 6'),%.)',0

" 43
-$%')'7'$,%)2 *& 5$1-0 +'7% 4%%.')$,%5'
,.'4*)+'&*$8 0 *&)+,0 5,0%'0%'1.+'66,/2 3,)+'
/,))/% 4%.%&,)',.(/15,.-' 8%$(1$,'/0' E1,.,.%
'.5')+)+%$'.),62$%),(0''.5')+% %00%.),'/ *,/0
*& %1('/26)10')1$6%.),.%' .5')+%,$'//,%0'
3*8%)+*50 '$% $%6*$)%5')*' +'7% 4%%.''');
)%.5%5'3,)+'01((%00 ,.''' &%3',.0)'.(%0 *&)+%
(+$*.,('&*$8')+% 01/6+*('$4*/')%0 *& 0*5,18'
,.)$*51(%5'42 $' .0*8',.'"!-$',.'5*0%0
&*1$),8%0 '' 5'2'.5' E1,.,.%',.' F -$',.'
5*0%0)+$%%),8%0 ''5'2'3,)+'' &$%%' //*3'.(%
& '/(+*/ A,.')+% &*$8 8*0)'-$%%'4/%)*')+%
6'),%.)R'3+,(+',0 $%(*88%.5%5'42 $*&%00*$
$'%.)C%/ *& %$/,.

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H %$'

& # 6 " - * * $ '$-'! '5 '$-'
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+,0 5,0%'0% 8'2 4% %,)+%$ '(1)% *$
+$.,(H 41)+% /'))%['&*$8'3+,(+',0 ');
)%.5%5'3,)+')+% &*$8'),*.' *& &,4$*,5'),001%
,.')+% 82*('$5,18',0 5%0($,4%5'1.5%$')+%
+%'5'*& # ,4$*,5' ,0% '0% *& ' 20%8,('
,.&/'88'),*.' *&)+% 0140)'.(% *&)+%' +%'$)'
'/0*' (*.0),)1)%0 0*' 06%(,'/ '' &*$8' *& 5,0%'0%'
)+')',)' ,0')$%')%5' 0%6'$')%/2' ' #
2)%8,(' 40(%00' *&R' (1)% 82*('$5),0'
'/*.%')+%$%&*$%'+'0')*' 4%' (*.0,5%$%5',.')+%
6$%0%.)' '$),(/%

G '(%$)',.''8*1.)' *& 82*('$;
5,),0',0' 0*8%),8%0' 00*(,')%5'3,)+' '(1)%.,;
5*('$5,),0'.5'6%$,('$5,),0''.5'5%6%.50'16*.'
)+%' 0'8% ('10%0H)+% 8*0)' &$%E1%.)' 4%,.-'
'(1)%' $+%18'),08' .'a'08'// 6$*6*$),*.'
*& *'0%0' $+%18'),(' 82(10'$5,),0' 66%'$0')*'
*((1$',.5%6%.5%.)/2 *& 8&/'88'),*.' *&)+%
+.,.-'*$*& *&')+% (*7%$,.-'8%84$'.%' .')+%
-$%')'8'>*$,)2 *& $%(*$5%$*'0%0' *& /*('/,0%5'
82*('$5,),0'%.5,.-',.' + # ')+% ('10%' *&
)+%' 5,0%'0%' 3'0' '/)*-%)+%$' *40(1$%')'+'0'
4%%.'*40%$7%5' 8*0)' &$%E1%./2',.' 8'/%0''.5'
4%&*$%')+%')3%.)2 &,&)+'2%'$'*& +&%' B6*01$%')*'(*/5'0%7%$%' %B%$),*.'''.5'/*('/',.>1$2''$%
8%.),*.%5'' 8*.-0)' %B(,),.-'('10%0' 41)'3,)+'
E1%0),*.'4/%(*$$%().%00

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+%' *$5,.'$2 &*$8' *&)+% 5,0%'0% ,0' (+';
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4%)3%%.')+%' 8 10(1/'$ &,4=0' *&)+% +%'$)'
.' *.%' (/'00' *& ('0%0')+% 8&/'8 8'),*.',0'
8*5%$')%',.',.)%.0,)2 41)' ,'%B)%.)'
'&&%(),.-'*.%'*$ 8*$%'/'2%$0' F& 8 10(/% 1.5%$;
/2,.-')+%' %.5*('$5,18' *$)+9'6%$,('$5,18'
3+,(+',0' /0*',.&/'8%5H ,.''.*)+%$' (/'00' *&
('0%0')+%',.&/'88'),*.',0' 8*$%c'(),7%''.5'
6$*(%%50')*')+%&*$8'),*.'*& '40(%=' 3+,/0)',)'
'0' '$1/%'(*86'$'),7%/2' e
.')+%' &,$0)' *$ 5,&&10%5' &*$8' &&(% 82*;
('$5,18' '0',)',0' 0%%.')+$*1-+',0' ,.&/'8%5'
(*7%$,.-' '66%'$0' *& '' 8*))/%5' /*6'E1%'
+1&&2 (*/*1$' .5',0' 0*8%3+')'03* =' '.5'
0*&)%.%5' +%' 8,($*0(*6,('/ (+'$')()%$=(*.'
0,0)(+,%&/2',.')+%' 66%'$'.(% *& /%1(*A I'
'.5',.&/'88')*$2 %&%,0,*.',.')+%',.)%.'10'
(1/'$ (*.%(),7%),001%H 03%//,.-' *6'(,)2'
.1(/%'$ 6$*/,&%$'),*.' ''.5' $16)1$% *&)/0%'
810(1/'$ &,4$%0'&*//*3%5' 42'&')2 5%-%.%$'c
),*.''.5')$*6+2*&')+% 0'8%H '.5')+% *$5, K
.'$2',.&/'88')*$2 (+'.-%0' *&)+% 7%00%/0' *&'
)+%6'$)' %2*.5')+,0'0)'-%'1./%00')+%('0%'
6$*7%&')'/')+% 5,&&10%5'&*$8' *& 82*('$5),0'
6'00%0' .)*''(+$*.,(' (*.5.),*.H '.5',)'%.50'
%,)+%$',.' &,4$*,5' 5,0%'0%' 3,)+' ' 8*5%$')%'
'8*1.)' *& ')$*6+2' 42' 5%7%/*68%.)' *& ')+%
,.&/'88')*$2 6$*51()0' '.5' (*86$%00,*.' *&'
)+%' &&%()%5'&,4$%0H ,.'&')2 5%-%.%$'),*.H ,.'
('/(,&,(',.*.H *$',.'('$5,'('.%),$208

1661$'),*.' *&)+% +%'$)' *.')+%)+%$'
+'.5' -%.%$'//2')'9%0')+%' &*$8' *& 03*//%.'
2%//*3,0+3+,)%' 6')(+%0' *$' 40(%00%0' 01$;
$*1.5%5' 42'5,$)2 $%5' *$ %((+28*0%5'),001%'
4*--2' *$' 61/62')*')+%&,.-%$'.'5'(*.)',,,.-'
.' 0%(),.' '' 08'// E1'.),)2' *& 7'$,*10/2'
(*/*1$%5' 61$,&*$8' 8'))%$'(*.0,0),.-' *& 610'
.'5' 810(1/'$ 5%4$,0' .')+%' 0'8%' ('0%0' '
-$%')' 6'$)' *&)+% 3'//0' *&)+% +%')' 8'2' 4%'
,.''(*.5,),*.' *& 6'$%.(+>..')*10' 5%-%.%$';
),*.H '.5',.' 0*8%' $%(*$5%5',.0)'.(%0)+%'
3+*/%' *&)+%' ('$5,'(',)001%',0' 5%0($,4%5'' 0',.;
&,/)$')%5'3,)+' 610' 40(%00%0' $%01/),.-'&$*8'
'(1)%/*('/,0%5'82*('$5,),0' $%-%.%$'//2'7%$2'
08'//'7'$2,.-'&$*8')+%'0,C%'*&''6%'')*')+')
*&''.1)' +%2'8'2',)+%$' 41$0)' %B)%$.'//2'
,.)*')+%' 6%$,('$5,'/ 0'(' *$',.)%$.'//2',.)*'
*.%' *&')+%' ('7),,%0' *$')+$*1-+'*.%' *&')+%
7'/7%0'/%'5,.-')*'62'%8,''.5')*')+% &*$8';
),*.'*&'.'(1)%' ('$5,'(' .%1$208H *$')+%
610' 8'2' 8'9%',)0' 3'2'4*)+' %B)%$.'//2'.5'
,.)%$.'//2''.5'/%'5')*'&')'/+'%8*$$+'-%,.)*

'/8*0)' %B'()' $%0%84/'.(%')*'+%'(*.5,),*.'*&'
)+%'*$-'.',.')+%')1$)/%'.')+%')1$)/%')+%$%'
'$%')3*'**$),(7%.)$,(/%0'.5'*.%'61/8*.,(
7%.)$,(/%H)+%'$,-+)'**$),(.5')+%'61/8*.,(
7%.)$,(/%'4%,.-')+%'.'/*-1%0'*&')+%'0,.10'
.5',.&1.5,41/'$'6*$),*.'4&')+%'$,-+)'7%.)$,(/%'
.5'4%,.-',.'(*.%B,*.'3+,/%')+%'/%&)'**$),(
7%.)$,(/%',0'5,0),.()'

1(+'8*$%'$'$%/2)+%$%'+'0'4%%.'&*1.5'
'.'%.),$%'*4/,)%$'),*.'*&')+%'*$,&,(%'*$')$1.9'
&')+%'61/8.'$2''$)%$2')+%'&,$0)'('0%'*&')+,0'
5%0($,6),*.'*&'.'*8'/2'+'7,.-'/0*'4%%.'
614/,0+%5'42'$78)%$')')+%'0'8%),8%'
'0')+%'&*$8%$'('&%'1(+'8*$%'$'$%/2''/0*
'7%.)$,(/%'+'0'4%%.'&*1.5',.'
*40)$1(),*.'*$'*4/,)%$'),*.'
.,(1/*7%.)$,(1/'$')+%'/%&)'
/'$'*$')+%''*$),('6%$)1$%'
,8'*&')+%'7%.)$,(/%0',0',.;
&%()'-%.%$'//2'%B,0)0''$')+%'
3+,(+'+'0'4%%.')%$8%5')+%'
H%G)+%'06'(%'3+,(+',.)%$'
+%'(*.),-1*10'0,5%0'*&')+%'
0%8,/$8'$'0%-8%.)0'3+%$%'
)+%'8 10(/%',0'.')1$''//2'5%'
,+,0'3'2''(*..%B,*.'8'2'
/%'/%&)'7%.)$,(/%''.5'$,-+)'
/%'%,)+%$',8 8%5,')%/2'4*7%'
)''1$,*1/*7%.)$,(1/'$'*6%.'
2')+%'0%6)18'4%)3%%.')+%'
)+%'(*.10'')%$,*010')+%'
†5%&%(),7%H''.5')0,'8*$%'
%'%B,0)0''')''/*3%$'6')$'*&'
).%'0%6)18'8%'6*$),*.'*&')+%'0%6)18'
5,7,5,.-')+%'/%&)'7%.)$,(/%'&,*8')+%'0,.10'*&'
)+%'$,-+)',0')%$8%5'42'U*9,)'.092')+%'6*0;
)%$,*$G)+')'4%)3%%.')+%'/%&)'7%.)$,(/%''.5'
(*.10'')%$,*010')+%''.)%$,*$'0%6)18'),)+'
)+%'5%&%()0'.*3'8%.),*.%5')+%''1$,(1/'$'
0%6)18'8'2''/0*'4%',.(*86/%)%'*$')+%'&*$';
8%.'*7'/%'8'2'4%'0),'*6%.'*$')+%'51()10'
')%$,*010'6%$7,*10'.5%%5'3+%.')+%'61/;
8*.'$2''$)%$2',0'81(+'(*.)$')()5'*$',8;
6%$7,*10'*.%<)*)+%$'*&')+%'&*$8%$'(*.5,),*.0'
.%(%00'$,/2'%B,0)0''.5')+%'51()10'')%$,*010'
4%(*8%0')+%'8%'.0'42'3+,(+')+%'4/**5',0'
(*.7%2%5')*')+%'/1.-0')+*1-+'((')%5'.'//2'
)+%$%'('$%'(*86%.0')*$2'4$'.(+%0'5%$,7%5'
&$*8')+%'**$)''*$*.%'*&')+%'/'$-%'7%00%/0''/0*'
5,0)$,41)%5')*')+%'/1.-0

+%')$'.06*0,),*.'*&')+%'**$)''.5'61/;
8*.'$2''$)%$2''/0*'((1$0''/')''.'%'$/2'6%$,*5'
&'&%)'/',&%'+%'&,$0)'('0%'*&')+%'9,.5'$%;
(*$5%5'3'0'$%/')%5'42'$'',//,%',.'MPMH
)+%'06%(,8%.',0'&,-1$%5',.'+,0'6/')%0''.5'
0),//'%B,0)0',.')+%'810%18',.')+%'6*00%00,*.'
*&')+%'U*2'/'*//%-%'*&'+20,(,'.0'.')+,0'
'.*8'/2')+%'0%6)18'*&')+%'7%.)$,(/%0',0'-%.%;
$'//2'5%&%(),7%''.5')+%')3*'&*%)'/'6'00'-%0'
6%.''.5')+%'$-'.'8'2',.5%%5'+%'7%$2'5%;
&%(),7%',.'(*.&*$8'),*.'+%'*$)'/0*',0'
&)%.'8,06/'(%5',.')+%'(+%0)'.)+%$'&*$8'
*&'5%&%()',0'+')',.'3+,(+')+%'5%0(%.5,.-'
'*$)'',0'-,7%.'*&&,&*8')+%'61/8*.'$2''$)%$2'
)+$*1-+')+%'51()10'')%$,*010'+,0'*.5,;
),*.',0''66'$%.)/2')+%'$%0)'*&',86%$&%()'5%;
7%/*68%.)'*&')+%',0)+810'*$)['4%)3%%.')+%'
*$,-.'*&')+%'/%&)'014(/'7,'.'')$%$2'.5')+%'
6*,.)'*&'%.)$'.(%'*&')+%'51()'0*')+')'.'
'5%E1')%'0166/2'*&'4/**5'('.*)'4%'(*.7%2%5'
&,$*8')+%'0(%.5,.-',.)*')+%'5%0(%.5,.-'*$)''
%.%$'//2')+%'(*.5,),*.'(*%B,0)0'3,)+'5%&%()'
&')+%'0%6)18'&')+%'7%.)$,(/%0''0',.')3*'
('0%0'&*$8%$/2',.')+%'6*00%00,*.'*&',$'0)/%2'
**6%$'.5'.*3'(*.)',.%5',.')+%'810%18'
*&')'+*8'0<0'*06,)''/'5%0($,4%5'42'$'
'$$%',.'?'.'0*8%'80)'.%%0'*&')+,0'
9,.5')+%'6*$),*.'*&'*$)''4%)3%%.')+%'/%&)'
014(/'7,'.'')%$2''.5')+%'51()',0',86%&*;
$')%''.5'2%)',.'*)+%$0''0',.''('0%'$%/')%5'
42')%,5%%'.5'$%&%$$%5')*'42'%,.',.'?D'
)+%$%',0'.*'(*..%B,*.'4%)3%%.')+%')3*'6*$;
),*.0'*&')+%'*$)''')+%'0(%.5,.-'6'$)'-,7,.'
&&')+%'7%00%/0'')+%'+%'5'.5'166%$'%B)$%;
8,),%0')+%'5%0(%.5,.-'6*$),*.'4%,.-'3+*//2'
5%$,7%5'&,$*.')+%'6$658*.'=''$)%$2'+,0'
&*$8'*&'5%&%()',0'(/*0%/2'//,%5')*')+%'(0%0'
3+,(+'$%'**%'0,*.'2'0%%.')'&)%$/,)%$',.'
3+,(+')+%$%',0'(*.0)$,(),*.'*$'*4/,)%$'),*.'
&')+%',0)+810'')$)['4%2*.5')+%'/%&)'014;
(/'7,'.'')%$2')+%'(,$(1/'),*.'4%,.-'8',.;
')',.%5')+$*1-+'(*//')%$'/'(+'..%/0
+%')+,$5'(/'00'*&'('0%0'(*.0,0)0',.'
)+%'6$%8')1$%'(/*01$%'*&')+%'&*$'8%.'*7'/%H
$')+%'..5%7%/*68%.)'*$'5,0'66%'$'.(%''
.'%'$/2'6%$,*5'&*%)'/'/,&%'<-')+%'51()10'
')%$,*010H'*$',.'5,0%'0%5'(*.5,),*.0'*&'+%
7'/7%0'3+,(+'6$%7%.)'))&'%+%')'1.5$%-*,.-'
)+%'(+'.-%0'3+,(+'0+*1/5'%.01%'&)%$'4,$)+
+%'&,$0)'(*.5,),*.',0'*&'7%$2'$'$%'*((1$;
$%.(%'+%'&,$0)',.0)'.(%'$%(*$5%5'3'0'$%/')%5'
42',%100%.0',.'MF'.')+%0%'('0%0')+%'
4/**5'51$,..-'&*%)'/'/,&%'4%,.-''//')$'.08,))%5'
)+$*1-+')+%'$,-+)'('7,),%0''.5')+%'61/8*.''$2'
')%)$2'.5I'51()')+*0%'6*$),*.0'*&')+%'+%')$)'
'$%'1.51/2'5%7%/*6%5'3+,/%')+%'/%&)'0,5%'*&'
)+%'*$-.'4%(*8%0')$*6+,%5'.')+%'0%(*.5'
(/'00'*&'('0%0')+%'+%')$',0'5%&%(),7%/2'5%7%;
/*6%5''.5')+%'$,-+)'7%.)$,(/%'-,7%0'*$,-,.')*'
)+%''*$)''.5'*&)%.'//0*'7%00%/0''$%'5,0)$,;
41)%5'&,$*8')+%'*$)'')*')+%'/1.-0'3+,/%')+%'
$5,.'$2'61/8.'$2''$)%$2'8'2'4%7%$2'08'//
,.'0,C%'*$'8'2'4%%.),$)%/2'40%.)'.''('(%
&')+,0'9,.5'5%0($,4%5'42'$'U'804)+'8'
)+%'61/8*.'$2')%$2',0'0',5'.*)*)*'%B,0)H
41)'42'%B'8,.'),*.'*&')+%06%(,./%.'6$%0%$7%5'
,.')+%'*.5*.'*06,)'/'10%18')+%'3$,)%$'
+'0'0(%$)',.%5')+')',0',0'.*)'(*$%()'+%
'$)%$2'%B,0)0''0''7%$2'08'//'7%00%/'41)')+%
0('.)2'0166/2'*&'4/**5')*')+%'/1.-0'3+,(+',)'
&1$.,0+%5'3'0'(*.56/%8%.)%5'42'08'//'7%00%/0'
&,$*8')+%''*$)''.'('0%0'3+,(+''$%'.*)*&'
1.(*88*.'*(((1$%%.(%''.3+,(+'5%)%$8,.%0')+%',86%$;
3,)+')+%'8'/&*$8')3.0'.*3'06*9%.'*&'41)'
3+,(+''$%'(/*0%/2'=%5')*')+%'.%B)'(/'00'
)+%$%'%B,0)0'0*8%'0*1$(%'*&'*40)$1(),*.')*')+%
)$'.08,00,*.'*&')+%'4/**5'&,$*8'*$',.)*')+%
$,-+)'7%.)$,(/%'3,)%$'(/*01$%'*&')+%'&*$'8%.'
7'/%'$')+%'6')%.(2'*&')+%'5()10'')%$,*010'
+%'*4;
0)$1(),*.',.')+%0%'('0%0'-%.%$'//2'5%6%.50'*.'
5,0%'0%'*&')+%'61/8*.,('7'/7%0'*$*40)$1(),*.

U ' U ' U ' U ' ?"F

U ' *$4,5' $*3)+0',. G +%
7'$,*,/ ' &*$80' *&' 8*$4,5' -$*3)+')+')' +'7%'
4%%.' 8%)' 3,)+' ,.')+%' +%'$)' 8 '2' 4%')+10'
%.18%$')%5',.')+%' *$5%$*&')+%,$' &$%E1%.(2'
A ₹ '/,-.'.)'5,0%'0%H A@₹ 286+ 8')*10'*$
/286+'5%.*8')*10' -$*3)+0H' A"₹ *. 8'+-'
.')')18*1$0H' .5' A ₹ 20)0' ,4$*,5'
-$*3)+0' 026+,/,),(' -188')'' '.5') 14%$(/%'
'0' 3%/' '0' +25'),50' '&&%(),.-')+%' +%')' '$%'
5,0(100%5' 0%6'$')%/2' 1.5%$')+%,$' $%06%(),7%'
+%'50' '/('$%*10' ('$),/'-,.*10' '.5'
*00%*10' (+'.-%0' *&')+%' 82*('$5,18' '$%'
.*),(%5',.')+%' '$),(/%) %-%.%$';
),*.0'*&

' '/,-.'.)' ,0%'0%'*&')+%' %'$) G
'.(%$' '/)+*1-+')+%' 8*0)' (*88*.'*&')+%'
.%3'&*$8')*.0'&*1.5',.')+%'+%'$)',0'0) /
7%$2'$'$%',.')+,0'0,)1'),*.'.5',0''' 014>%()'
(+,%&/2'*&'6')+*/+-,('/',.)%$%0)
= ,*)* G '/,-.'.)' 5,0%'0%'*&')+%'
+%'$)',0'3,)+'7%$2'&%3'%B(%6),*.0''/3'20'
0%(*.5'$2H'.5')+%' 6$,8'$2'-$*3)+' 8'2'
+'7%',)0' 0%')',.''.2'6')' 3+')%7%$'*&')+%'
4*52' (('0,*.'//2')+%'+%'$)'4%(*8%0',.;
7*/7%5' 42'(*.),.1,)2')+%'/1.-0'.5'8%5,;
'0),.18'4%,.-')+%' 0%')'*&')+%' 6$,8'$2'
5,0%'0%' '0%0'+'7%'*((1$$%5''')'/'6%$,*50'
*&'/,&%'&$*8',.&'.(2')*'*/5''-%H 41)')'/%'0)'
.%+'/&'&')+%' 014>%()0'+'7%' 4%%.',.')+%'
8,55%'6%$,*5'*&'/,&%' +%' 5,0%'0%'+'0'4%%.'
8*0)'&$%E1%.)/2'&*1.5',.'8'/%0

! ' $' G '$(,.*8'*'%6,;
)+%/,*8'*' '.5' 0'$(*8'*' ,.(/15,.-'(*//*,5'
('.(%$' '.5'8%/'.*0,0'+'7%' '/'4%%./'&*1.5'
,.')+%' +%'$)' ,.' 5,&&%$%.)' ,.0)'.(%0' .2'
6'$)'&')+%'*$-'.'8'2'4%' '&&%()%5''.5')+%'
$,-+)'0,5%' '66%'$0')*' 4%'8*$%'&$%E1%.)/2'
,.'7'5%5')+'.')+%'/%&)H 41)')+%'5,0%'0%',0'
-%.%$'//2' 81/),6/%' +%' 8*$4,5'-$*3)+'
101'//2'6$%0%.)0',)0%/&'16*.'%,)+%$'*&')+%'
01$&'(%0'*&')+%'+%'$)'$')+%$')+'.',.')+%'
0140)'.(%'*&')+%'82*('$5,18' .')+%0%0,)1';
),*.0')+%$%'8'2'66%'$'*.%'*$'8*$%'8'00%0'
*&'8'/,-.'.)'5,0%'0%'3+,(+'0''!$1/%' '$%'
%'0,/2'5,0)8-1,0+%5'&$*8')+%'('$5,'(')001%'
'$*$85'.'5'3+,(+'6*00%00')+%' *$5,.'$2'
(+'$')()%$0'*&'01(+'&*$8')',*.0''((*$5,..-')*'
)+%,$' $%06%(),7%' 9,.50' %.(%6+'/*,5'4%,.-'
)+%'8*0)'(*88*.''.5'%6,)+%/,*8'!'42'&'$'
)+%'8*0)'$'$%' .2'5,&/,(1/)2',.')+%'$%(*-;
.,),*.'*&')+%'5,0%'0%',0'$%8*7%5'42'0%(),*.'
'.5'8,($*0(*6,('/'%B'8,.'),*.' +%'%B)%.)'
*&'('$5,'(' 3'/'/,.7*/7%5'42')+%' -$*3)+',0'
0*8%),8%0' -$%')' +%.')+%' 8'00%0'*&'
8'/,-.'.)' 5,0%'0%'6$*>%()'%B)%$.'//2')+%2'
'$%'&$%E1%.)/2'!00*(,')%5'3,)+'6%$,('$5,),0'
'%,)+%$'/*('/'*$'-%.%$'/' $*8,.%.)'.*51/%0'
,.')+%',.)%$,*$'*&')+%'+%',H)'8'2'('10%'/*('/'
%.5*('$5,),0H''.5',.'*)+%$',.0)'.(%0')+%'
7'/7%0'.5')+%,$'66%.5'-=' 8'2'4%'0*',.;
7*/7%5')+')',.(*86%)%.(%'$%01/)0' .'7%$2'
$'$%'('0%0'8'J.'.)'5,0%'0%'*&')+%'+%')'
6$*(%%50')*'1/(%$'),*.' :

!(! G &')+,$)2 0,B'%80%0'*&'8'/,-;
.')'5,0%'0%'*&')+%'+%')'&&,)%'+,0)*$,%0'*&'
3+,(+'3%$%'(* %()%5'42',$' ,(+'$5'X1',.

S # "'O< # ',.')+,$)2'.*'02886)*80'
3%$%'6$%0%.)'*$')+%2'3%$%'.*)'$%(*$5%5' .'
.%'&')+%'$%8',.,.-'0,B'*'0%0')+%'014>%()'*&'
)+%'5,0%'0%G'' 8'.'*&')+,$)2 0%7%.'',.'3+*0%'
+%'$)''0,.-/%/'$-%'8'00'*&'%.(%6+'/*,5'('.(%$'
3'0'&*1.5' G+'54%%.'014>%()')*'
'))'(90'*&%B($1(,'),.-'6',.',.')+%'6$['(*$5,'/'
$%-,*.'5206.*%''6'/6,)'),*.''.5'7*8,),..-H
'.5'5%')+'*((1$$%5'0155%./2' ',.',.')+%'
(+%0)''.5'*66$%00,*.'.*)'$%&%$'4/%')*'*)+%$'
('10%0''$%'$%(*$5%5',.')3A= *)+%$'('0%0H',.'
)+%'&*1$)+'('0%')+%$%'3%$%'=.-,.'/0%,C1$%0'
.'('.(%$'*&')+%'+%'$)'06$%'5,.-'&$*8')+%'
8%5,'0),.18'*$/1.-0'5206$=(%''(*1-+''.5'
6',.'$%'.%(%00'$,/2'&$%E1%.)'0>286)*80
,)+'$%06%()')*')+%'6+20,('/0,-.0'*&'
8'/,-.'.)'5,0%'0%'*&')+%'+%'$)')%.5%$.%00'
.'6%$(100,*.''*7%$')+%'6$9%%$5,'c,.'00*(,';
),*.'3,)+'/*('/'6',.R'6%$,('$5,''&$,(),*.'
'.5'%.5*('$5,'/81$81$0'51%)5',.7*/7%;
8%.)'*&')+%'7'/71/'$'66'$')10',.'/,+%'.%3'
-$*3)+''66%'$')*'4%')+%'*./2'6+%=8%.''
)+')'+'7%'4%%.'06%(,''//2'*40%$7%5'
*1 = +%'5,0%'0%'.')1$'//2'%.&&0',.'
5%')+H'.5',.'8*$%')+'.'*.%',.0)'.(%0)+,0'
)%$8,.'),*.' 3'0' 0155%.' '.5'6%$+'60'
5,$%()/2'51%')*')+%''&&%(),*.'*&')+%'+%'$)
& G +,0'(*.5,),*.'+'0'6$*4'4/;
.%7%$'4%%.'5,'-.*0%5'51$,.-'/,&%' +%''6c'
6%'$'.(%'*&')$1%'('$5,'(''6',.''*$'*&''.2'*&'>
)+%'6+20,('/'0,-.0'>10)'8%.),*.%5',.')+%'
(*1$0%'*&''('0%'*&'('.(%$'3*1/5'+*3%7%$'
4%'0)$*.-'%7,5%.(%')+')')+%'+%'$)'3'0'
0%(*.5'$,/2',.7*/7%5

B & ; !') * '$-' * 3 '
7 '$-' ! '!) ' #) '" * 7' $'
! ') ! -' $-' "' "*/$*' ! ' * "' +'
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* '$-'#)7 #7) '-)$*' $!)' # 4
G' 286+*8''*&')+%' %'$) G "*'
/!$* <4'$)' "*/! 7 $* $4 3)$5 !'
! .'+ '*' 5 !' ' !' !) ' ' .) '
' 5!#!' ! '7 '5 '3) '+4'
! ' -- # $'$-' !' $)3 '# $'+ ' 7' $'
! . "'# # '*/$) #
"' 5. '/,-.'.)' 18*1$0'*&')+%'
%'$) G +%0%'-$*3)+0' '$%' '/0*' *&'61$%/2'
6')+*/*-,('/',.)%$%0)''.5''$%'*8*.-0)'+%'
7%$2'$'$%0)'*&'8*$4,5''66%'$'.(%0',.'(*.;
.%B,*.'3,)+')+%' +%'$)' +'7%'
4%%.'$%(*$5%5''0',.0)'.(%0'*&')+,0'(/'00'*&'
5,0%'0%0' S '/2,.-'1.5%$')+%'%.5*'
'$5,8.''$%'$%&%$%5')',')+%''$),(/%' '
'))2' $*3)+'*.
20)0'*&')+%'%'$) G !' $##4)>
) # '$-')4' #" ' ' !' *"$#)74*'
6!"7 7' + # '! * $* ' 7 $->
3'34**' +3' =#477' '7$4+-4
' ' $$' 0 %'

U ' '/6,)'),*.''*& G '' $'
6 "' ')/H %$'P "
& # G=4.*$8'/8*7%8%.)'*&')+%'
+%'$)' 3,)+*1)'66$%(,'4/%0)$1()1$'/%0,*.H
)+%'8*7%8%.)'&$%E1%.)'*$')18 1/)1*10'7'$2;
,.-',.')*.%''.5'&*$(%

Y J

* $ G +%
('10%*&'6'/6,)',*.'.0'.'*7%$ 0),81/'),*.'*&
)+%' %B(,)'4,/,)2'*&')+%' 810(1/'$' 0)$1()1$%'*&
)+%'+%'$)',.51(%5'42'&1.(),*.'/'%$$*$0'*&')+%'
('$5,'(' -'.-/,'' '.5'*&')+%' 7'-10' 8*$%' %0;
6%(,'//2')+%' 5%6$%00*$.%$7%' 6$*(%%5,.-'
&$*8',)0')$1.9'*$*&')+*0%'*)+%$'.%$7%0'3+,(+'
6$*(%%5,.-'&$*8')+%'-'.-/,''*&')+%'-$%')'028
6')+%),('0166/2')+%'+%')$)Ĥ ,)'4%,.-'4*$.%',.'
8,.5')+')')+%' ('&5,'(' (%.)$%',.')+%' 8%51//''
,0'014>%()'*',86$%00,*.0'(* %B,0)%.)'3,)+')+%'
3+*/%'.%$7*10'020)%8' '.5')+')'+%0%'%$'
)$'.08,))%5'42')+%7'-10'*$'0286')+%),(')*')+%'
+%')$)')',0')+%$%&*$%''')$1%'.%1$*0,0' +%'
5,0*$5%$%5''(),*.'*&')+%0%'.%$7%0'8'2'4%',.;
51(%5'%,)+%$'=$%()/2'42'52.'8,('*$'52.'8,('
('10%0'*$'42'$%&/%B''(),*.Ĥ 41)',.'%,)+%$'('0%'
)+%'6+%.*1+%.''' '0'$%-'$50')+%'+%')$)'$%')+%'
0'8%G.'6,%/2')+%'8*$4,5''(),7,)2'*$',$$%-1;
/'$,)2',.'' .*$8'/&1.(),*.''.5'3+,(+'810)'
4%'+%$%='(*.0,5%$%5' '0',.5%6%.5%.)'*&' .2'
'((*8 '12,.-' *$-'.,('/%0,*.' .'52.'8,('
'.5'$=%B'6'/6,)','.')+%'-%.%$'/4/**5'6$%0;
01$%')+10'$%01/),..-',0',.&/1%.(%5'6'$)/2'42'
6%$,6+%$'/ $%0,0)'.(%'41)'8''./2' 42')+%'
)18 1/)1*10',.($%'0%' ,.')+%' +%')$)<0' (),*.'
% /%00%.%5'51$'),*.'*&')+%'8 5,'0)*/%' '5'
W3$0%/2'5%)%$8,.%0'&,$0)')+%'6%$,*5'*&'$%0)Ĥ
0%(*.5/2')+%'$%($1,),.-'*&')+%' .%$7% 6*3%$'
,*&')+%' +%')$)'42'/%00%.,.-')+%' .*1$,0+8%.)'
'&&*$5%5')*',)0'-%.%$'/0)$1()1$%')+$*1-+')+%'
(*$*.'$,%0Ĥ '.5')+,$5/2')+%'0),81/10''&&*$5%5'
42'' 5%&,(,%.(2',.')+%' 51%' 8*1.)'*&'4/**5'
0166/,%5')*')+%'7%.)$,(/%0' 0')+%'7'$,'4/%.%00'
*&')+,0'51$'),*.',0'8%'01$%5'42')+%'$%(1$$%.(%
&')+%'020)/%'A5%&,.%5''.5'1.,&*$8''0'$%-'$50'
),8%R')+%'$%/'),7%'&$%E1%.(2'&*$(%''.5')*.%'*&'
)+%' 61/0%0)$*9%' 4%(*8%,8 6*$)'.)'%/%8%.)0'
,.')+%' '66$%(,'),*.''*&')+%0%'&*$80'*&'&1.(;
),*.'/' 5,0)1$4'.(%' .')+%' '52.'8,(' &*$8'
)+%' 6'/6,)'),*.',0' 8',./2',.&/1%.(%5'42'.'
,.($%'0%',.')+%' 6%$,6+%$'/ $%0,0)'.(%'%&&%()%5'
42'8*$4,5''(),*.''&')+%' 7'0* 8*)*$'020)%8'
'.5'%7,5%.(%5'42''' 8'$9%5'5%&,(,%.(2'*&')*.%'
'.5'&*$(%',.')+%'4%')

+%' "0''.5'("0'('10%0'*&
6'/6,)'),*.'*&')+%'+%')' '$%'7'$,*10' +%'
(+,%&' /"0'('10%0''$%')*'4%'&*1.5',.'
)+%' .%$7*10''.5'%B(,)'4/%')%86%$'8%.)0Ĥ
-%.%$'/5%4,/,)2Ĥ ,.' .,),*.Ĥ 6+20,('/ 5%6$%0;
0,*.'Ĥ %B+'10),*.'3+%)+%$'4*5,/2'*$'8%.)'/Ĥ
%'$/2'-%Ĥ +20)%$,'Ĥ 7%.%$%'/ %B(%00%0Ĥ '.5'
,.'5%)%$,*$'),*.'*&')+%' 4/**5''0'*((1$0',.'
-*1)'0(1$72'(+/*$*0,0'*$'06'.0%8,'' 8*.-0)'
)+%' ("0'('10%0' 8'2'4%'(/'00%5'7,*/%.)'
%B%$(,0%Ĥ 8%.)'/ 0+**9' %8*),*.' '.5' ''
&*$80'*&' 0155%.'%B(,)%8%.)'*&')+%' .%$7*10'
020)%8Ĥ %B6*01$%')*')**/*3''')%86%$')1$%Ĥ
5,00,6'),*.Ĥ ,.>1$,*10''$),(/%0'*&' 5,%)Ĥ '.5'
5206%60,'

!(! G .')+%' 52.'8,%' '.5' $%&/%B'
&*$80'*&'0,86/%'6'/6,)','.')+%$%' 8'2'*((1$'
A8Ĥ '' 0,.-/%''(),*.Ĥ *$'A<Ĥ '' 0%$,%0'*&''(),*.0'
3+,(+' 8'2'4%(*8%' 6$*/*.-%5''.5'*&'01(+'
'' (+'$')(%$'0')*'4%' %0)%%8%5' (+$*.,(' +%'
0,.-/%''4.*$8'/ 4%')'.*)',.&$%E1%.)/2'*((1$0
51$,.-'''&,$0)'0/%%>6''.5')+%'6'),%.)',0'3'9%.%5'
42''' (*.0(,*10.%00'*&',)' /%%6'8'2')+%.'
$%)1$.''.5')+%'))'(9'0140,5%'3,)+*1)'*)+%$'
,.(*.7%..,%.(%Ĥ *$',)'8'2'4%''00*(,')%5'3,)+'
'' &%%/,..-'*&'3%,-+)'&1/.%00''.B,%)2'0,.9,.-'
$'%7%.'6',.'&')+%' 6$0%(*$5,''' *$%'&$%;
E1%.)/2'+*3%7%$')+%' '))'(90'$%'6$*/*.-%5'
'.5'$%(1$$%.)'$%)1$..-'3,)+' .'''((%/%$')%5'
'.5'1.(%$)',.'&$%E1%.(2' *')+%'6'),%.)')+%'
'()'*&'6'/6,)','.'(' 10%0'7'$,*,,0''.5'3,5%/2'
5,&&%$%.)'0%.0'),*.0' +%$%' 8'2'4%'' 8%$%'
((' 0,.'/ &/1))%$'*$' '' 0/,-+)/2' ,.($%'0%5'
'(),*.'(*.),.1,.-'&*$''),8%Ĥ *$')+%$%' 8'2'
4%' ,.($%'0%5' '(),*.' '))%.5%5' 3,)+' -$%')'
$'6,5,)2''.5'01(+'7,*/%.(%')+')')+%' +%'$)'
'66%'$0'&*$(,4/2')*'0)$,9%')+%'(+%0) 3' 0'5,&;
&10,.-',)0',.&/1%.(%' 47%$')+%' 3+*/%' %)%$.'/
$%-,*.''.5'%7%.'')',8%0''-,)'),.-')+%' +*/%
4*52'A'' 6+%.*8%.*.' 6$*4'4/2' 51%')*' .'
'00*(,')%5'-%.%$'/.%$7*10''-,)',*.RĤ *$')+%
+%')$)''-',.'8'2'0%%8')*')+%'01&&%$%$')*$,0%'
'0',)' 3%$%'..)*')+$*')' ,)+')+%0%
0%7%$'/ 0286)*80')+%$%' 8'2'4%')+%''((*8;
6'.2,.-'5,0)1$4'.(%0'*&'(+*9,.-G)+%'0 #
9 7%$),-*Ĥ),..,)10' '1$,18Ĥ ,8;
6',$%5'7,0,*.'3,)+' '' &%%/,.-'*&'5,0)%.0,*.'
*&')+%' %2%4'//0Ĥ '' (*6,*10'0%(%),*.'*&'6'/%
/,86,5'1$,.%Ĥ '' (/'882'(*/5.%00'*&')+%' %B;
)$%8,),%0'Ĥ &%'$'*&'5%')+Ĥ 6'$),'/1.(*.0(,*10;
.%00'Ĥ *$''()1'/02.(*6%' +%0%')'(90'8'2'
4%'6$%(%5%5'42''' 0*8%3+')'6$*/*.-%5'0)')%
*&'(%$%4$'/5,0)1$4'.(%''0'%7,5%.(%5'42'+%')'
*&'4$*3'.'5'7%$)%B'+%'5'(+%'.'5''.',.;
'6),)15%')*')+,.9'*$'%-1/')%')+%')+*1-+)0Ĥ
'.5'0')+%$%',0'-%.%$'//2''0%/& (*.0(,*10.%00'*&
)+%'4.*$8'/ (),*.'*&')+%'+%')$)'+%'.B,%)2'
*.')+,0''((*1.)'0%$7%0')*',86$%00')+%'8,.5'
3,)+'0*'81(+'&%'$'.5',.E1,%)15%'0')*')%.5'
)*',.($%'0%''.5'6$*/*.-')+%'5,0*$5%$')+')'+'0'
,.51(%5')+%8' .')+%' '52.'8,(' &*$8')+%$%
,0'101'//2',.($%'0%5'&$%E1%.(2'3,)+'&',/1%'*&
020)*/,('6*3%$'0*')+')'+%' 61/0%'4%('8%0'5%;
&,(,%.)',.')*.%'&*$(%''.5'$+2)+8'.5'8'2'
4%'%7%.'$%51(%5')*''8%$%'&/1))%$' +%
6'),%.)',0'6',.&1//2'0%.0,4/%'*&')+%'5,0)1$4'.(%'
3+,(+',.51(%0''&%%/,.-'*&'$%0)/%00''.B,%)2Ĥ
$%/,%&' ,0'0*1-+)'41)'.')' %'0,/2'*4)',.%5'
%,)+%$'42'8*7,.-'4*1)'*$',.'$%6*0%' +%.'
)+,0'52.'8,(' &*$8''*&'6'/6,)'),*.'+'0',)0
('10'),*.'6$,8'$,/2'&$*8'1.51%'5%6$%00,*.'
&')%86%$')1$%',.')+%' 6%$,6+%$'/ (,$(1/'),.'
.'5'0140%E1%.)/2',.')+%'7%.*10'020)%8'.'5
$,-+)' +%')$)')+%0%' 0286)*80'4%(*8%' 8*$%
1$-%.)G8'2'4%')*')+%'%B),.(),*.'*&'/,&%Ĥ)+%
7'0*5,/')*$0'&')+%''$)%$,%0''$%'6'$'/20%5Ĥ)+%
020)%8,(' (1$$%.)'&',/0''.'5'+%.(%')+%' (%$%4$'/
7%00%/0''.5')+%.1)$,%.)'7%00%/0'*&')+%'+%')$)'
,)0%/&'$%'1.&,//%5')+%',8 8%5,')%'$%01/)'4%,.-'
02.(*6%'.'5'5%')+' +,0',0'6$*4'4/2')+%
&$%E1%.)'(*1$0%'*&'%7%.)0',.'5$*3.,.-')',0
(%$)',./2'0*',.')+*0%' ('0%0'*&'5%')+'&$*8')+%
,.>15,(,*10'10%'*&')+%'(*/5'4')+')'9%.'3+%.'
6+20,('/ %B+'10),*.'*$'*)+%$' (,$(180)'.(%0'
,.)%$&%$%' 3,)+')+%' .%(%00'$2'$%')(),*.'&$*8'
)+%'0+*(9

' $' " ! '/!" # ' = *

= G 16)1$%' *&')+%' 3 ' 0' 8 '2' 4%' 0',5' .%7%$')*' +(1$' 06* .)' .%*10/2' 3+%.')+%' +%'$)' ,0' +%'/)+2' +%' &*//* 3, .-' + '7%' 4%%.' %.18%$')%5' 42' 5,&&%$%.)' 3$,)%$0' '0')+%' 5,0%'0%5' (*.5,),*.0' *&')+%' +%'$)<0' 3 '//0')+')' ')*' $16)1$%' G)+, .' *$' ')$*6+,%5' (*.5,),*.' 0,86/%' 0*&)%.,.-' ' 0-%/'), .,&*$8'< (*.5,),*.' *&')+%' 3 '//0' '6*6/%(),(' *$' +'%8*$; $+'-,(' %&&10,*.' ,.)*')+%' 3 '//0' '40(%00'1/(%$';),*.' . .5' &'))2' 5%-%.%$'),*.' +%' 3$,)%$' &,.50' &$*8' ' ') '4/%' *&' 8HH' ('0%0' *&' $16)8%')+%' +,0)*$,%0' *&' 3+,(+' +%' +'0' (*//%()%5' &$*8' 5,&&%$%.)' 0*1$(%0')+')')+%' +%'$)' +'5', 85%$ ' -*.%' &')) 2' 5%-%.%$'),*.' , .' MMH' , .'L')+%' 3 '//0' 3%$%' 5%0($,4%5' 0,86/2' '0' 4%,.-' 0*&)%.%5H , .' g')+%$%' 3 '0' $16)1$%' *&' .' ' .%1$208 '/5,/')';),*.'H , .' g')+%$%' 3 '0' 41$0),.-'*&' .' '40(%00'H , .' 8<')+%' +%'$)',0' 0',5')*' +'7%' 4%%.' +%' /)+2' , .')%B)1$%' *$' .*)*' +'7%' 4%%.' %B' 8 , .%5H' 41)' , .' 8*0)' *&')+%0%' /')) %$' ('0%0' 8%.),*.' ,0' 8 '5%' *&')+%' 6$%7,*10' %B,0)%.(%' *&' %.5*('$; 5,),0' *$' *&' (+' .-%0' , .')+%' (*$*.'$2' *$)%$,%0' &1//2' >10),&2,.-')+%' ,86$%00,*.')*')+%$%' 3 '0' 5,0%'0%' *&')+%')%B)1$%' *&')+%' +%'$) +%' , .&/1%.(%' *&' 0' , .'$%/'),*.')*' $16)1$%' *&')+%' +%')$' ('.' 4%' 5,0),.()/2')$' (%5' *$' %B' 8 6/%' *&')+%' !!' ('0%0' >10')$%&%$%5')*' D'' 3%$%' '4*7%')+%' -%' *&' 0,B)2' 2%' $0' $$' .-%5' , .' 5%('5%0')+%' ('0%0' 0)'.5') + 1 0 <' 3%$%' 4%)3%%.')%.' .' .5')3%.)2H g' 4%)3%%.')3%.)2' '.5')+,$)2H g' 4%)3%%.')+,$)2' '.5' &*$)2H L' 4%)3%%.' &*$)2' .5' &,&)2H '4%)3%%.' &,&)2' .5' 0,B)2H "?' 4%)3%%.' 0,B)2' '.5' 0%7%.)2H @ ' 4%)3%%.' 0%7%.)2' '.5' %,-+)2H L' 3%$%' *7%$' %,-+)2H '.5', .' @')+%' '-%', 0' .*)'0)')%5' ,)+' $%06%()')*' ('*&' P?' *1)'*&' !!' ('0%0', .' 3+,(+' ,)',0' 8%.),*.%5'F '3%$%' 8 '/%0' .5' '&%8 '/%0 +%' ("0' ('10%' *&' $16)1$%' *&')+%' +%')$' ,0' 101''//2' 0*8%' 8%.)'/'%B(,)%8%.)' *$6+20,('/' %&&*$)H 41)')+%' '((,5%.)' 8 '2' *((1$' 3+%.')+%' 014>%()'*&', ,0')' $%0)''*$'61$01,.-')+%' *$5,.'$2' '7*(')',*.0' *&'/,&%

! ' $' ' 5 " ' .' MD' ('0%0' *1)' *&')+%' 8HH')*' 3+,(+' 3%' +'7%' '/$%'52' '//15%5')+%'/%&)' 7%.)$,(/%' 3 '0')+%' 0%')' *&')+%' $16)1$%H ' .5', .' '" *&')+%0%' *'0%0')+%'/%0,*.' 3 '0', .')+%' .)%$,*$'3 '//' +%' $,-+)' 7%.)$,(/%' 3 '0' &*1.5' $16)1$%5')+,$)%%.'),8%0' . , .%' , . ; 0)' .(%0' *((1$$,.-', .' ,)0' '.)%$,*$' 3 '//' +%' $,-+)' 1$,(/%' 3 '0' $16)1$%5' 0%7%.'),8%0H)+%' /%&)' 1$,(/%' 3 .)$,(%H ' .5' '' $16)1$%' 3 '0' &*1.5', .')+%' 0%6)18'&*1$'),8%0' +%0%' $%01/)0' (*$$%; 06*.5' $%8 '$9'4/2' 3,)+')+*0%' *&' *)+%$' 3$,)%$0' *.')+%' 014>%()' '18%, " ' PE ' ?D?H' , .' FF' ('0%0' &*1.5')+%' $16)1$%' "'),8%0' , .')+%' /%&)' 7%.)$,(/%' 0%7%.'),8%0', .')+%' $,-+)' 1$,(/%' ' .5' 7%.)$,(/%')+$%%')8%0', .')+%' $,-+)' 1$,(/%' ' .5')3,(%', .')+%' /%&)' 1$,(/%' c

.' %B' 8, . , .-' '' +%' $)' >.' 3+,(+' $16)1$%' +'0' *((1$$%5')+%')*$.'6'$,',0' &*1.5')*' 6$%; 0%.)' 5,&&%$%.)' (+'$')(%$0' , .' 5,&&%$%.)' ('0%0' +%' /%0,*.' 8 '2' 4%' (*3 6/%&$/('10, .-'6%$&*$';),*.' *&')+%' 3 '//0H *$' ,)' 8 'T1' 4%' " ' ' $16)1$%')+%' *6%. , . -' ,0' 0*8%),8%0' 4'$%/2' 01&&,(,%.)')*' '58,)' "a$*4%' 3+,/0)' , .' *)+%$' , .0)' .(%0' ,)' 8 '2' 4%')3* *$')+$%%' , .(+%0 , .' /%.-)+' +%' $%.)' ,0' 0*8%),8%0' /*.-%$' %B')%$.'//2' ' .5' 0*8%),8%0' ,)' /*.-%$' ,.)%$; .'//2' +%$%' 8 '2' 4%' 41)' *.%' *$')+%$%' 8 '2' 4%' 8*$%')+'.' *.%' $16)1$%H ' .5', .')+%' /')))%$' ('0%')+%' $16)1$%0' 8 '2' *$' 8 '2' .*)' (*881.,; (')%' 3,)+' *.%' ' .*)+%$' .' " ' $16;)1$%')+%' ,.>1$2' 8 '2' 4%' (*.&,.%5')*')+%' ,.)%$.' /' 01$&'(%' *$',)' 8 '2' *((1$', .')+%' 0140)' .(%' *&')+%' 3 '//' ' +%' %5-%0' *&')+%' $%.)' ' ,8' $' --%5', $$%-1/'$' .5'0*8%),8%0'%((28*0%8 ' +%', $$%-1/'$,)2' *&')+%' %5-%0', 0' 51%')*')+%=8 ' . .%$', .' 3+,(+')+%' 810(15'$&,4$%0' '$%')*$8' 3+%)+%$' ($*00' *$' 06+)' /*.-,)15,.''//2' +,0' 5%0($,6),*.' $%&%$0' 8*$%' (*$%%()/2')*' $16)1$%' ,.' ' +%'$)')+')' ,0')+%' 014>%()' *&' &')) ' 5%-%.%$'),*.' +%' '66%'$'.(%0' '$%' 5,&&%$%.)' 3+%.')+%$16);)1$%',0'0%(*.5'$2')*' .' '40(%00 *$')*' 1/(%$';),*.' *$')*' (%$)',.' *)+%$' ('10%0'6$%0%.)/2')*' 4%' 5%0($,4%5' .' 01(+' ('0%0')+'' /%0,*.' +'0' 4%%.'5%0($,4%5' '0' '' $%.)')%'$'.,)$')*.' *$' 6%$&*$'),*.' +%' (*.5,),*.' *&')+ '+%'$)',.')+%' 8 '>*$,)2' *&' ('0%0' *&' $16)1$%' = 0' 4%%.' '/$%'52'$%&%$%5')*')85%$')+%' +%'5' #O ' 0 ' (%+28*0%0' '$%' 0*8%),8%0' &*3.5',.')+%7,(,.,)2' *&')+%' /%0,*.' +%' 6%$,(' ,18' -%.%$'//2' (*.)'..' 0' .' %&&10,*.' *&'4/**5'7)+,%+' *&)%.' 01$$*,850')+%' +%'$)' 3,)+' (*'-' /%'7,.-')+%' 0'(' &,//%5' 3,)+' 0%$18')*' ' 8*,8)' ,)' 8 '2' 4%' *&')+,$)2' *1.(%0' '0' ' .', .0)' .(%' 3+,(+' ('8%' 1.5%$')+%' 3$,)%$<f .*),(%

' ! ' G' 16)1$%' *&')+%' +%'$)' ,0' 5*14)/%00'.%'$/2' '/3'20')+%' $%01/)' *&' ' 0)$', .' *$' *&' 6$%001$%' '(),.-' 16*.')+%' 810(1/'$' 3 '//' ' +%' 3 '//0' *&')+%' +%' /)+2' +%' $)' $%%01&&,(,%.)/2' 0)$*.-')*' $%0,0)' ' .2' *$5,.'$2' &%$(%')*' 3+,(+')+%2' '$%%B6*0%5' 1)' 3+%.')+%2' '$%%0*&)%.%5' 42' 5%-%.%$'),*.' *$' '$%%7%$2')+,.' '0' ,0' 0*8%),8%0')+%' ('0%' ,.')+%' '1$,(/%0' *$')+%' $,-+)' 7%.)$,(/%')+%2' 8 '2' -,7%' 3 '2' 4%&*$%')*')+%' 6$%001$%')*' 3+,(+')+%2' '$%%B6*0%5' 51$,.-' 810(1/'$' %&&*$)0' *$' 0)$',.0' *$' %7%.' ,.')+%' *$5,.'$2' ()',*.' *&')+%' *$-' .' +10' 3+%.' ''6')$' *&')+%' 3 '/' *&')+%' +%')$' ,0' 3%'9%.%5' 42' 0*&)%.,.-' *$' *)+%$' ('10%')+,0' 06*)' 8 '2' 4%' '0' ,)' 3%$%')*.' ('$*00' 42')+%' (*.)$'(),*.' *&')+%' +%')/)+2' &,4$%0' 8*.-' 3+,(+' ,)' ,0' 0,)1')%5' $' -',.' 3+%.')+%' 3 '//0' *&')+%' +%')$' '$%')+,(9',)' 8 '2' 4%')+')')+%' *1)%$' 01$&'(%' 4%,.-' 0)$',.%5' *7%$')+%' (.%)0' *&' '5,0)%.5%5' 7%.)$,(/%' '0' 3*1/5' 4%')+%' *1)%$' 01$&'(%' *&' .' *7%$4%.)' +**6'-,7%0' 3 '2')%' $0' '.5')+%' *6%.,.-' -$*51''//2' %B)%.50' &$*8' 3,)+*1)' ,.3 '$50' +%0%' &'()0' %.'4/%' 10')*' 1.5%$0)' .5' 3+2' $16)1$%',0' 8*$%' &$%E1%.)' ,.')+%' /%&)')+' .', .')+%' $,-+)' 7%.)$,(/%' '2&1$)+%$' %B6/'.'),*.', ,0')*' 4%' &*1.5' ,.')+%' &')(*)+')')+%' /%&)' 7%.)$,(/%',0' 8*$%' &$%E1%.)/2')+' .')+%' $,-+)')+%' 0%')' *&' &'))2' 5%-%.%$'),*.' &$*8' ('10%0' %/0%3+%$%' ''/15%5')*' ' ')) 2' %-%.%$'),*.'*&R' +%$%',0' 2%)' .*)+%$' 3' 2' ,.' 3+,(+' 0*&)%.,.-'/%'50')*' $16)1$%' 0*&); %.%5' 06*)' *((1$0' +,')+%' 0140)' .(%' *&')+%' $)' .5' ,.)*' ,)' +0%8*$$+'-%')'9%0' 6/'(%' (*.0),)1),.-' 3+')',0')%$8%5' (' #

E1%.)' +%' 8*0)' (*8 8*.' '$%' 0)%.*0,0' .'5' ,.01&&,(,%.(2' *&')+%' '*$),(' 7'/7%0' '.'5*)+%' 0'8%' 8*$4,5' (+'.-%0' *&')+%' 8 ,)$'/' 7'/7%0' .')+%' /'0)' 0)'-%0' *&' 4*)+' &'*$80' *&' '*$),(' 7'/7% 5,0%'0%')+%' 8 ,)$'/' 7'/7%' 4%(*8%0' ,.' ; 01&&,(,%.)' %,)+%$' &$*8' (+$*.,(' %.5*('$5,),0' *$&$*8'5,/'))',*.'*&')+%' 7%.)$,(/%' .'5'*&')+%' '1$,%1/* 7%.)$,(./'$' *$,&,(%' ,)$'/' 0)%.*0,0' ,0' .*)' ,.&$%E1%.)/2' '00*(,')%5' 3,)+' '*$),(' ,.01&&,(,%.(2' 41)' ,0' 8*$%' (*88*./2' (*.; .%()%5' 3,)+' 0*8%' 5%-$%%' *&' .'$$*3,.-' ')')+%' '*$),(' *$,&,(%' $,(106,5' ..01&&,(,%.(2',0' 101''//2'8%)'3,)+',.')+%'/'0)'0)'-%0'*&'5,0%'0%0' W*&')+%' /%&)' +%'$)H' .'5')$,(106,5'0)%.*0,0',0' 8%)' 3,)+',.'(*..%B,*.' 3,)+' '' 0,8,/'$' .'$; $*3,.-'*&')+%' 8 ,)$'/'*$,&,(%

'#o # 2 '/71/'$'5,0%'0%0'*&')+%'+%'$)' 6$*51(%''0%$,%0'&'8*$4,5'6+%.*8%.''3+,(+' '$%' (*..%()%5')*-%)+%$' 42' '' .%(%00'$2'0%; E1%.(%' '(+'.'5'%7%$2'&*$8' *&'7'/71/'$' 5%&%()',86',$0')+%' 6%$&%(),*.'*&')+%'+%')' 0' ''6186.-'8'(+,.%''.'5'5,0)1$40')+%'.*$8'/ $%/'),*.0'4%)3%%.')+%'(*.)%.)0'*&')+%'$)%$,%0' '.5'*&')+%'7%,.0' +%$%7%$')+%'7'/7% 8,0; (+,%&',0''.5'3+')%7%$',)0'.')1$%',)'$*40')+%' '$)%$,'/(,$(1/'),*.''.'5'%.$,(+%0')+%'7%.*10' '.'&$*.)' *&')+%' /%0,*.')+%$%' ,0'/%00'4/**5H 4%+,.5',)')+%$%' ,0'8*$%' .'*$),('7'/71/'$' 5,0%'0%0')+%'&,$0)' %&&%()0'$%' ,.($%'0%' *&')+%' 4/**5 6$%001$%' ,.')+%' /%&)' 7%.)$,(/%' '.5' /%00%.%5'4/**5 6$%001$%' ,.')+%' '*$)'H .%B)' &$*8')+%'5,&&,(1/)2'3+,(+')+%'/%&)' '1$,(/%'+'0' ,.'%86)2,.-''//',)0'(*.)%.)0',.)*' .'*7%$&1// 7%.)$,(/%')+%$%' ,0'6$*51(%5',.($%'0%5'6$%001$%' ,.')+%' /%&)' 8$,(/%' '.5'61/8*.'$2'7%,.0' ,)$'/ 7'/7% /%0,*.0'('10%' 0,8,/'$' $%01/)0' &,$0)' ,.($%'0%5'6$%001$%' ,.')+%' /%&)' '1$,(/%' /%00'6$%001$%' ,.')+%' /%&)' 7%.)$,(/%' '.5'(*.; 0%E1%.)/2'/%00%.%5'6$%001$%' ,.')+%' '*$)'H 3,)+''-$'51'/,.($%'0%'*&'6$%001$%'%B)%.5,.-' &$*8')+%'/%&)' '1$,(/%')*')+%'61/8*.'$2'7%,.0' *$),(''&&%(),*.0')+10' ()'&,$0)'*.')+%''$)%$,'/' '.5'0%(*.5/2'*.')+%'61/8*.'$2',($(1/'),*.H 3+,/%' 8,)$'/ /%0,*.0' '&&%()')+%' 61/8*.'$2' 7%00%/0'8*$%',8 8%5,')%/2' +%'&,.'/$%01/)0' *&')+%')3*'&*$8 0'$%'+*3%7%$',.),('/''.5' 8'2'4%0)'0)%5',.')+%'&*$8'*&''/'3G.'8%/2')+')'//7'/71/'$'5,0%'0%0'*&')+%'+%')')%.5')*'/%00%.')+%'E1'.),)2'*&'4/**5',.')+%''$)%$,'/ 020)%8''.5')*'6$*51(%',.($%'0%5'&1/.%00'.5' 0)'0,0',.')+%'7%,.0' $*8')+%'().*'&')+,0'/'3' 7'$,*10''00*(,')%5'7,0(%$'/ 5,0*$5%$0'&*//*3' '0'(*.0%E1%.(%0' +%0%' 5,0*$5%$0'+*3%7%$' 7'$2'-$%')/2',.')+%'6%$,*5'*&')+%,$'*((1$$%.(%' '.5',.')+%' ,.)%.0,)2'*&')+%,$' 8'.,&%0)'),*.0' +,0' 7'$,'),*.',0'51%')*')+%' 8*$%'*$'/%00' 6%$&%()' 3'2',.'3+,(+')+%'*$,-,.'/'7'/71/'$' 5%&%()'+'0'4%%.'(*86%.0')%5'&*$'42'(+'.-%0' ,.')+%' 6*3%$'*&')+%'('$5,'('810(/%'.'5',.')+%' ('6',)2'*&')+%'('/25,'('('7.),%0' +%0%' (+'.-%0'*&)%.'01&&,(%)*'8',.)'.'&',$/2')+%' .*$8'/'4'/'.(%'4%)3%%.')+%''$)%$,'/' .'5' 7%.*10'(*.)%.)0')+10' D D " "0'&*$')+%' 7'/7%'/%0,*.H '.5')+%' 6$*(%00'42'3+,(+')+,0' ,0'%&&%()%5'5%8'.50'('$%&1/(*.0,5%$')',*.' " " G *86'10')',*'',0'%&&%()%5

5,&&%$%.)/2''((*$5,..-')*')+%'&*$8'*&'5,0%'0%')'8'2'4%0)'0)%5'-%.%$'//2')+')',)'(*.0,0)0' ,.'+26%$)$*6+2'*&')+%'('7,)2',8 8%5,')%/2' 4%+,.5')+%'5%&%()' *3'+26%$)$*6+2'8%'.0' ,.($%'0%5'(*.)$'(),/%'6*3%$'.'5')+,0'8%'.0' 4%))%$'&,//,.-'*&')+%')%$,%0''.5'(*.0%E1%.)/2' ,.($%'0%5''$)%$,'/'.0,*.' +10',)' 8'9%0' 16'&*$')+%'7'/71/'$',.(*86%)%.(2'3+,(+')%.50')*'/%00%.''$)%$,'/')%.0,*.' +%.')+%' ,.($%'0%5'6*3%$'*&')+%'7%.)$,(/%',0'%B'()/2' 4'/'.(%0')+%'%&&%()0'*&'K&,+%'7'/71/'$'8,0(+,%&')+%'(*86%.0'),*.',0'(*86/%)%

.' ' '' +26%$)$*6+2'*&')+%'/%&)' 7%.)$,(/%',0')+%'8*5%'.'3+,(+'(*86%.0'),*.' ,0'%&&%()%5H)+%'*40)'(/%')*')+%'4/**5(1$$%.)' ,0'*7%$(*8%'42')+%',.($%'0%5'810(1/'$' 6*3%$'

.' ' '' +)+%$%',0'0*8%'5,/';)'),*.'*&')+%'7%.)$,(/%''0')+%'6$,8'$2'$%01/)' *&')+%'/%0,*.' +,0',0'(*1.)%$4'/'.(%5'42' -$%')%$'+26%$)$*6+2H''.5'0/*/='0')+%'5,/';)'),*.'5*%0'.+,0'6$*-$%00')+%',,=1&&,*.%.*2',0' (*86%.0')%5'&*$' '01&&,(,%.)'%B(%00'*&'4/**5',0')+$*3.',.)*')+%''*$)'' ')'%'(8020)*/%')*' '//*3' &*$')+%' $%-1$-,)'),*.' 51$'.-' %'(+' 5,'0)*/%H'.5')+10')+%'4'/'.(%',0'8=.)',.%5')+*1-+'.*)'/3'20'%E1'4/2

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sphygmogram (*see* fig. 62) shows the line of ascent to be oblique or broken, instead of nearly vertical; the summit is generally blunt; and the line of descent shows small or no secondary waves, and ill-developed dicrotism. Aortic stenosis when moderate, requiring only hypertrophy of the left ventricle for its compensation, is often very perfectly remedied by this change, and produces little or no disorder of the circulation. This is also true of cases in which roughness of the valves or vegetations are the cause of even a loud murmur. The amount of hypertrophy of the left ventricle is the surest guide to the gravity of the condition. When the stenosis is very great, epileptiform and syncopal attacks may occur, and lead to sudden death. When the compensation fails, the mitral valve often yields from the dilatation of the left ventricle, and degeneration of the papillary muscles. Then the pulmonary second sound becomes accentuated; the pulmonic circulation is embarrassed; and dyspnœa, bronchial catarrh, pulmonary hæmorrhage, œdema, and cyanosis supervene.

Fig. 62.—Pulse-tracing in Aortic Stenosis.

In *Aortic insufficiency*, inspection discovers a more forcible and diffused impulse, lower than natural, sometimes as low as the seventh intercostal space, and outside the nipple line. The præcordial region may be bulging from the violent action of the heart; pulsation may be seen in the upper intercostal spaces at the right edge of the sternum; and a thrill may sometimes be felt there, and occasionally as low down as the heart apex. The great vessels of the neck pulsate visibly. The area of cardiac dulness is increased in all directions, but mainly vertically. On auscultation, a murmur is heard, replacing and following the second sound, of a blowing or hissing character, rarely rough, and lessening in loudness towards its end. It is usually loudest at mid-sternum and in the second right intercostal space; and it is conducted upwards to the right clavicle, but mainly downwards to the xiphoid cartilage. It is not heard at the back of the chest. It may be conducted to the apex of the heart rather than to the ensiform cartilage; and this occurs, in the writer's opinion, when the posterior or mitral segment of the aortic valves is the incompetent one, as the regurgitant current then falls on the mitral valve, and the murmur is thus conducted to the apex. The second sound may be wholly lost at the base of the heart, being replaced by the murmur; but in some cases it is audible—this being due either to normal closure of one or two aortic segments, or to the propagated pulmonic second sound. If audible in the carotids, the second sound is aortic, and is of some value as indicating partial competency of the valves. The second sound is often audible at the apex. The first sound at the base is almost always modified, being generally murmurish and often obscured by a systolic murmur, due to slight obstruction from thickening of the valve-segments, or to relative stenosis and the vigour of the ventricular systole. In some cases there is no distinct first sound audible at base or apex; its absence being possibly due to noiseless closure of the mitral valve by the intra-ventricular blood-pressure before the systole occurs. Thus in cases of free regurgitation, both first and second sound may be absent over the left heart; but on listening over the femoral artery with a binaural stethoscope lightly applied, the two sounds of the heart can sometimes be heard. In the majority of cases the insufficiency is no doubt associated with some stenosis, and the murmur is double—a short rough systolic portion, with a softer, longer, and more hissing diastolic portion. This double murmur might be well called the *up* and *down* murmur of aortic valve-disease: the two descriptive words indicating the length, and, to some extent, the characters of its component parts.

The signs connected with the pulse in aortic insufficiency are very significant. As the pulsations of the aorta are visible to the right of the sternum, so the arteries often beat visibly all over the body, even to the radial, temporal, and dorsal arteries of the foot. The ophthalmoscope has shown the same phenomenon in the central artery of the retina. This remarkable movement of the arteries is due to two causes—first, to the hypertrophy and dilatation of the left ventricle, which throws an excessive quantity of blood into the vessels at each systole; and, secondly, to the sudden collapse of the arteries, due to the aortic regurgitation. The arterial recoil during the ventricular diastole is not opposed, as in health, by the resistance of the perfectly closed aortic valves, and, consequently, the blood-column is not sustained, and the arteries collapse. These locomotive features in the pulse are generally increased by elevating the arm. The pulse is sudden, short, large, regular, rapidly collapsing, and vibratory. The sphygmographic tracing brings out these characters: the line of ascent is vertical and lofty; the summit is sharp and pointed; the line of descent falls rapidly, and is broken by a series of secondary waves due to vibratory conditions, but has an ill-developed dicrotism. The post-dicrotic portion of the tracing falls rapidly, from the absence of a sustained blood-column. The longer and more oblique this portion of the tracing, *cæteris paribus*, the less copious the regurgitation (*see* fig. 63).

Aortic insufficiency often lasts for many years without producing any obvious disturbance of the systemic and pulmonic circulations; hence the absence of dyspnœa and

œdema. The hypertrophy and dilatation of the left ventricle, which form the compensation, suffice to prevent ill effects. At each

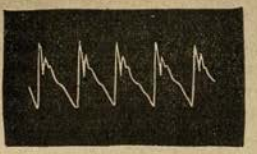

Fig. 63.—Pulse-tracing in Aortic Insufficiency.

systole the dilated ventricle throws sufficient blood into the aorta to allow for the reflux, and to maintain a fair arterial tension. Thus the compensation is perfect. In many cases, however, if the reflux is free, and the coronary segments of the aortic valves are affected, the coronary arteries, which are partly filled by the arterial recoil, are deprived of the full force of the blood-wave, and the nutrition of the heart consequently suffers. This is the great source of failing compensation, and the malnutrition of the cardiac muscle soon leads to dilatation of the ventricle, secondary mitral insufficiency, and atrophy.

When the hypertrophy is excessive (over-compensation), as it is in some cases, there are flushings of the head and face, headache, vertigo, and violent arterial action all over the body.

In *Mitral stenosis* there is rarely any prominence of the præcordial region; and in its earlier stages neither increase of the cardiac dulness, nor alteration in the position of the impulse. The impulse, when regular, is fairly distinct, but it is often very irregular, and is associated with a thrill, which precedes, runs up to, and terminates in the impulse. In advanced cases, the area of cardiac dulness is increased laterally; the impulse is diffused, and may be seen in the epigastrium; this indicates hypertrophy of the right ventricle, which sometimes obscures the left ventricular impulse and gives rise to epigastric and liver pulsation. The left auricular systole may occasionally be noticed, if the chest be thin, in the third left intercostal space. The sounds heard on auscultation in this lesion vary. The pathognomonic sign is a murmur preceding the systole, and ending with its commencement. This is best called the *præsystolic* murmur (also 'auricular systolic'); and is produced when the contracting auricle forces blood under high pressure into the ventricle. It is the passage of a stream of blood in a state of high tension into blood already in the ventricle which causes the murmur. The first portion of the blood passes from the auricle into the ventricle noiselessly; and it is only when a stream of higher tension is forced into it by the true auricular systole that the murmur is developed. The murmur is, therefore, short in most instances, occupying the last part of the diastole; it runs up to the first sound, and ends abruptly in it. The position in which the murmur is best heard in its typical præsystolic form is limited to the left apex itself or a little above—that is, lower than a mitral regurgitant murmur. The funnel-like shape of the mitral valve-curtains in these cases accounts for this, as the button-hole aperture through which the blood passes is closer to the apex.

This murmur is soft and puffing, but may be harsh. It commonly fills only the last part of the diastolic period. In some cases, with greater roughening and deformity of the valves, the murmur is longer, rougher, more rolling or grinding, and ends abruptly with the first sound, which is very flapping in tone, and might easily be mistaken for the second sound conducted. The careful observation of the impulse or of the carotid pulse with the finger while auscultating, is necessary in order to avoid the error. Mitral stenosis develops three murmurs under different conditions of the valves: (1) A short, softish puff (sounding like *vōōt*) immediately preceding the first sound; (2) a short, rough, grinding murmur (*rrrb*); and (3) a long murmur filling nearly all the diastole, often rough, but varying in tone in some cases. These several murmurs increase in intensity up to, and end abruptly with, the first sound. The soft, hissing diastolic murmur, occasionally heard at the apex, which lessens in intensity and ends before the first sound, is a conducted aortic (or pulmonic) murmur.

A special peculiarity of the præsystolic murmur is its variability: it is the only organic murmur which disappears and reappears as the heart-conditions change. For instance, a murmur, inaudible while the patient is at rest, is developed by a little exercise; or, again, an irregular tumultuous action of the heart masks all murmur, which becomes distinct as the heart steadies down under the action of digitalis. In other cases there is no distinct murmur, but only a slightly prolonged and rough or grinding first sound, while the murmur is often lost as the heart-failure advances. In cases of mitral stenosis there is accentuation of the pulmonary second sound, from the greatly increased tension in the lesser circulation; there may also be a doubling or reduplication of the second sound at the base. This reduplication is a sign of great value in cases in which the prolonged or grinding first sound is the only sign. The reduplication of the second sound is due to a want of synchronous closure of the pulmonic and aortic valves, from their altered relative tension. A doubling of the first sound is sometimes noticed, probably due to retarded closure of the mitral valve, from lessened fulness of the left ventricle.

The rhythm of the heart is frequently greatly disordered in mitral stenosis, and

also in mitral insufficiency. A few beats occur regularly, or nearly so, and then a series of very small hurried ones follows, to be again succeeded by stronger and better pulsations. These irregularities are referable to the varying charges of blood on which the ventricle contracts. The over-distended right cavities and the left auricle contract rapidly to expel their contents, but the narrowed mitral orifice does not allow a full charge to pass into the ventricle; the diastole is too short for this purpose; and the wave of contraction passes on to the ventricle from the auricle, producing a series of small ineffective pulse-beats, each representing the small charge sent into the aorta. When the series of ineffective contractions ceases, the next diastole is longer; and the succeeding systole sends, as the sphygmograph shows, a fuller charge into the arteries. During the small irregular beats the præsystolic murmur is often indistinguishable, but it is again heard with the succeeding slower and more effective beats. This irregularity in the heart's rhythm, however, is not present in all cases of mitral

FIG. 64.—Pulse-tracing in Mitral Stenosis.

stenosis. In some instances the heart's action and the pulse are regular. The sphygmograph in such cases records a small pulse of low tension, with a little inequality in the volume of the beats; this inequality is often increased by exercise. In other cases the pulse-tracing is small, irregular, and unequal in its pulsations, and marked by true and false intermissions (*see* fig. 64).

In the earlier stages of mitral stenosis the face may be pale, and the congestive symptoms which mark mitral insufficiency are absent till the later stages. This form of valvular lesion gives rise more commonly than mitral insufficiency to hæmorrhagic infarction in the lungs; but in other respects the pulmonary and systemic circulations suffer in the same way as described in the other form of mitral disease.

In *Mitral insufficiency* inspection discovers some slight prominence of the præcordial region, with increased impulse, the apex often beating to the left of the nipple line. The area of cardiac dulness is augmented mainly in a lateral direction, from the hypertrophy of the right ventricle. On auscultation, a murmur is heard with the first sound, and following it; loudest at the apex; loud along the left edge of the heart; but absent or not so distinct over the right heart and at the base. The murmur is propagated towards the left axilla, and is audible in most cases in the left vertebral groove. If not audible posteriorly the murmur signifies regurgitation through a narrowed but patent mitral orifice, and may indicate mitral stenosis, in the absence of either a præsystolic or diastolic murmur. The mitral systolic murmur associated with dilated left ventricle or enfeebled muscle is not usually heard posteriorly. The murmur is usually loud, blowing, and distinct in its character, keeping the same tone throughout. The true first sound is generally obscured by it, but in some cases may be heard through it, and is then due to the partial closure of the mitral, or to the action of the right auriculo-ventricular valves. The pulmonic second sound is commonly accentuated. The pulmonic first sound has in some cases a murmurish character, probably due to hypertrophy and dilatation of the right ventricle, and relative stenosis of the pulmonic orifice.

The radial pulse in cases of fairly perfect compensation is regular, but quick, small, weak, and easily compressible; and the sphygmograph shows low tension, and an

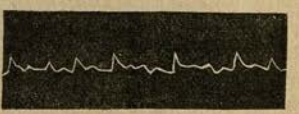

FIG. 65.—Pulse-tracing in Mitral Insufficiency.

inequality in the size of the pulsations. In cases of less perfect compensation, it becomes irregular and intermittent. In all cases the pulse-beat is weak in comparison with the vigour of the ventricular systole (*see* fig. 65).

There is no unusual fulness of the superficial veins in the earlier stages of mitral insufficiency. Later, when the right cavities become over-distended, the veins of the neck become full and may even pulsate. This is very distinct when the tricuspid valve gives way. In all cases slight exertion is sufficient to induce dyspnœa; and there is an ever-present tendency to bronchial catarrh, from the congested state of the lungs. When asystole comes on, the murmur becomes less distinct; the heart's action is rapid, irregular, and tumultuous; the accentuation of the pulmonary second sound is lost; dyspnœa becomes orthopnœa; and cyanosis, œdema, and hæmorrhagic infarction of the lungs, with general and visceral dropsy, close the case.

Many cases of mitral regurgitation obtain fairly perfect compensation; but the disease, like mitral stenosis, of necessity entails some dyspnœa on exertion, and keeps up constantly an engorged state of the pulmonary vessels.

Valvular affections of the right heart, arising from disease, are rare. Those of the *pulmonic valves* are rare; cases are on record, however, of pulmonary stenosis, and

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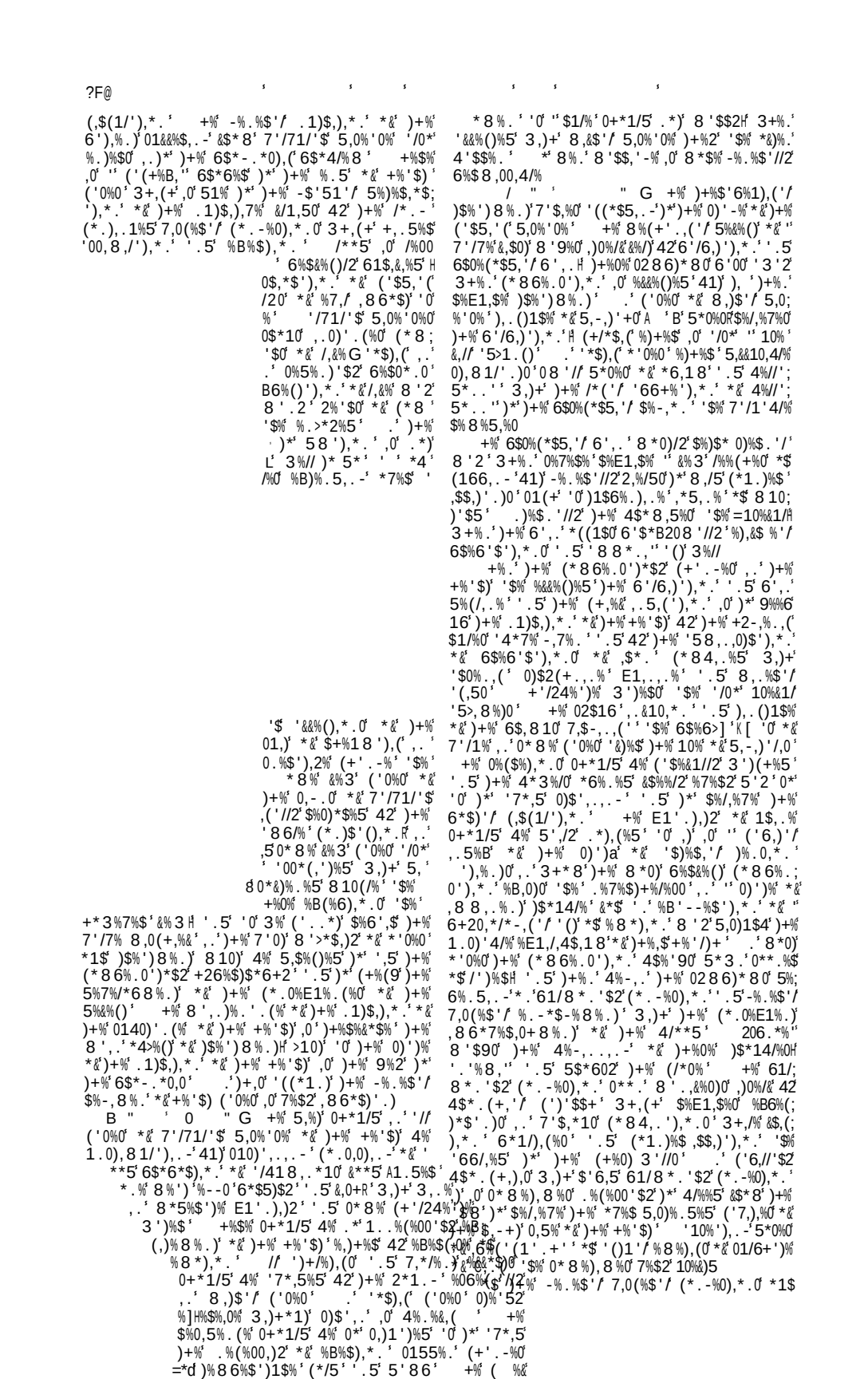
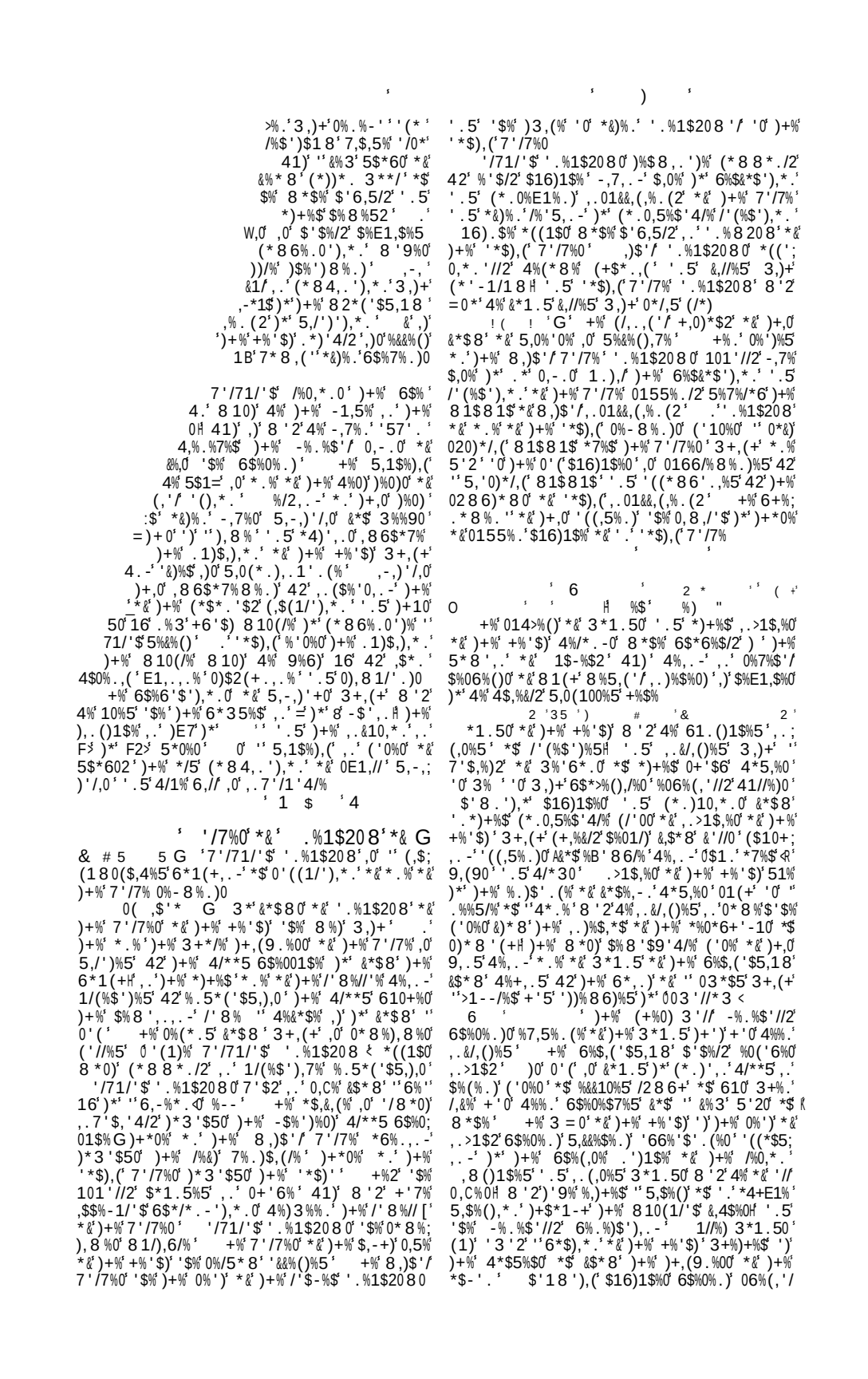
%B(,)%8%.)'4*)+'&*$80'*&'8,)$'/5,0%'0%''$%' %B(,)%8%.)'4*)+'&*$80'*&'8,)$'/5,0%'0%''$%'
(*86'),4/%'3,)+'8'.2'2%'$0'*&'/,&%' +%.' (*86'),4/%'3,)+'8'.2'2%'$0'*&'/,&%' +%.'
)+%2' '$%' (*.>*,.%5')+%' 6$*-.*0,0' 8*$%')+%2' '$%' (*.>*,.%5')+%' 6$*-.*0,0' 8*$%'
1.&'7*1$'4/%' .' ('0%0'*&'0155%.'',.01&&,; 1.&'7*1$'4/%' .' ('0%0'*&'0155%.'',.01&&,;
(,%.(2'6$*51(%5'42'$16)1$%'*&')+%'7'/7%' (,%.(2'6$*51(%5'42'$16)1$%'*&')+%'7'/7%'
(1$)',.0'*$'*&')+%')%.5,.*10'(*$50'5%')+' (1$)',.0'*$'*&')+%')%.5,.*10'(*$50'5%')+'
8'2'*((1$'7%$2'$'6,5/2'&$*8')+%'5,0)1$4'.(% 8'2'*((1$'7%$2'$'6,5/2'&$*8')+%'5,0)1$4'.(%
&')+%'(,$(1/'),*. *&')+%'(,$(1/'),.
+%' 3+*/%' E1%0),*.'*&' 6$*-.*0,0')1$.0' +%' 3+*/%' E1%0),*.'*&' 6$*-.*0,0')1$.0'
6$,.(,6'//2'*.')+%' 0)')%'*&')+%' 82*('$5,18' 6$,.(,6'//2'*.')+%' 0)')%'*&')+%' 82*('$5,18'
'/.-'0')+,0',0'0*1.5'(*86.0'),*.'8'2' *'/*.-'0')+,0',0'0*1.5'(*86.0'),*.'8'2'
4%'8',.)',.%5H)+%' 8*8%.)' 5%-%.%$'),*.' 4%'8',.)',.%5H)+%' 8*8%.)' 5%-%.%$'),*.'
0%)0',.' '020)*/2'' .5'' ',)0' %7,/')$',.'*&' 0%)0',.' '020)*/2'' .5'' ',)0' %7,/')$',.'*&'
0286)*80'(*8%*.' +10'020)*/2'(*8,.-' 0286)*80'(*8%*.' +10'020)*/2'(*8,.-'
*.'-$'51'//2' 3,)+*1)'.2'6$%7,*10'*7%$; *.'-$'51'//2' 3,)+*1)'.2'6$%7,*10'*7%$;
0)$',.'*&')+%'+%'$)' ,0'/3'20'8*0)'-$'7%' 0)$',.'*&')+%'+%'$)' ,0'/3'20'8*0)'-$'7%'
'(+'01((%00,7%'))'(9'4%(*8%0'-$'7%$'.'5' '(+'01((%00,7%'))'(9'4%(*8%0'-$'7%$'.'5'
)+%'7,0(%$'/'(*.-%0),*.0'3+,(+'((*86.2')+%'7,0(%$'/'(*.-%0),*.0'3+,(+'((*86.2'
,)'8*$%'0)144*$.' /418,.1$,''.0''' 8'$9%5' ,)'8*$%'0)144*$.' /418,.1$,''.0''' 8'$9%5'
,.5%B'*&')+%'-$'7,)2'*&')+%'(*.-%0),*.''.5' ,.5%B'*&')+%'-$'7,)2'*&')+%'(*.-%0),*.''.5'
,0'0%$,*10',.'6$*6*$),*.')*'+%'&$%E1%.(2' ,0'0%$,*10',.'6$*6*$),*.')*'+%'&$%E1%.(2'
3,)+'3+,(+',)+'0'*((1$$%5' .'0*8%'('0%0' 3,)+'3+,(+',)+'0'*((1$$%5' .'0*8%'('0%0'
''(*6,*10&/*3''*&'/,86,5'1$,.%,0''' 7L$2'-$'7%' ''(*6,*10&/*3''*&'/,86,5'1$,.%,0''' 7L$2'-$'7%'
0286)*8' $*602'*&')+%' %B)$%8,),%0'' .5,' 0286)*8' $*602'*&')+%' %B)$%8,),%0'' .5,'
&')+%'('7,),%0'8$%'%06%(,''//2',0'4'5'<'' *&')+%'('7,),%0'8*$%'%06%(,''//2',0'4'5'<''
,.5,(''),.-'&%,/1$%',.')+%' 6%$,6+%$'/'(,$(1>' ,.5,(''),.-'&%,/1$%',.')+%' 6%$,6+%$'/'(,$(1>'
),*.0*&')+%'+%')$)'0'0*'81(+'5%6%.50'*.'),*.' %B)'*')+%'('$5,'(' 810(/%')+%';
)+%' 6%(1+'$,),%0'*&'%'(+'('0%' +%$%'$%' *&'%'6%$,6+%$'/'7%00%/0',0'8*0)',86A='
.%7%$)+%/%00'(%$)',.'4$*'5'$1/%0' 0'$%-'$50')+10'6%)%(+,'0'$%'4'5'0,-.0H3+,/%'
$,-.'$+%181'),(',.&/'88').',0'/%00'0%$,*10' '.5'*)+%$'(*.5,),*.0'01(+'0'&%4$,f:
)+'.'5%-%.%$'),7%'(+'.-%'3+,(+'*((1$0'/')%$ '55')*')+%' 5'.-%$'42',.)%$&%$,.



U ‘ ‘ ‘ U ‘ ‘

(+,%& $%8%5,%0‘ ‘$%‘ &,$0)/2‘ 5,1$%),(0H‘ ‘.5‘ (‘‘/,8402‘0(‘.)2‘
&‘,/,.-‘)+%0%‘W+25$‘-*-1%‘ (‘)+‘$),(0‘ & ‘(),*.‘ ‘.5‘ E1,(9‘
5,1$%),(0‘)+%‘ 0‘/)0‘ *& 66)‘00,18‘ 5,-,)‘/,0‘ 61/0%‘,.5,(‘)%‘ ‘020‘
0E1,//‘ 4$**8‘ (+,8‘6+,/‘‘06,$,)‘ *&‘.,)$*10‘ 0286)*80‘,0‘ 8*0)//‘
%)+%$‘‘.5‘>1..6%$‘‘$%‘)+%‘8*0)‘10%&1/‘ +%‘ ‘.5‘,)‘,0‘6$%(,0%/2‘,.,‘
+25$‘-*-1%‘ (‘)+‘$),(0‘ 3+,(+‘ $%/,%7%‘)+%‘ ,0‘8*0)‘7‘/1‘4/%‘ /:‘
7%$ d0)%.5%5‘6$)‘/‘7%00%/0‘6$,8‘$,/2‘‘.5‘ -$*30‘,.‘&*$(%‘&1/.%/‘
)+%‘ -%.%$‘/‘(,$(1/‘),*.‘0%(*.5‘$,/2‘‘$%‘‘/0*‘ ‘$)%$,‘/‘)%.0,*.‘5,8,.,0+%0H‘,‘
8*0)‘7‘/1‘4/%‘ *&)+%0%‘)+%‘ (*8 6*1.5‘ -%0),*.‘5,8,.,0+%0H‘,‘
6*35%$0‘*& 0(‘8 8*.2‘‘.5‘>‘/‘6‘,.‘<H‘)*‘ ‘(),7%‘3‘9%‘ 16‘)*‘
!-$‘,.‘5*0%0H‘4,)‘$)$‘)%‘ *& 6*)‘00,18‘,.‘ ‘57‘.(,.-‘5$*602‘$%(*-‘
%/%()1‘$2‘*.%‘)*‘)3*‘5$‘(+80‘%7%$2‘8*$.; 4%‘)0‘ ‘‘01//%.‘$%)$%‘)‘)‘
,.-H‘ 01/6+‘)%‘ *& 8‘-.%0,18H‘ (*86*1.5‘)+%0%‘-**5‘$%01/)0‘‘$%
0(‘8 8*.2‘6,//H‘%/‘)%$,.H‘0%.‘‘H‘‘.5‘-‘8; ,.($%‘0%5‘7,-*1$‘-,7%.‘42‘
4*-%‘ ‘$%‘)+%‘ 8*0)‘)$10)3*$)+2‘ 2‘)+%‘ (*.)$‘(),/%‘6*3%$*&‘)+%‘+‘
>15,(,*10‘10%‘*&‘‘.‘*((‘0,*.‘/‘61$-‘),7%‘‘.5‘ &‘()‘)+‘)‘42‘,)0‘0/*3,.-‘
)+% ‘58,.,0)$‘),*.‘*& ‘‘01,)‘4/%‘5,1$%),(‘ 6%$,*5‘*&‘%‘(+‘$%7*/1),*.‘,0‘f
‘,5%5‘42‘(166,..-‘6*1/),(%0‘‘.5‘0*8%),8%0‘)+%‘),8%‘)+10‘,.($%‘0%5‘51‘
“‘08‘//‘4/,0)%$‘*7%$‘)+%‘/*,.0‘(*84,.%5‘3,)+‘ 5,0)%.5%5‘‘1$,(/%‘(‘.‘&*$(%‘
$%0)‘‘.5‘0),81/‘.)0‘)+%‘3*$0)‘(‘0%0‘*&‘5$*602‘)+%‘/%&)‘7%.)$,(/%‘,-,)‘/,0‘
&$*8‘(‘$5,‘(‘&‘,/1$%‘‘$%‘*&)%.‘0‘7%5 *4)‘,.0‘‘‘4%))%$‘&,//,..-‘*&‘)+%‘7%.)=‘
$‘)+%‘5206.*%‘‘‘.5‘)+%‘,.0*8..‘‘)3*‘*& 8*$%‘%&&%(),7%‘5,0(+‘$-%‘&‘,)0‘A
)+% 3*$0)‘0286)*80‘3%‘+‘7%‘‘‘$%8%52‘*& &,//%5‘‘.5‘)+10‘1.5%$‘,)0‘10%‘4%‘)/
-$%‘)‘6*3%$‘,.‘)+%‘ 014(1)‘.%*10‘,.>%(),*.‘)+%‘),*.‘,0‘$%/,%7%5‘ .‘8,)$‘/‘,.01&&,(,%./
*& 8*$6+,.%‘,.‘5*0%0‘*& *.%0,B)+‘*&‘‘-$‘,.‘ ‘/8*0)‘%E1‘//2‘6*)%.)‘ .‘4*)+‘&*$8 0‘A
163‘$50‘ +,0‘$%8%52‘‘()0‘*&)%.‘/,,%‘‘‘ *&,)0‘-**5‘%&&%()0‘3*1/5‘0%%8‘)*‘4%‘;
(+‘$8‘‘.5‘8‘2‘4%‘10%5‘%7%.‘,.‘)+%‘3*$0)‘ 0*8%,.&/1%.(%‘6$*4‘4/2‘)+$*1-+‘)+%‘6.%1‘
(‘0%0‘*&‘4*)+‘8,)$‘/‘‘.5‘‘*$),(‘5,0%‘0%‘41)‘ 5*%0‘.*)‘.%(%00‘$,/2‘(*.)$‘,.5,(‘)%‘,)0‘10%‘ -‘0)$,(‘.%$7%0‘,.‘6$*51(,.-‘(*.)$‘(),*.‘*&‘8
‘/3‘20‘3,)+‘(‘1),*.‘ /418%.‘,.‘)+%‘1$,.%‘ .‘0*8%‘(‘0%0‘(+/*$‘/‘+25$‘)%‘ ‘.5‘4$*8,5%‘ 61/8*.‘$2‘4/**5 7%00%/0‘)‘,0‘6%$+‘60‘
4%0)H‘6‘$‘/5%+25%‘,0‘‘/0*‘10%&,,/H‘41)‘)+%2‘ *&‘6*)‘00,18‘‘/*.%‘*$‘,.‘(*84,.‘),*.‘‘$%‘ 6$*6%$)2‘3+,(+‘8‘9%0‘,)‘7‘/1‘4/%‘,.‘>‘
810)‘//‘4%‘-,7%.‘(‘1),*10/2‘ +%‘4$*8,5%0‘ 7‘/1‘4/%‘$%8%5,%0‘&*$)+%‘,.0*8.,‘H‘*&‘.%3‘ 8*.‘$2‘+88*$$+‘-%0‘,.5%6%.5%.)‘*&‘+%‘$)‘
8‘2‘4%‘6$%0($,4%5‘3,)+‘*)+%$‘0%5‘),7%0‘01(+‘ $%8%5,%0‘ 1$%)+‘.‘ ‘.5‘01/6+*.‘/‘ ‘$%‘)+%‘ 5,0%‘0%
‘(‘0‘.,)$*-/2(%$,.%‘&*$‘)+%‘ 5206.*%‘‘ +% 4%0)H‘6‘$‘/5%+25%‘,0‘‘/0*‘10%&,,/H‘41)‘)+%2‘
(*86$%00%5‘,$‘4‘)+‘‘/0*‘$%/,%7%0‘)+%‘/‘0)‘ 810)‘//‘4%‘-,7%.‘(‘1),*10/2‘ +%‘4$*8,5%0‘
02 86)*8 8‘2‘4%‘6$%0($,4%5‘3,)+‘*)+%$‘0%5‘),7%0‘01(+‘
$*602‘/,9%‘)+%‘7,0(%$‘/‘ (*.-%0),*.‘0‘3,)+‘ ‘(‘0‘.,)$*-/2(%$,.%‘&*$‘)+%‘ 5206.*%‘‘ +%
3+,(+‘,)‘ ‘00*(,‘)%5‘%‘8*(,‘1‘&%‘)+%‘10%‘*& (*86$%00%5‘,$‘4‘)+‘‘/0*‘$%/,%7%0‘)+%‘/‘0)‘
5,1$%),(0‘.5‘+25$‘-*-1%‘(‘)+‘$),(0‘ +%.‘ 02 86)*80‘,0‘‘/0*‘10%&,,/H‘41)‘)+%2‘
)+%0%‘&‘,/‘)+%‘03*//%.‘/,8402‘8‘2‘4%‘61.(; 810)‘//‘4%‘-,7%.‘(‘1),*10/2‘ +%‘4$*8,5%0‘
)1$%5‘3,)+‘4%.%&,)‘ *.),.1%5‘&$,(),*.‘ *& 8‘2‘4%‘6$%0($,4%5‘3,)+‘*)+%$‘0%5‘),7%0‘01(+‘
)+% /,8402‘42‘0),81/‘),.-‘)+%‘7%00%/0‘3,//‘ ‘0‘.,)$*-/2(%$,.%‘&*$‘)+%‘ 5206.*%‘‘ +%
&%.‘(‘10%‘(.0,5%$‘4/%‘ ‘.‘0‘$(‘‘)*‘5,0; (*86$%00%5‘,$‘4‘)+‘‘/0*‘$%/,%7%0‘)+%‘/‘0)‘
‘66%‘$‘ +%‘5$1-‘*.‘3+,(+‘8‘,.‘$%/,‘.(% 02 86)*80‘,0‘‘/0*‘10%&,,/H‘41)‘)+%2‘
810)‘4%‘6/‘(%5‘3+%.‘-%.%$‘/‘5$*602‘016%$; 810)‘//‘4%‘-,7%.‘(‘1),*10/2‘ +%‘4$*8,5%0‘
7%.%0‘,0‘5,-,)‘/,0‘)‘,0‘ ‘(" ‘)+%‘)+%‘ ‘*$),(‘$%(*,/‘-‘,.0‘,.‘)+%‘0‘8%6$*6*$),*.‘
(‘$5,‘(‘)*.,(‘ *.7‘//‘$,‘‘ 0)$*6+‘.)+10‘ ‘0‘)+%‘7%.)$,(1/‘$‘020)*/%‘‘.5‘)+10‘&*$(%0‘
(‘0(‘‘(‘&&%,.%‘‘.5‘5*.,0‘7%$.‘/,0‘‘$%‘*)+%$‘ 4/**5‘4‘(9‘,.)*‘)+%‘7%.)$,(/%‘3,)+‘,.($%‘0%5‘
5$1-0‘+‘7,.-‘0,8,/‘$‘(),*.G0)$%.-)+%.,.-‘ 7,-*1$‘51$,.-‘)+%‘/%.-)+%.%5‘5,‘0)*/%‘)‘,0‘
41)‘0/*3,.-‘+%‘$)4%‘)‘ +%2‘$%‘ ‘//‘/%00‘ ,86*$)‘.)‘,.‘‘*$),(‘,.01&&,(,%.(2‘)*‘3*)+2‘)+‘.‘5,-,)‘/,0‘ ‘&&%,.%‘,0‘‘‘)+%‘&,$%E1%.(2‘*&‘)+%‘(‘$5,‘(‘(),*.H‘+%.(%‘
-**5‘5,1$%),(‘‘.5‘0*‘*((‘0,*.‘//2‘,0‘(*.7‘/;)+%0%‘(‘0%0‘‘$%‘0*‘(*.0)‘.)/2‘)+%‘4%))%$‘&*$‘
/‘$,‘‘%7%.‘3+%.‘5,-,)‘/,0‘+‘0‘&‘,/%5‘)$*; 4*5,/2‘(),7,)2H‘.5‘0*‘3+%.‘)+%‘)*‘.,.-‘
6+‘.)+10‘,0‘-%.%$‘//2‘)+%‘8*0)‘10%&1/‘ ,-,; %&&%()0‘*&‘5,-,)‘/,0‘ ‘$%‘ $%E1,$%5‘,)‘0+*1/5‘
)‘),/,0‘+‘0‘0*‘-$%)‘‘0+‘$%‘,.‘)+%‘)+%$‘6%1),(0‘ ‘/3‘20‘4%‘-,7%.‘,.‘(*84,.‘),*.‘3,)+‘%)+%$‘
*&‘+%‘$) 5,0%‘0%‘‘.5‘‘9.*3/%5-%*&‘,)0‘(),*.‘ ‘.5‘‘8 8*.,‘‘)*‘9%%6‘16‘E1,(9‘(),*.‘*&‘)+%‘
,0‘0*‘,86*$)‘.)‘)+‘)‘,)‘810)‘4%‘5,0(100%5‘ +%‘$)‘‘.5‘)*‘6$%7%.)‘)+%‘7%$),-‘*‘.5‘02.(*6%‘
0%6‘$‘)%/2‘.5‘/0)‘ +‘)%7%$‘7,%30‘8‘2‘4%‘ 3+,(+‘8‘2‘*)+%$3,0%‘*((1$‘ +%.‘)+%$%‘,0‘
+%/5‘‘0‘)*‘,)0‘6+20,*/*-,(‘/‘‘(),*.‘,)0‘-$%‘)%0)‘ %B(%00,7%‘+26%$)$*6+2‘,.‘(‘0%0‘*&‘‘*$),(‘,.;
)$,186+0‘‘$%‘0%%.‘(/,.,(‘//2‘,.‘)+%‘)$%‘)8%.)‘ 01&&,(,%.(2‘5,-,)‘ 0‘,0‘10%&1/‘0*8%),8%0‘,.‘
*&‘7‘/71/‘$‘5,0%‘0%0‘3+%.‘(2‘.*0,0‘5,0)%.5%5‘ E1,%),.-‘6‘/6,)‘),*.‘$%51(,.-‘%B(%00,7%‘&$%;
>1-1/‘$0‘5206.(%‘‘(*.-%0)%5‘7,0(%$‘‘5$*60,; E1%.(2‘‘.5‘/%00%.,.-‘+%‘5‘(+%‘‘.5‘7‘0(1/‘$



[' '

(+'$'%)%,0' ' ' .6),,$a' *&R' .' ''/' &)%'7'$,%),%0'*&',.>1$2'*&')+%'+%'$')+%'3*1.5' ,0'&*1.5'6/1--%5' 3,)+' 4/**5 %/L)')+%' %5-%0' 4%,.-' %,)+%$' ,.&,/)$')%5' *$' %(*+28*0%5' '.5')%$.' .' *'0%0')+')' 5*' .*)' 6$*7%' $'6,5/2' &')'/')+%' 01'/' 0,-.0' *&',.&/'8,.'),*.' *$' +%'/,.-' '.5' %7%.' (,(')$,0'),*.' '$%'&*1.5',.')+%+%'$)H' *$' '.%1$208' *&')+%' ('$5,'('3'//0' 8'Z' 4%'5%7%/*6%5' '0' '' $%01/)' ()&')+%' /')))%$' +%' 7'/7%0' '.5')+%,$' '66%.5'-%0' '$%' &,$%' E1%./)2',.(,0%5' *$' *)+%$3,0%' ,.>1$%5' .' 0*8%' ('0%0' '' 6$),*.' *&')+%' 3%'6*.' 6$*;.>%(),/%'*$'&*$%,-.' 4*52' 8'2'4%'&*,8 5',.')+%' +%'$)' +%' %$.' 7%.)$,(/%0G'.5' %06%(,'//2')+%' $,-+)' 7%.)$,(/%G'$%')+%' 6')$0' *&')+%' +%'$)' 8*0)' (*8 8*./2',.>1$%5' +%' -$%')' 7%00%/0' /1.-0' '.5')+%' '$)%$,%0'*&')+%' (+%0) 3'//'8'2')50*4%' $*1.5%5',.'5,&&%$%.)',.0)'.(%0)' 8 10)' 4%' *40%$7%5')+')' '' 4/*3' *7%$')+%' +%'$)' +'0' 6$*7%5',.0)'.)/2'&')'/' 3,)+; *1)' /%'7,.-' '.2' /%0,*.' 5,0(*7%$'4/%' '

$*8')+%0%'$%01/)0',0'%7,5%.)')+'}'3*1.50' *&')+%' +%'$)' 8'2'6$*7%' $'6,5/2'&')'/'42'/*00' *&4/**5'42'(*86$%00,*.'*&')+%' +%'$)'$%01/); ,.-'&$*8'+%8*$$+'-%',.)*')+%' 6%$,%'$5,1.=' *$'42'0+*(9H 3+,/0)' '}' '/')%$' 0)'-%'6%$,; ('$5,),0'82*('$5,),0''.5'0%(*.5'$2'+%8*$; $+'-%'8'2'4%'%B6%()%5')*'0)*%$7%.% ! (!)' % }' ' ! " ' .'*4*1)' .%),+,$5'*&'$%(*$5%5'('0E0'*&',.>1$2' *&')+%' +%'$)' %,)+%$' 5%')+',0' ,8 8%5,')%'5%')+'8 10=' &',),.-' (*.71/0,*.0''.5')+%' *)+%$' 02 86;)*80'*&'02.(*6%''0'3%/' '0')+*0%' *&'0+*(9' 4%,.-')+%'6$*8,.%.)'6+%.*8%.''*/*.-'3,)+' %B)%$.'/' +0%8*$$+'-%H' *$')+%'6'),%.)'5$*60' 5%'5' '&)%$' '' &%3' 8*8%.)0'51$,.-' 3+,(+'),8%' +%' 8'2'+'7%' 1.5%$-*.%' (*.0,5%$'4/%' %B%$),*.' .' '' 0%(*.5' (/'00' *&' *'0%0')+%' 02 86)*80'*&'02.(*6%'*$'*&'0+*(9'*((1$',8; 8%5,')%/2'41)'5%')+'5*%0' .*)'%.01%' ')'*.(%' +%'6'),%.)')+%.'/,%0',.''0)')%' %,)+%$'*&'B8' (*.0(,*10.%00'*$'*&'(*86/%)%'6$*0$)',.*.' W.')+%'/')))%$'%7%.)'+%' (*86/',.0'*&''' 0%.0%'*&' -$%')'5%4,/,)2'6$0%(*$5,'/*66$%00,*.' 520; 6.*%''' '.5'01&&*(',*.H)+%'01$^ %',0'(*/5' 6',5''.5')%$%84 .-H 7*8,),.-' 8'2'*((1$H '.5')+%$%',0'101'//2'+0%8*$$+'-%'&$*8')+%' $%-,*.' *&')+%' +%'$)' %')+' *((1$0' '&)%$' 8,.1)%0'*$' +*1$0' %,)+%$' &$*8' %B+'10),*.' 51%(+,%&/2')*'(*.),.1%5'*$'$%6%')%5'/*00'*& 4/**5'*$&$*8'(*86$%00,*.'*'*&')+%'+%'$)' .' '')+,$5'0%$,%0'*&'('0%0')+%'(*1$0%',0'8*$%' 6$*)$'()%5' +%'6'),%.)''&)%$'01&&%$,.-'&$*8')+%'0286)*80'>10)'%.18%$')%5'41)',.''/%00' 5%-$%%'6'00%0')+$*1-+')+%'7'$,*10'6+'0%0'*& (*.0),1),*.'/'5,0)1$4.(%(*88*./2'*0%$7%5' ,.'0%7%$%' 3*1.50'(*86/,(')%5'+*3%7%$' 3,)+'6%$,('$5,),0'82*('$5,),0''.5'$%6%')%5' +0%8*$$+'-%H ''.5'5,%0'*&'%B+'10),*.''&)%$' '.',//.%00'*&'3%%90'*$'8*.)+0' '0)/2',.''' 08'/'6$*6*$),*.'*&'('0%0')+%'6'),%.)'01$7,7%0')+%'7'$,*10'((,5%.)0''.5'(*86/,('),*.0'>10)' 5%0($,4%5''.5')+%'3*1.5'*&')+%'+%'$)'+%'/0H 41)',)'0*8%),8%0'+'66%.0')+')'0286)*80'*& '.%1$208'*&')+%'('$5,'('3'//0''*$'*&',.(*8; 6%)%.(%'*&')+%'705/' 7%/*6%5''0')+%'$%01= - 2 , 4' 101'//2'4%'5,'-.*)',')+%'0,)1'),*.''*&')+%K= 0%7%$,)2'*&')+%'0286</')*80'8'2'+*3%7%$K -$%')'7%00%/0',.')+,.' (+%'+%'$)''*$'*&')+%''$)%$,(=' (+%0)',&')+%'+0%8*$$+'=' 1./%00')+%$%'4%'/8*0)'K)+')'''7%00%/'3,)+,.'$%']/ *&')+%'4/%%5,.-')+%'5,'-. ' 1.5%(,5%5' '.5''//'5'&,-%,=' '7*,5%5

G= .>1$2'*&')+%:A $'//2')*'4%'$%-'$5%5''0'(% 5%')+H 41)',)'>=*./5'.*)'4%'; 8'.2''0'8< 6%$'(%.)'*&'$%(*$5/' 0',5')*'+'7%'$%(*7%$%5' *8%'7,' '4/%',.0)'.(%0'+'7%*((1$$%5'*&', 7%$2'0%7%$%',.>1$2')*')+,0'*$-'.H &*>' '' ('0%',.' 3+,(+'' 41//%)'3'0'K 0140)'.(%'*&')+%'+%'$)' &*$')3%. / O$ ' 'O 2 " ' '$(+'@"' %)I' 6$*-.*0,0' 8'2' 4%' 4$*'5/2' %0),8')%')+%' 0%7%$,)2' *&')+%',8 8%5,')%' 028>,' $'18'),(' $16)1$%'*&')+%'+%'$)',0' +'7%',.7'$,'4/2'6$*7%5'&')'/ # 2 .'3*1.50'*&')+%'+%'$)'U +0%8*$$+'-%8 10)'4%'')'*.(%''$$%0)%5'42'K 101'/01$-.('/8%.0H,8 8%5,')%'5%')+'8 10=' 4%'6$%7%.)%5'42'('1),*10'0),81/'),*.H'.5Kb')+%'6'),%.)'8 10)'4%'9%6)',.'01(+''(*.5,),*.')+')'3+,/0)'/,&%',0'6$%00%5')+%'5'.-%$'*&' ,.&/'88')*$2'$%'(),*.',')+%'$=*.'*&')+%' +%'$)''.5'*&&$%0+'+0%8*$$+'-%',0'$%51(%5')*''$. .,8,,8'),0'*.')+,0'((*1.)')+' $%0)*$'),7%' 8%'01$%0''$%')*'4%'-1'$5%5/2' %86/*2%5')'&,$0)''.5'$%0*$)%5')*',.')+%' &1$)+%$' 6$*-$%00'*&')+%'('0%'*./2'3+%.' 1$-%.)/2',.=(')%5' 40*/1)%'$%0)'*&'4*52' '.5'8,.5',0',.5,06%.0'4/%' %$7,.'.5' ('$5,'('0%5'),7%0'01(+' 4$*8,5%'*&'6*)'0; 0,18'8*$6+,.%'(+/*$'/+25$')%'.'.5'4% 'K0 5*..''8'2'4%'*&'-$%')'0%$7,(%3+%.'10%5' 3,)+'>15-8%.)

" ' ' $$' 0 %'

%) = 2*' '' '$5,'/-,'G' %'$)41$.',0''+*)'*$'0('/5,.-'0%.0'),*.' 101'//2'$%&%$%5')*'+%'('$5,'(*$,&,(%'*&')+%' 0)*8'(+'41)',.'0*8%'('0%0'5,&&10%5'*7%$')+% 3+*/%''45*8%.')',0''+*8'$9%5'0286)*8' *&',.5,-%0),*.'''.5',0'&$%E1%.)/2''((*86'.,%5' 42'%$1()'),*.0'*&''7%$2'('(,5'(+'$'()%$H''.5')+%'&/1,5'$%>%()%5'&$*8')+%'0)*8'(/2'6$*51(%0' ''0%.0'),*.'*&'0('/5,.-'8')+%')+$*')''.5' *%0*6+'-10

* $ " %'$)41$.'%B,0)0',.' ' %$2' 8'$9%5'5%-$%%',.'5,/')'),*.'*&')+%'))'(+' 4%,.-'6$*51(%5'42')+%'5%(*86*0,),8'*&',.; 5,-%0),4/%'&**5'$%)',.%5',.')+,0'E0='.')' (*.0)'.)/2''((*86'.,%0' #(D0'(')'$$+'/' -'0)$,),0')+%' $%)',.%5' 818,0' %.(/*0,.-' 6'$),(/%0'*&'&**5',.''0)')%'*=%(*86*0,),*.

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0' ,)' ,0' 03 '//*3%5 '
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'0%')+%' 0)*8 '(+',0'
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'0'),*.',0'+%0)')$%')%5'
/'/9'8'-.%0,''0=/9'+0'
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.' 0*8%' %'0%0'
U%/,%7%0',)' +%'5,%)' '/0*'
-1/'),*.' /' '$),(/%0' *&'
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640),.')%' %'0%0' 9%6)' 16' 42'
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+)%$' +%' 3$,)%$' +'0' *4)',.%5'
W0140),)1),..-'-/1)%.'4$%'5'&*$'
A2'4'9%$<0' 4$%'5H' .5'3+%$%')+,0'
4%')'9%.'+'0'&*1.5'57'.)'-%'^*8'
'%$')%5'*$'0*8%'*)+%$'9,.5'(1.;
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&')+%'3+/%'4*52')'*+,-+')%86%$')1$%0'7'$2'
3,)+')+%'0*$1*%''.5'5%-$%%'*&'+%')')+%'0/*3;
.%00'*$'$'6,5,)2'*&')$'.0,),*.'&$*8'/*3%$'
)%86%$')1$%0''.5')+%'/%.-)+'*&'%B6*01$%'
'0'3%//'0'3,)+')+%'-%'(*.0),)1),*.'+'4,)'
'.5'+%'/)+'*&')+%'4*52H''.5')+%2''$%/,'4/%'
)*'4%'8*$%'*$'/%00'8*5,&,%5'*$'*40(1$%5'42'
7'$,*10'(*.(*8,)'.)'(,$(180)'.(%0''.5'(*.;
5,),*.0'01(+''0')+%'4'$*8%)$,('6$%001$%')+%'
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*&')+%''))8*06+%$%
+%$'.-%'*&')%86%$')1$%'3,)+,.')+%'/,8,)0'
&'3+,(+'/,&%('.'4%'8','.)'..%5'66%'$0')'4%'
-$%')%$',.')+%'%'0%'*&'8'.')+'.',.')+')'*&'
8*0)'*&')+%'/*3%$'.,8'/0',.'7,$)1%'*&'
-$%')%$'6*3%$'*&''((*88*5'),*.')*'%B)%$.'/
,.&/1%.(%0'3,)+*1)'1.51%%/%7'),*.'*$/*3%$;
,.-'*&')+%')%86%$')1$%'*&')+%'4*52' 1)',.'
%7%$2'('0%''.2'01(+'(*84,.'),*.'*&'%B)%$.'/
(,$(180)'.(%0''0'('10%0')+%')%86%$')1$%0'*&'
)+%'4*52')*'$,0%' !g')*' Fg'4*7%')+%'.*88'/
0)'.5'$5'06%%5,/2'6$*7%0'&')'/

' $),&,(,'/'+%')G 18%$*10'*40%$7'
),*.0''.5'%B6%$,8%.)0'0+*3')+')',.' / ' '
%B6*01$%')*'7%$2'+,-+')%86%$')1$%0'('.'4%'
4*$.%'51$,.-'6%$,*50'7'$2,.-'3,)+'(,$(8.'
0)'.(%0'3,)+*1)'5'.-%$'*$'%7%.'0%$,*10',.;
(*.7%.,%.(%')K)+%')%86%$')1$%'*&')+%'4*52'
4%,.-'9%6)'5*78=,)+8'0'&%/,8,)0'42'%7'6*

$'),*.'&$*8')+%'01$&'(%''.5'&$*8')+%'/1.-0'
+10','.'*40*.<0'%B6%$,8%.)0''')%86%$')1$%'
*&'<8HK&3'0'010)',.%5'51$,.-')3%.)2'8,.1)%0H
/'-5%.'%B6*0%5'+,80%/&'51$,.-'%,-+)'8,.1)%0'
)*''')%86%$')1$%'*&'@D!gH' +'.)$%2<0'3*$9;
8%.'3%$%'((10)*8%5')*'%.)%$''5$2,.-'*7%.'
,.'3+,(+')+%')+%$8*8%)%$'0)**5''))'"F!gH'.5'
+'4%$)')+%'0 ,$%' ,.-<,0'0',5')*'+'7%'&$%;
E1%.)/2'%B6*0%5'+,80%/&')*''')%86%$')1$%'
*&'&$*8' !!g')*'D!!g' /'00 3*$9%$0'8%)'/'
&*1.5%$0'-'00)*9%$0'%.-,.%%$0',.'0)%'8;
4*')0G%06%(,'//2',.')+%')*$6,(0G4'9%$0<
7%.41,/5%$0''.5'*)+%$0'(*.0)'.)/2'('$$2'
*.')+%,$'3*$9',.')%86%$')1$%0'*&'&$*8'8<Hg'
)*' D!g'*$'%7%.'+,-+%$G)*'0'2'.*)+,.-'*',
)+%'4/'0)0'*&'$'5,'.)'+%')')*'3+,(+'0*8%'$%
&$*8'),8%')*'),8%'%B6*0%5' ' '
%7'6*$'),*.'&$*8')+%'01$&'(%''.5',)0'(**/,.-'
,.&/1%.(%' 4%,.-'5,8,.,0+%5'*$' 6$%7%.)%5'
81(+'/*3%$')%86%$')1$%0'06%%5,/2'4%(*8%'
,.0166*$)'4/%' %$-%$'3'0'1.'4/%')*'$%8',.'
,.''7'6*1$'4')+')+%')%86%$')1$%'*&'3+,(+'
+'5'$,0%.'&$*8'!Dg')*'8<Hg''/)+*1-+'+%'+'5'
%'0,/2'+*8%''')%86%$')1$%'*&'@"!g',.'5$2',$
&*$'&,7%'8,.1)%0' +%.')+%'.')1$'/'/*00'*,'
+%')',0'6$%7%.)%5'42')+%'8*,0)1$%'*&''+*')
'8*06+%$%G'0',.''7'6*8$'4')+'*$'42',8
8%$0,6.',.''+*)3')%$'4')+'*$'*)+%$3,0%G'
)+%')%86%$')1$%'*&')+%'4*52'$,0%0')'+'0'
4%%.'&*1.5')'9%.',.')+%'$%()18')*'$,0%'0'
+,-+'0' !?g',1'%,-+)'8,.1)%0''.5'%7%.')*'
!Mg'A]H',.')+,$)2'8,.1)%0',.''7'6*1$'+')+'
*&'@Mg'A '$)%/ORH''.5',.''+*)3')%$'4')+' /
! g')*' g')+%')%86%$')1$%')'9%.',.')+%'
8*1&+'+'0'4%%.'&*,85')*'$,0%')*'8HKLg'
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$' /%8,.-KI'&*1.5')+')'%B6*01$%',.')+%'
1$9,0+'4')+'51$,.-'.''+*1$')*''')%86%;
$')1$%'(*88%.(,.-')'M!g''.5'-$'51'//2'
/*3%$%5')*'4*1)'"!g'('10%5')+%')%86%$';
)1$%'*&'+,0'4*52'A)'9%.'42''' 06%(,'//2'
5%7,0%5')+%$8*8%)%$',.')+%'8*1)+R')*'$%(0%
$'6,5/2'51$,.-')+%'&,$0)'%.'8,.1)%0'&$*8'
''.*$8'/'7%$'-%'*&'PM0DFg')*'PP0@g'A''$,0%'
&'KFFgR'H''.5')+%.'8$%'0/*3/2'1.),/')+%'
%.5'*&'&,&)2'8,.1)%0'3+%.')+%'+,-+%0)'
6*,.)' !K"g'A'' $,0%'*&'"0DFgR'3'0'$%'(+%5'
,0'61/0%'$*0%'51$,.-')+%'&,$0)'%.'8,.1)%0'
&$*8'M?')*'P'4%')0',.')+%'8,.1)%''.5'/,9%
)+%')%86%$')1$%'))'.,.5',)0'8'B,818' F'
')'+%'%.5'*&'&,&)2'8,.1)%0' ,0'4$%')+,.-'
&,$0)'5,8,.,0+%5',.'$'6,5,)2'&$*8'@@<F')*'@!%?'
.5')+%.',.($%'0%5')*'@FI''.,.''(0)1'/'$'6,5,)2'
41)'8',.)',.%5''5,8,.,0+%5'$'),*' ')+%
61/0%' +%' '$)%$,'/')%.0,*.'0%%8%5')*'4%
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+%'$)<0''(),*.'(*84,.%5'3,)+')+%'-*$-%5'
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R # '' &1$)+%$'$,0%' &$*8' M!g'
$%E1''//2'(*.0)'.)'5,8,.1),*.'
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'5,8,.,0+%5' '.5')+%'5,-%0),7%'
/*3%$%5' M)+' '00,)15%' /'.'
\&'7,-*1$',.5,06*0,),*.')*' %B%$'
9%.0%'*&'%B+'10),*.'*&'8,.5' '.5'
96%$,%. %5',.'5%-$%%0'7'$2,.-'7$,)+'
'(%0H')+%'5%6$%00,.-'%&&%()0' 4%,.-'
$3+%.')+%'+%')',0'# '*./2'-$%')'41)'
410' 5'2' '.5' .,-+)' '.5' 3+%.')+%'
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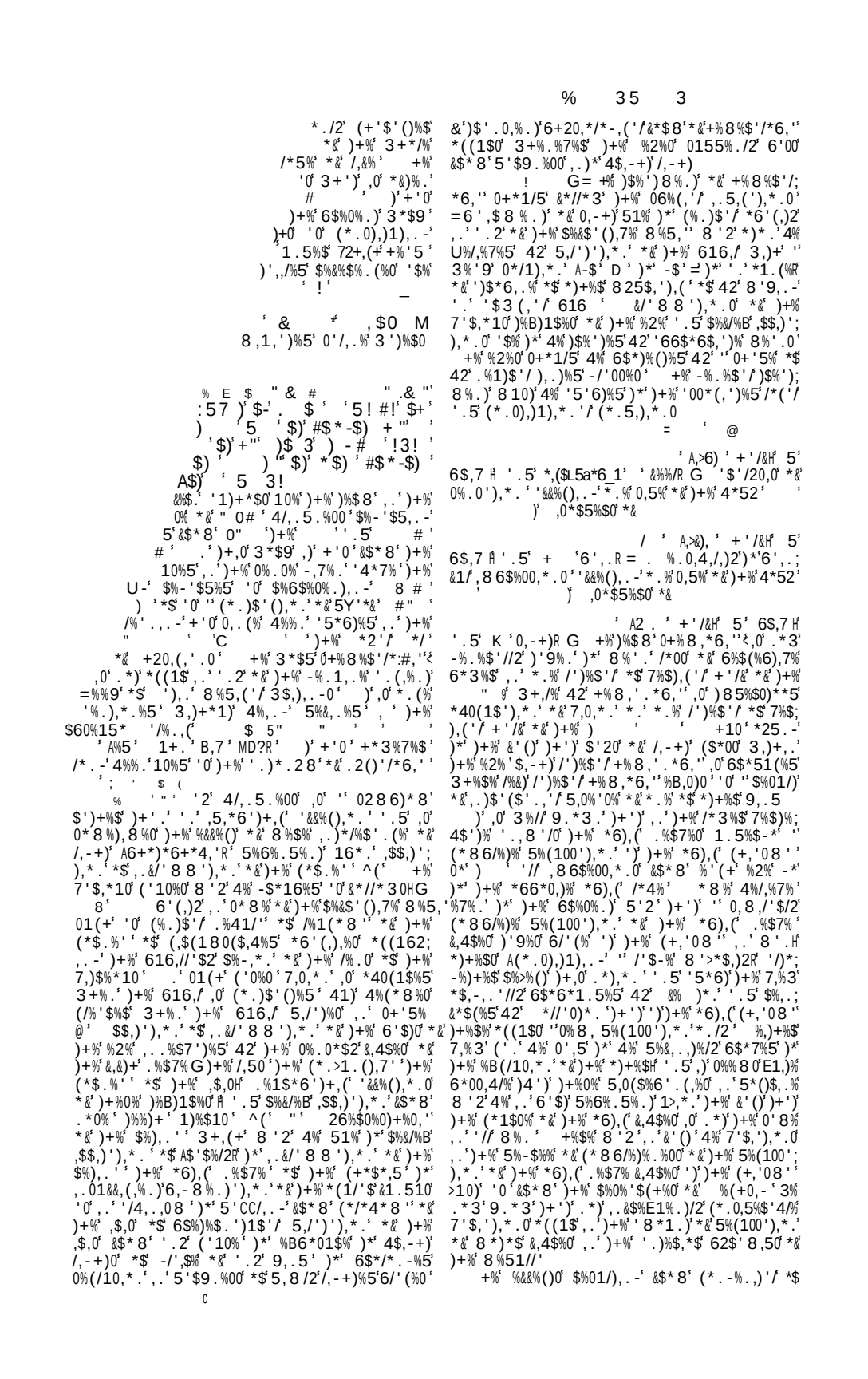
K=%&&%()0'*&')+%'$'5,'.)'+%')'*&')+%'01.'
/=),.-.,0+%5'&$*8')+*0%'*&' ')8*06+%$,('
⅀'$%'.*)' %//'8'5%'*1)')'3*1/5'6'
6*4'4/%'+*3%7%$')+')' '' 6+20,*/*-,('/'
I ''57%$0%')*' 6%$06,$'),*.',0'6$*51(%5'42'
4%'5,$%()'$'20' A '$9%0R'.5')+')'+10' '0'
7%,/' '0'&$*8' $'6,5'%7'6*$')*.')+%'09,.'
4%(*8%0'5$2' '.5'/,'4/%')*' (%$)',.'0)$1(;
)1$'/(+'.-%5' 01(+' '0')+%' &*$8'),*.' *&'
6,-8%.)
B6*01$%')*')+%'5,$%()'$'20'*&')+%'01.'*$
)*' -$%')'*$' (*.),.1%5'+%')',.')+%'0+'5%'
%06%(,'//2'1.5%$'1.&'7*1$'4/%')8*06+%$,('
'.5' -%.%$'/(*.5,),*.0' 8'2' -,7%'$,0%')*'
+%')&%7%$'+%') '6*6/%Y2'*$'*.%'*$*)+%$'*&'
)+%'&*$80'*&'0)80)$*9%' '5
Q J *('/' &&%()0'*&' %7%$%' $),&,(,'/'
%')' 1$.0' '.5' ('/50 G +%'/*('/'
%&&%()0'*&'+%')'7'$2'3,)+')+%'5%-$%%')+%'
/%.-)+'*&'%B6*01$%')+%'8%5,18'*&'66/,(';
),*.''.5')+%'6'$)'()%5'16*.' $ " '$%01/)'
&$*8'0 5$2 &$*8'0 8*,0)'<+%')
' ' !(! G ,$0)''(*86'$';
),7%/2'0/,-+)'5%-$%%'*&'+%')'('10%0'7'0(1/'$'
)1$-%0(%.(%'$%5.%00')',.-/,.-'6',.''.5')%.;
5%$.%00'3+,(+'0**.'0140,5%' %0E1'8'),*.'
&')+%'%6,5%$8,0'8'2'&//*3'41)'.*'6%$8';
.%.)'$'(%'*&',.>1$2',0' /%&)' %(*.5/2''
+,-+%$'5%-$%%'('10%0'0%7%$%'41$.,.-'6',.'
''.5'-$%')'$%5.%00'*&'01$&'(%'&*//*3%5'42'
%&&10,*.''*&'0%$18'4%.%')+')+%'(1),(/%'A7%0,('
),*.R' *86/%'$%0)*$'),*.'3,)+*1)'0('$',0'
101''//2%&&%()%5' +,$5/2'0),//+,-+%$'5%-$%%0'
&'+%')'$'/*.-%$'%B6*01$%'('10%',.)%.0%'6',.'
'.5',88%5,')%' 5%0)$1(),*.'*$'(*.0%(1),7%'
5%0)$1(),7%',.&/'88'),*.'*&')+%')$1%'09,.')4
'' -$%')%$'*$'/%00'5%6)+' /*1-+,.-'.'5'016;
61$')*.'&*//*3''.5'6%$8'.%.)'0('$$,.-'$%;
01/)0' *5$)+/2'7,*/%.)'+%')''.5'6$*/*.-%5'
%B6*01$%' ('0%' (*86/%)%' 5,0,.)%-$'),*.''.5

(+'$$,.-'*&')+%'0)$1()1$%0' %06%(,'//2''()%5'
16*.'&*//*3%5'42'5%0)$1(),7%',.&/'88'),*.'
'.5'0/*1-+,.-'*&'*)+%$0')*''0),//-$%')%$
5%6)+''.5'%B)%.)' *00'*&'6')$0''.5'8*$%
*$'/%00'0%$,*10'5%&*$8,)2''.5'0('$$,.-'.%(%0;
0'$,/2'$%01/)
+%' 0%6'$')*.'*&'0/*1-+0''.5')+%'6$*;
(%00%0'*&'$%6',$'&)%$'0%7%$%'41801')'9%'6/'(%
0/*3/2H''.5''0''' $1/%')+%'6'),%.)'01&&30'
81(+'8*$%'(1)%/2''.5'51$,.-''' 81(+'
/*.-%$'6%$,*5')+'.''&)%$'*)+%$'&*$80'*&',.;
>1$2',.7*/7,.-'%E1''//2'%B)%.0,7%'5%0)$1(),*.'
*&'),001%
+%' " " ' ' /" ' '
'00*(,')%5'3,)+'41800''.5'0('/50'7'$2'3,)+'
)+%'016%$&,(,'/' %B)%.)''.5'0,)1'),*.''$')+%$'
)+'.'3,)+')+%'5%6)+'*&')+%',.>1$2' +10''.'
%B)%.0,7%'418' *$'0('/5'*7%$')+%''45*8%.'
'&&%(),.-'*./2')+%'09,.',0'81(+'8*$%'/,9%/2'
)*'6$*7%&')'/')+'.''' 5%%6'418'*&'.%'*&')+%'
%B)$%8,),%0'6%.%)$'),.-'%7%.')*')+%'4*.%'41)'
*&'(*86'$'),7%/2'08''//016%$&,(,'/'$%'H''.5'
41$.0'*7%$')+%'&$*.)'*&')+%'45*8%.'*$'(+%0)'
'$%' 8*$%/,9%/2')*' 6$*7%&%)'/')+''.')+*0%'*&'
0,8,/'$' %B)%.)'*7%$')+%'4'(9' &'8*$%')+''.'
+'/&')+%'01$&%(%'*&')+%'4*52',0''&&%()%5')+%'
01&&%$%$'$'%/2'$%(*7%$0
.'0%7%$%'('0%0'5%')+'8'2'$%01/)'&$*8'0+*(9'
)*')+%'020)%8'%,)+%$',8 8%5,')%/2'*.'$%(%,6)'
*&')+%',.>1$2'*$'&)%$''6%$,*5'*&'&$*8')3*'*$'
)+$%%')*'&*$)2%,-+)'+*$.0'*$'8*$%' 1$,.-'
01(+',)8%')+%'01&&%$%$'$%8',.0',.''0)')%'*&'
(*//'60%'*$'6$*0)$'),*.'3,)+'6'//*$'*&'(*8;
6/%B,*.'/*3.%00'*&')%86%$')1$%'A5%6%.5%.)'
6$*4'4/2'*.'5%($%'0%5'6$*51(),*.'*'*&'+%')R'
(**/.%00'*&'4$%')+'08=' *$',86%$(%6),4/%'
61/0%'5$2.%00'*&')*.-1%''.5'8*1)+''.5'
0*8%),8%0'5%/,$,8.'$,-*$0'*$'(*.71/0,*.0'
.'4*1)'+'/&')+%'&')'/'('0%0'*&'4180'5%')+'
,0'))$,41)'4/%')*'0+*(9' .'01(+'('0%0' 7
'%B'8,.'),*.'0+*30'*./2'(*.-%0),*.'
*&')+%'7,0(%$'.'.5'%06%(,'//2'*&')+%'4$',.'
.'0*8%',.0)'.(%0'+*3%7%$'(+'$'()%$,0%5'
42'6',.&1//2'/'4*)1%5''.5'&$%E1%.)'%&&*$)0')'
$%06,$'),*.')181/)1*10',$$%-,,'$'&%%4/%''.5'
7%$2'&$%E1%.)''(),*.'*&')+%'+%'$)''.5'-$%')'
6$0%(*$5,'/5,0)$%00'5%')+'3*1/5''66%'$')*'4%
51%')*'('$5,'(')+$*84*0,0'$')+%$')+''.')*'
0,86/%'.%$7*10'0+*(9'A $*3.R' .'8'.2'
0%7%$%'('0%0')+%'4/**5'+'0'4%%.'&*1.5'*.'
8,($*0(*6,('/'%B'8,.'),*.'(+'.-%5',.'6;
6%'$'.(%')+%'$%5'(*$610(/%0'4%,.-''/)%$%5',.'
&*$8'*$'0%6'$')%5',.)*'0.18%$*10'/,))/%'4,)0'<
A *.&,(9''.5'(+8,5)R' .5',)'0'$%'5,/2'
(*.(%,7'4/%')+')'01(+'5%0)$1(),*.'*&'(*$610;
(/%0'8'2'('10%')+$*84*0,0'.5'0)'0,0',.'
7'$,*10'*$-'.0'%06%(,''//2',.')+%'08'//%$
4$'.(+%0'*&')+%'61/8*.'$2''$)%$2'A /,4%$'
8'..R''.5'0*'-,7%'$,0%')*'0%7%$%'0286)*80'
'.5'%7%.'/%'5'*.')*'5%')+
.''4*1)'&*$)2%,-+)'+*1$0'8*$%'*$/%00',&'
)+%',88%5,')%'%%&%()0'*&')+%',.>1$2'+'7%4%%.'
01$7,7%5')+%'0)'-%'&$%'(),*.''.5',.&/'88';
),*.'0%)0',.' +%'6'),%.)'$%7,7%0''.5'0*8%'
5%-$%%'*&'-%.%$'/62$%B,''4%(*8%0'8'.,&%0)'
+%'61/0%'4%(*8%0'E1,(9%$'.5'&1//%$H')+%



AK 6,=$' %$ ')%$8''66/,%5' &)+%' &*$8'),*.' *&' '0')*' -,7%' $,0%')*')+%' 8 8%' .5')+%') ' $# 5 ! :

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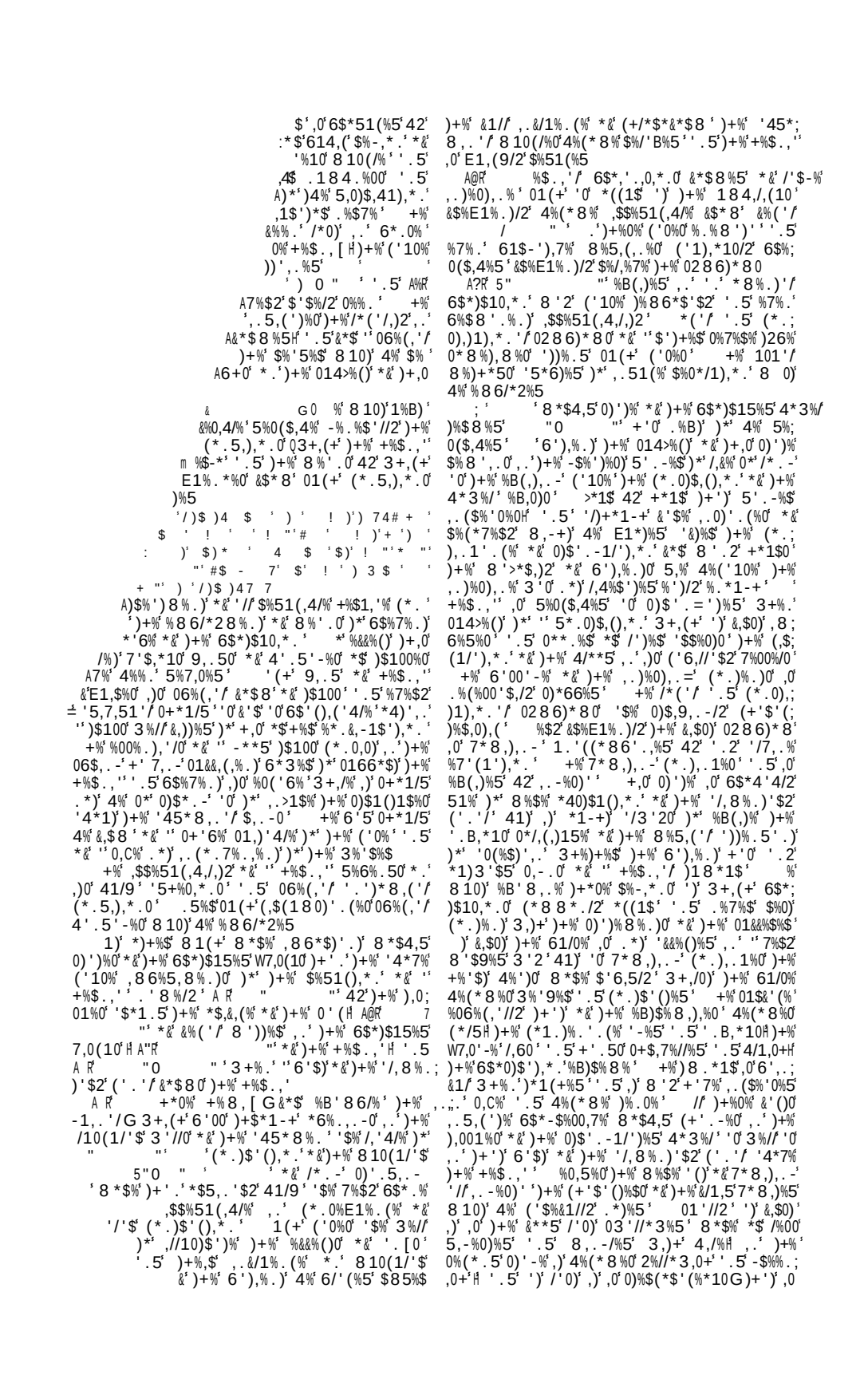
:3 *$5',0' 10%5',.'01$-%$2' '0,*.'*&' .2'7,0*10' &$*8' ,)' ,0' .')1$'//2' 6/'(%5' /%7%$')+%' *40%$7'),*.0' '$%')*' 6$*)$10,*.0' *&')+%' /*8 .')+$*1-+')+%' 3 '//0' *&' ℍ,0 *./2',.)%.5%5')*' -,7%'' 8ℍ014>%()',)0' &1/' 5,0(100,*.'),% 0(*6%' *&')+,0' 3*$9''0',)' ,0')%5' 3,)+'01$-%$2 0 % 5 G' %$.,'/ 5,06/'%%' 6/'(% ,.'4*)+' 0%B%0' .5')' '//*>0)' 0)$,9,..-'*4>%(),7%'0,-.'*&')+%' 4&''+%$.,'',0' ''&1/.%00' *$'03% ,.-' /*)+%$' *&')+*0%' $%-,*.0' *&')+%' '45*' $%'&$*.>')+%' '.')*8,('/(*.0)$1(),*.' 0')+%'),001%0' '$%' 3%'9%0)' +%.' ,%)%0' '$%' 5%&%(),7%',.' (*.0%E1%.(%'*&' 0%'0%' *$' ,.>1$2' 7,0(%$'/ 6$*)$10,*.0' =*((1$')')+*0%' 06*)0ℍ' .5' /0*' '0')+%' /,)' *&' (*.-%.,)'/ 8'/&*$8'),*.' ,.' 4*)+' '' &$1,)&1/ ('10%' *&' +%$.,'' 4%,.-')+%' 1 (/*01$%' *&')+%' 7'-,.'/ 6$*(%00' *&')+%' $6%$,)*.%18')' 4,$)+' *$' '' 6')1/*10' 0)')%' *&')+%' 184,/,('/ '6%$)1$%' 1(+' '' 6$*)$15%5' 7,0(10' &*$8 0' '' +%$.,'/ 03%//,.-' *$')18*1$' +%')18*1$',0' (*86*0%5'*&''0'(',)0' (*.)%.)0' '.5')+%'),001%0' *1)0,5%')+%' 0'(' +%' 0'(',0' (*86*0%5'*&''6$*/*.-'),*.'*&')+%'6%$,)*.%18' ,.' 8*0)' ('0%0ℍ' .5',)0' *$,&,(%'.%(9' *$' '4; 5*8,.'/'6%$)1$%'(*.0),)1)%0'3,)+')+%'),001%0' '$*1.5',)' '' &$%E1%1)' ('10%' *&',86%5,8%.)')*' $%6/'(%8%.)' *$0$%51(),*.'<'*&')+%' +%$.,'' +%' &'' 8'2'4%' '' 6')$)' *&' .2'45*8,.'/ 7,0(10'41)')+*0%' 8*0)' 8*4,/%' '$%'101''//2'5,0; 6/'(%5' +10',.')+%' 8'>*$,)2'*&'('0%0'%,)+%$)+%' *8%.)18' *$'08'//,.)%0),.%0')*-%)+%$' *$ 0,.-/2'&*$8')+%'+%$.,'' +%'),001%0'*1)0,5%')+%' 0'(' '$%')+*0%'3+,(+' %B,0)' ,.')+%' $%-,*.' 3+%$%')+%')18*1$',0' &*$8%5' .5')+%2' '$%' &$%E1%.)/2'5%0($,4%5' 0')+%' (*7%$,.-0'*&')+%' 0'(7%$2' +%$.,'/)18*8ℍ 6*00%00%0' '' .%(9' 4*52'' .5'&1.510 +%' &,$0)' *$'%'$/,%0)' *4>%(),7%' 0286)*8'*&' ''+%$.,'/6$*)$10,*.',0' '.')8101'/&1/.%00''0' &*$'%B'86/%',.')+%'-$*,.',.''%'0%'*&,.-1,.'/ +%$.,'' ,0'03%//,.-',0')$'.0,%.)'66%'$.-' .5'5,0'66%'$,.-' .'$%/')',*.')*')+%' (),*.0' *$'6*0)1$%'*&')+%',.5,7,51'/' +%.'6$%00%5' 3,)+')+%'&,.-%$')+%' 03%//,.-'5,0'66%'$0ℍ41)' ,)',0'$%'5,/2'$%6$*51(%5',&')+%'6')%.)'(*.)$')'()0')+%' '45*8,.'/ 810(/%0' '.5')+%.'3,)+')+%' &,.-%$' .',861/0%' ,0' &%/)' 6$*51(%5'42')+%' 6$*)$15,.-'7,0(10' 2'0/*3'5%-$%%0')+%' 41/9' *&')+%' 03%//,.-',.($%'0%0'1.),/',&'.*'0166*$) *$'0)$100<'4%' 10%5'7%$2'/'$-%')18*1$0' '$%' &*$8%5 4 A < $& ' ! '*$ '/) # # '# ' - # $ '$-'!) '/)$)4 $ ' '+ 7'4/$ ' ! '4 4 ') / '7. $ '$-'! ' +7$* ' $') 3 $ ' * "' ! ' / 3) 4 * ' * $' 3) 4 * ' 7'!"/$3) 4 * ' $*)$10,*.0',.')+%' %6,-'0)$,(' $%-,*.'' $%' 7%$2'$'$%' +%2' $%' ' # 0 9' .5' ADR 0 C # 0 '+%$.,'' ,0' 51%' %,)+%$')*' $%;/'B'),*.'*&')+%'),001%'*&')+%'5,'6+$'-8'810(/%' *$')*',)0'/'(%$'),*.' .'0*8%'('0%0'(.%$'),)'/5%&,(,%.(2'*&')+%'810(/%',0')+%'6$,8'$2'('10%ℍ,.'*)+%$0')+%'.')1$'/*6%.,.-0',.')+%'810(/%4%(*8%' 5,/')%5' ,-.0' *&')+,0' +%$.,'' '$%7%$2'*40(1$%ℍ41)'3+%.')+%'6$*)$10,*.'5%;6%.50'16*.'/'(%$'),*.'*&')+%'810(/%')+%*(;(1$$%.(%'*&''$%(%.)',.>1$2'8'2'%B(,)%'010;6,(,*.',&'00*(,')%5'3,)+'4.*$8'/0*1.50',.')+%')+*$'B 0 ' +%$.,'' %0('6%0' ')')+%' $%-,*.'&*$8%5'42')+%'(',.'4*)+'0%B%0'.5')' '//*&')+%'3'//0'*&')+%'45*8%.')*'3+,(+'.*'06%(,'/.'8%',0'-,7%.' +%2''$%'0%%.',.')+%'$%-,.*.'*&')+%'/,.%''/4'')',0'7%$2'$'$%''.5''0')+%'45*8,.'/*$,&,(%'*&')+%'0'(',0'101''//2'/'$-%')+%'+%$.,'',0'%'0,/2'$%51(%5 @' +%'+%$.,'0',.')+%' 8%0*-'0)$,18'$% ') '' ADR' ' .5'A(R +%')%$8')'' ',0' -,7%.')*' .2'+%$.,'/6$*)$10,*.0'%0('6,.-')+$*1-+'4.*$8'/46% ,.-0',.



&&%.0,7%)'0 8%//'**&'''4$*3..,0+'(*/*1$'0',5'&$*)+2'.5'*&)%.',.'-$%')'E1'.),)2'*3'
)+%'*./2')$%')8%.)'*&')+0%'1$-%.)'02 8 6)*8 0'(*.0,0)0',.')+%'/,4%$'),*.'*&')+%'4*3%/'42'
01$-,('/8%'.0'.')+%'8%'.),8%'6'//,'),7%0'8'24%%8 6/*2%5'*6,18'58,.,0)%$%5'42')+%'
8*.)+'%.%8')'',.>%()%5'/*('/'66 (')*.0'*&,(%10%5'.5'-%.)/%')'B,0'66/,%5

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0166*0%5'0,8,/'$,)2',.')+%'%$16),*.''/)+*1-+'
)+%2'4*$%'7%$2'+))/%'$%'/'$%/'),*.')*'%'(+'
*)+%$' +10'3%'+'5'+%$6%0'',$,0'+%$6%0'
(,$(,.')10''.5'+%$6%0'-%0)'),*.,0'5,0%'0%0'
3+,(+''$%'6%$&%()/2'5,0),.()'&$*8'.2'9,.5'
&')$1%'+%$6%0'')'6$%0%.)'.(2')+$%%'&*$8 0'
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'.''(1)%''.5'5%&,.,)%'(*1$0%''.5',.'+'7,.-''
.%1$*),(''*$,-,.' 0'+*3%7%$'+%$6%0'C*0)%$'
5,&&%$0'(*.0,5%$'4/2'&$*8')+%'*)+%$')3*',)'
,0'(*.7%.,%.)/2'5,0),.-1,0+%5'42')+%'.'8%'
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%$16),*.',0''00*(,')%5'3,)+'0*8%'03%//,.-'*&'
)+%'09,.'*$'81(*10'8%84$'.%''.5'3,)+''
0%.0'),*.'*&'7%$2'0/,-+)'6',.''.5'0),&^,%00'*&'
)+%'6'$)'&&%()%5''')',0'8*0)'(*8 8*./2'8%)'
3,)+'*.')+%'/,60'41)'*((''0,*.''//2'*.')+%''/a'
*&')+%.*0%')+%'%'$'*$')+%'(+%%9'),0'/0*'.*)'
1.(*8 8*.'*.')+%'41((''/81(*10'8%84$'.%'
'.5'*.')+')'*&')+%'0*&)'6'/')%''.5'171/''
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(*.&,.%5')*'*.%'0,5%''.5')+,0',0'8*$%'*4;
0%$7'4/%'*.')+%'&'(%'*$'%'$')+''.*.')+%'/,60'
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%$16),*.',0'8%)'3,)+'.'4*)+'0%B%0'41)',0'
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&%8'/%' .'8%.',)''66%'$0'*.')+%'6$%61(%'
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8%)'3,)+'&*//*3,.-')+%'(*1$0%'
(1)'.%*10'.%$7%0'5*3.')+%''$8'*$'
,0'0',5')*'4%'8*$%'(*8 8*.'.'
)+'.'*.')+%'/%&)'0,5%'*&')+%'4*52 bK'
%$16),*.',0'6$%(%5%5'42''7%$2'(*.0,5%>'
'8*1.)'*&'.%1$'/-,('6',.'.5'5,0(*8 I='
3+,(+'8+2'%7%.'/'0)'&*$'5'20'4%&*$%'0
%$16),*.''66%'$0''.5'+%[*&)%.'4%%.'
)'9%.'&*$')+%'6',.'*&'6/%1$,02'+%'
'66%'$'.(%'*&')+%'%$16),*.',0''4$,-+)$%5'
6')(+'*$'6')(+%0'*.'3+,(+'$%')+%.'5%7%;
/*6%5'-$*160'*&'7%0,(/%0'*&'$')+%$'/'$-%'0,C%'
0*8%),8%0'%7%.'8*$8),.-')*'4/%40'+%'
(*.)%.)0'*&')+%'7%0,(/%0'4%(*8%'61$,&*$8H'
'.5')+%2'1/),8')%/2'5$2'16''.5'/%'7%'0('40'
3+,(+'-%.%$'//2'&'/'*&&3,)+*1)'6$*51(,.-'
6%$8'.%.)'0(('0$'(('0,*.''//2'+*3%7%$'
)$*14/%0*8%1/(%$0'&*$8'/%'7,.-'4%+,.5'5%%6'
5%6$%00%5'0('$0' ,/5'('0%0'*&'C*.''''$%'7%$2'
'6)')*''4*$)')+%'%$16),*.'+'$5/2'5%7%/*6,.-'
,.)*')$1%'7%0,(/%0H),0'8%$&%()'5%7%/*6;
8%.)'8'2''/0*'4%'0%%.'',')+%'*1)/2,.-'
-$*160'*&')+%'%$16),*.',.'3%// 5%7%/*6%5'
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'$%'+*3%7%$'.*)''&%3'%B(%6),*.0',.(+'
)+%'6%$,*5'*&5%7%/*68%.)',0'6$*/*.-%5'4%2*.5'
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'6)')*'$%(1$'.5',.'),0'$%06%()',)'5,&&%$0'
&$*8'+%$6%0'/'4,'/,0'.5'6$%61),' 0' +%.'
C*.''*((1$0'',.')+%'.%,-+4*1$+**5'*&'/28;
6+'),(-/'.50')+%0%'/8*0)'/3'20'4%(*8%
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G +%$%' '$%')3*'6*,.)0'(*.;
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A R +%'-$'7,)2'*&')+%'5,0%'0%''6'$)'&$*8')+%'
'8*1.)'*&'%$16),*.',0'4$*'5/2'06%'9,.-',.'
6$*6*$),*.')*')+%''-%'*&')+%'6'),%.)' .'(+,/;
5$%.''.5'2*1.-''51/)0''0'0**.''0')+%'0*$%0'
+'7%'+%''/%5')+%'6'),%.)',0'-%.%$'//2'E1,)%

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G +%')$%')8%.)' *&')+,0 %.,6'
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=' .5'0,86/%'6*35%$0'01(+' 0 *B,5%'
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$'),8%0 5',/2' +%')$%')8%.)' *&')+%'
'/-,'' 3+,(+' &*//*30 C*.'',0 8*0)'5,&&,'
+%'6',.',0 *&)%.'*&')+%'8*0)'7,*/%.)'
),.-' 9,.5' .*)' '8%.'4/%')*')$%')'
&*)' /H)+%'*$5,.'$2' $%8%5,%0 10%5',.'
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(/*01$%'*&')+%'-/*)),0')+%'(+'$')()%$,0),('.*,0%'
4%,.-'('10%5' 42')+%',.(*8,.-'(*/18.'*&''$'
0)$,9,.-''-',.0)'+%'6'$),''//2'(/*0%5'-/*)),0'
+%'00186),*.'*&''06'08*5,(' (/*01$%'*&'
)+%'-/*)),0',.'+,((16'0%%8 0'0('$(%/2'3'$$'.);
'4/%' *$8''//2')+%'5%0(%.)'*&')+%'5,'6+$'-8'
,.'%'(+'$%06,$')*$2''()',0''((*86'.,%5'42''
(*.)$'(),*.' *&')+%'6*0)%$,*$'($,(*'$2)'%.*,5'
8 10(/%0'3+,(+'('10%0''.'*1)3'$5'$*^), .'*&'
)+%''$2),%.*,5'('$),/'-%0''.5''5,/')'),*.'*&'
)+%'-/*)),('6%$)1$%' +%'5,'6+$'-8'),('.5'
)+%'/'$2.-%05''()0 9%%6'),8%')*-%)+%$''.5',.'
+%'/)+')+%'$+2)+8'*&'0,B)%%.'*$%,-+)%%.')*'
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('0%'8'+,((16''.5'),.0'>%$9'*((1$''))''),8%'
3+%.')+%'5,/')*$0'*&')+%'-/*)),0''(%'.*)''(),.-'
''.*,0%'3,/'4%'6$*51(%5'42')+%'$10+'*&',$'
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'6%$)1$%')' 0%%80'(%$)',./2'6*00,4/%')*'
'((*1.)'&*$')+%'.*,0%*&',+,((16'42')+%'8%$%
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3+%.')+%'-/*)),0',0 ,0')'6$*6%$/2'*6%.' +%'
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51$,.-'*$5,.'$2',.06,$'),*.'*$'3,)+*1)')+%'
06'08*5,(''(),*.'*&')+%'5,'6+$'-8''/)+*1-+'
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4%'6$*51(%5'42''.2',$$,)'),*.'*&')+%'6+$%.,('
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)3,-0'3+,(+''$%'5,0)$,41)%5')*')+%'1.5%01;
&'(%'*&')+%'5,'6+$'-8' .51%'5,0)%.0,*.'*&'
)+%')0)*8'(+'42'4%,.-'*7%$&,//%'3,)+'&**5'*$
5$,.9'*$'42''.'((18 1/'),*.'*&'3,.5'51%')*'
&'1/)2'5,-%0),*.','0')+%'8*0)'(*8 8*.'('10%
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.71/0,.0'.5'810(1/'$'06'08 0'-%.%$'//2'
'$%'8*$%'%'0,/2'('10%5',.')+%'2*1.-''.5'
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$1/%' ,((16',0'6$*51(%5'42'5,$%()'*$'42'
$%&/%B',$$,)'),*.' ,)+' 8'.2'6%$0*.0')+%'
,.)$*51(),*.'*&'+*)'06,(%5'*$'6%66%$2'&**50'
,.)*')+%'0)*8'(+',8 8%5,')%/2'6$*51(%0'+,(;
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,.'3+*8',((16',0'6$*51(%5'42')+%'6+'00'-%'
&'+)'&/1,50')+$*1-+')+%'6+'$>8B')',0''
&$%E1%.)'0286)*8',.'6%$,)*.),0'3+%.')+%'
6%$,)*.%'/'(*7%$,.-'*&')+%'5,'6+$'-8'4%(*8%0'
'&&%()%5')'0*8%),8%0'*((1$0',.'('0%0'*&'
('.(%$'*&')+%'0)*8'(+H'*(('0,*.''//2'6%$+'60'
&$*8''*7%$5,0)%.0,*.''*&')+%'*$-''.'41)'8*$%
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,0')+%.'51%'6$*4'4/2')*''.',8 6/,(',).*.'/*&')+%
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*&'*40),.')%'+,%(16,.-'.'+20)%$,('/014>%()0'
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, G= +%)$%')8%.)' *&'+,(%.6'3,//' 5%6%.5'16*.')+%' ('10%' .'%8%),(')*' %86)2')+% 0)*8'(+' *$' '0),81/'.)')*' ,.($%'0%',)0' .').$=' 6%$,0)'/),(''(),*.' 3,/'*&)%.'-,7%'$%/,%&' &' 3%' (' .' 8'.'-%')*' 6$*51(%' '' &*$(,4/%' '(),*.' *&')+%' 5,'6+$'-8' 3%' 8 '2'*&)%.' 01(; (%%5',.' (1$,.-',)' '0',)' 3%$%' *&')+%')$,(9'*& 06'08*5,(''(),*.'))%86)0')*' (*1.)' '+1.' 5$05'3,)+*1)'5$'3,.-'4$%')+' *$')*' +*/5')+% 4$%')+'&*$ '' 8,.1)%' '$%' &'8,/,'$' $%8%5,%0' &*$ +,((16H ' .5' 42' 6$*51(,.-' '' &%%/,.-' *&' 01&&*(''),*.' ' .5' .%(%00,)'),.-' '' 7,*/%.)' 5% '='7'$,%)2' *&'(+,(9%. 6*B 0(%.)' *&')+%' 5,'6+$'-8')+%2' '$%' *&)%.' 01% '< (%00&*/' '$8'66+%'),*.0' *$' (*1.)%$,$$,' f)'),*.' '66/,%5')*')+%'5,'6+$'-8'),('$%-,*.'*$ *7%$')+%' (%$7,('/'06,.%'8'2'*((' 0,*.'//2'-,7%' $%+%&' $%001$%'16*.')+%')$1.9'*&')+%'6+$%.,(' .%$7%'42'8%'.0'*&')+%'&,.-%$' '66/,%5'*7%$')+%' 0('/%.10' .),(10'81 (/%',0'0','5''/0*')*'+'7%' -,7%.' $%/,%&'*((' 0,*.'//2',.' *40),.')%' ('0%0' 8*.-0)')+%'5$1-0'3+,(+' +'7%'4%%.'$%(*8; 8%.5%5'&*$')+%' $%/,%&'*&'+,((16' '$%' (+/*$*; &*$8'A'58,.,0)0%$%5',.)%$.'//2H' %,)+%$' '/*.%' *$ (*84,.%5' 3,)+' *6,18H (' 86+*$',.')+% &*$8'*&' '' 06,$,)' 0*/1),*.',.'5*0%0'*&')3%.)2' 5$*60' .5'163'$50H 7'/%$,' .')%'*&'C,.('4%//'; 5*..''4$*.6,5%'*&'6*)'00,18' 8109'*$' '.); '(,50H' .5',.'7%$2'0%7%$%' ('0%0' 8*$6+,.%' '5.,,.,0)0%$%5'+26*5%$8,('//2

2+' '

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% (52+K < (0

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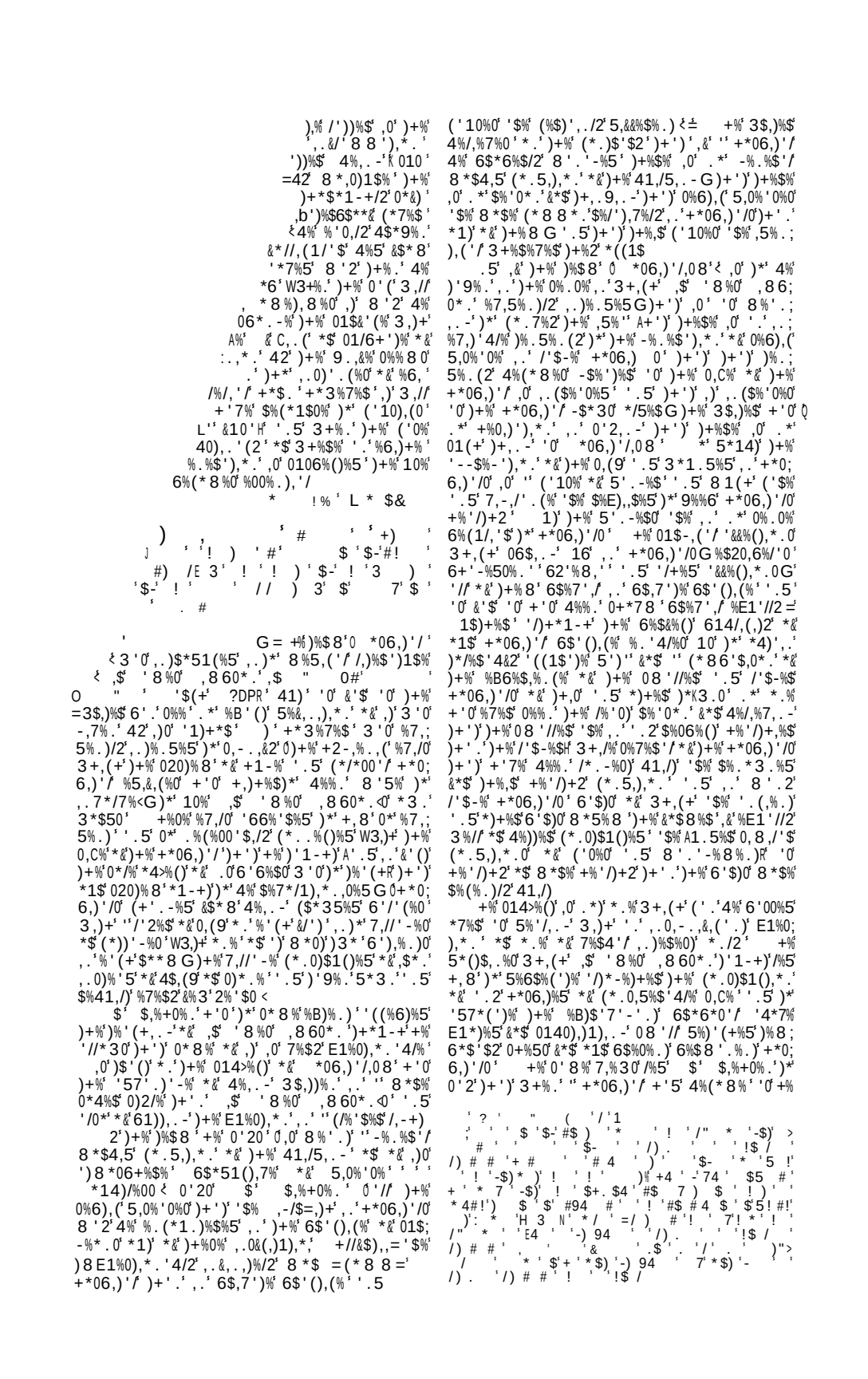
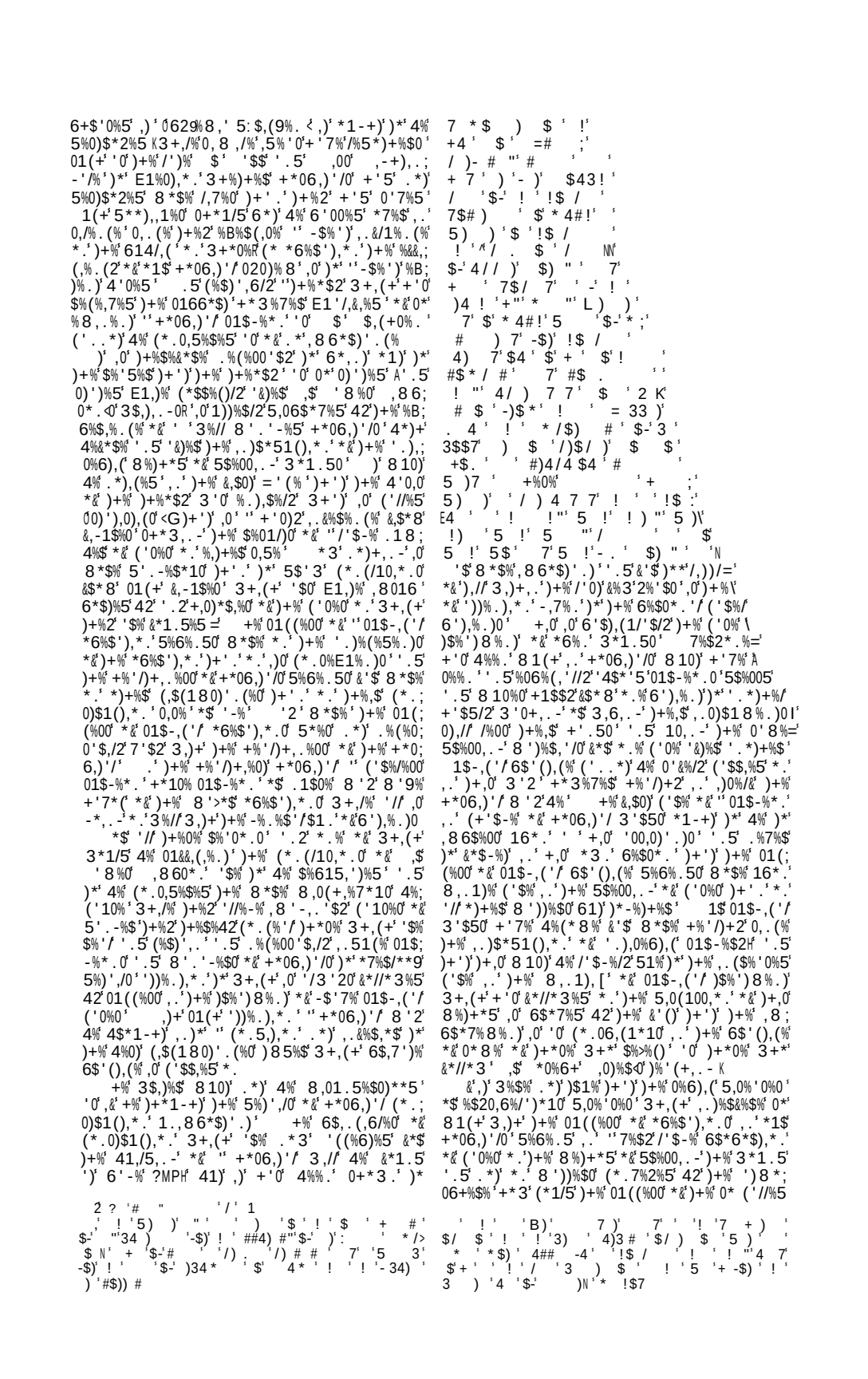
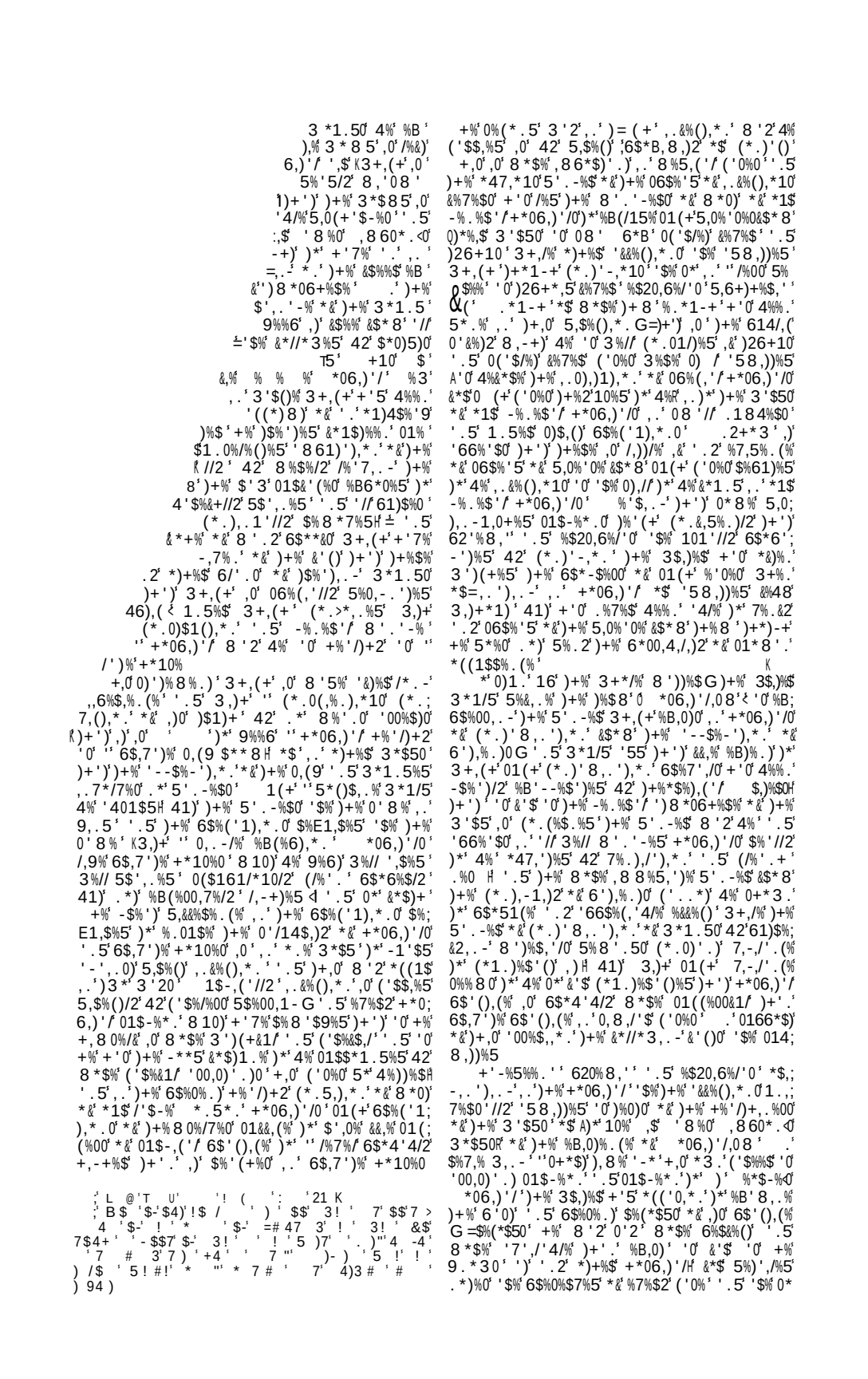
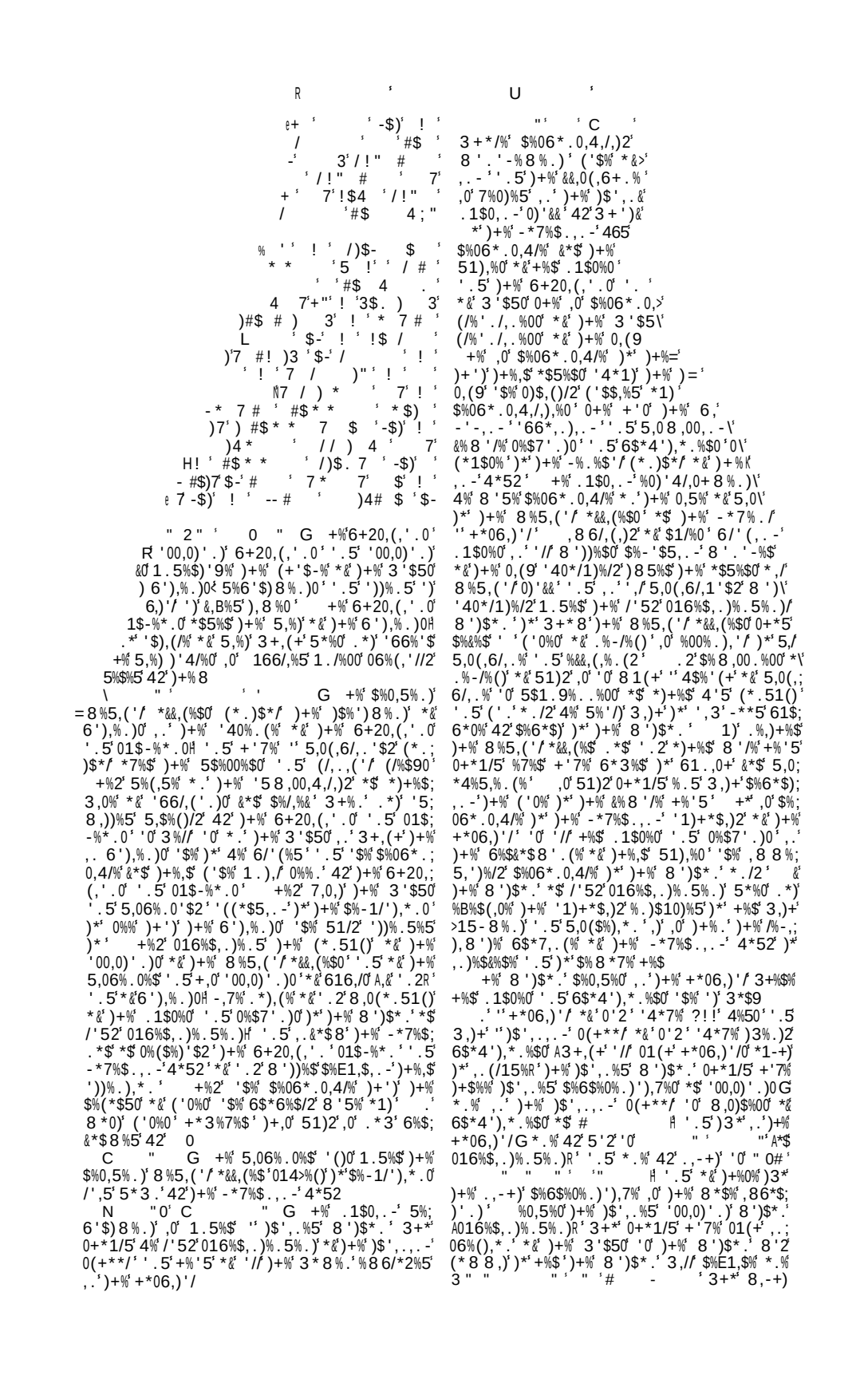
% ' 5+(I M3' <& G *80' '$%' %6,5%.1,5/' &*$8'),*.0'(*.0%E1%.)' *.+2>/' +*82'6$*51()' *&')+%',.)%-18, & (' '' *$.0' -%,/' 0,..-/2' *8%),8%0')+%2' '))',' 0%7%$'/' ,.(+%0' ,.' /%.-)+' '.5' ,//' %.(%' +%2'+'7%'4%%.'8%)' 3,)+' ', *&')+%'4*52'8*$%'6'$),(1/'$/2'*.'Q)+%'&'(%')+%'-/'.0'6%.,0' '.5')+%'-/\' $,5,0

$ " +%.')+%' ,.06,00')/' 51()'*&')+%'&*//,(/%0'*&')+%'09,.' (*.0,0/' /'8,.')%5'%6,)+%+18' '.5'0%4'(%*10',' ,0'%B6*0%5')*')+%' ',$',' 5$,%0'4%(*8%0' ' .5'/'$'.06'$%.)' '.5',0',.' &'()' (*.7%=' ,.)*' '' 8'00'+'7,.-'8*0)'*&')+%'6$*6%$),%0=' +*8' +,0',0')+%' 6$,.(,6'/'0*1$(%'*&')/=' +*$.0'*&')+%'..)%-8.%.)G'.'' ((181/'),*.=' *&')+%'(*.)%.)0'*&'' &*//,(/%'H)+%' 6$*)$10,*.' *&')+')' 0140)'.(%')+$*1-+')+%' 5,/')%5''6%$;)1$%'*&')+%'&*//,(/%'0*8%),8%0')+$*1-+' '/'$-%' *6%.,.-'$%01/),.-'&$*8'')$*6+2'*$'1/(%$'),*.H ,)0'5%0,((',*.'42')+%' ')8*06+%$%H' .5',)0' -$*3)+'42'(*.),.1%5' '55,),*.0')*' ,)0'4'0%' %,.-' %00%.),'//2')+%' 6$*)80.*.' *&' '0*&)' 0140)'.(%')+$*1-+' '' (*.0)$,()%5' '6%$)1$%')+%'01$&'(%'*&')+%'+''B'3,' 4%'8*5%//%5',.' &,-1$%'42')+%'0+'6%'*&')+')' '6%$)'$%H,.'(*.; 0%E1%.(%'*&'5%0,((')*.' ,)0'0+'&)' 3,//'4% 08'//%$')+'.' ,)0'4'0%H' .5',)' 3,//'4%'/,'4/%')*'4%'4%.)'*$')3,0)%5',.')+%'6%$'),*.'*&'6$*;)$10,*.' %.(%')+%0%'+*$.0' '$%'-%.%$'//2' (1$7%5'*$')3,0)%5''.5'+'7%'4%%.'(*86'$%5')*')+%'4%'9'*&''4,$5'*$')+%'+*8'*&')+%'-*') '0%(),*.'*&')+%'+*8''&&*$50'0,8,/'$'%7,5%.(%' *&',)0'8'..%$'*&'&*$8'),*.''.5'-$*3)+',) 4%,.-'/3'20'/'8,.')%5',.'0)$'().$% .*)+%$'9,.5'*&'+*8',0'0*8%),8%0'8%)' 3,)+'*.')+%'-/'.0'6%.,0'.5'(/,)*$,5,0''.5',0')+%'6$*51()'*&'+26%$)$*6+2'*&')+%'6'6,//I' +,0'&*$8'*&'-$*3)+',0'&,4$*10',.'0)$1()1$%' /,9%''3')'3+,(+',.'&'()',)'(/*0%/2'$%0%84/%0H' 3+,/0)',.')+%'0'8%0,)1')',*.'(*.(%)%5'8'00%0' '$%*((''0,*.'//2'&*$8%5'%0&,0,),)1)%5'42''(*8; 4,.'),*.'*&'4*)+'6$*(%00%G.'8%/2'6'6,//'$2' +26%$)$*6+2'.>'%(181/'),*.'*&'&*//,(1/'$ 0140)'.(%' +%$%',0'+*3%7%$'.',86*$)'.)' 5,&&%$-->='4%)3%%.')+%')3*' 9,.50'*&'+*8')+%=' (%510'.'.5')+%'%6,5%$8,(G.'8%/2')+',)+%'&*$8%$',0')+%'8%$%'$%01/)'*&',.($%'0%5









%*/'),*.'*&' ',$'&*$)%8 6*$'$,/2' 9%%6,..-' 6$*;
7,0,*.0' &$%0+' .'+%'0(1//%$2' *$' '5>'(%.)')*'
,)' '+*)' (/*0%)' 0+*1/5' 4% 6$*7,5%5' &*$' ',$,.-'
(/%'.')*3%/0' .5' 0+%%)0' *1/' /,.%.'0+*1/5'
.*)' 4%' $%)',.%5' 6%'$')+%' 3'$50' *$',.')+%'
+*06,)'/41,/5,.-')' 0*1/5' '4%' 6/'(%5',.'
4'09%)0' *.' 3+%%/0' '.5' (*.7%2%5' '0' 0**.' '0'
6*00,4/%')*')+%' /'1.5$2' '$5' 03%%6,.-0'
'.5' $%&10%' 0+*1/5' 0,8,/'$/2' 4%' 6/'(%5',.'
8*7'4/%' $%(%6)'(/%0' '.5') '9%.' *1)' *&'=+%
4155,.-' 3,)+' '0' >))/%' 5%/'2' '0' 6*00,4/%'
0)$1()1$'/' 6$*7,0,*.'&*$')+%' $%)%.),*.'*&')+%0%'
,.'*$' .%'$')+%' +*06,)'/,0'1.5%0,$'4/%
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1-+)')'4%' '0' .%'$' '0' 6*00,4/%')*')+%'3'$5'
41)' (1)' *&&'&$*8',)' 4$' ''/*442'3,)+'3,.5*30'
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3'$8,.-'5,0),.()'&$*8')+')' *&')+%'3'$5''.5'
)+')' *&')+%'3'$5 *&&,(%0'0*' '0')*'6$%7%.)')+%'
6*00,4,/,)2'*&'&* ,/ ',$'6'00,.-'&$*8')+%'3'$5'
&&,(%0',.)')+%'3'$50' +%'3'$5 *&&,(%0'3,//
4% 8*0)' (*.7%.,%.)/2'6/'(%5' ')')+%'%.5'*&'
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0*' '0')*' %.'4/%')+%' 3'$5')*' +'7%' '.'%.5'
3,.5*3' .')+,0'$$'.-%8%.)')+%'4/1),*.'
$** 8' 3*1/5' 4%*.'*.%'0,5%*&')+%'3'$5''.5'
0+*1/5' (*.)'.'.' '' 08'//' 4')+ $** 8' 3,)+' ''
&,B%5'4')+' *&'(*66%$'0166/,%5' 3,)+' +*)' '.5'
(*/5' 3')%$' '9 7')*$2)'4/%' *&',8 6%$7,*10'
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3,)+' '' $*3'*&'01.9' 6*$(%/',.'4'0,.0' 3,)+'
*1)/%)')14%0' '.5'6/1-0'%'(+' 4'0,.'0166/,%5'
3,)+' +*)' '.5'(*/5' 3')%$'0+*1/5' 4% 6/'(%5',.'
)+%'0'8%'(*86'$)8%.)'0')+%'4')+'41)'0%6';
$')%5'&$*8',)'42'' 6'$),),*.'.'.5'5**$' +%$%
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%'(+'3'$5H' .5')+%$%' 0+*1/5'4%' '' 0,.9' *.')+%'
&/**$ /%7%/'&*$'$1...-'*&&)+%' 3')%$'&$*8')+%'
4')+' '&)%$',)' +'0' 4%%.'10%5
.')+%' *)+%$' 0,5%' *&')+%' %.5' 3,.5*3' *&'
)+%' 3'$5' 3*1/5' 4% 6/'(%5')+%' 2 '
+%0%' 0+*1/5'.%7N4%' '-',.0)')+%',..%$' 3'//'
41)' '/3'20' '-',.0)')+%'*1)%$'3'/' *&')+%'(*8;
6'$)8%.)',.'3+,(+')+%2' '$%' 6/'(%5' '6'.'
*&' '' +%8,06+%$,('/'0+'6%'.%7%$' *&' '(*.,('/
0+'6%'3,)+' '' 026+*.'.'41.5'.)/2'0166/,%5'
3,)+' 3')%$')*' &/10+',)' *1)' '//' $*1.5' 3,)+' ''
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&*$')+%' 3')%$ (/*0%)' *&' ''+*06,)'/' +%'1$,.'/
0+*1/5' 4%' *&' ' 0+'6%')*' 4% %'0,/2' (/%'.%5'
+%' 0,.9' &*$' 0/*60' 4%5 6'.0'%B6%()*$'),*.'
(160' ^(' 3+,(+'0+*1/5'+'7%' '(*86'$)8%.)'
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4%' '/'$-%' 5%%6' $*1.5' 6,%$(%5' 4'0,.' *&'
%'$)+%.3'$%' 3,)+' '' (*(9' %B)%.5,.-' &'$'
%.*1-+' *7%$')+%' 0,.9' &*$')+%' 0)$%'8' *&'
3')%$')*' &'// 5,$%()/2',.)*')+%' 7%00%/')*' 4%'
(/%'.%5''.5'3,)+' ' '86/%0166/2'*&'3')%$'
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$'.-%5' '0')*' 4% &/10+%5' *1)' /,9%' '' 3')%$'
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8'9%',)'1..%(%00'$2'&*$8'/%'6'),%.)0')*'6'00'
)+% .1$0%' *.')+%,$' 3'2')*')+%' 3 (' +%$%
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&')+%'6'7,/,.' $%(9*.%5'&$*8')+%' &/**$0'*&'
)+%'-$*1.5 &/**$'3'$5' +,0',0')+%'08'//%0)'
3,5)+'4%)3%%.'6'7,/,*.0'3+,(+'3,//'6$%7%.)'
)+%'/*3%$' 3'$50'&$*8'4%,..-'-/**82',')+,0'
(/,8')%H3+%$%')+%$%',0'.*)''&$%%'8*7%8%.)'
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A R +%''$$'.-%8%.)'*&')+%'6'7,/,*.0'0+*1/5'
4%'01(+' 0')*' '//*'*&'(*.7%.,%.)'(*7%$%5'
(*881.,(),*.'4%)3%%.')+%' 3'$50'3,)+*1)'
,.)%$&%$,.-' 3,)+')+%' /,-+)' '.5'7%.),/'),*.'
'.5')+%$%&*$%')+%')'6'*&')+%'(*7%$%5'(*$$,5*$
1.,),..-')+%%.50'*&'6'7,/,*.0'0+*1/5'.*)'4%
'$$,%5''4*7%')+%'(%5,.-'*&')+%-$*1.5&/**$
3'$50' '(+'4/*(9'*&'3'$50G)+')',0'%'(+'
6'7,/,*.G0+*1/5'+'7%',)0'*3.'0)',$('0%
AFR *'3'$5'0+*1/5'4%0*'6/'(%5''0')*'&*$8'
''6'00'-%$**8')*'*)+%$'3'$50
ALR 0'''-%.%$'/'$1/%')+%$%'0+*1/5'.*)'4%
8*$%')+'.')3*'&/**$0'*&'3'$50',.''6'7,/,*.'
&')+%$%''$%)+$%%&/**$0'*$8*$%')+%'5,0)'.(%0'
4%)3%%.')+%'6'7,/,*.0'4%(*8%'7%$2'(*.0,5%$;
'4/%'4%('10%'*&')+%'$1/%''/$%'52'8%.),*.%5'
3+,(+'*1-+)')*'4%'40*/1)%/2'*40%$7%5'3+,(+'
$%-1/')%0')+%'5,0)'.(%''),'3+,(+')+%'6'7,/,*.0'
810)'4%'9%6)''6'$)' %0,5%0'3+%.')3*'3'$50'
6%.'..)''(*88*.'0)',$('0%')+%$%',0'3,)+'
%7%$2'('$%')*'0*8%'%B)%.)''(*881.,)2'*&
G

,.')+%'0,0)%$0<5,.,.-$**/.'41)'')''5,&&%$%.)'+*1$H''.5',.''/'$-%'+*06,)'/)+%$%'3*1/5'6$*4'4/2'4%'$%E1,$%5''''55,),*.'/5,.,.-;$**8'&*$'3'$5'00,0)'.)0'.'+*06,)'/0'3,)+'.'%0)'4/,0+8%.)'&*$')$',.,.-'.1$0%0'3+,(+'%7%$2'/'$-%'+*06,)'/*1-+)'*'+'7%')+%'6$*;4'),*.%$0'*$616,/.1$0%0'A,.''6$*6*$),*.'.*)'%B(%%5,..-'*.%')*'%7%$2')%.'*$)3%/7%'6'),%.)0R'3*1/5'+7%',.''0*8%'<1.5%$')+%'+*06,)'/$**&''.5'1.5%$')+%'5,$%(),*.'*&')+%'+*06,)'/8')$*.

+%'0*8%'<0+*1/5'(*.0,0'*&GAR/'00;$**8'.5'.1$%0</,4$'$2'/'$-%'',$2''.5'(*.7%.,%.)'A@R.%*$)3*'5,.,.-$**805',.'3+,(+'0,0)%$0'.5'.1$0%0'8,-+)''/0*'5,.%''.5'6'.)$2'5>*,.,.-'A"R3*'**80'.5''.'*&&,(%'&*$')+%'0+*8%0,0)%$<A(/'00'8,0)$%00RAR.%0%6'$')%'4%5$**8'&*$%'(+'6$*4';),*.%$'01&&,(,%.)'*'(*.)','.'6$%00')'4/%'(+',$'4**90+%/&'3'040)'.5'4%50)%'5''.5''$8;(+',$

'(+'&/**$'0+*1/5'+'7%'Q'4')+$**8'.5'*)+%$'(*.7%.,%.(%0'%5$**80'&*$'6$*4';),*.%$0'*.'.,-+)'51)2'0+*1/5'4%'*1)'*&&'&$*8')+%'.*,0%'*&')+%'0*8%<0+*1/5''/0*'4%'6$*7,5%5G*.%'(9'$**8H'*.%'7,0,)*$0<$**8H'.5'%$7').0<*&,(%0'.5'4%5$**80'&*$(**9''.5'*)+%$'.%(%00'$2'0%$7'.)0

'))'N'U''"-'G+%'9,)(+%.''.5''/')+*0%'0)*$%0'4%)3%%.'3+,(+''.5')+%'3'$50')+%$%',0''(*.0)'.')'8*7%8%.)'0+*1/5'4%'0'(%.)$'/'0'6*00,4/%'0*''0')*'0'7%'/'4*1$H'41)')+%'9,)(+%.'0+*1/5'4%'('$%&1//2'(1)'*&&'&$*8')+%'(*$$,5*$(*..%(),.-')+%'6'7,/,*.0'))'(+%5')*')+%'9,)(+%.'0+*1/5'4%''-**5'0(1//%$2'/'$5%$''.5'0%$7,..-'(*.7%.,%.(%0'+%$%'0+*1/5'4%''/'$-%'3%',$%5'3%//,-+)%5'3%//3'$8%5'3%//'$$'.-%5',,.%.$2''.5'8%.5,..-$**8'+%'+*06,)'/'1.5$2'0+*1/5'4%'5%)'(+%5'&$*8')+%'+*06,)'/'6%(,'/('$%0+*1/5'4%')'9%.')*'8'9%')+%'/,8 5$2'41,/5;,.-0''$2''.5'7%$2'/,-+)'3,)+''86/%'8%'.0'*&'7%.),/'),*.'&*$'$%8*7,.-')+%'0)%'8'3+,(+',0'+%'7,/2'(+'$-%5'3,)+'*$-'.,('.861$,)2''.5'3,)+''86/%'06'(%&*$)+%'3'0+%$0'+%2'0+*1/5'+'7%'0%6'$')%'5$2,.-''.5',$*.,.-'$**80

?(-"'"G+*0%*+06,)'/0'3+,(+''&&*$5'*1)5**$'$%/,%&'$%E1,$%''5,06%.;0'$2'&*$'*1)5**$'0,(9'+,0'0+*1/5''/3'20'+'7%''.'%.)$'.(%'0%6'$')%'&$*8')+%'+*06,)'/''.5'0+*1/5'.%7%$'4%'1.5%$'*$'.%'$''3'$5'*$,.')+%'06'(%'4%)3%%.''5>'(%.)'3'$50'')',0'6/'(%5',.'6$*B,8,)2')*')+%'+*06,)'/'&*$)+%(*.7%.,%.(%'*&')+%'8%5,('/8%.''.5'8%5,('/0(+**/A,&''.2R''.5',.'*$5%$')*'4%'.%'$)+%5$1-0)*$%''.5''6*)+%('$2<0'0+*6H'41)',)'0+*1/5'4%'%.),$%/2'5%)'(+%5'3,)+''&$%%'',$;06'(%4%)3%%.''.5'.*'5,$%()'(*881.,('),*.'4%6*00,4/%

+%'*1)6'),%.)0<5%6'$)8%.)'$%E1,$%0''/'$-%''//2'3',),..-$**8'3,)+'U%6'$'),*.'*&0%B%0'.5'0%6'$')%(/*0%)''((*88*5'),*.'('$%'8'2'A%7%.'3+%.'5%)'(+%5R4%(*8%''.1,0'.(%'&*')+%'0,'$**8'&*$%'(+'*&')+%')*'3+,(+'0+*1/5'4%''.5''/'.%(%00'$2'(56/%)%'%B'8,.'),*.'6'),%.)0<5%6'$)8%.)'$%E1,$%0'8*$%'('$%',.'3',),..-$**80'<1.5%$')+%'+*06,)'/'''3%7%$2'/'$-%'+*06,)'/'4$*1-+)'42',)0'.1$0%'0+*1/5'>%')+$*1-+'5,&&%&/.'%7%$2'/'$-%'+*06,)'/''3%7%.),/'),%5'(+'6%/='3%//'3'$8%5+%'6*0,),*.''.5'-%.%$/')+%'58,.,0)$'),7%'48/5,.-0<E1,)%'0140%$7,%.)'*')+%''((''+%'0,(9''.5')*')+%'4$*'5'-%/')+')')+%0%'41,/5,.-0'0+*1/5'.*)/')+%(,$(1/'),*.''*&')+%',$'$*$8''*&')+%'3'$50'&%$(*.7%.,%.(%0'%5$**80'&*$'6$*4';),*.%$'01&&,(,%.)'*'(*.)','.'6$%00')'4/%'(+',$'4**90+%/&'3'040)'.5'4%50)%'5''.5''$8;(+',$

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2'0),81/')%')+%'6%$,0)'/),('
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,.'0%$*10'('7,),%0'+%2'8'2'
‰,0)*'00,0)'+%'(),*.'*&')+%'9,5'
D.')+,0',0'..01&&,(,%.)H'.5',)'+'0'
0%$7%5'.*)',.&$%E1%./2'3+%.')+%'
='*&'1$,.%'+'0'6$%7,*10/2'4%%.'5%'
)+')',)'4%(*8%0'-$%')/2',.($%'0%5'
='&$%%'5,0(+'$-%'*&'&/1,5'+'0')'9%.'6/'(%'
)+%'4*3%/0',.'(*.0%E1%.(%'*&')+%''5'
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7%0,(/%0'*$'08'//'4/%40'$%'5%7%/*6%5',
'#/' +%$%&*$%'+25$*'',0')'6$%0%.)'
/,8,)%5')*')+%'+25$*''41//%1B'*&' 'C,.
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$'$%'*.%H',)',0')).5%5'3,)+'81(+'%$16),*.'
-$%')',)(+,.-''.5'8*$%'*$'/%00'(*.0),)1),*.'/'
5,0)1$4'.(%' $%-.'.(2'0%%80',.'0*8%'3'2'
)*'&'7*1$',)0'5%7%/*68%.)G+%.(%')+%'.'8%'
'0 " '+%'%$16),*.'(*.0,0)0'
*&'4/%40'8,B%5'3,)+'6$1$,-..*10'6'61/%0'
0*8%3+')'$%0%84/,.-')+*0%'*&'6$1$,-*' +%'
4/%40'$%0%84/%')+*0%'*&'6%86+,-10'41)')+%,$'
'7%$'-%'0,C%',0'08'//%$'.5'8*$%'7'$,'4/%'
)+'.',.')+%'/'))%$'5,0%'0%H)+%'$%0%84/'.(%'
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22 # ' . G 25$*''0+*1/5'
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'.5'%$2)+%8''',$,0' $*8'6%86+,-10',)',0'
5,0),.-1,0+%5'AR'42')+%'$%/'),7%/20 8''/''.5'
1.%E1'/'0,C%'*&')+%'4/%40H A@R'42')+%'6$%0%.(%'
*&'6$1$,-,.*10'6'61/%0''.5')+%',.)%.0%'
6$1$,)10'3+,(+',0'*&)%.'6$%0%.)H A?R'42')+%'
(*.0),)1),*.'/'02836)*80'3+,(+')+*1-+'
0*8%),8%0'0%7%$%''$%'/%00')+'.',.'('0%0'*&'
6%86+,-10'))%.5%5'3,)+'%E1'/'8*1.)'*&'
%$16),*.H A R'42')+%'5,0%'0%'.*)'4%,.-''8%.;
'4/%')*''$0%.,('/')$%')8%.)')*''.2)+,.-'/,9%'
)+%'0'8%%B%).)'0'6%86+,-10
)',0'*./2'3+%.')+%'4/%40'$%'40%.)'*$41)'
/,))/%'5%7%/*6%5')+')'+25$*''(*1/5'4%8,0;
)'9%.'&*$6$1$,-*' +%'$%/'),7%/2''(1)%'.)1$%'
&')+%'5,0%'0%''.5')+%'+,0)$2'*&')+%'('0%'
3*1/5'-$%')/2',5')+%'5,&&%$%.),'/5,'-.*0,0
$2)+%8'',$,0'3,)+'4/%40',0'6$*4'4/2')+%'
5,0%'0%'3+,(+',0'8*0)'.%'$/2''//,%5')*'+25$*'H
41)',.')+%'/')%$')+%'4/%40'$%''(+,%&''.5'
(+'$'()%$,0),(''&%')1$%'3+%$%'0',.'%$2)+%8''
,$,0')+%2''$%'0*')*'06%'9''((,5%.)'/'.5'
%6+%8%$'/'+%'6$1$,-,.*10'6'61/%0''.5'
,.)%.0%'6.,)10''$%'8*$%*7%$'.*)'6$%0%.)'
,.'%$2)+%8''/)*-%)+%$'+25$*''',0''81(+'
8*$%'0%7%$%'5,0%'0%
! G /)%$'),7%'6%$,%.)'$%8%;
5,%0'8'2'4%'$%E1,$%5H'55'))%.),*.'0+*1/5'
4%'-,7%.')*'5,%)'$0%.,(''+'0'.*)'4%%.'&*1.5'
-%.%$''//2'10%&1/')+*1-+'*'0%0'('$%'*((')0,*.;
'//2'8%)'3,)+',.'3+,(+',)'66%'$0')*'5*'0*8%'
-**5' X1,..%',0'(%$)',./2''' 8*$%' 10%'
)*.,(' '$,*10'/*('/'$%8%5,%0'01(+'0'
/,.,8%.)18*'/(,0'8'5%'3,)+''/8*.5'*,/'
$'('$4+0%5'*,/''.5'C,.('*,.)8%.)'8'2'4%'
)$,%5')*'$%/,%7%')+%',$$,)'),*.''*&')+%'09,.
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C ')# '3')%$H''.5'
6)K'')+%'+%')R G .'%&&10,.'*&'0%$*10'&/1,5'
,.)*')+%'6%$,('$5,'/'#' ' %!')
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(*//%(),*.'*&'&/1,5',.'(*..%B,*.'3,)+'A R')+%'
)%0),(/%'*$'A R')+%'06%$8'),('(*$5
' $ ' #' '$ G +%'
6$,.(,6'/'&*$8'0'*&'+25$*(%/%'*&')+%')%0),(/%'
'$%'A R')+%') 0 " '@R')+%' "0 " '.5
A"R')+%' " H A R' # 'AFR' # '
'.5'ADR') 3 '+25$*(%/%'3,//'/0*'4%
.*),(%5
I0' 1<' 1'C%-*(4..0, % &'
+,0',0''(+$*.,('5$*60,('/'%&&10,*.'.,)*')+%
0'('*&')+%')1.,(''7'-,.'/,0' +%'&/1,5',0''
6'/% 2%//*3,0+'0%$18'3+,(+',.'*/5'('0%0',0'
&)%.'/'5%5'3,)+'(+*/%0)%$,.%' +%'E1'.),)2'
'$,%0'41)'0%/5*8'%B(%%50')3%.)2'*1.(%0'
+%'3$,)%$'A ' R+'0'$%8*7%5'0'8'.2'
'0'&*$)2%,-+)'*B8%%0' +%')%0),(/%',0'101''//2'
0,)1')%5')')+%'4'(9'6'$)''.5'$')+%$'4%/*3'
)+%'(%.)%$'*&')+%'0'(H'41)',)0'H=0,),*.'8'2'4%
'/)%$%5'42'5+%0,*.0H''.5',.'('0%0'*&'(*.

-%..,)'ƒ,.7%$0,*.')+%')%)0,*/%' ,0' ,.' &$*.)' *&')+%' 0'(' .' */5' +25$*(%/%0')+%' 0'(' ,0' *&)%.' -$%')/2')+,(9%.%5' +2' 5%6*0,),*.' *&' /2 8 6+' *.')+%')1.,(' '7'-,.'/,0' '.5',)0' (*.7%$0,*.',.)*' &,4$*10'),001%' 3+,(+(' ,0' 0*8%),8%0')+%' 0%')' *&' ('/('$%*10' 5%6*0,)0')',0' -%.%$'//2' 0,..-/%' 41)' *&)%.' *('(1$0' *.' 4*)+' 0,5%0' '-,.'ƒ +25$*(%/%&*$8 0' .' *7'ƒ*62,&*$8'03%//,.-' 3+,(+' &/1()1')%0Ĥ+'0' ' 0 8**)+'%7%.'01$&'(%Ĥ'.5' (*8 8%.(%0' ')')+%' /*3%$' 6'$)' *&')+%' 0($*)18' 7%$2' -$'51'//2' '.5' 3,)+*1)' 6',.' +%.' %B' 8 8%5' 42')$'.0 8,))%5' /,-+)' ,)' ,0' &*1.5')*' 4%')$'.0/1(%.)' %B(%6)' ')')+%' 4'(9' 6'$)' 3+%$%')+%')%0),(/%' ,0' 0,)1')%5' 3,.-')*')+%')1.,(' '7'-,.'/,0' $%8',,.,-' 1.*4/,)%$; ')%5' &*$ 0*8%5,0)'.(%' '/*.-')+%' (*$5')+%' 03%//,.-'*(('0,*.'//2' '001 8%0' '.' %/*.-')%5' &*$8''.5'%B)%.50' 16')*3'$50')+%',.-1,.'ƒ('.'/' '+25$*(%/%'0*8%),8%0'7'$,%0',.'0,C%' 4%(68,.-'/'$-%$' '.5' 8*$%')%.0%' 51$,.-')+%' 5'2')+'.' +%.')+%' 6'),%.)' &,$0)' $,0%0',.')+%' 8*$.,.-

4(D' ''0"7)$# ' ' ' #$* *$' 7 ' / # '" ' 5)*' # * % 7' $###4)' ' ' /) $7'$-' -'+4' ' *$ '#$*> *$' ' * 77' 3

& G=+% (,$(1 8 0)'.(%0G)+')')+%' 03%//,.-' (*8 8%.(%0' 4%/*3Ĥ)+')')+%' 06%$; 8'),('(*$5'('.'4%'5%)%()%5''4*7%')+%')1 8 *1$Ĥ)+')')+%')%0),(/%'('..*)'4%' &%/)Ĥ'.5')+')')+%')1 8 *1$'$%(%,7%0'.*',8 61/0%'*.'(*1-+,.-'''.5' 5*%0'.*)'7'$2',.'0,C%'*.'6$%001$%G'$%0,-.0' 5,0),..-1,0+,.-'''+25$*(%/%' &$*8'.',.-1,.'ƒ $16)1$%' +%.')+%'0'(' ,0' 8 1(+')+,(9%.%5' 0*'0')*'*40(1$%' &/1()1'),*.''.5' 6$%7%.)')+%' 6'00'-%'*&$'20' *&'/,-+)')+%')1 8 *1$' 8'2'4%' 8 ,0)'9%.'&*$''+[8')*(%/%'*$' 5,0%'0%'*&')+%')%0),(/%''.5')+%' 5,'-.*0,0',0' 5,&&,(1/)

08 G .' " 3'7'-,.05'+25$*(%/%' 101''//2' 5,0'66%'$0' 1.5%$')+%''66/,(',*.'*&' 3%'9'),..()1$%'*&',*5,.%'$' '(')+,0' 8'2',$$,;)')%')+%'.'*&' 0*8%'%7'6*$'),..-'/*),*.' (161.()1$%'('10,.-')+%'&/1,5')*'%0('6%',.)*')+%'$%*/'$'),001%'*&')+%'0%$*)8.',0')+%'*./2' *6%$'),*.')+')',0'$%E1,$%5 .')+%' %B)%$.'ƒ$%8%5,%0' '$%'*&'.*' 10%')',0'101'ƒ)*'$%0*$)')'*.(%')*'*6%$')',7%')$%')8%.)')'*$') +%' 7)'*6%$')',*.' *.0,0)0',.'6,8*).$,.-')+%')1 8 *1$' 3,)+'')$*('$' '.5'%7'(1')8-')+%' &/1,5' '((1 8 1/')%5',.')+%')1.,(' ' 7'-,.'/,0' +%'+25$*(%/%'101''//2'$%)1$.0',.')+%' (*1$0%'*&')3*'*$')+$%%'8*.)+0''.5')+%.')+%'*6%$';),*.'8 10)'4%'$%6%')%5'*$')+%'6'),%.)'8 10)' 1.5%$-*' ')$%')8%.)' +,0' 8'2'4%' %&&%()%5'42',.(,0,*.'*$%B(,0,*.'*&')+%'0'(Ĥ42')+%'6'00'-%'*&''0%)*.Ĥ*$'42',.>%(),*.'*&')+%' 0'('3,)+'' 0),8 1/'),..-'&/1,5' +%'/')%$',0')+%'6/'.'(*8 8*./2'$%0*$)%5')*Ĥ'.5')+%'&/1,5' '/8*0)',.7'$,'4/2'%86/*2%5',0')+%'),.()1$%*&',*5,.%' +%'*./2' '66'$')10'$E1,$%5',.' ''55,),*.')*''8%5,18 0,C%5')$*('$',0''-'/'00' 02$,.-%' +%'01$-%*.'-%.%$''//2',.>%()0'*4*1)' ''5$'(+8'*&'0)$*.-'),.()1$%'3+,(+'+%'/%'7%0' ,.')+%'0'(' +%' +'$8'(*6*%,'ƒ6$%6'$'),*.' ,0' .*)'01&&,(,%1)/2K0)$*.-' '/&''5$'(+8'*& ,*5,5%'*&'6*)'00,1.' 5,00*/7%5' ,.' *.%' 06,$,)' '0' '.' ,.>%(ƒ &1/')' ('10%0'(#ƒ ,.-')*')+%'/*.0Ĥ 6$%7%.)%5'42'%)4%$ƒ +%',*5,.%' '()0' '0>' 8,/5',.&/'8 8',*.')1$.' *&'03%/+.-'3N.' 1.),ƒ)+%'6'),%.)',0' 0*/1),*.' ?!')*' D!' 8,\' '(,5'/,E1%&,%5'3,)+' !' +'7%'4%%.'.>%()%5'3,)+ƒ' 41)'''6%$8'.%.)'(1$%'+'ƒ ,.''//'('0%0'3+%$%')+,0''>' 6/*2%5' *86$%00,*.'3,)&ƒ)+%'40*$6),*.' .'5*14/%'≐),*.'8'2'4%'6%$&*$8%5'*.'4≐ 0'8%'),8%' .>%(),*.'$'$%/2', +25$*(%/%' &',)'5*%0'.*)'01()ƒ),*.'8'2'4%'$%6%')%5''.5'7%$2' %&&%()1'/'41)',&'.*)'$%(*1$0%'(')+%'0%)*.Ĥ*$','.'('0%0'*&')+,(9%)' ,.(,0,*.'*$%B(,0,*. H0' (<.'+1'C%-*(..0B' 5$%.')+%'*$,-.'ƒ(*8 8 1.,(','),*.'4E' ('7,),%0'*&')+%'6%$,)*.%18'.5'*&')\>' 7'-,.''/,0'0*8%),8%0'&',/0')*'4%'*4/,,I' '.5'&/1,5''((1 8 1/')%5',.')+%'0'('(*.0=)+%'7'$,%)2')%$8%5'(*.-%.,)'ƒ +25$' +%'(*8 8 1.,(','),*.'.',0')'01'//2'08'//ƒ,. & G*.-%.,)'ƒ+25$*(%/%',0'%'0/' 5,0),..-1,0+%5'&$*8'*$5,.'$2'+25$*(%/%'42')/' '40%.(%'*&''5%&,.%5'4*1.5'$2'*.')+%'166%$Ĥ 6'$)'*&')+%')1 8 *1$Ĥ42')+%',8 61/0%'$%(%,7%5Ĥ *.'(*1-+,.-Ĥ'.5'42'6$%001$%('10,.-')+%' 5,0'66%'$'.(%'*&')+%'03%//,.-''.5'$%.5%$,.-')+%')%0),(/%'6%$(%6),4/%')',0'5,0),..-1,0+%5' &$*8''$%51(,4/%'+%$.,''42')+%'&/1()1'),*.' '.5')$'.06'$%.(2'*&')+%'03%//,.-Ĥ42')+%' '40%.(%'*&'-1$-/,.-'((*86'.2,.-',)0'5,0; '66%'$'.(%'*.'6$%001$%Ĥ'.5'42')+%'0/*3' $%)1$.'*&')+%'03%//,.-'*.')+%'6'),%.)'0018 ,.-')+%'%$%()'6*0)1$% ! 'G'*.-%.,)'ƒ +25$*(%/%' ,0' $%'5,/2'(1$%5'42')+%'-%.)/%'6$%001$%'*&'')$100'*.')+%',.-1,.'ƒ('.'/'0*'0')*'*((')*' *(')*' *4+)%$'),*.'*&')+%'.%(9'*&')+%'0'('&)%$' 3+,(+')+%'&/1,5'101''//2'4%(*8%0'40*$4%5 ?' .(20)%5'25$*(%/%G.')+,0'&*$8' *&'+25$*(%/%'&/1,5',0'%&&10%5',.)*'.''57%.),;),*10'(20)'5,0),.()'&$*8')+%'7'-.'ƒ+25$*(%/%'.'4%,.-'/%0' '.5'%7%; /*6%5',.')+%'$%*/'$),001%'4%.%')+')+%7,0(%$'ƒ 6*$),*.'*&')+%')1.,('7'-.'/,0'.7%0),.-')+% +%'5'*&')+%'%6,5,528,0' +%$%'8'2'4%')3* *$%7%.'8*$%'01(+'(20)0' 0')+%'(20)'%.; /'$-%0')+%'%6,5,528,0'4%(*8%0'&/')%.%5''.5' 5,06/'(%5')*'*.%'0,5%'3+,/0)')+%')%0),(/%',0' &*1.5'%,)+%$',.'&$*.)'*$''))+%'4*))*8'*&')+% (20)' +%'&/1,5'(*.)',.%5',.')+%'0'('5,&&%$0' &$*8')+')'*&'7'-.,.'ƒ+25$*(%/%'.',.'4%,.-'/%0' ,.'E1'.),)2'6%$&%()/2'/,8 6,5''.5'(*/*1$/%00' '.5'.%'$/2'&$%%'&$*8''/418%.' +%'&/1,5' 0*8%),8%0'(*.)',.0'06%$8')*C*'',.'-$%')' 41.5'.(%'$%.5%$,.-',)'*6'E1%''.5'8,/92' /**9,.-' +%,$'6$%0%.(%'8'2'4%*3,.-')*')+%

/ J$,B,6)*8 ' 8 %)'
' ',%' '6)')*' 4%'
)+')+*0%' 3+,(+'
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6,. ,0+')+%' 5,&&,(1/'
6$*. .*1. (%5' G'
A/*0,0' *&')+,0' /')))%$'
')*' -$*16')*-%)+%$'
&%286)*80' 3+,(+' * .'
&%' . .*' *)+%$' (*88*. '
&'$%' '6)')*' ((1$, .'
)*. %' *&' 3+*0%' .%$7*10'
&*3%$%5 ' '.5')+%$%42'
/'4/%')+' .' . ')1$'/' %'
)%$' 3,)+*1)' 01(+' '' . '8%'
4/%%5,. -' '.5' /*3%$,. -'
/*. -%$' , .' 7*-1%' &*$')+%'
=H+%' -$'7%' *$-' .,(' '&&%(),*. '
0)')'%0',.'E1%0),*.' 8 '2' *((' '
A4,85%5
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&E4'Y,>)+%+%'5R G '02+*. 28'&*$
=8%. , . -,),0' 14%$(1/*0,0' ' ,'
' ,. &/'88'),*. ' ,0')+%' -%. %$'), . -'
' '.5'' (1)%'+25$*(%6+'/10',0'*./2')+%'
8')+*1-+' 7%$2' &$%E1%.)' (*. *8,'
. ' 5)' $)' ,0%'0%0'*&
* ! C '+* >' ,*('4#0 9
')%$' *.')+%' $',. H' '
O H $'P O H P ' '
%$' C ' R - g' ")2
6$8*)
& # G ' -$'51'/' ((181/'),*. ' *&'
K=0%$*10'&/1,5' 3,)+,. ')+%'/')%$'/' '.5')+,$5'7%. ;
)$,(/%0' *&')+%'4$',. ' ('10,. -')+%8')*'4%(*8%'
8*$%' *$' /%00' 5,0)%. 5%5' ' .5')+%' +%'5' %. ;
/'$-%5H *((1$$,. -' 6$,. (,6'//2' , .' , .&' .)0' *$'
7%$2' 2*1. -' (+,/5$%. H' '.5'/%'5,. -')*' $%0)/%00;
. %00',$$,)'4,+)2' *$' (*. 71/0,*. 0' &*//*3%5' 42'
51/. %00'5$*30,. %00'8*)*$'3%'9. %00'*$' ()1='
6'$'/20,0')*-%)+%$' 3,)+' &',/1$%' *&' 8,. 5' ' .5'
*&')+%' 06%(,'/' 0%. 0%0
+%' %00%.),'/' (*. 5,),*. ' ,. ')+,0' 8'/'52',0'
)+%', .)$' 7%.)$,(1/'$' %&&10,*. ' +%' ('0%0' , .'
3+,(+')+%' &/1,5' +'0' 4%%. ' &*1. 5' *1)0,5%')+%'
4$',. ' . 5'3,)+, . ')+%''$'(+. *,5'0'('$%', . ' //'
6$*4'4,+)2' 8%$%/2' %B'86/%0' *&')+%' 5,0%'0%'
, . ' 3+,(+' ,.)$' 7%.)$,(1/'$' %&&10,*. ' +'7, . '
6$%7,*10/2' 4%%. ' 3%// 8'$9%5')+%' 5,0)%. 5%5'
(*$610' (' *018' *$',)' 8'2'+%')+%' &/**$' *&'
)+%'),+,$5'7%.)$,(/%'+'0'-,7%. '3'2''. 5''//*3%5'
)+%' &/1,5')*'6'00'4%. %')+')+%''$'(+. *,5' +%'
0* ('//%5'%B)$' 7%.)$,(1/'$' &*$8'*&')+%'5,0%'0%'
,0')+%$%&*$%',. ')+%'8'>*$,)2'*&'('0%0'8%$%/2'
'' 0%(*. 5'$2' '. 5' '/)*-%)+%$' '((,5%.)'/' (*. ;
5,),*.
0' '' 0%E1%. (%'*&''/'$-%' '$'(+. *,5'+'%8*$;
$+'-%'0%$*10'&/1,5' 8'2' '/0*' 4%'&*,85'3,)+,. '
)+%' $'(+. *,5'('7,)2H)+,0'+*3%7%$',0' '' (*. ;
5,),*. '3+,(+')+'0' . *' $%' /'),)/%')*' 4%'8%.),*. %5'
785%$')+%'+%'5'*&'(+$*. ,(' +25$*(%6+'/10' '0'
0*8%' 3$,)%$0'+'7%'5*. %' .5')+%'0'8%'$%;
8'$9''66/,%0')*')+*0%''((181/'),*.0'*&0%$*10'
&/1,5'3+,(+')'9%'6/'(%'4%. %')+')+%''$'(+. *,5

'0' [' 0%E1%. (%'*&'3'0),. -' *$' ')$*6+2' *&')+%'
(%$%4$'/'+%8,06+%$%0'*. %'*$'4*)+' +%'(*/;
/%(),*. ' *&'&/1,5',. '01(+' ('0%0',0')*' 4%'$%-'$5%5'
'0' '' 0,86/%'0%E1%. (%'*&')+%' ')$*6+2' ' . 5',0'
*&',)0%/&'1. 6$*51(),7%'*&'8*$4,5'02 8 6)*80
)5 ' G 3*'6$,. (,6'/-$*160'*&'('10%0'
'$%' '66%'/%5')*' '0' 6$*51(),7%' *&' (+$*. ,('
+25$*(%6+'/10' . ' (%$)', . ' ('0%0')+%' '&&%(),*. '
,0'+%+%7%5')*'4%' # '51%')*' ' . '0%00%. ;
),'/' 5$*602 < *((' 0,*+%5' 42' ' . ' , . &/'88';
)*$2' '&&%(),*. ' *&')+%'/, . , . -' 8%84$'. %'*&')+%'
7%.)$,(/%0' . ' *)+%$' 6'),%.)0'+*3% %$')+,0'
'&&%(),*. ' . ' ,0' 5,0), . ()/2' 0%(*. 5'$2' *$ 7
' ' . 5')+%. ' 8 '2' 4%' ('10%5' 42' *. %' *$
*)+%$' *&')3*' 6$,. (,6'/ 0%)0' *&' (*. 5,),*. 0'
+10' A R',)', 0' *&)%. ' *((' 0,*. %5' '0' 3$,)%$0' *&
)+%' /')0)' (%.)1$2'6*, .)%5'*1)' 42')+%' 6$%001$%
*&' 0($*&1/*10' *$' *)+%$')8. *1$0' 16*. ')+%
0)0)$',-+)' 0, . 10 < 6$*51(, . -' 8%(+' . ,('/' (*. ;
-%0),*. ' *&')+%' -$%')' 7%, . 0' *&' '/%. ' '0' 3%/' '0'
*&')+%,$' $'5,(/%0' *. ')+%' 3''//0' *&')+%' /')%$'/
7%.)$,(/%0' ' . 5' ' 0' '' (*. 0%E1%. (%' ' . ', . ($%'0;
, . -' 5$*60,('/' (*. 5,),*. ' *&')+%' 7%.)$,(/%0'
)+%80%/7%0' A<R 1(+' 8*$%'$'$%/2',)' 0' 0',5'
)*' +%'6$*51(%5' '0' '' 0%E1%. (%'*&' . ' '))'(9'*&'
'(1)%' +25$*(%6+'/10' +,0'/'))%$' 8*5%' *&'
*$,-,. ',0'58,))%5'42'0*8%'1)+*$0''. 5'5%. ,%5'
42'*)+%$0')' ,0' ')'/%'0)' ''6*00,4/%'8*5%'*&'
*$,-,. ' '/)+*1-+' *. %'3+,(+',0'5,&&,(1/)')*' 4%
%0)'4/,0+%5'3,)+'(%$)', .)2' 2'&'$')+%'/'$-%0)'
6%$(%.)'-%'*&'('0%0'6$*4'4/2'4%/*. -')*')+%
&,$0)'0%)' *&')+%'02 8 6)*8'),)('<'()%-*$2
+%'5,0%'0%'0*8%),8%0'(*. -%.)'/' '. 5'
8'2'4%'0*' &'$'5%7%/*6%5'51$,. -' 1)%$,. %'/,&%'
0')*' ('10%'-$%')'5,&&,(1/),%0',. ' 6'$)1$,),*. H G'
&$%E1%.)/2' . %(%00,)'), . -')+%'0'($,&,(%'*&')+%'
/,&%'*&')+%'(+,/5'')*')+%$'),8%0')+%%. /'$-%;
8%.)'*&')+%'+%'5'4%-,. 0')*'0+*3',)0%/&'0**.'
'&)%$'4,$)+''*$')'0*8%'6%$,*5'4%&*$%')+%'%. 5'
&')+%'&,$0)'*$'0%(. 5'2%'$' $',)'8'2'$%7%'/
,)0%/&'/')%$'0),/' , .' (+,/5+**5H 81(+'8*$%'
$'$%/2'51$,. -' '5*/%0(%. (%H ' .5'8*$%'$'$%/2'
),/' , .' '51/)'+&%
. -%. ,)'/'0 8,($(%6+'/,08'&8 10)' . *')'4%'
(*. &*1. 5%5' 3,)+' +25$*(%6+'/10')' ,0')$1%'
)+')' , .' (%$)', .' 08'// +%'5%5', . &' .)0'+'7, . -'
)+%'($' . ,18'8'/&*$8%5' . 5')+%'01)1$%0'*00,;
&,%5' ' .'%B(%00'*&'&/1,5' 8'2'4%'&*1. 5'3,)+, . '
)+%'+%'5H 41)')+%' . ')+%'&/1,5', . ')+%0%'('0%0',0'
0,)1')%5'*1)0,5%')+%''')$*6+,%5'4$', . ' ' . 5' . *)'
7$,)+, . ')+%' 7%.)$,(/%0' +%')3*' (*. 5,),*. 0'
'$%' , . ' &'()')*' //2' *66*0,)%' , . ' . ')1$%
'3$ # # G +$%%'5,&&%$%.)'
0)')%0' , . ' $%-'$5')*' 0,C%'*&'+%'5'+'7%'4%%. '
5%0($,4%5' '0' %/,0),. -' , . ')+,0' '&&%(),*. G'
AYH 3+%$%')+%'+%'5',0'08'//%$')' . ' . ')1$'/H
A<H 3+%$%')+%'+%'5',0'*&' . ')1$'/'0,C%H ' .5
A"H 3+%$%')+%'+%'5',0'8*$%'*$'/%0'(*. 0,5%$;
'4/2'%./'$-%5
+*0%'*&')+%&,$0)'(')%-*$2'*1-+)' .*')*'
4%'. . (/15%5' ')' //' +%2' '$%')+%'(*0%0'*&'
08,($*(%6+'/,08<'4*7%'$%&%$%5')*' +*0%'*&'
)+%'0%(*. 5'(')%-*$2'(*1/5'. %7%$'4%5,'-. *0%5'
3,)+' . 2'5%=%%'*&'6*0,),7%. %00'51$,. -' +&%H
' . 5',)' 8'2', . 5%%5' 4%E1%0),*. %5' 3+%)+%$'
01(+'('0%0'%B,0)')*' . 2'/'$-%'%B)%.)'%B(%6)'0

8*$%‘ *$‘ /%00‘)$‘.0,)*$2‘ 0)‘-%0‘ *&‘ ,.0)‘.(%0‘ *&‘)+%‘5,0%‘0%‘ 6%$)‘,.,.-‘)*‘)+%‘)+,$5‘*&‘)+%‘ ‘4*7%‘ (‘)%-*$,%0

7%.‘)+%‘ (‘0%0‘ ,.‘ 3+,(+‘)+%‘ +%‘5‘ ,0‘5,0‘),.%)/2‘ %./‘$-%5‘ 5,&&%$‘ ‘8*.-0)‘)+%8 0%/7%0‘ 0,.(%‘ ,.‘0*8%‘ *&‘)+%8‘ A‘R‘ 4*)+‘01)1$%0‘ ‘.5‘ &*.)‘.%‘ %0‘ ‘$%‘ 3,5%/2‘ *6%.H 3+,/%‘ ,.‘ *)+%$0 AFR‘)+%‘01)1$%0‘ ‘.5‘ 6%$+‘60‘)+%‘ &*.)+.% %0‘ ‘$%‘ (*86/%)%/2‘ (/*0%5‘)‘ 0%%80‘ 6$*4‘4/%‘ HR‘)‘)+%‘/‘))%$‘ 8‘2‘$%6$%0%.)‘(*.5,),*.0‘,.)*‘ 3+,(+‘0*8%‘ *&‘)+%‘ &*$8%$‘ 6‘00‘ 3+%.‘)+%‘ 5,0%‘0%‘/‘60%0‘,.)*‘ ‘‘(+$*.,(‘ .5‘0)‘),*.‘$2‘ (*.5,),*.

3,.-‘)*‘)+%‘ 0%6‘$‘),*.‘ *&‘)+%‘ ($‘.,‘/ 4*.%0‘,.‘2*1.-‘,.&‘.)0‘)+,0‘5,0%‘0%‘3+%.‘,)‘ *((1$0‘,.‘)+%8‘0**.‘4%(*8%0‘ ‘00*(,‘)%5‘3,)+‘ ‘.‘ ‘()1‘/‘%./‘$-%8%.)‘ *&‘)+%‘ +%‘5‘ 3+,(+‘ ,.($%‘0%0‘ $‘6,5/2‘ .‘ (*.0%E1%.(%‘ *&‘)+%‘ 5,0)%.5,.-‘6$%001$%‘ &$*8‘ 3,)+,.‘(‘10%5‘42‘)+%‘,.($%‘0,.-‘0,C%‘ ‘.5‘ &1/.%00‘ *&‘)+%‘ 7%.;)$,(/%0‘)+%‘4*.%0‘%.)%$,.-‘,.)*‘)+%‘&*$8‘),*.‘ *&‘)+%‘7‘1/)‘*&‘)+%‘($‘.,18‘4%(*8%‘0%6‘$‘)%5‘ &$*8‘*.%‘ ‘.*)+%$‘)+*1-+‘)+%‘4*.%0‘ *&‘)+%‘ &‘(%‘$%8‘,.‘1.‘/)%$%5‘ +%‘&$*.)‘/‘6‘$,%)‘/‘)+%‘016%$,*$‘6‘$)‘*&‘)+%‘*((,6,)‘/‘‘.5‘‘‘08‘// 6‘$)‘*&‘)+%‘0E1‘8*10‘6*$),*.‘*&‘)+%‘)%86*$‘/ 4*.%0‘4%(*8%‘%B6‘.5%5‘ ‘.5‘)+,..%$‘)+‘.‘ .‘)1$‘/‘‘)‘)+%‘0‘8%),8%‘)+‘)‘)+%2‘‘$%‘0%6‘$ $‘)%5‘&$*8‘*.%‘ ‘.*)+%$G%06%(,‘//2‘,.‘)+%‘ $%-,*.0‘*&‘)+%‘.)%$,*$‘ ‘.5‘6*0)%$,*$‘&*.)‘‘ .%//%0‘‘.5‘*&‘)+%‘0‘-,))‘/01)1$%

+%(‘$‘.,‘/ 4*.%0‘‘$%‘*&)%.‘7%$2‘)+,.‘41)‘ *((‘0,*.‘//2‘)+%2‘8‘2‘4%‘1.101‘//2‘)+,(9‘)+$*1-+*1)G%7%.‘,.‘2*1.-‘(+,/5%.

+%‘(,$(18&%$%.(%‘*&‘)+%‘+%‘5‘)+*1-+‘)+‘)‘ *&‘‘2*1.-‘(+,/5‘8‘2‘,.‘+25$*(%6+‘/10‘%‘0,/2‘ $%‘(+‘@‘)‘ ‘,.(+%0‘*$‘8*$%‘ +%‘0,C%‘ ‘))‘,.%5‘42‘)+%‘+%‘5‘,.‘(%$)‘,.‘%‘0%0‘+‘0‘ 4%%.‘(*86‘$‘),7%/2‘%.*$8*10H)+10‘,.‘‘.‘ ‘/)*-%)+%$‘ %B(%6),*.‘/‘ (‘0%‘ $%(*$5%5‘42‘ $1,90+‘.9‘,)‘,0‘0‘,5‘)*‘+‘7%‘8%‘0)1%5‘,.‘ ‘‘(+,/5‘0,B)%%.‘8*.)+0‘*/5‘.*‘ /%00‘)+‘.‘ @‘ ,.(+%0‘,.‘(,$(18&%$%.(%‘.5‘)+%‘ ‘8*1.)‘*& &/1,5‘(*.)‘.,%5‘3,)+,.‘)+%‘($‘.,18‘3‘0‘&*1.5‘)*‘3%,-+‘0‘81(+‘0‘)3%.)2 0%7%.‘6*)850

+%‘&/1,5‘,0‘-%.%$‘//2‘0/,-+)/2‘/48...*10H 6*00%00%0‘0*8%0‘/,.%(*.0),)1%.)0H ‘.5‘+‘0‘ ‘‘06%(,&,(‘-$‘7,)2‘$‘.-,.-‘&$*8‘ !!D‘)*‘ !)0‘(*86*0,),*.‘ ‘-$%%0‘6$%))2‘(/*0%/2‘3,)+‘)+‘)‘*&‘(1$*60,(‘/&/1,50‘-%.%$‘//2

.‘)+%‘-$%‘)‘8‘>*$,)2‘*&‘(‘0%0‘‘0‘/$%‘52‘ 0)‘)%5‘)+%‘&/1,5‘,0‘(*.)‘,.%5‘3,)+,.‘)+%‘8*$% *$‘/%00‘5,0)%.5%5‘/‘)%$‘/‘‘.5‘)+,$5‘7%.)$,(/%0‘ *&‘)+%‘4$‘,.‘ +%‘166%$‘‘.5‘/‘)%$‘/‘6‘$)0‘*&)+%‘(%$%4$‘/‘+%8,06+%$%0‘0‘3%/‘0‘)+%‘(*$; 610‘(‘//*018‘4%(*8%)+,..%5‘‘.5‘5,0)%.5%5‘ 0*‘0‘)*‘$%0%84/%‘‘‘8%$%‘4‘-‘)+%‘3‘//0‘*& +,(+‘$%‘ $%6$%0%.)%5‘ %B)%$.‘//2‘42‘6‘/%‘ 1.&*/5%5‘‘.5‘81(+‘&/‘))%.%5‘(*.7*/1),*.‘/‘ 8‘))%$‘‘.5‘,.)%$.‘//2G.%B)‘)+%‘&/1,5‘,)0%/& G42‘)+%‘/,.,.-‘8%84$‘.%*&‘)+%‘7%.)$,(/%0‘ +,0‘/‘))%$‘+‘0‘4%(*8%‘81(+‘)+,(9%$‘.‘5‘)*1-+%$‘)+‘.‘.‘)1$‘/H,)‘8‘2‘/0*‘4%‘8*%‘ *$‘/%00‘-$‘.1/‘$‘*.‘)+%‘01&‘(%H‘.‘5‘*&)%.‘ 0+*30‘.‘ ,.($%‘0%5‘.184%$‘*&‘ 5,0)%.5%5‘ 7%00%/0‘ +%0%‘‘66%‘$‘.(%0‘‘$%‘ +*3%7%$

.*)‘)*‘4%‘)‘.%. ‘ &/‘88‘)*$2‘*$,›‘ *40%$7%$0‘0%%8‘ &*1.5‘‘0‘)+%‘3,› ,.‘(‘0%0‘3+%$%‘ +‘7%‘4%%.‘)+%‘$5‘ (*.-%0),*.‘6$*5,=‘ (*88%.(%8%.)‘;)*‘‘)18*1$‘,.‘)+%K‘ +%/,18‘ .‘)+%‘*)+5‘)+%‘3$,)%$‘%B‘8,.%5/‘ (%6+‘/,(‘(+,/5‘3+*‘5,%,‘ *06,)‘/‘,.‘3+*8‘)+%‘ $%7%‘/%5‘.*)+,.-‘)+‘)‘ 8%(+‘.,(‘/‘(*.-%0),*.‘ 3‘0‘8*$%*7%$‘.*‘0,-.‘ ,.&/‘88‘)*$2‘(*.5,),*.‘ -$%‘)/2‘5,0)%.5%5‘/‘)%$‘/K 4‘(9‘16*.‘)+%‘+26*)+%0,0K 5$*602‘3‘0‘&%/)*‘4%‘&‘$‘&$&/ 1(+‘‘6+$‘0%‘(‘..*)‘,.5%%5K (*.7%2,.-‘.‘2‘$%‘/‘%B6/‘.‘),*/ 5,),*.‘,.‘E1%0),*.

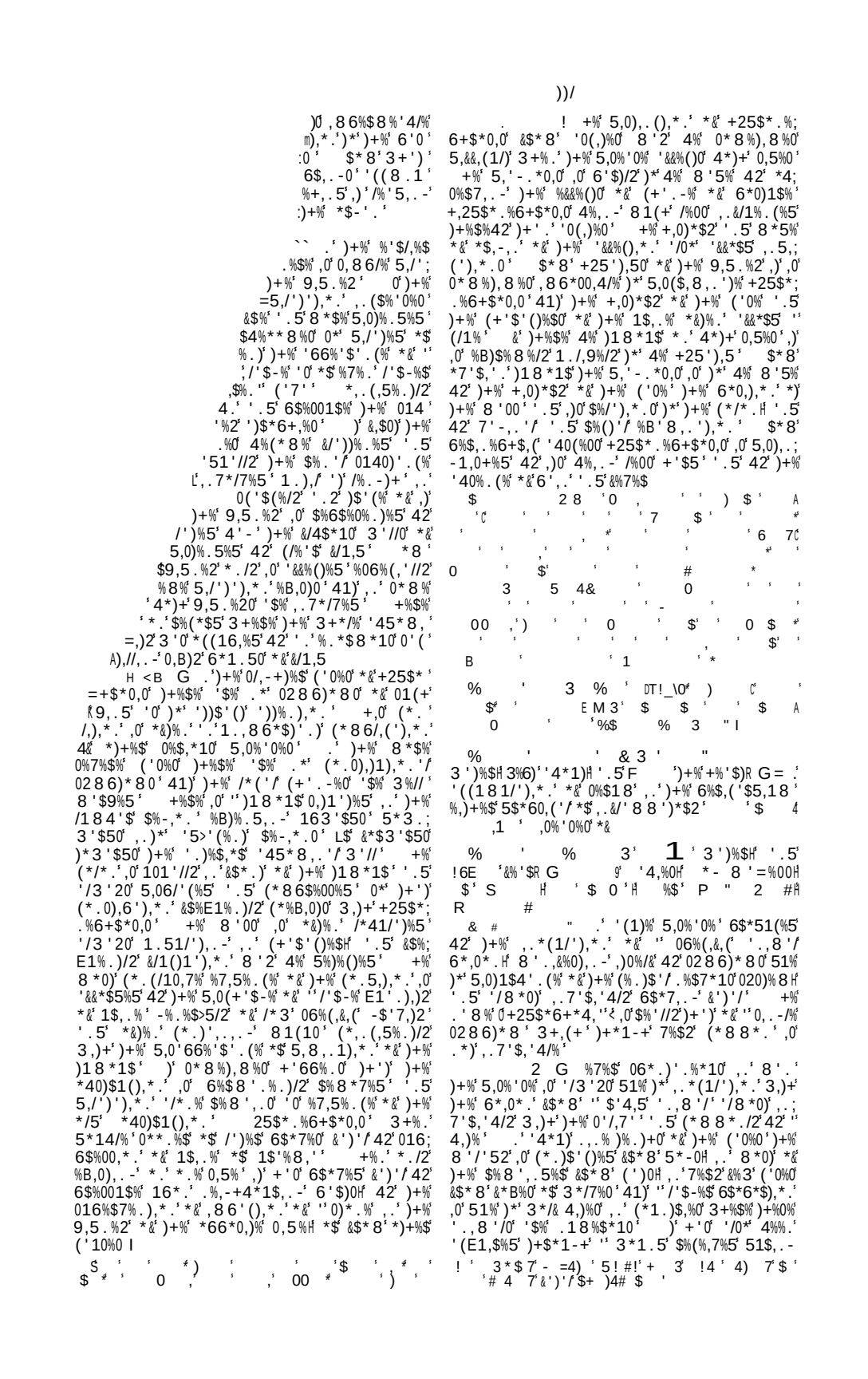
+%‘0+‘6%‘*&‘)+%‘7%.)$,(/%0K (*86$%00%5‘-‘.-/,‘‘‘4*1)‘)+% (*1$0%‘-$%‘)/2‘‘/)%$%5‘ +% 1.$*‘8‘2‘4%‘+‘/&‘.‘,.(+‘*$/ 5,‘8%)%$‘ +%‘*6),(‘.5‘*/&‘()*,/ ‘.5‘/*4%0‘$%‘‘/0*‘*&)%.‘81(+‘‘/)% 6$%001$%

+%‘4$‘,.01+0)‘.*%‘8‘2‘4%‘%7%.‘)* ‘)+‘.‘.)1$‘/‘4%(‘10%‘)+%‘/*.-%*.),=‘ 8%(+‘.,(‘/‘(*.-%0),*.‘3+,(+‘%B,0)0‘,.c‘ 8‘.2‘(‘0%0‘&‘7*1$0‘)+%‘7%$-$*3)+‘*&‘)&/ .%1$*-/,‘H‘.5,.5%%5‘,)‘3*1/5‘66%‘6*+‘ ‘4/%)+‘)‘,.‘0*8%‘,.0)‘.(%0‘)+%‘*7%$-$*3)/ *&‘)+,0‘8%$%‘(*.%),7%‘0140)‘.(%‘,0‘3%//‘ 8‘$9%5‘*$‘.*)3,)+0)‘.5,.-‘‘//‘)+%‘6$%0‘ 01$%‘16*.‘.5‘.5‘5,0)%.0,*.‘*&‘)+%‘4$‘,.014; 0)‘.(%‘)+,0‘$‘$%/2‘0+*30‘0,80‘*&‘)$*6+2‘)‘,0‘$‘)+%$‘)+%‘$%7%$0%‘ +%‘8%$%‘4$‘,$ ‘/*.%‘*&‘‘+25$*(%6+‘/,(‘(+,/5‘‘&)%$‘)+%‘&/1,5‘ +‘0‘4%%.‘%7‘(1‘)%5‘(*88*./2‘3%,-+0‘8*$%)+‘.‘)+%‘4$‘,‘*&‘‘+%‘/)+2‘(+ 5‘*&‘)+%‘0‘8%‘ ‘-%‘ +10‘,.‘‘.‘,.0)‘.(%‘)+‘)‘(‘8%‘1.5%/)+%‘3$,)%$0‘.*),(%‘)+%‘4$‘,.‘*&‘‘(+,/5‘&,7% 2%‘$0‘*&‘‘-%‘3%,-+%5‘$‘)+%$‘8*$%‘)+‘.‘F@‘*C .‘)+*0%‘(‘0%0‘,.‘3+,(+‘51$,.-‘/,&%‘)+% &/1,5‘+‘0‘%0(‘6%5‘&$*8‘)+%‘7%.)$,(/%0‘)+$*1-4 ‘‘$16)1$%‘,.‘)+%‘(*$610‘(‘//*018‘)+%‘4$‘,. +‘0‘4%%.‘&*1.5‘8*)%‘*$‘/%00‘&/‘))%.%5‘‘.5 (*‘60%5‘,.‘)+%‘/*3%$‘6‘$)‘*&‘)+%‘%./‘$-%5‘ ($‘.,18‘3+,/0)‘)+%‘%0(‘6%5‘&/1,5‘*((16,%0)+%‘‘$‘(+.*,5‘(‘7,)2‘‘4*7%‘,)

‘#o # G +$*.,(‘+25$(%6+‘/10‘4%-,.0)*‘8‘.,&%0)‘,)0%/&‘,.‘7‘$,*10‘3‘20‘‘.5‘/0*‘ ‘0‘4*7%‘0)‘)%5‘‘)‘7‘$,*10‘-%0‘ +%‘-$%‘)‘ 41/9‘*&‘)+%‘(‘0%0‘‘$%‘%,)+%$‘(*.-%.,)‘/‘ $ (*88%.(%‘4%&*$%‘)+%‘&,&)+‘8*.)+‘ 1)‘,.‘ (%$)‘,.‘$‘$%‘,.0)‘.(%0‘)+%‘+%‘5‘8‘2‘4%-,.‘)*‘%./‘$-%‘/*.-‘‘&)%$‘)+%‘1.,*.‘*&‘)+% 01)1$%0‘,.‘%‘$/2‘‘5,&/)‘/,&%‘*$‘%7%.‘4%2*.5‘ 8,55/%‘‘-%

0‘)*‘8*5%0‘*&‘(*88%.(%8%.)‘‘)‘/%‘0)‘ &*1$‘6$%))2‘5,0),.()‘&$*8‘*.%‘‘.*)+%$‘8‘2‘ 4%‘%.(*1.)%$%5‘ A R +%‘5,0%‘0%‘8‘2‘4%

&$%)&'/.%' ' '.5' .' 01(+' ('0%0')**' ,.' (*86'$'),7%/2' %'$/2'
A)+%' *((1$$%.(%' 0)'-%0' *6+)+'/8*0(*6,(' %B' 8,.'),*.' 3,/#
'10' 4%&*$%' '.2' &$%E1%.)/2' $%7%'f*6),(' .%1$,),0' 3+,(+' +'0'
5%)%()%5' $' '')%.5%.(2')*' -*' *.')*' 3+,)%' ')$*6+2'3,)+'
'%' +%'5' 8'2' 4%')+%' 6$*51(),*.' *&' 8*$%' *$' /%00' (*86/%)%'
.' 0*8%' ('0%0' 4/,.)*%00
&0%)0',.' 41)' 8'2' .')'/')%$'0)'-%0'*&')+%'5,0%'0%'8%.)'f''(),*.'
.*)'4/%',.(%%'0,.-/2',86',$%5H)+%$%',0'/*00'
=2%)'+)+%'(+,/5' 8'2' *&'8%8*=' 51/.%00'.'5''-$%')%.5%.(2').'
)*$.'3+')%7%$' Y+% 0/%%6'51$,.-')+%'5'2' +%$%'8'2'4%'8'$9%5'
m 8'$9%5',.0)'.(%'*& 3%'9.%00'*$'(0)1'f6'$'/20,0'*&/,840' +,/;
+%'5'+'5' 4%%.'%.' 5$%.''&&%(0)%5')*')+,0'%B)%.)'*&)%.'9%%6')*')+%'
=8*.)+0' A)+%' 6$*(%00' $%(184%.)'6*0,),*.'+'7,.-')'/=0)'.*'6*3%$'
='0''' 2%',''*/5R''.5',.' *&$',0,.-')+%,$'+%'5'
+%'5' 3'0')3%.)2&*1$' &$*8')+%'6,//*3' +%$%')+%'%./'$-%8%.)'
=$%.(%'.*' *)+%$' 8*$4,5' 4%(*8%0'%B)$%8%')+%'3%,-+)'*&')+%'+%'5',0'
6$%0%.)%5')+%80%/7%0' 0*$'-$%')+')',)'(''.*)'4%'8',.)',.%5',.')+%
)*(%6+'/10' 8'2' 016%$7%.%' 16$,-+)'6*0,),*.')'+'0')*' 4%' 0166*$)%5'42'
'' &'//')+$*1-+')+%',.)%$')+%'+'.5'*$'0*8%'$),&,(,'f6$*6H*$' %/0%')+%'
)%4%//'$' 5,0%'0%' +%'3$,)%$' (+,/5'5*%0'.*)'))%86)'*' $,0%'&$*8')+%'$%;
R('$%'' /,))/%'-,$/f&*1$' 2%'$0' (184%.)'6*0,),*.' '0%.0%'*&'&/1()1'),*.',0'
%$'&'//,-'&$*8'')'4/%' '65' *&)%.'$%(*-.,0'4/%' +%'&*$%+%'5'4%(*8%0'
$*((,61)' 0%7%$%/2' 01&&%$%5'&*$' 6$*8'02866'1.'/)%$%5'*$' %7%.'4%(*8%0' %8'(,')%5',)'
)*,-+)%%.'8*.)+0'&$*8'02866' 0%.0%'*&'&/1()1'),*.',0' 0%%80'/)*-%)+%$'1..')1$'//2'08'//''.5')+10'
R,),7%' *&'(%$%4%//'$' 5,0%'0%' '&)%$' (*.)$,41)%0')*'6$*51(%''8*0)'(+'$')(%$,0),('66%'$'.(%'A0&'(,%0'+25$*(%6+'/,('R'3+,(+'
'%'5'4%-'.')*'%./'$-%''.5'+25$*' ,0'+25$*(%6+'/10'4%(*8%0'%8'(,')%5',)'
4%('8%')+%' '66'$%.)/2'5*8,.'.)' 0*$'-$%')+')'(+'$')(%$,0),('66%'$'.(%'A0&'(,%0'+25$*(%6+'/,('R'3+,(+'
86/%)%'4/,.5.%00'%.01%5')+%.' ,0'+25$(%6+'/10'4%(*8%0'%8'(,')%5',)'
U*.0'0%)',.''.5',.')+%' 8,50)'*&'*/,%' 4%(*8%0'%8'(,')%5',)'
U%)+%'6'),%.)'5,%5' '18*1$'*&')+%' 0*$'-$%')+')'(+'$')(%$,0),('66%'$'.(%'A0&'(,%0'+25$*(%6+'/,('R'3+,(+'
%/*4%'*&')+%'(%$%4%//18'3'0'&*1.5' ,0'+25$*(%6+'/10'4%(*8%0'%8'(,')%5',)'
'//')+%'0,-.0'*&''3%// 8'$9%5'+25$*' 0*$'-$%')+')'(+'$')(%$,0),('66%'$'.(%'A0&'(,%0'+25$*(%6+'/,('R'3+,(+'
''/10' AR +%'5,0%'0%'8'2'*((1$'0''' 0*$'-$%')+')'(+'$')(%$,0),('66%'$'.(%'A0&'(,%0'+25$*(%6+'/,('R'3+,(+'
&E1%.(%'*&''.'))'(9'$%0%84/,.-''(1)%' 0*$'-$%')+')'(+'$')(%$,0),('66%'$'.(%'A0&'(,%0'+25$*(%6+'/,('R'3+,(+'
)25$*(%6+'/10'A)14%$(1/'$'8%.,.-,),0RH)+')' 0*$'-$%')+')'(+'$')(%$,0),('66%'$'.(%'A0&'(,%0'+25$*(%6+'/,('R'3+,(+'
F0')*'0'2''' (+,/5' '66%'$0')*'01&&%$'&*$''' 0*$'-$%')+')'(+'$')(%$,0),('66%'$'.(%'A0&'(,%0'+25$*(%6+'/,('R'3+,(+'
=),8%&$*8'3+')'(,0'$%-'$5%5''0')14%$(1/'$'8%.,.-,),0H)+%' 0*$'-$%')+')'(+'$')(%$,0),('66%'$'.(%'A0&'(,%0'+25$*(%6+'/,('R'3+,(+'
'//')+%'0,-.0'*&''3%// 8'$9%5'+25$*''



)+%' 5,00%(),* .' *&' '' $'4,5' ' . ,8 '/' . .*(1/'),* .' 3,)+')+%' 4/**5' *&' ''$'4,5' ' . ,8 ' /' 3 ,/ /' 6$*4'4/2' A41)' . *)' (%$)' , ./2R' 6$*51(%')+%' 5,0% '0% ' +%$ 6*,0*.' ,0' . *)' 9 . *3 .')*' 4%' 6$%0% .)' , . ' ' . 2' *)+%$' 0%($%),* .')+' .')+%' 0 '/,7 ' ' 41)' ,)' ,0' '41 . 5' .)' '&)%$' 5%')+' , .')+%' (% .)$ ' /' . %$*7*10' 020)%8 ' * 8 8 %. (, . -' 5%(* 8 6*0,),* .',0' 0',5')*' 5%0)$*2' ,)0' '(),7,)2' 41)' ,)' 0* 8 %),8 %0' $%0,0)0')+,0' &*$' 8 ' . 2' 5'20' +%' 5$,%5' 0 '/,7 ''$%)' , .0',)0'7,$1/%. (%' &*$' 0* 8 %' 5'20'41)' , .')+%' 5$,%5' . %$7% (% .)$%0')+%' 7,$10' -$' 51' //2' /*0%0' ,)0' '(),7,)2' ' . 5' 4%(* 8 %0' , . %$)' , . ' '4*1)')%.

. *(1/'),* .' 42' ''4,)%')'9%0' 6/'(%' 8 *$%' (%$)' , ./2',&')+,0',0' * .' ' .' 1 . (* 7%$%5' 6 '$)' * &')+%' 4*52' '0' * .')+%' +' . 50' ' . 5' &' (%')+' . ' 3 +% . ' , . &/,()(%5')+$*1-+')+%' (/*)+%0' 42' 3 +,(+')+%')%%)+' 8 '2' 4% (/%' . 0%5' 1)',)' 8 '2' *((1$' 3,)+*1)' . ' '()1'/' 4,)%' '0' 42' '' /,(9' 16* . ' . ' '4$'0,* . ')' +'0' &*//* 3%5')+%' 0($')(+' *&' '' (')' 6$*4'4/2' 42')+%' ' . ,8 '/<0' 0'/,7'' 4%,. -')+10' , . *(1/')%5' ' +%'/)+2' 5*-' +'0' (* 8 1 . ,(')%5')+%' 5,0% '0% 42' '' 4,)%' -,7% . ' ,8 8 %; 5,')%/2' &)%$',)' +'5' 4%% . ' &,-+),. -' 3,)+' ''$'4,5' ' . ,8 = ')+%' 0'/,7'' *&' 3 8 (+' . *' 5*14)' 3 '0' 4' . -,. -' '4*1)' ,)0' >' 30' +%' 5,0% '0% ' +'0' $%01/)%5' &$* 8')+%')%)+' 4%, . -' 10%5')*' /**0% . ' '' 9 . *)' 16* . ' '' $*6% 3,)+' 3 +,(+' '' $'4,5' 5*-' +'5' 4%% . '),%5

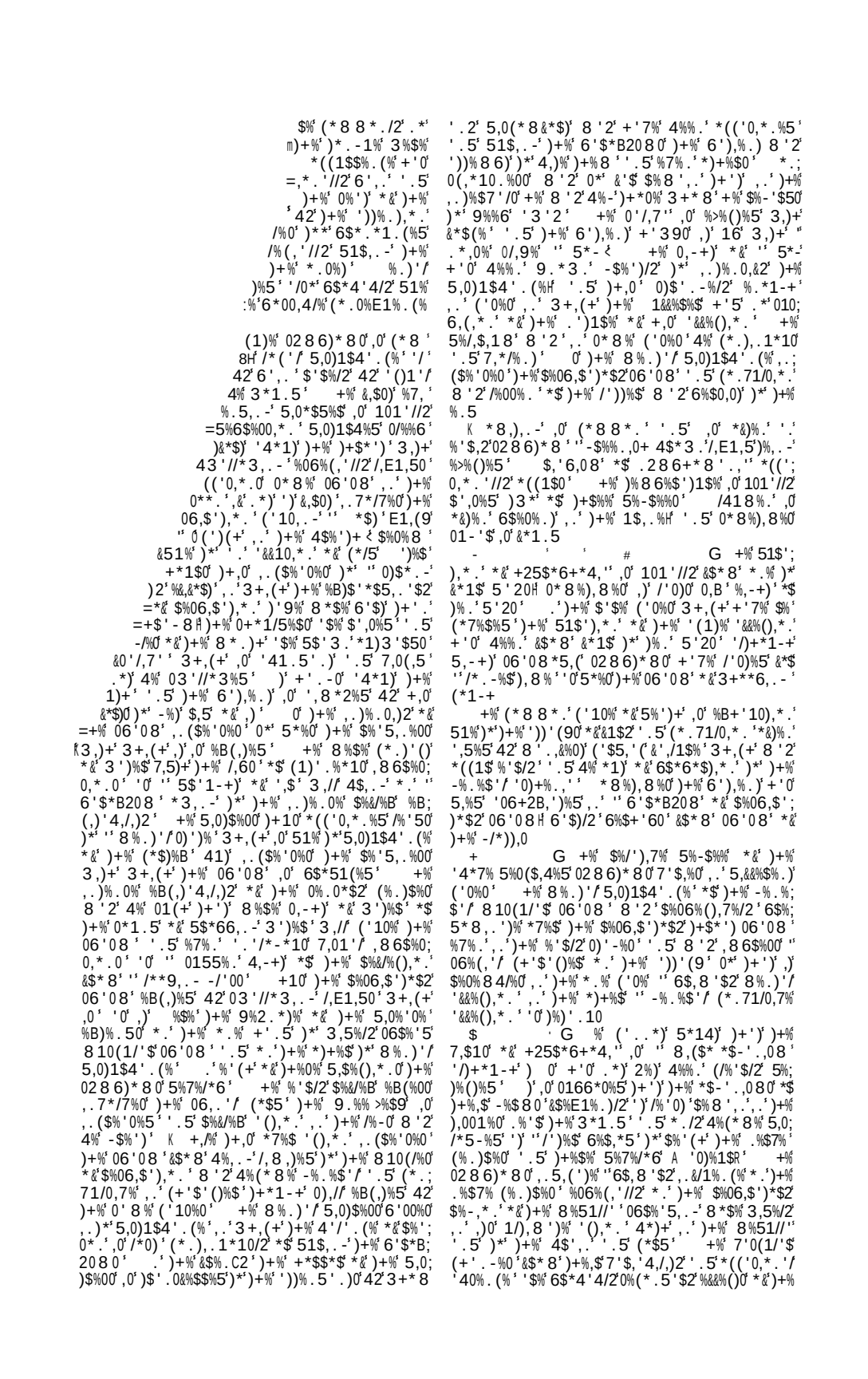
)' +'0' 4%% . ' '00%$)%5')+')')+%' 5,0% '0% 8 '2' '$,0%' &$* 8')+%' 4,)%' *&' '' +%' /)+2' 5*-' 41)')+,0' ,0' 8 *0)' , 8 6$*4'4/%' '0%0' '$%' * . ' $%(*$5' +' 3%7%$' , . ' 3 +,(+')+%' 5,0% '0% +'0' &*//* 3%5')+%' 4,)%' *&' '' 5*-' 3 +,(+' 5,5' . *)' &))')+%'),8 %' *$' &*$' 0%7%$' /' 3%%90' '&)%$3 '$50' 6$%0%.)')+%' $%(*- . ,0%5' 02 8 6)*8 0' *&')+%')**$5%$')' ,0' 6$*4'4/%')+')' , . ' 01(+' ('0%0' $'4,%0' +'0' *((1$$%5' '0' '' 8 ,/5' . ' 5'$10,- . ,&/(' .)' 8 '/'52' 0,. (%' ,)' ,0' (%$)' , . ')+')' '' 5*-' 8 '2' $%(*)%$' %7% . ' '&)%$' (* 8 8 1 . ,('), . -' &')=' $' 4,%0

+%. ' . *' 6$%7% .),7%' 8 %' 01$%0' '$%' '5*6)%5' '}' /%' 0)' +'/&' 6%$+' 60')3 *)+,$50' * &' 6%$0* . 0' 4,))%. ' %0('6%' A +%, 8 8 1 . ,)2' 8 '2' 4%' 51%' 6' $)/2')*')+%' 4,)%0' 4%, . -' , . &/,()%5')+$*1-+' (/*)+%0' 41)' 6$*4'4/2' '' &3 ' %2' 1 . 5%$/,%0')+%' %0),8 ')%' *3, . -')*')+%' , . (/10,* . ' *&' 8 ' . 2' 4,)%0' &$* 8' 5*-0' . *)' $%' //2' $' 4,5' '(%$)', . ' 5, ' - . *0,0' ('. ' * . /2' 4% 8 ' 5%' 42' , . *(1/'),* . ' 41)')+%' 6$%7% .),7%')$%')8 %.)' *&' '0)%1$' +'0' &*$)1 . ')%/2' 8 '5%,)' . *3', 8 6*00,4/%')*' *4)', . ' 0)'),0),(0' * . ')+%' 6*, .)

$%' 8 '/%0')+' . ' &% 8 '/%0' 01&&%$')+%' 6$*; 6*$), . ' 4%, . -')+$%%')*' * . %' +%' /' $-%0)' . 1 8 4%$' *&' ('0%0' *((1$' , . ')+%' 8 ,55/%' 6%$,*5' *&' /,&%' 5*14)/%0' &$* 8' -$%')%$' %B6*01$%')*')+%' ('10%' +,/5$%. ' +* 3%7%$' '$%' 6$* . %')*' 01&&%$' 4%, . -' *&)%. ' 4' 5/2' 4,))%. ' * . ')+%' &' (%' *0)' ('0%0' '$%' (* .)$' ()%5'&$* 8' 0)$' 2, . -' 5*-0' *$' &$* 8' 6%)' 5*-0')+')' +'7%' 4%%. ' 4,))%. ' , . ' 0* 8 %' 0)$%%)' &, -+)

+%' ' ' " # 3 "' ,0' /* . -%$')+' . ')+')' *&' ' . 2' *)+%$' '(1)%' 06%(,&,(' 5,0% '0% ' . 5' ,0' 0, . -1/' $/2' 7' $, '4/%')' ,0' $' $%/2' /%00')+' . ' '' 8 * .)+')+%' 0+*$)%0)' * . ' $%(*$5' +'7, . -' 4%%. ' '4*1)') 3 %/7%' 5'20' +%' '7%$' -%' 6%$,*5' ,0' 0,B' *$ 0%7%. ' 3 %%90' . ' '4*1)' +'/&')+%' ('0%0 ,)' ,0' 4%) 3 %%. ' *$' ('0%0' ,)' ,0' /* . /') 3 %/7%' 8 * .)+0' , . ' 3 +,(+') 3 *')+' , .)%$7%. %5' 01(+' ('0%0' 3 %$%' ;*$' 3 %$%' 51%')*' ''8 /)+*1-+' ,)' ,0' '0'),* . ' 6%$,*5' *&' * . %' 2 ' (%$)', . ')+')')+%' /,(9' 0($')(+%5' +' . 5', 0' 8 */')+' . ' $% 8 % 8 4%$%5' ' . 5' &%(),* . ' ,0' * . ')+%' 3 +*/' %B6/' . '),* . ' *&')+%0%' ('0 ! ' $' ' 5 ' ' *&')+%' 4/**5' 01(+' '0',0' ', &$* 8' '(1)%' 0%6),(' 5,0% '0%=')+$*')' . 5' 6+' $2 . B' . 5' 0' /,7' $2' -/' . 50' H)*-%)+%$=' ('0%0' %7,5% . (%' *&' (* . -%0),5' ' . 5' 06, . ' /' (*$5' (* . 0),)1)%')+,' '66%' $' . (%0' 7,0,4/%') ')+%' 8,($*0(*6%' +' 0' 0+*3 . ')+')')+%' *&' , . &/' 8 8 '),* . ' A(* . -%0),* . ' , . &,/)$'),* . R' , . ')+%' 0' /,7' $2' -/' . /' ' . 5')+')' 8 , . 1)%' (+' . -%0', . ')+%' . %&/' $%' '/ 8 *0)' (* . 0)' .)/2')*' 4%' &*1. 5' //41))' ' 8 8 *. 5' %. %5,9)' *')5' 3$,)%$R' &' . ,. %' ('0%0' %B' 8 , . %5=' 3$,)%$')+%' 8 ,($*0(*6,(' (+' . -%0' , . ' 0%75' 5,0), . ()' . 5', . ' (+' $' ()%$' . 5' 6*0,),* . ', . ' (+' $' ()%$,0),(')+')' -,7% . ')+%' &,,()' *&' . ' A 5,0% '0%' '5,' - . *0,0' 8 ,-+)', . '&6$*6*$),* . ' *&' *' 0%0' 4%' 8 '5%' 3 ,)+' (%$)' 8 /' 42')+%' 8 ,($*0(*6%' +%' %00% .),' /' (+' . -=' (* . 0,0)0' , . ')+%' '**1 8 1/'),* . ' *&' /%1(*(2)%0' '$*1 . 5')+%' 7%00%/0' . 5')+%,$' , . &,/)$')),* . ', .)*')+%' '5>' (%.)'),001%H)+,0' (+' . -%' +'7, . -' ' 06%(, '/ 5,0)$,41),* . ' 4%, . -' %,)+%$' (* . &, . %5')*' *$' 8 *0)' , .)%. 0%' , . ')+%' $%-, . *. ' *&')+%' 8 %51//' 3 +,(+' ,0' (* .), -1*10')*')+%' /*3%$' 6'$)' *&')+%' &*1$)+' 7%.)$,(/%')+')' ,0')+%' . %, -+4*1$+**5' *&')+%' $%06,$')*$2' (%.)$%' %$%' 3%' +'7%' /0*')+%' (%.)$%' &*$' 5%-/1),),* . ' +%' ('-%' ,0' 8 *0)' , .)%. 0%' , . ')+%' +26*-/*00'/' -/*00*; 6+'$2. -%'/' '. 5' 7' -'/' . 1(/%,' '. 5')+%,$' . %, -+4*1$+**5' +%$%' ,0' /,))/%' *$' . *' ('-%' , . ')+%' 166%$' 6'$)' *&')+%' 8 %51//' ' (*$6*$' E1'5$,-% 8 8 ' ' (%$% %//8 . ' *$' 4'0'/' -' . -/, ' . ')+%' (* . 7*/1),* . 0' '' 0, 8 ,/'$' 41)' 0/,-+)%$' '/)%$'),* . ',0' 6$%0% .)' , . ' 0* 8 %' ('0%0')' ,0' +*3%7%$' *&)%. ' 7%$2' 8 '$9%5' , . ')+%' 06, . '/ (*75' . ')+%' 8 *0)' '&&%()%5' $%-, * . 0')$' (%0' *&' " (/*)0' ' . 5' %7%. ' *&' , . &/' 8 8 '),* . ' *&')+%' 3 '//0' *&)+%' 8, . 1)%' 7%00%/0' 8 '2' 4%' &*1. 5', . ' 0* 8 %' *'0%0' %$,7'0(1/'$' '$%'0' *& 5,0, .)%-$'),* . ' '$%' (* 8 8 *. ' H 41)' 01(+' &$%; E1%.)/2' *(%8 ''6'$)' &$* 8' +25$*6+*4,'' *$' . 2' *)+%$' 5,0% '0% ' ,. 1)%' %B)$'7'0'),* . 0' '$%' (* 8 8 *. ' 6'$)/2' 8%(+' . ,('/' +%' *. /2' (+' . -%' , . ')+%' . %$7% %/% 8 %.)0')+% 8 0%/7%0' (* . 0,0)0' , . ' '' -$' . 1/'$' 5%-%. %$'), * . ' *&')+%' -' . -/, * . (%//0' *&')+%' $%-, * . 0' (+, %&/2' 5,0% '0%5' . ')+%' 5*-')+%' (+' . -%0' '$%' E1,)%' 0, 8 ,/'$' , . ' (+' $' ()%$0' ' . 5' 5,0)$,41), * .

* ' # 0 # G = 1$, . -')+%' 6%$,*5' *&' , . (14'



5,0)1$4%5' '(),* .' *&')+%' .%$7% 0)$1()1$%0' 6$*; 51(%5' 42')+%' 6*,0* .' ('$$,%5' 42')+%' 4/**5' +%' 7,$10' + '0' 4%%.')+*1-+)' '0(%.5'42')+%' .%$7%0' 41)')+,0' ,0' . *)' /,9%/2' ' /)+*1-+' -%$80' 8 '2' 0,81/)' .%*10/2' %.)%$')+%' 6%$,6+%$'/' .%$7%0' '.5'5%7%/*6')+%$%' 0,. (%')+%' 7,$10' + '0' 4%%.' &*1.5')*' 4%' '41.5'.)' .')+%8' A *35%' ' 3%//R

+%' &,$0)' %&&%()' *&')+%' 6*,0* .' ,0' 6$*4'4/2')*' /%00%.')+%' 0$%0,0)' . (%' *&')+%' 8%51/; /'$2' (%.)$%0' +%,$' '(),* .' 4%(*8%0' 06'0; 8*5,(' '.5',0' %$(,)%5'3,)+' 1.51%' $%'5,.%00' +%'%B(%00,7%' '(),* .'*&')+%' 8%51//''' .5'06,. '/ (*$5'&,.50',)0' (*1.)%$6'$)' ,.')+%' (*$)%B' '.5')+%' 5%/,$,18' 3+,(+' $%01/)0')' '' /')%$' 0)'-%')+,0' -,7%0' 6/'(%')*' 5%6$%00%5' '(),7,)2' 3+,(+' 8'2'%.5',.' 6'$'/20,0' '.5' (*8''3+%.' -%.%$'/'41)',0' 0*8%),8%0' 1.%E1'/',.' ,)0' 5,0;)$,41),*.' +%0%(*.5'$2'7'0(1/'$' (+'.-%0' 8'2' +'7%')+%,$' *3.' %&&%()0' +%2' '$%' '0' ,.' *)+%$' &1.(),* .'/' 5,0%'0%0'0*8%3+')' $'.; 5*8' ,.' 5,0)$,41),*.' 3,)+,.')+%' '&&%()%5' '$%' ' 2')+%' ,.&,/)$')',*.' *&' /%1(*(2)%0')+%'),001%' 8'2'4%4$*9%.' 16' '.5'3+')' '$%6$'(),('//2' 8,.1)%6*,.)0' *&01661$'),*.' 8'2'$%01/)' &')+%' 6'$,'5'8'-%5',0' ,86*$)'.)' -$'7%' (*.; 0%E1%.(%0' 8'2' %.01%' +%' .1(/%10' *&')+%' 6.%18*-'0)$,*',0' *&)%.'0*'5'8'-%5'' .5'&,*8')+,0' *$')+%' /')%' 5%6$%00,*.' 3%' ('.' 1.5%$; 0)'.5')+%' *((1$$%.(%' *&'($5,'(' &',/1$%' +%' (+'.-%0' ,.')+%' (*.7*/1),*.0' '.5')+%' 06,.'/ (*$5' '$%6$*4'4/2'6$*6*$),*.%5')*')+%' 8%.)'/ *$')%)'.*,5'A'.5'6'$'/2),(R 0286)*80'$%06%(;),7%/2' +%' 8%.)'/ %B(,)%8%.)' .*' 5*14)' '(0'16*.' '.5',.($%'0%0')+%',$$,)'4,/,)2'*&')+%' 8%51//''A 1).'8R' *.7%$0%/2')+%'5,0)1$4; '.(%' *&')+%'/'))%$' 8'2'+%/6')*'5%)%$8,.%')+%' (+'$'()%$' *&')+%' 8%.)'/ 5,0)1$4'.(%' 51%')*')+%' 6*,0*.' *&' +25$*6+*4,' & G +%' 0286)*8' *&' -$%')%0' 5,''-.*0),(' 7'/1%' ,0')+%' $%06,$')*$2' 06'08' %B(,)%5' 42' '))%86)0')*' 03'//*3' ,.($%'0,.-' 1.),/' ,)' $%0%84%0' '' (*.71/0,7%' '(),*.' '.5' '((*86'.,%5''&)%$' '),8%'42'8%.)'/ 5,0)1$4; '.(%' +%' 5,'-.*0,0' ,0' -%.%$'//2' ,'5%5' 42')+%' +,0)*$2' *&' '0106,(,*10'4,)%'41)',)' 810)' 4%' $%8%84%$%5')+')' 01(+' '' +,0)*$2'0*8%;),8%0' 8,0'%'50'%06%(,'//2'3+%.')+%' 8,.5'*&')+%'6'),%.)'+'0'53%)' 81(+'*.')+%' 6*00,4/%' (*.0%E1%.(%0' '.5' +%' +'0' 8'5%' +,80%/&' '(E1',.)%5'3,)+')+%'0286)*80'*&')+%'5,0%'0%' .'(%$)',.' 5,0%'0%0'*&')+%')+$*')' '.5'(+%0)' %06%(,'//2' *%0*6+'-,),0' '.5' 6%$,('$5,),0' '' $%&/%B')4$*') 06'08' 8'2'*((1$'41)',.' 01(+' ('0'0')+%$%' '$%(*88*./2'6',.' '.5'*)+%$'*4;)$10,7%'0,-.0'*&')+%' /*('/' '&&%(),*.' +%.')+%' 8%.)'/ 5,0)1$4'.(%' *((1$0' %'$/2')+%' '&&%(),*.' 8'2' 4%' (*.&*1.5%5' 3,)+' '(1)%' 8' .,' ')+%' '00*(,')*.' 3,)+' 0/,-+)' $%06,$';)*$2'06'08',0' 0),//)+%' 8*0)',86*$)'.)' 5,'; -.*0),(',.5,(')*.' .'*'0%0'A,&01(+'*((1$R,.' 3+,(+')+,0'02286)*8',0' '40%.)')+%' 5,'-.*0,0',0' '' 8'))%$'*&'-$%')'5,&&,(1/)2''.5'('.'*./2'4%' 8'5%'42')+%' +,0)*$2'*&')+%' '.)%(%5%.)' 4,)%' 42')+%' $'6,5'(*1$0%'*&')+%' 5,0%'0%''.5'42',)0' '00*(,'),*.'3,)+' *)+%$'(*.71/0,7%'6+%.*8%.' '.5'3,)+' 0'/,7,' 6+*4,'' ,0' 5,0),/ '&)%$)+%4,)%')!' 42')+%' '40%.(%' 06'08H' .5'42/' $%06,$')82'06'0,' *&' 8%.)'/ 5,0)*=' 810)' .*)' 4%' -,7%.' *&')+%' (*.71/0,7%')+%' 5,0%'0%' '$%' '4/2'')%)'.*,5'&*$8=')+,0')+%' 06'08',0'%B,' -/1),),*.'.5')+%$%H 4$',. 5,0%'0%0' '(**86'=' (*.71/0,*.0'*((1$$,.-'d 8,0)d#9%.'&*$'+25$*6+*4,' \' 3+,(+')+%'.')1$%'*&')+%5,= (*7%$%5'3+%.''&)%$'%B+1' +'%8*$$+'-%' 3'0' &*1.5' $%06,$')*$2'06'08'3'0'40%. %$%' 8%.)'/ %B(,)%8%.)' 0286)*80'*&')+%' 5,0%'0%' 8 > =06+'-,''0,81/'),.-')+')' 5,0%'0%G0061$,*10' +25$*6+*4,'= 4%%.')%$8%5'*&)%.'((*86'.,%5' %B(,)%8%.)' +%' 06'08'+*3%7%$')+%' $%06,$')*$2' (+'$'()%$' *&')$1= 6+*4,''%(*7%$2'(*88*./2%.01%= 8,.5'4%,.-')$'.E1,//,0%5'*$'42')+%' \ ),*.'*&'0*8%' $%8%52',.'3+,(+')+%'6')' (*.&,5%.(%')' 810)'4%' $%8%84%$%5')+< 0*8%' ('0%0'*&'-%.1,.%' +25$*6+*4,'' &/1%.(%'*&')+%'6'),%.)0'8%.)'/0)')%'+'0'4%/: 7%$2'(/%'$/2')$'(%'4/%' %7%.' ,.')+% 0286)*80'' .5',)'0'6$*4'4/%')+')' 8'.2')$1%% ('0%0'+'7%'4%%.'$%-'$5%5''0'061$,*10''.5' %7%.'614/,0+%5''0'01(+')',0'5*14)&1/ 3+%)+%$'5%')+'+'0'%7%$'$%01/)%5'%B(%6)'&$*8')+%'-%.1,.%'5,0%'0% G 25$*6+*4,'' ,0' 6$'(),('//2' &')'/'41)'.*)'(%$)',./2'0*' %(*7%$2'+'0'(%$;)',./2'*((1$$%5',.')+%'5*-'.5'6$*4'4/2',. 8'.H 7%$2'6'),%.)'0+*1/5'1.E1%),*.'4/2' $%(%,7%')+%'04%.%&,)'*&')+%'5*14)' '0%0' 5,&&%$',.')+%',.)0.,)2'.5'$'6,5,2'*&')+%,$' (*1$0%H '.5')+%'/%00'$'6,5/2')+%'0286)*80' '$%'%7*/7%5')+%'-$%')%$',0')+%'+*6%'0/,-+)')+*1-+',)'0),//,0')+')' '.'%B(%6),*.')*')+%' (*88*.'&')'/,)2'8'2'4%'*4)',.%5' +%' 6$*-.0%E1%.(%0' '.5'+%'+'0'8'5%'+,80%/&' 8',.0'/,8,)%5H,)',0'3*$0%,&')+%$%'$%'-%.%; $'/(*.71/0,*.0'8%.)'/ 5,0)1$4'.(%H' .5'0,-.0' *&'%B+'10),*.'*$'&'5,06$*6*$),*.')%'+%')$' &',/1$%

3 5 +43 B ' ' , ' ' 0 ' ' ') ' $' A *0 0 ' $'0 # *' ' ' ' $ 0 ' ' ¢ ' ' ' ' ' ' ' $ ' ' ' 0 ' ' ' ' ' / ' 6 ' '0 ' ' ' ' ' $' ' 0 ' *' ' ' ' 0 ' ' *' '0 *' ' ' ' ' $' ' , ' , ' # ' ' 0 ¢ ') ' ' ' ' ' ' ') ' ' ' $' ' $'0 $' ' 7 ') ' 0 $' ' ' ' '

6),//‘ 3,)+‘ 7,. % ‘
6)‘ %06%(,‘ //2‘ ,&‘
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‘5‘ 51$,. -‘)+%‘ ‘ ()‘
Q&$* 8‘)+%‘ 8 1(*10‘
&1)+ ‘ 3+,(+‘ 8 10)‘ 4%‘
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6*00,4/%‘ ‘ . 5‘ 4%&*$%‘ (,$ ‘
6‘$)‘ ,0‘ ‘ - ‘. ‘6%$ 8 ,))%5 ‘
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% %/‘ 60%5‘ .,)$,(‘ ‘(,5‘ *$‘
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‘52‘ 8 %‘ . 0‘ &‘ 6$‘ (),(‘ 4/%‘
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4%&*$%‘ 4%%. ‘ 10%5‘ %06%(,‘ //2‘ ,&‘
5*14)‘ ‘0‘)*‘)+%‘)+*$*1-+. %00‘ *&‘
/,* . ‘ ,)+*1)‘ ‘$$%0)‘ *&‘)+%‘ (,$ ‘
=1)%$,0‘),* . ‘ ‘&)%$‘)%. ‘ 8 ,. 1)%0‘ +‘ 0

),8 %‘ 41)‘ &,$0)‘ , . ‘ , 8 6*$)‘ . (%‘ ,0‘
*6+2/‘ (),%‘)$%‘)8 %.)‘ *&‘ ‘0)%1$‘
2%5‘ ‘0‘ 0**. ‘ ‘0‘ 6*00,4/%‘ &)%$‘)+ ‘ 4,)%‘
$,%5‘ 06,. ‘ /‘ (*$5‘ *&‘ ‘‘ $‘ 44,)‘ (* .)‘ , . 0‘
‘ . 5‘ /%00‘ *&‘)+%‘ 7,$10‘ 16‘)*‘)+%‘)%.)+‘
W*&‘ 5$2,. - ‘ 3+%. ‘ ,)‘ &‘ ,/0‘)*‘ 6$*51(%‘)+%‘
&‘ ‘. ‘ % 8 1/0,* . ‘ *&‘ 01(+‘ ‘ ‘ (*$5‘ ,0‘
$0)‘ , . >%()%5‘)+% . ‘ *. ‘ 01((00,7%‘ 5‘ 20‘)+‘)‘
& ($50‘ 5$,%5‘ &*$‘ ‘‘ 0+*$)%$‘), 8 %‘ 8‘ 2‘ 4%‘
% 8 6/*2%5‘ 1 .),/‘ ‘‘ 0)$% . -)+‘ *&‘ (*$5 7,$10‘ ,0‘
, . >%()%5‘)+ ‘)‘ 3*1/5‘ *)+%$3,0%‘ (‘10%‘)+%‘ 5,0;
%‘ 0%‘ ‘ *)‘ *. /2‘ 5*%0‘)+,0‘ &‘ ,/‘)*‘ 5*‘ 0*‘ 41)‘
,)‘ 6$%7%.)0‘)+%‘ *((1$$%. (%‘ *&‘ $‘ 4,%0‘ &$*‘ 8‘)+%‘
7,$10‘ , . *(1/‘)%5‘ 42‘)+%‘ 6$%(%5, . -‘ 4,)%‘ ‘ ,>5‘
)+10‘ (*. &%$0‘ , 8 8 1. ,)2‘ %7%. ‘ ‘ - ‘. 0)‘)+%‘ 6‘ 0)‘
, . *(1/‘),*. ‘ ‘)‘ ,0‘ 4%+%7%5‘)+ ‘)‘)+%‘ *$- ‘. ;
,0 8 0‘ *&‘)+%‘ 7,$10‘ 6$*51(%‘ ‘‘ 8 ‘)%$,‘ / ‘ 6$*4;
‘ 4/2‘ (+%8 ,(‘ / ‘ 5%0)$1(),7%‘)*‘)+%8 ‘ , . (*8 ;
6‘),4/%‘ 3,)+‘)+%,$‘ 5%7%/*68%.)‘ ‘ . 5‘)+‘)‘
)+,0‘ ,0‘ . *)‘ 5%0)$*2%5‘ 42‘)+%‘ 5$2,. -‘ ,. ‘)+%‘
0‘ 8 %‘ 5%-$%%‘ ‘0‘)+%‘ 7,$10‘ %, . -‘ ,. >%()%5‘ , . ‘
/‘ $-%$‘ ‘ . 5‘ /‘ $-%$‘ E1‘ .),),%0‘ &$*‘ 8‘ (*$50‘ 5$,%5‘
&*$‘ ‘‘ 0+*$)%$‘), 8 %‘ ,)‘ %&&%()1‘ //2‘ 6$*%()0‘ 4*)+‘
&$*‘ 8‘)+%‘ 7,$10‘ , . >%()%5‘ 3,)+‘ ,)‘ ‘ . 5‘ &$*‘ 8‘
)+‘)‘ 3+,(+‘ 3‘ 0‘ ‘/$%‘ 52‘ , . ‘)+%‘ 020)%8 ‘ ‘ ()0‘
0+*3‘)+‘)‘)+,0‘ $%01/)‘)+*1-+‘ . *)‘ ‘ 40*/1)%/2‘
(%$)‘ , . ‘ -%. %$‘ //2‘ &*//*30‘ ‘ . 5‘)+‘)‘)+%‘ 8 *$;
)‘ /,)2‘ &$*‘ 8‘ 4,)%0‘ 42‘ (%$)‘ , . /2‘ $‘ 4,5‘ ‘ . ,8 ‘/0‘
,0‘ $%51(%5‘)*‘ ‘ 4*1)‘ ‘ 6%$‘ (%.)‘ +%‘ 8 *0)‘
(‘ $%&,)/‘ %0),8 ‘)%‘ 0+*30‘)+‘)‘ 5)1$,. -‘)+%‘ /‘ 0)‘
&,7%‘ 2%‘ $0‘ ‘0)%1$‘ +‘ 0‘)+10‘ 0‘ 7%5‘ ‘)‘ /%‘ 0)
! ! !‘ &,7%0‘ A *$‘ ‘‘ 5%)‘ ,/%5‘ ‘((*1.)‘ *&‘)+%‘
)$%‘)8 %.)‘ ‘ 1&&%$‘ $‘ ’O "‘ ??P R
+%‘ 8 %)+*50‘ ‘5*6)%5‘ &*$‘)+%‘)$%‘)8 %.)‘ *&‘
)+%‘ 5%7%/*6%5‘ 5,0%‘ 0%‘ +‘ 7%‘ 4%%. ‘ . 18 %$*10‘
41)‘ &*$‘)+%‘ 8 *0)‘ 6‘ $)‘ E1,)%‘ ,. %&&%()1‘ /‘
//‘ 0* (‘ //%5‘ 006%(,&,(0‘ &+‘ 7%‘ 4%%. ‘ 6$*7%5‘)*‘
4%‘ 10%/%00‘ . ‘ ‘))%8 6)‘ +‘ 0‘ 4%%. ‘ 8 ‘ 5%‘)*‘
. %1)$‘ /,0%‘)+%‘ 6*,0*. ‘ 42‘ ‘ 58 , . ,0)%$,. -‘ /‘ $-%‘
5*0%0‘ *&‘ 8 %$(1$2‘ ‘ . 5‘)*‘ %/,8 , . ‘)%‘ ,)‘ 42‘ 5,‘ ;

6+*$%0,0‘ +%‘)3*‘ +‘ 7%‘ 4%%. ‘ (*8 4,. %5‘ , . ‘
)+%‘ 8 %$(1$,‘ /‘ 7‘ 6*1$ 4‘)+‘ 3*‘ *$‘)+$%%‘
(‘ 0%0‘ ‘$%‘ *. ‘ $%(*$5‘ , . ‘ 3+,(+‘ 8 %$(1$2‘ +‘ 0‘
‘ 66%‘ $%5‘ 01((%00&1/ℍ 8 ‘ . 2‘ , . ‘ 3+,(+‘ ,)‘ +‘ 0‘
4%%. ‘ 6*3%$/%00‘ &/‘)%‘ ,)‘ +‘ 0‘ 4%%. ‘ 41)‘ /,))/%‘
)$,%5ℍ . %7%$)+%/%00‘)+%$%‘ ‘$%‘ &‘ ()0‘ 3+,(+‘
01--%0)‘)+‘)‘)+%‘ ‘66‘$%.)‘ , . &/1%. (%‘ *&‘ 8 %$;
(1$2‘ +‘ 0‘ 4%%. ‘ $%‘ /‘ ‘. 5‘)+‘)‘ , . ‘ ,)‘ 3%‘ +‘ 7%‘
6$*4‘ 4/2‘ ‘‘ 8 *$%‘ 6$*8 ,0, . -‘ 8 %‘ . 0‘ *&‘ (*1. ;
)%$‘ (), . -‘)+%‘ 7,$10‘)+‘ . ‘. ‘ . ‘ . 2‘ *)+%$‘ ‘-%.)‘
+%‘ 7‘ 6*1$ 4‘)+‘)$%‘)8 %.)‘ +‘ 0‘ 4%%. ‘ ‘41. ;
5‘ .)/2‘ 6$*7%5‘)*‘ 4%‘ %.),$%/2‘ 10%/%00‘ ‘/)+*1-+‘
,)0‘ 0166*0%5‘ 7‘ /1%‘ ,0‘ &$*‘ 8‘), 8 %‘)*‘), 8 %‘ $%;
‘&&,$8%5‘ 42‘ /‘ 2‘ ‘57*(‘)%0‘ 3+*0%‘ %. %$-2‘ ,0‘
6$*6*$),*. %5‘)*‘)+%,$‘ , - . *$‘ . (%
)+%$‘ ‘-%.)0‘ %86/*2%5‘ +‘ 7%‘ 4%%. ‘ 5%0, - . %5‘
)*‘ (*1.)%$‘ ()‘ . *)‘)+%‘ 7,$10‘ 41)‘ ,)0‘ (*. 0%;
E1%. (%0‘ ‘. 5‘ 0*‘)*‘ 6$%7%.)‘ *$‘ 6*0)6*. %‘
5%)+‘ 6*00,4/2‘ 1.),/‘)+%‘ 8 ‘/‘ 52‘ +‘ 0‘ $1. ‘ ,)0‘
(*1$0%‘ . %‘ *&‘)+%0%‘ ,0‘ (1$‘ $‘ ‘ &,$0)‘ $%(*8 ;
8 %. 5%5‘ +‘ /&‘ ‘‘ (%.)1$2‘ ‘-*‘ 42‘ ‘ . ‘ . -/,0+;
8 ‘. ‘ A %3%//ℝℍ ,)‘ 3‘ 0‘)$,%5‘ , . ‘ 0 8 ‘// 5*0%0‘
‘ . 5‘ &‘ ,/%5‘ ,%8 %2%$‘ 01--%0)%5‘ /‘ $-%$‘ 5*0%0‘
‘ . 5‘ , . ‘ ‘‘ (‘ 0%‘ 42‘ &&%. 4 . $-‘ ,)‘ 3‘ 0‘ ‘66‘ $%.)/2‘
01((%00&1/ℍ ‘ . 5‘ 0, . (%‘)+%. ‘ ‘ . *)+%$‘ (‘ 0%‘ , . ‘
8 %$,(‘ ‘ +‘ 0‘ $%(*7%$%5‘ 1 . 5%$‘ ,)0‘ 10%‘ . ‘
8 ‘ . 2‘ (‘ 0%0‘ ,)‘ +‘ 0‘ &‘ ,/%5 G , . ‘ ‘ ‘ (‘ 0%0‘ , . ‘)+,0‘
(*1.)$2‘ 16‘)*‘)+%‘ 6$%0%.)‘),8 %‘)‘ ,0‘ $%(*8 ;
8 %. 5%5‘)+‘)‘ ,)‘ 0+*1/5‘ 4%‘ 10%5‘ , . ‘ , . >%(),*. 0‘
*&‘ &, *8‘ = ‘)*‘ *&‘ ‘‘ -$‘ , . ‘ $%6%)%5‘ %7%$2‘
E1‘ $)%$‘ *$‘ +‘ /&‘ . ‘ +*1$‘ 1.),/‘)+%‘ 0%7%$,)2‘ *&‘
)+%‘ 6‘ $*B20 8 0‘ ,0‘ /%00%. %5‘ +,0‘ 6*.)‘ 8 ‘2‘
. *)‘ +*3%7%$‘ 4%‘ $%‘ (+%5‘ 1.),/‘ -%. %$‘ /‘ 810‘
%&,‘ $‘ 6‘ $‘ /20,0‘ ,0‘ ,8 8 , . %.)‘ *$‘ 6$*51(%5‘ ‘ . 5‘
)+%. ‘ ‘$),&,(, (‘ /‘ $%06,$‘),*. ‘ 8 ‘2‘ 4%‘ . %(%00‘ $2‘
1$),/‘)+%‘ %&&%()‘ +‘ 0‘ 6‘ 00%5‘ ‘3‘ 2‘ 0‘ *&)%. ‘
‘0‘)+,0‘ ,0‘)+%‘ (‘ 0%‘ ‘ . 5‘)+%‘ 06‘ 0 8 0‘ $%(1$‘
‘ . *)+%$‘ , . >%(),*. ‘ 8 10)‘ 4%‘ -,7%. ‘ . ‘ +25$*;
6+*4,‘‘)+%$%‘ ,0‘ $%8‘ $9‘ 4/%‘)*/%$‘ . (%‘ *&‘)+%‘
5$1-‘ 6*,0*. *10‘ 5*0%0‘ A*. %‘ -$‘ ,. ‘ $%6%‘)%5ℝ‘ *&‘
‘ (),7%‘ (1$‘ $‘‘ +‘ 7,. -‘ ,. ‘ *. %‘ %‘ 0%‘ 4%%. ‘ 3,)+;
*1)‘ ‘ . 2‘ %&&%()‘ A 8),0ℝ‘ +,0‘ ,0‘ 6%$+‘ 60‘ ‘‘
+*6%&1/&‘ ()‘ ‘0‘ ,)‘ , . 5,(‘)%0‘)+‘)‘ (1$‘ $‘‘ +‘ 0‘
‘ . ‘ ‘ (),*. ‘)*‘ 3+,(+‘)+%‘ (+‘ . -%0‘ , . ‘)+%‘ (%.)$‘ /‘
. %$7*10‘ 020)%8 ‘ ‘ $%‘ *66*0%5

$5,. ‘ $2‘ 0%5‘),7%0‘ +‘ 7%‘ 4%%. ‘)+%‘ $%8 %5,%0‘
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‘ $%‘ (+/*$‘ /‘ . 5‘ 8 *6+,. %‘ . %‘ (‘ 0%‘ A6$*4‘ 4/2‘
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5‘ 20‘ A ‘ . 0* 8 R‘ +%‘ %&&%()‘ *&‘)+%‘)3*‘ *. ‘)+%‘
$%06,$‘)*2‘ (%.)$%‘ , . ‘ . ,8 ‘/0‘ 01--%0)0‘)+%,$‘
>*, .)‘ 10%‘ +%‘ 8 *6+,. %‘ 0+*1/5‘ 4%‘ -,7%. ‘ 42‘
+26*5%$8 ,(‘)+%‘ (+/*$‘ /‘ 42‘ $%()‘ /‘ , . >%(),*. ‘
+/*$*&*$8‘ ,0‘ 10%&1/‘ , . ‘ 8 *5%$‘),. -‘)+%‘
6‘ $*B20 8 0‘ 41)‘ ‘66%‘ $0‘ 0* 8 %3+‘)‘ , . &%$,*$‘
)*‘ (+/*$‘ /‘)+%$‘ 0%5‘),7%0 G . 5,‘ . ‘ +%86‘
^(G+‘ 7%‘ ‘66%‘ $%5‘ *&‘ , . &%$,*$‘ 7‘ /1%

/5‘ ‘&&10, . 0‘)*‘)+%‘ (%$7,(‘ /‘ 06,. %‘ ‘ . 5‘
+%‘ 5‘ 3%$%‘ 10%5‘ , . ‘ . 5,‘‘ , . ‘)3*‘ (‘ 0%0‘ 3+,(+‘
$%(*7%$%5‘)+%)+$*‘)‘ . ‘ 5‘ 06, . %‘ 4%, . -‘ 4/,0)%$%5‘
3 ,)+‘ . ,)$‘)%‘ *&‘ 0,/7%$‘ . ‘ . 5‘ (+/*$*&*$8‘ ‘5;
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3 ,)+*1)‘ %&&%()‘ $‘ (+%*)*8 2‘ 3‘ 0‘ $%(*8 ;
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&$*8' /'$2 . -%' /' 06'0 8' ,0' +*3%7%$')**' $'$%
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.' ' ('0%0')$' . E1,//,)2' ,0' *&')+%' -$%')%0)'
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%B(/15%5' %B)' ,. ' ,8 6*$)' . (%' ,0' . *1$,0+;
8%.)' 3+,(+' 0+*1/5' 4%' -,7%. ' 42')+%' $%()1 8 '
,&'06'0 8' ,0' %B(,)%5' 42')+%' '))%8 6)')*' 03 '//*3 '
U%0)$' ,.)' 3+,(+' 8 '2' 4%' . %(%00'$2' 0+*1/5'
4%' '0' /,)))/%' '0' 6*00,4/%' 41)' ,)' 0+*1/5' 4%'
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+25$*6+*4,'' +'0' 4%.' 6$*7%5')*' 4%' ('6'4/%'
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+'7%' . *' 1. (*7%$%5' '4$'0,*. ' *. ')+%' +' . 50'
' . 5')*' 3 '0+' &$*8')+%' %2%0' *$ &'(%' ' . 2' 0'/,7''
3+,(+' 8 '2' +'7%' 4%%. ' 06,)' *. ')+%8 H ' . 5' ,&'
)+%2' '$%' 4,))%. ' 42')+%' 6')',%.)')+%' 3*1. 5'
0+*1/5' 4%')$%')%5' '0' ,&' ,)' +'5' 4%%. ' . ,&/,()%5'
42' ''$'4,5' . ,8 '/' +%0%'6$%('1),*. 0' $%8*7%$
'/f 5' . -%$H ' . 5' ' . 2' ' . B,%)2')+%' 014>%()0' 8 '2'
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)+%')+*10' . 50' *&' 6%$0*. 0' 3+*' +'7%' '))%. 5%5'
*. ' 6'),%.)0' 3,)+' +25$*6+*4,'' . *' '1)+%.),(
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6*0%0H 41)' 3%' 8'2' $%&%$')*' $' '$9%0
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%', .)%. 5')*' 5,7,5%')+,0' '$),(/%', .)*' A R' '
0+*$)' 09%)(+' *&')+%', 0)*$2' *&')+%' 3')%$ (1$%'
$' +25$)+%$'6%1),(0H A<R' . *)%0' *. ')+%', . ;
)%$. =' 10%' *&' 3')%$' ' . 5' *. ')+%' 8*$%'(*88*. '
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0,5%$'),*. ' *&')+%' 8*$4,5' (*. 5,),*. 0' 01,)'4/%'
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' . 5', . ')+%' 4%-,. . ,. -'*&')+%' 0,B)%%.)+' (%.)1$2'
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6/,('),*. 0')+%' '41. 5' .)' ,.)%$. '/\
')%$' (*84,. %5' 3,)+' '(),7%' %B%$*f'
'' 7%$2' 0,86/%' 5,%)H 6$*+,4,),. -' ')')/\'
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' . 5' (*&&%%' $,%00. ,)C' -$'51'U2' 8'5%'
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$')+%' *$,-,. ' /' 6'(9,. -' 51$,. -' 0%7%$' /+'
,. 5$2' 3**//%. '4/' . 9%)0' (*7%$%5'3,)+' &%')+'
4%50' ' . 5' &*//*3%5' 42' (*/5' '&&10,*. 0' +%' 01'
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E1%.)/2' %86/*2%5' (*/5' 3%)' 6'(9,. -' *&' . /2'
&,&)%%. ' *$')3%.)2' 8,. 1)%0<51$'),*. ' $%6%')%5'
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'/0*')+%' 8%)+*5' *&' $144,. -')+%' 3+*/%' 4*52'
3,)+' '' (*/5' 3%)' *$' 5$,66,. -' 0+%%)' ,. 0)%' 5' *&'
)+%' &1/f 4')+' ' . 5' 8'5%' %B)%. 0,7%' 10%' *&'
6'$),'f 4')+0' '0' +,6' *$ 0,)C' 4')+0' 4')+0' &*$'
)+%' +' . 50')+%' '$80')+%' &%%)' 3%)' '45*8,. 'f
4%/)0' ' . 5' 3%)' (*86$%00%0' *7%$' 5,&&%$%.)' 6'$)0'
*&')+%' 4*52' $,%00. ,)C' 0%%8%5')*' 0%'$(+' &*$'
'' 1. ,7%$0' f 8%)+*5' '66/,('4/%')*' '/f '(0%0'
. %' *&')+%' -1,5,. -',5%'0' 3'0')+')' 5,0%'0%' *&'
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'($,5'+18*1$',. ')+%' 4/**5' ' . 5')+')')+%' 09,. '
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8*1.)',. -*10' (*1.)$2' ' . 5' 0,86/%5,%)' 3'0'
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')%')**' %. %$-%),(' ' . 5' 6$*)$'()%5' 10%' *&)%. '
/%5')*' 1. &'7*1$'4/%' $%01/)0' ' . 5')+%' 020)%8'
3'0' 4%-,. . ,. -'*' 4%' $%-'$5%5' '0' '' 06%(,%0' *&'
E1'(9%$2' 3+%. ' '4*1)' &,&)2 &,7%' 2%'$0' '-*'
0*8%' %0)'4/,0+8%.)0' 3%$%' 6/'(%5' 1. 5%$')+%'
016%$,.)%. 5%. (%' *&' $%-1/'$/2' %51(')%5' 6+20,;
(,' . 0' 34*' 0)15,%5')+%' 6+20,*/*-,(' f' %&&%()0'
&')+%' 5,&&%$%.)' &$80' *&' 4')+,. -' ' . 5' 8*5,;
&,%5')+%8' 3,)+' $%-'$5')*' 51$'),*. ')%86%$';
)1$%' ^(' '((*$5,. -')*')+%' $%E1,$%8%.)0' *&

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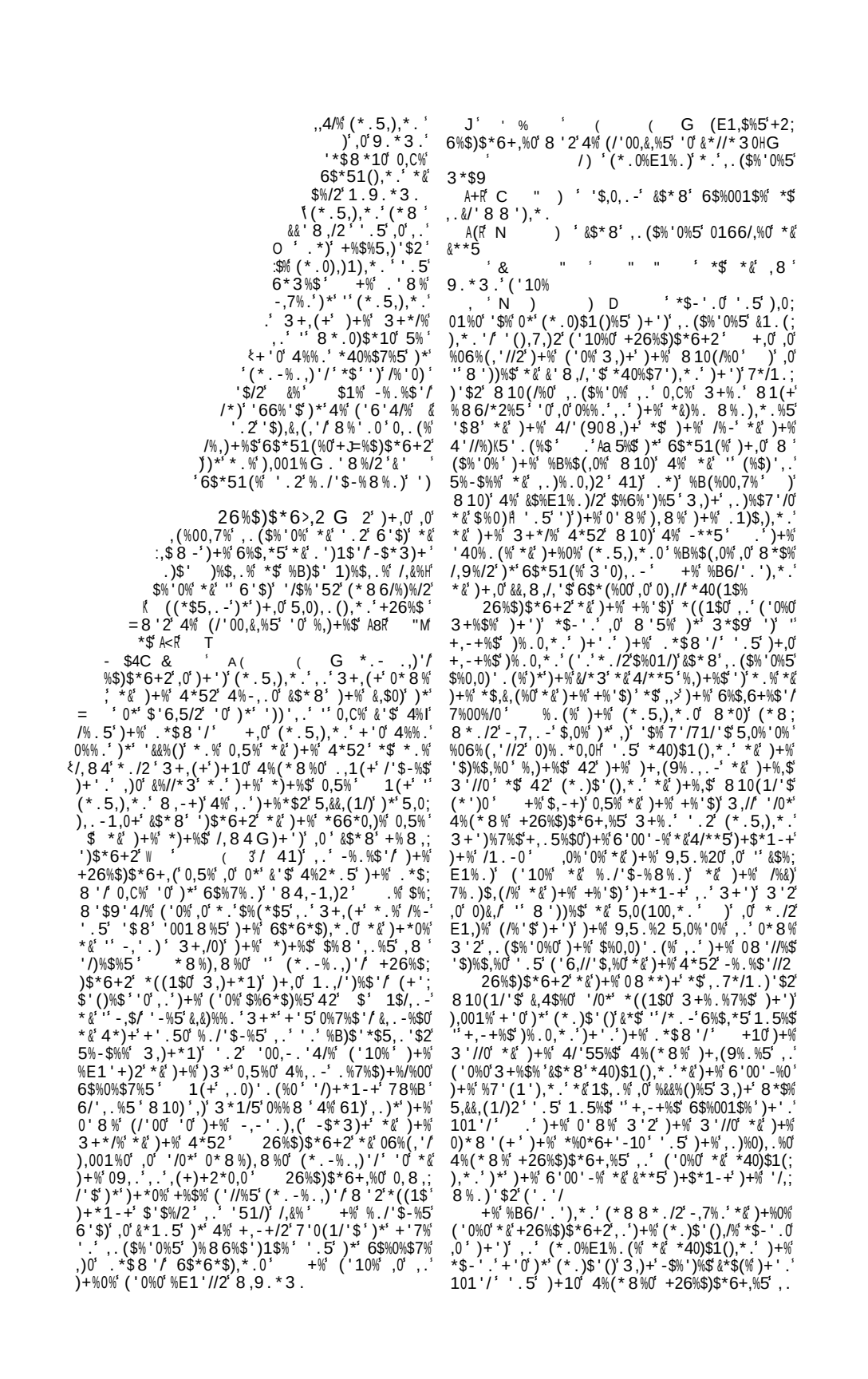

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%$ſ +26%$)$*6+2ſ 5%6%.50ꞌ
,.ꞌ)+%ſ 0,C%ſ*&ſ)+%ſ 8,.1)%ſ
)-ꞌ.ꞌ*$*.ꞌ/2ſ*.ꞌ,.($%ꞌ0%ſ *&ſ
)+%$%ſ(ꞌ.ꞌ4%ſ .ſ 5*14)ſ)+ꞌ)ſ
^.-% *&)%.ꞌ*((1$0ꞌ +10ꞌ,.ꞌ
,)%$10ſ)+%ſ 810(1/ꞌ$ſ&,4$%0ſ+ꞌ7%ſ
)*8ꞌ 0%7%.ꞌ)*ſ %/%7%.ꞌ),8%0ſ ꞌ0ſ
+$ꞌ/ꞌ ꞌ.5ꞌ &$*8ꞌ)3,(%ꞌ)*ſ 0%7%.ꞌ
'%ꞌ .ꞌ ꞌ$%8ꞌ$9ꞌ4/%ſ (ꞌ0%ſ*&ſ%.ꞌ
L&ſ)+%ſ .%$7%0ꞌ5%0($,4%5ꞌ42ſ)+%ſ/ꞌ)%ſ
)ꞌ)+%ſ .%$7% &,4$%0ſ 3%$%&*1.5ꞌ)*ſ 4%ſ
=$ꞌ-%*)+$%%),8%0ſ ꞌ.5ꞌ0*8%ſ *&ſ)+%8ꞌ
&)2ſ),8%0ſ ꞌ0ſ/ꞌ&-%ſ ꞌ0ſ .*$8ꞌ/ꞌ +%.ꞌ
U.%.)ſ*&ſ*.%ſ 9,5.%2ꞌ)ꞌ9%0ſ 6/ꞌ(%ſ ꞌ0ſ ꞌ
&1%.*%ſ*&ſ 5%0)$1(),*.ꞌ*&ſ)+%ſ *)+%$ꞌ)+%ſ
/%0ſꞌ.5ꞌ '/6,-+,ꞌ.ꞌ)1&)0ſ$%$&*1.5ꞌ-$%ꞌ)/2ꞌ
/%ꞌ0%5ꞌ ,.ꞌ 0,C%ꞌ .ꞌ +26%$)$*6+2ſ *&ſ)+%ſ
9$)ꞌ)+%ſ 810(1/ꞌ$ꞌ41.5/%0ſ ꞌ$%ſ &*1.5ꞌ)*ſ 4%ſ
,(9%.%5ꞌ)+*1-+ꞌ)+%ſ&,4$,//0%ſ ꞌ$%ſ1.(+ꞌ.-%5ꞌ,
U1)ſ,.ꞌ 8*0)ſ(ꞌ0%0ſ 81/),6/,(ꞌ),*.ꞌ*&ſ)+%ꞌ),001%ꞌ
ſ%/%8%.)0ſ,0ſ)+%ſ (+,%&ſ(ꞌ10%ſ*&ſ)+%ſ,.($%ꞌ0%ſ,.ꞌ
0,C%ꞌ *ſ)+,0ſ/ꞌ))%$ꞌ 6$*(%00ſ L ,$(+*3ſ -,7%0ſ
)+%ſ.ꞌ 8%ſ*&ſ#
)*ſ $%8%84%$ſ)+ꞌ)ꞌ)+*1-+ꞌ(*.0)ꞌ.)/2ſ*((1$;
$,..-ꞌ,.ꞌ +J6#%$)$*6+2ſ *&ſ *$-ꞌ.0ſ,)ſ 5*%0ſ .*)ſ
.%(%00ꞌ$,/2ſ/%ꞌ5ꞌ)*ſ)+%ſ/ꞌ))%$ſ (+ꞌ.-%
0 ꞌ/0%ſC%$.*+*(8,%09 +%ſ (ꞌ
+26%$)$*6+2ſ,0ſ0*8%),8%0ſ 10%5ꞌ&*$ ꞌꞌ6$*(%00ſ
,.ꞌ 3+,(+ꞌ ꞌ.ꞌ*$-ꞌ.ꞌ 4%(*8%0ſ *1)3ꞌ$5/2ſ,.;
($%ꞌ0%5ꞌ ,.ꞌ 0,C%ꞌ *3,.-ꞌ)*ſ)+%ſ 5%6*0,),*.ꞌ
3,)+,.ꞌ,)ꞌ*&ſ0*8%ſ&*$%,-.ꞌ8ꞌ)%$,ꞌ/ꞌ*$ſ)*ſ 8%$%ſ
5,0)%.0,*.ꞌ +10ſ,.ꞌ ꞌꞌ&ꞌ))2ſ/,7%$ſ)+%ſ $%ꞌ/ſ
7%$),001%ſ,0ſ 3ꞌ0)%5ꞌ+1)ꞌ,0ſ $%6/ꞌ(%5ꞌ42ſ&ꞌ)ꞌ
.ꞌ%86+20%8ꞌ)*10ſ/1.-ꞌ ꞌ66%ꞌ$0ſ)*ſ 4%ſ,.;
($%ꞌ0%5ꞌ ,.ꞌ 0,C%ꞌ 41)ꞌ +ꞌ0ſ ꞌ()1ꞌ//2ꞌ 01&&%$%5ꞌ
)$*6+2ꞌ +%ſ 0140)ꞌ.(%ſ *&ſ)+%ſ 4$ꞌ,.ꞌ ,.ꞌ
+25$*(%6+ꞌ/10ſ 8ꞌ2ꞌ 4%ſ -$%ꞌ)/2ſ $%51(%5ꞌ ,.ꞌ
7*/18%ꞌ)+*1-+ꞌ)+%ſ+%ꞌ5ꞌ ꞌ66%ꞌ$0ſ*&ſ%.*$8*10ſ
0,C%ꞌ +%ſ 7%$2ſ $%8ꞌ$9ꞌ4/%ſ 5,0%ꞌ0%ſ (ꞌ//%5ꞌ
0 1(+%..%0ſ6ꞌ$ꞌ/20,0ſ<,0ſꞌ.ꞌ,.0)ꞌ.(%ſ*&ſ ꞌ6;
6ꞌ$%.)ꞌ +26%$)$*6+2ſ*&ſ)+%ſ 810(/%0ꞌ)+$*1-+ꞌ
5%6*0,),*.ꞌ*&ſ&ꞌ)ꞌ 4%)3%%.ꞌ)+%ſ &,4$%0ꞌ41)ꞌ)+%ſ
)%$8ꞌ,0ſ+ꞌ$5/2ꞌ.%%5%ꞌ%B(%6)ꞌ 0ſ ꞌꞌ(ꞌ1),*.
! G)ꞌ,0ſ*47,*10ſ)+ꞌ)ꞌ.*ꞌ-%.%$ꞌ/ſ
$1/%0ſ(ꞌ.ꞌ4%ſ /ꞌ,5ꞌ5*3.ꞌ&*$ſ)+%ſ)$%ꞌ)8%.)ꞌ*&ſ
+26%$)$*6+2ꞌ +%.ꞌ,)ꞌ,0ſ(*..%()%5ꞌ3,)+ꞌ,.;
($%ꞌ0%5ꞌ &1.(),*.ꞌ/ꞌ ꞌ(),7,)2ꞌ,)ꞌ,0ſ 101ꞌ//2ꞌ ꞌꞌ
&ꞌ7*1$ꞌ4/%ꞌ $ꞌ)+%$ꞌ)+ꞌ.ꞌ ꞌꞌ +1$)&1/ſ (*.5,),*.ꞌ
)+*1-+ꞌ,.ꞌ0*8%ſ(ꞌ0%0ſ,)ꞌ 8ꞌ2ꞌ ꞌ66%ꞌ$ꞌ)+ꞌ)ꞌ)+%ſ
+26%$)$*6+2ꞌ 8*$%ſ)+ꞌ.ꞌ(*86%.0ꞌ)%0ſ)+%ſ 5%

&,(,%.(2ꞌ *$ꞌ,$$%-1/ꞌ$,)2ꞌ 42ꞌ 3+,(+ꞌ,)ꞌ,0ſ 6$*;
51(%5ꞌ 1)ꞌ %7%.ꞌ,&ꞌ)+,0ſ 4%0ſ*ꞌ)+%ſ (1$%ſ *&ſ
%B(%00,7%ꞌ +26%$)$*6+2ꞌ,0ſ .*)ꞌ 3,)+,.ꞌ *1$ꞌ
6*3%$0ꞌ +%ꞌ1)8*0)ꞌ)+ꞌ)ꞌ (ꞌ.ꞌ4%ſ 5*.%ꞌ,0ſ)*ꞌ
%.5%ꞌ7*1$ꞌ,&ꞌ 6*00,4/%ꞌ)*ꞌ (+%(9ꞌ)+%ꞌ 6$*(%00ſ
42ꞌ 3+,(+ꞌ)+%ꞌ +26%$)$*6+2ꞌ,0ſ 6$*51(%5ꞌ)ꞌ
,0ꞌ +*3%7%$ꞌ 3% ꞌ)*ſ 6*,.)ꞌ *1)ꞌ)+ꞌ)ꞌ 3+%.ꞌ
&1.(),*.ꞌ/ſ +26%$)$*6+2ꞌ +ꞌ0ꞌ$%01/)%5ꞌ &,K*8ꞌ
0*8%ꞌ *40)ꞌ(/%ꞌ *$ꞌ 1.51%ſ $%0,0)ꞌ.(%ꞌ,)ꞌ 8ꞌ2ꞌ
%.),$%/2ꞌ0140,5%ſ 3+%.ꞌ)+ꞌ)ꞌ $%0,0)ꞌ.(%ꞌ,0ſ $%;
8*7%5ꞌ +10ꞌ,&ꞌ)+%ſ 1)%$10ſ+ꞌ7%ſ %./ꞌ$-%5ꞌ
ꞌ$*1.5ꞌ ꞌꞌ &,4$*10ſ)18*1$ꞌ,)ꞌ 8ꞌ2ꞌ$%-ꞌ,.ꞌ,)0ſ
.*$8ꞌ/ſ 41/9ſ 3+%.ꞌ)+%ſ)18*1$ꞌ,0ſ $%8*7%5Ĥ
ꞌ.5ꞌ3%ꞌ0*8%),8%0ſ0%%ſ ꞌꞌ0%.0,4/%ſ 5,8,.1),*.ꞌ
,.ꞌ)+%ſ 0,C%ſ*&ſ ꞌꞌ +26%$)$*6+,%5ꞌ +%ꞌ$)ꞌ 3+%.ꞌ
)+%ſ 5%$ꞌ.-%8%.)0ſ3+,(+ꞌ6$*51(%ꞌ,)ꞌ.*ꞌ/*.-%$ꞌ
'()ꞌ *$%*7%$ꞌ +26%$)$*6+2ſ 8ꞌ2ꞌ 4%ſ (*8;
6/%)%/2ꞌ$%51(%5ꞌ42ꞌ ꞌꞌ-%.%$ꞌ/ſ /*3%$,..-ꞌ*&ꞌ)+%ſ
.1)$,),*.ꞌ*&ſ)+%ſ 4*52ꞌ +10ꞌ,.ꞌ%ꞌ$/2ꞌ0)ꞌ-%0ſ
&ſ 61/8.ꞌ$2ꞌ 6+)+,0,0ꞌ)+%ſ +%ꞌ$)ꞌ 8ꞌ2ꞌ 4%ſ
+26%$)$*6+,%5Ĥ 41)ꞌ3+%.ꞌ 5%ꞌ)+ꞌ *((1$0ꞌ,.ꞌ ꞌꞌ
/ꞌ)%ſ 6%$,*5ꞌ*&ꞌ)+%ſ 5,0%ꞌ0%ꞌ)+%ſ *$-ꞌ.ꞌ,0ꞌ$ꞌ$%/2ꞌ
&*1.5ꞌ%./ꞌ$-%5ꞌ ꞌ.5ꞌ,0ꞌ%7%.ꞌ3ꞌ0)%5Ĥ)+*1-+ꞌ
ꞌ((*$5,.-ꞌ)*ꞌ R$ꞌ %ꞌ(*(9<0ſ)ꞌ4/%0ꞌ/%00ꞌ 0*ꞌ
)+ꞌ.ꞌ,.ꞌ*)+%$ꞌ3ꞌ0),.-ꞌ5,0%ꞌ0%0
=ꞌ4ꞌ
% ! ꞌ A1>$*ꞌ1.5%$Ĥ ꞌ.5ꞌ)E ꞌ
&/%0+RꞌGꞌ %&,(,%))(2ꞌ *&ꞌ&,4$,.ꞌ,.ꞌ)+%ſ 4/**5ꞌ
ꞌ +ꞌ *$4,5ꞌ *.5,),*.0ꞌ*&
0DH&< ꞌ'R ꞌ0/%%6RG %ꞌ01$%0ꞌ
*$ ꞌ-%.)0ꞌ %86/*2%5ꞌ)*ꞌ ,.51(%ꞌ0/%%6ꞌ ꞌ
#
L I ! ꞌ, ꞌ0/%%6RG ꞌ02.*;
.28ꞌ &*$ $ꞌ,5,08ꞌ ꞌ 0 !ꞌĤ ꞌ.5ꞌ
! !
% % 5 3&ꞌ' 2 5ꞌD) ℘
1.5%$Ĥ ꞌ.5B*$ 6*$ꞌꞌ('$) '-%RGK +,0ſ$%-.*.ꞌ
,0ꞌ5*14/%ꞌ$,-+)ꞌ.ꞌ5ꞌ/%&)ꞌ*((162,.-ꞌ)+%ſ166%$ꞌ
6'$)ꞌ *&ꞌ)+%ſ '45*8%.ꞌ*.ꞌ %,)+%$ꞌ 0,5%ſ *&ꞌ)+%ſ
%6,-'0)$,18ꞌꞌ.5ꞌ6'$)/2ꞌ(*$%%06*.5,..-')*ꞌ)+%ſ
/*3%$ꞌ$%-,*.0ꞌ*&ꞌ)+%ſ (+%0)ꞌ4%,.-ꞌ'/8*0)ꞌꞌ.5ꞌ
,.ꞌ0*8%ſ('7%$%ꞌ).,$%/2ꞌ(*7%$%ꞌ$,.ꞌ42ꞌ)+%ꞌ$,40ꞌ
ꞌ.5ꞌ)+%,$ꞌ ('$) '-%0ꞌ '(+ꞌ+26*(+*.5$,18ꞌ
,0ꞌ4*1.5%5ꞌ4%/*3ꞌ42ꞌ ꞌꞌ+*$,C*.)ꞌ/ſ/,.%ſ ꞌ)ꞌ)+%ſ
/%7%/ſ *&ꞌ)+%ſ .,.)+ꞌ (*0)ꞌ/ſ ('$) '-%Ĥ ꞌ.5ꞌ,.;
)%$.ꞌ//2ꞌ 42ꞌ ꞌꞌ 7%$),('/ſ/,.%ſ &$*8ꞌ)+%ſ %,-+)+ꞌ
('$),/'-%ꞌ 5*3.3ꞌ$50ꞌ +%ſ *$-ꞌ.0ſ 0,)1ꞌ)%5ꞌ
,.ꞌ)+%ſ $,-+)ꞌ+26*(+*.5$,18ꞌ'$%ſ)+%ſ 7%$ꞌ.5ꞌ
-ꞌ 4/ꞌ55%$ꞌ 8ꞌ,.ꞌ/2Ĥ 3,)+ꞌ8*$%ſ 5%%6/2ꞌ)+%ſ
62/*$,(ꞌ%.5ꞌ*&ꞌ)+%ſ 0)*8ꞌ(+ꞌ6'$)ꞌ*&ꞌ)+%ſ 51*;
5%.18ꞌꞌ.5ꞌ)+%ſ +%6'),(ꞌ&/%B1$%ſ*&ꞌ)+%ſ (*/*.ꞌ
.ꞌ)+%ſ (*$%06*.5,..-'/%&)ꞌ$%-,*.ꞌ+%)+%ſ 06/%%.ꞌ
ꞌꞌ 08ꞌ/ſ 6*$),*.ꞌ*&ꞌ)+%ſ /%&)ꞌ/*4%ſ*&ꞌ)+% 7%$ꞌ
)+%ſ &1.510ſ *&ꞌ)+%ſ 0)*8ꞌ(+ꞌ)+%ſ)ꞌ ꞌ*&ꞌ)+%ſ
6ꞌ.($%ꞌ0ꞌꞌ.5ꞌ)+%ſ 06/%.,(ꞌ&/%B1$%ſ*&ꞌ)+%ſ (*/*.ꞌ
+%ꞌ -ꞌ0)$* 06/%.,(ꞌ &*/5ꞌ*&ꞌ 6%$,)*.%18ꞌ3,)+ꞌ
,)0ꞌ 7%00%/0ꞌ 6ꞌ00%0ꞌ &$*8ꞌ)+%ſ 0)*8ꞌ(+ꞌ)*ꞌ)+%ſ
06/%%.
$ ꞌ $ꞌ A '' =)810)ꞌ4%ſ4*$.%
,.ꞌ 8,.5ꞌ)+ꞌ)ꞌ 8*$4,5ꞌ (*.5,),*.0ꞌ3,)+,.ꞌ)+%ſ
(+%0)ꞌ.*)ꞌ1.(*88*./2*$,-,.ꞌ)%ſ(/,.,(ꞌ/ſ6+%;
.*8%.ꞌꞌ 4*)+ꞌ 014>%(),7%ꞌ ꞌ.5ꞌ *4>%),7%ꞌ,.ꞌ
(*.%B,*.ꞌ3,)+ꞌ*.%ꞌ*$ꞌ*)+%$ꞌ +26*(+*.5$,'(ꞌ
$%-,*.ꞌꞌ.5ꞌ)+%0%ſ810)ꞌ/3'20ſ4%0)ꞌ9%.ꞌ,.)*ꞌ
(*.0,5%$ꞌ),*.ꞌ3+%.ꞌ,.7%0),-ꞌ),.-ꞌꞌ.2ꞌ6'$),

(1/'$' ('0%' .' 8 '9,. -' '' 5,' - . *0,0' . *' $%/,; ' . (%' 3+')%7%$' (' .' 4%' 6/' (%5' * .' 8 %$%' 0%. 0 ';),* . 0' $%&%$%5')*')+%0%' $%-,* . 0 ' 41)' 6+20,('/ %B ' 8 , . '),* .' ,0' , .' %7%$2' ,. 0) ' . (%' $%E1,$%5 ' ,.' *$5%$')*' 5%)%$8 ,. %')+%' (* . 5,),* . 0' 6$%0%.)' ' .5' %06%(,' //2' 6 '/6 '),* .' ' . 5' 6%$(100,* . ' *$%*7%$' ,)' 8 10)' 4%' $% 8 %. ,4%$%5')+ ')' 5,0; %'0%' *&' ' .', 8 6*$)' .)' ' . 5' 0%$,*))0' . ')1$%' 8 '2' '$,0%' 3 ,)+*1)')+%' *((1$%. (%' *&' ' . 2' 1 . 101 '/ &%%/,. -0 ' ' ,.' *&' 7 '$,*10' 9 ,. 50' ,0' *&)%.' (* 8 ; 6/ ' ,. %5' *&' ' . 5' 3 +%.' $%&%$%5')*')+%' $,-+)' . 26*(+* . 5$,18' ,0' 101' //2' 0166*0%5')*' 4%' (* . .%()%5' 3 ,)+')+%' /,7%$H 41)' ,)' 8 '2' 5%6% . 5' . 6*.' '&&%(),* . 0' *&')+%' 016%$&,(,' /0)$1*) 8 %0H 6%$,)* . ,),0' H $,-+)' 6/%1$,02' *$' 6 . %1 8 *. ,' H *$' (* . 5,),* . 0' '00*(,')%5' 3 ,)+')+%' -' // 4/' 55%$' 62/*$10' 51*5%. 1 8 ' *$' (*/*. ' ' (+'$' ()%$; ,0),(' 6 ',. '0)'$),. -' &$*$')+,0' $%-,* . ' ,0')+')' *&' +%6'),(' (*/,(' 101' //2' 51%')*')+%' 6 '00' -%' *&' ' 0)*. %' '/* . -')+%' 51()0' %$0* . 0' 3 +*' '$%' 26*(+* . 5$,' (' /' . *)' 1 . (* 8 8 * . /2' $%&%$' 0* 8 %' '4 . *$8 ' /0% . 0'),* . ')*')+%,$' $,-+)' +26*(+* . 5$,18 ' &*$' 3 +,(+')+%$%' ,0' $%' //2' . *' *47,*10' ('10%' .')+%' /%&)' +26*(+* . 5$,18' 6 ',. ' 8 '2' '/0*' 4%' 51%')*' '&,%(),* . 0' *&')+%' 3 ' //0 ' *$' *&' 0)$1()1$%0' 3 ,)+,. ')+%')+*$' BH *&')+%' ('$5,' (' %. 5' *&')+%' 0)* 8 ' (+H *&')+%' (*/*. H *$' , . ' %B(%6),* . ' /' ('0%0' *&')+%' 06/%%.

+%' 8 *$4,5' (* . 5,),* . 0' 3 +,(+' '$%' ('6'4/%' *&' *$,-,. '), . -' '4 . *$8 '/ 6+20,('/ 0,- . 0' . ')+%' +26*(+* . 5$,' (' $%-,* . ' 8 '2' '/0*' 4%' %,)+%$')+*$' (,(' *45*8 . . '/' &')+%' &*$8%$'6/%1; $,),(' %&&10,* . ' ,0')+%' 8 *0)' &$%E1%.)H ' . 5' * . ')+%' $,-+)' 0,5%')+,0' (* . 5,),* . ' 8 '2' ('10%' 8 '$9%5' 5%6$%00,* . ' *&')+%' /,7%$ ' '0' /0*' 8 '2' 6 . %1 8 *)+*$' B' . ' %B(%6),* . '/ , . 0)' . (%0')+%' +%' $)' ,0' 0*' %./'$-%5' '0')*' $%' (+')+%' /%&)' +26*(+* . 5$,. . H ' . 5')+%' 3$,)%$' +'0' 8 %)' 3 ,)+' '' %'0%' , . ' 3 +,(+' '' /'$-%')+*$' (,(' . %1$20 8 ' 6$%0%.)%5' , . ')+,0' $%-,* . ' 0' $%-'$50' '4; 5* 8 , . '/ 5,0%'0%0' *((162, . -')+%' $,-+)' +26* ' %+* . 5$,18 ' '4 . 6$8 '/ 6+20,('/ 0,- . 0' '$%' 101; ''//2' '00*(,')%5' 3 ,)+')+%' /,7%$ ' 3 +,(+' ,0' '/)%$%5' , . ' 6*0,),* . ' 0+'6%' 0,C%' *$' 6+20,('/ (+'$' ()%$0' ((' 0,* . ''//2')+%2' '$%' (* . . %()%5' 3 ,)+')+%' '45* 8 , . '/ 3 '//0H)+%' - '// 4/' 55%$H *$')+%')*8 '(+' 51*5%. 1 8 ' *$' (*/* . ' .')+%' /%&)' 0,5%' %./'$-%8%.)'*&')+%' 06/%%. ' ,0')+% 8 ' , . ' (* . 5,),* . ' 5,0(*7%$%5' 42' 6+20,('/ %B; ' 8 , . '), * . H' 41)')+%' 0)* 8 '(+' 8 '2' '/0*' -,7% 0,- . 0' *&' 5,0%' . 0, * . ' , . ')+,0' 5,$%(),* . ' *$' *&' *$-' . ,(' 5,0%' 0%' *&' ,)0' 3 ''//0' B(%6),* . ''//2')+%' (*/* . ' 8 '2' 6$%0%.)' '4 . *$8 '/ 6+20,('/ 0,- . 0' $*3)+0' 8 '2' *$,-,. ')%' +%$%' , . ' (* . ; . %B,* . ' 3 ,)+')+%' 6%$,)* . %18' H ' . 5')+%' 3$,)%$' +'0' 8 %)' 3 ,)+' '' ('0%' , . ' 3 +,(+' '' -$*3)+' 0)'$)%5' &$* 8 ')+%' /%&)' +26*(+* . 5$,18 ' 6$*4; '4/2' *&' '' 8 '/, - . ' .)' . ')1$%' ' . 5' , . 7*/7, . -' 8 *$%')+ ' . ' * . %' 0)$1()1$%' 41)' ,)' 3 '0' , 8 ; 6*00,4/%')*' 0'2' 3+%$%' ,)' (* 8 8 %. (%5' &' (*1$0%')+%' +26*(+* . 5$,'' '$%' , . 7*/7%5' '/* . -' 3 ,)+' *)+%$' $%-,* . 0' , ' -%. %$'/* . /'$-%8%.)'*&')+%' '45* 8 %. H ' . 5' *$-' . 0' &$* 8 ' *)+%$'$%-,* . 0' 8 '2' 0*' , . ($%'0%' , . ' 0,C%' , . ' (%$)' , . ' 5,0%'0%0' '0')*' %B)%. 5' , .)*' * . %' *$' 4*)+' *&')+%0%' $%-,* . 0

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' . 5' 2* 6*>' ''*;'; # " ' %$

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,0' 5%$,7%5' &$* 8 '/ , ;)+%' 02 8 6)* 8 0' *&' 6%$)1$4'),*. 0' *&' . H/')+%' /,7%$' ' . 5' 62/*, ' E1%.)' 6$%7'/%. (%' *&'0If (* . 51(%5' +%'(* . 5-' '' 5,0%'0%'*&')+%' . %$7*' *&' 8 %.)' /' 1 . 0*B 8 5 . %00a0 (+*+' ' *&' 3+,(+' ,1^%&(<l\' , . ,), ')*$2' 0)' -%')' ,0' 4/' 8 *$4,5' ' . B,%)2 '%,)+%$' 3 ,)K * . /2' 7%$2' 0/, -+)' &*165'),(' 0)')%' *&' 6+20,('/ +%' /)+' '4*1)' +,0' +%' /)+' 1 . 51/2 ' *K=' 3 ,)+' $%0)/%0 0' ('$%' %B' 8 , . , . -' (+'$' ()%$,0),(0' *&' +,0' 0%($%),(' , .)*' %7,5%. (%' *&' 6$*-$%00,7%' *$h' %7%$2')$,7, '/ 5%6'$)1$%' &$*8'6%$,/ +,0' *$-' . 0' ' . 5' 4%(* 8 , . -' 8 *$,/ '40*$4%5' , . ' 6$%(' 1),*. 0' ' -', . 0)' 3 ,)+' 3+,(+' +4' 4%/,%7%0' +, 8 0%/&' ' &&%=')+, . -')+')' +' 66%. 0')%. 50')*')+%' 0// '001$' . (%' &' +,0' 0/%%6' 4%' 5,0)1$, / 02 8 6)* 8' 8 '2' 4%' 6*$)%.)*10' +%')+, I' 4$' , . 0*&)%. , . -H ,&' ,)' 4%' 0*1 . 5')+%' 6]/ , . 0)%' 5' *&' 4%, . -' (* 8 &*$)%5' &%' $0' ' 6* =' *. 0),6'),*. ' *&')+%' 4*3%/0' 0,- . ,&,%0' *4%)%b'),* . H '' 0/,-+)' 5,' $$+*%'' , 8 6/,%0' (* 8 , . -' 7' +'10),* . ' 7%$2)+, . -' 3 +,(+' +%' $%'50' +%'$0' , . ' $%&%$%. (%')*' 5,0%'0%')+%' 6 ')+*$' (,(' *45*8 . . '/' &')+%' &*$8%$'6/%1; $,),(' %&&10,* . ' ,0')+%' 8 *0)' &$%E1%.)H ' . 5' * . ')+%' $,-+)' 0,5%')+,0' (* . 5,),* . ' 8 '2' ('10%' 8 '$9%5' 5%6$%00,* . ' *&')+%' /,7%$ ' '0' /0*' 8 '2' 6 . %1 8 *)+*$' B' . ' %B(%6),* . '/ , . 0)' . (%0')+%' +%' $)' ,0' 0*' %./'$-%5' '0')*' $%' (+')+%' /%&)' +26*(+* . 5$,. . H ' . 5')+%' 3$,)%$' +'0' 8 %)' 3 ,)+' '' ('0%' , . ' 3 +,(+' '' -$*3)+' 0)'$)%5' &$* 8 ')+%' /%&)' +26*(+* . 5$,18 ' 6$*4; '4/2' *&' '' 8 '/, - . ' .)' . ')1$%' ' . 5' , . 7*/7, . -' 8 *$%')+ ' . ' * . %' 0)$1()1$%' 41)' ,)' 3 '0' , 8 ; 6*00,4/%')*' 0'2' 3+%$%' ,)' (* 8 8 %. (%5' &' (*1$0%')+%' +26*(+* . 5$,'' '$%' , . 7*/7%5' '/* . -' 3 ,)+' *)+%$' $%-,* . 0' 8 '2' 0*' , . ($%'0%' , . ' 0,C%' , . ' (%$)' , . ' 5,0%'0%0' '0')*' %B)%. 5' , .)*' * . %' *$' 4*)+' *&')+%0%' $%-,* . 0

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,0' 5%$,7%5' &$* 8 '/ , ;)+%' 02 8 6)* 8 0' *&' 6%$)1$4'),*. 0' *&' . H/')+%' /,7%$' ' . 5' 62/*, ' E1%.)' 6$%7'/%. (%' *&'0If (* . 51(%5' +%'(* . 5-' '' 5,0%'0%'*&')+%' . %$7*' *&' 8 %.)' /' 1 . 0*B 8 5 . %00a0 (+*+' ' *&' 3+,(+' ,1^%&(<l\' , . ,), ')*$2' 0)' -%')' ,0' 4/' 8 *$4,5' ' . B,%)2 '%,)+%$' 3 ,)K * . /2' 7%$2' 0/, -+)' &*165'),(' 0)')%' *&' 6+20,('/ +%' /)+' '4*1)' +,0' +%' /)+' 1 . 51/2 ' *K=' 3 ,)+' $%0)/%0 0' ('$%' %B' 8 , . , . -' (+'$' ()%$,0),(0' *&' +,0' 0%($%),(' , .)*' %7,5%. (%' *&' 6$*-$%00,7%' *$h' %7%$2')$,7, '/ 5%6'$)1$%

)+%$' '-%.)0, .)+)+%1 01+(.)'.%* ,0 (%T ./' =
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,0 *&) G 26*5%$8,(' .>%(),*.0 3%$%
&,$0)' %86/*2%5 42 6+20,*/*-,0)0 .' %B6%$,;
8%.)'/ $%0%'$(+%0 *+.' 1.)%$' 66%'$0')*+'7%10%5')+%8', .')+,0 3'2'.5')+%2 3%$%(%$)', ./2 0*%86/*2%5''0&'$4'(9 '0 ? P42
'-%.8%' '//%,B 8'5%'(' ($15%'))%86)')*'66/20%5'),7%0 014(1)'.%*10/2, .')+%')$%');
8%.)L& .%1$'/-,''42 8%'.0*&'(161.()1$%
.%%5/%0H41)''((*$5,.-')*' $)+*/* ,)'3'0
.*)'),/ ?"P')+')'+%8%)+*5'3'0 $%-1/'$/2
%86/*2%5',.')+%')$%')8%.)' &5,0%'0%' +%.'
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10%*&',)')+%,5%'' 4%,.-'01--%0)%5')*'+%,$'
8,.50 42 '&'$-1%<0 8%)+*5'*&',.6%1/'),*.'
,%7%98-'(/',80)+')' 1$C'9'*&',%.+''3'0
$%'//2')+%'5,0(*7%$%$'*&'+26*5%$8,(' 8%5,(';
),*.'H41)'4%')+,0'0',)'8'2',)'3'0'1.5*14);
%5/2')+%'/')%' $' /%B'.5%$' **5'*&' 5,.;
41$-+'3+*'4$*1-+')+,0 8%)+*5'*&')$%')8%.)'
,.)*'-%.%$'/10%
' # ((($' G +,0,0''8'))%$'
&'-$%')',86*$)'.(%' ,)+'51%6$%('1),.'
)+%'6',,B',.'8*0)',.0)'.(%0',0',.0,-.,&,(').'
.')+%' '0%*&0*8%5$1-0'01(+''0'%$-*), %'
8*)%'*$'/%00'6',.',0',.%7,)'4/%'41)'42'('$%&1/
8'.,61/'),*.')+%'1.6/%'0'.)'%&&%()0'8'2'4%
$%51(%5')*'' 8,.,818' +%'.%%5/%'3+,(+'
810)' +%'0+'$6''.5'08**)+')',)0'6*,.)',0'
'))'(+%5')*')+%'.*CC/%'*&')+%'02$,.-%''.5')+%
/')))%$',0' +'$-%5'3,)+')+%'5$1-'*'4%'%8;
6/*2%5' &''!'4/*,5',0'10%5',)',0'5,00*/7%5'
,.''!'02$,.-%&1/''*$/%00'*&'3'$8,0+'3')%$H,&'
.')+%')+%$'+'.5''!'0/1),*.'*&')+%'5$1-',0'
10%5')+%'02$,.-%0+*1/5'4%'(*86/%)%/2'&,//%5'
'.5')+%'E1'.),)2')*'4%',.>()%5''((1$')%/2'
-'1-%5'42'8*7,.-')+%'41))*.'5*3.')*')+%'
$%E1,$%5'8'$9'*.')+%'6,0)*.' 2'%,)+%$'
6/'.')+%'6*00,4,/,)2'*&'*7%$5*0'-%',0'-1'$5%5'
'-',.0)' &*/5'*&'09,.',0'6,.(+%5'16'4%;
)3%%.')+%'/%&)')+184'.5',.5%B'&,.-%$'.5'
)+%'.%%5/%',0'610+%5'&,$8/2'.5'0+'$6/2',.)*'
)+%'(%//1/'$'),001%' +%'4'$$%/'*&')+%'02$,.-%
,0')+%.'0)%'5,%5'4%)3%%.')+%'$,-+),.5%B'.5'
8,55/%'&,.-%$0''.5')+%'&/1,5'0/*3/2'.5'
0)%'5,/2',.>%()%5'42'6$%001$%'3,)+')+%'$,-+)'
)+184'*.')+%'%.5'*&')+%'6,0)*.' 0')+%
.%%5/%',0'3,)+5$'3.')+%'/%&)',.5%B'&,.-%$'
0+*./5'4%'66/,%5')*')+%'6*,.)'*&'61.()1$%'
&*$''&%3'0%(*.50' .')+%'('0%'*&'*$-*),.%
'.5''&%3'*)+%$',$$,)'),.-'5$1-0',)',0'3%//')*'
8*5,&2')+,0'8*5%'*&'6$*(%51$%'42'8,55.-'
)+%',.>%(),*.'5,$%()/2',.)*')+%'810(1/'$
),001%''.'1)%$,.%'+18*$$+'-%'.,)*')+%'
-/1)%'/'810(/%0
'6$%7%.)'.'2'(+'.(%'&'0%60,0'0*8%'
$%(*88%.5')+')')+%'.%%5/%'4%&*$%'4%,.-'
0+*1/5'4%'5,66%5',.)*'('$4*/,0%5'*'S '
'(*.0,0)'(+,%&/2',.'6',.'6+/%-8*;
.*10'03%/ .-0''.5'(*.0%E1%.)'40(%00'0/,-+)
4/%%5,.-'*'%((+28*0,0H41)'3,)+'6$*6%$
6$%('1),*.0'8*0)'*&')+%0%'((,(5%.)0'8'2'4%
'7*,5%5''.5',.'.%'$/2''('0%0')+%'6',.',0'
4*)+')$,&/,.-''.5'%7'.%0(%.)' %$)',.'6'$)0'
*&')+%'4*52'0+*1/5''/3'20',&'6*00,4/%'4%
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0'$%-,*.0'3+),,'
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3+,(+'&1/&,/')+%'&*/'
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0,*.R'A@R'+%2'0+*1/5=
4%'6%$8'.%.)'.*)'5%)%$,/
A"R'+%2'0+*1/5'4%'18K''K'
3')%$'('$4*/,('(,5'4*.=/
'.5'*)+%$'0140)'.(%0'8'2'
10%5')*'6$%7%.)')+)%5% %/*68/'
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4%0)'7%+,(/%'&*$')+%',.>%(),*.'
01(+''0'('$4*/,('(,5'%1('/26),'
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51')%5',.0)$18%.)',0'$%E1,0,)%' +%(,='
*&')+%'4'$$%/'0+*1/5'4%')3%.)2'8,.,80'8'
.$$,.-%'8'2'(*.7%.,%.)/2'4%'+'5',.''H'
('0%'3,)+')3*'.%%5/%0''.5''0166/2'*&'0'3'
Q3,$%0)*'9%%6')+%,$'(.'/0'(/%'$' +%'.%%)'$
'$%'4%0)'8'5%*&'-*/5%.'6/'),.18'3+,(+K\\'
4*)+')*1-+'.5'.*.(*.*0,4/%')',0'*&'-$%'/'
(*.0%E1%.(%')+')+%'6*,.)0'0+*1/5'4%'0+'$6='
'.5'3,)+'08**)+'%5-%0' +%'" %% '*&')+%'
02$,.-%'*.'3+,(+')+%'.%%5/%',0'&,))%5'3+%.'
$%E1,$%5'&*$.06'42''0,86/%'0/,5,.-'8*),*.'
A.*)'42''0($%3R'= /5''/3'20'4%'6$*7,5%5'
3,)+''8%)'/'('6' +,0'6$%7%1,0'5$2,.-''.5'
0+$,.9,.-'*&')+%'6,0)*.'6'(9,.-' +%'
"0'0+*./5'(*.0,0)'*&'/%')+%$*'$3'0+/%')+%$*'
'.5',&'42''.2'(+'.(%',)'5*%0'.*)'&,,)'),.+)/2'
)+%')*6'*&')+%'02$,.-%'0+*./5'+%'1.0($%3%5'
'.5'$%8*7%5'3,)+')+%'6,0)*.''.5')+%'6'(9;
,.-',0')+%.')*'+%' %//'0*'9%5'8'6'$*/%,.%'
+%'8%)'/'6'$)0'810)'.*)'4%')'(+%5')*')+%'
4'$$%/'42'(%8%.)''0')+,0'8')%$,'/',0'5%;
0)$*2%5'42')+%$'.5'*)+%$'&/1,50''.5')+%'
02$,.-%',0'(*.0%E1%.)/2'$%.5%$%5'1))%$/2'10%;
/%00' +%'8,.,80'')%'4%0)'8'$9%5'*.')+%'
"'3+,(+'0+*1/5'+'7%''0($%3')+$%'5'*.'
3+,(+''41))*.'$1.0'42')+,0'8%'.0')+%'
5*0%',0'-'1-%5''((1$')%/2'4%&*$%')+%',.>%(),*.'
,0'8'5%''.5')+%$%,0')+%$%&*$%'.*'6*00,4,/,)2'
&'..>%(),..-'8$%')+'.'3'0'..)%.5%5' +%'
6,0)*.'0+*1/5'+'7%''0,86/%'0/,5,.-''.5'.*)'
''0($%3''(),*.')',0')%$8,.')%5''')')+%')*6'
42''&/')'9.*4'3+,(+',0'6$%00%5'3,)+')+%'
)+184'3+%.')+%',.>%(),*.',0'8'5%' *$
)+%',.>%(),*.'*&'%)+%$'/((*+*/'.),0%6),(0'
.1)$,%.)0'0'/,.%'0*/1),*.0'^('81(+'/'$-%$'
02$,.-%0'8'2'+%'10%5')*'7*,5'81/),6/%,.;
>%(),*.0H01(+'02$,.-%0' '$%'101''//2'*&''
('6',)2'*&'%,-+)2')*'*.%+1.5$%5'8,.,80

('1'.-' 6$*&10%' 4$*.(+,'/' 0%($%),*.' A $1.')*.R' 3 ',.'7'$,*10' &*$8 0' *&%6*,0*.,.-' '0' '.'%8%),(
&T M R ' '$-%' +26*5%$8,(',.>%(;),*.0' *&'3')%$' *$' *&'3')%$' 3,)+' (+/*$,5%' '._ 4,('$4*.')%' *&'0*5,18',.'0*/1),*.'+'7%' 4%%.' 10%5',.'(+*/%$' '41)',.)$'6%$,)*.%'/',.>%(),*.0' +'7%4%%.'$%(*8 8%.5%5',.'6$%&%$%.(%' (%5' 3')%$'+'0' 4%%.'10%5'+26*5%$8,('//2')*' (1$%' 0(,'),('*' .5' '/0*' ,.' 62$%B,'* *)' 3')%$',0' 0*8%),8%0'10%&1/',.')+,0'3'2'+'0' .'*'.'/-%0,(
& 2 / G& " '*'.5',)0' 6$%6'$')*.0' $0%..,(''(' 10%0'0/,-+)'/*('/',$$,)'),*.')'* "' 4%'10%5',.')+%' &*$8'*&' *3/%$<0' 0*/1),*.'A' 6'$)')*' @'6'$)0'*&' 5,0),//%5'3')%$R')',0'*&' 0%$7,(%',.'7'$,*10'.%$7*10'5,0%'0%0G6'$'/20,0' '-,)'.0'(+*$%'*' .%1$'/-,''*%6,/%602'^(H,.' 09,.'5,0%'0%0G/,(+%.'$14%$'60*$,'0,0'(+$*.,(' %(C%8'H' ,.' 0%6),(' 5,0%'0%0G61%$6%$'/' .5')26+*,5' &%7%$0H ,.' /2 8 6+*8''' ,.' 7'$,*10' 602(+*0%0'' .5')+%$' 5,0%'0%0
& " G& " ' +%'.%1)$'/'01/6+')%' ,0')+%'4%0)'0'/)' +%'0*/1),*.'10%5'0+*1/5'4%$%(%.)' %1)$'/'01/6+')%'*&')$*6,.%'8'=',.H 5,0),//%5'3')%$' 16')*'<'*1.(%0' D!'8,.,$'0' A0,B)%%.8,.,8 0'e' '-$',.R')',0'3%//')*'4%-,.' 3,)+' TTT' -$',.' +%' 6$%6'$%5')'4/*,5 0'> ' .5'4'-$',.''$%'10%&1/' 3 ' .%1$'/' =''')0)+8''A3+%.')+%' 81(*10'8%84$'.%',0' .*)'5$2R'%.1$%0,0'06%$8')*$$+*%''.)%0),.'/ *40)$1(),*.'%6 %602')%)'.10'&*$')+%'$%/,%&*&6',.'-%.%$'//2''0'.''.),015*$,&,(' A%06%(,.'//2' ,.' 6+),+0,('/' 03%')0R''.5' '0' '.' .),0,'/''-*-1%' 0' *&'-$%')' 0%$7,(%',.'(*84,.'),*.' 3,)+'8*$6+,.%' ' *,6+,.%'6'P @
& ' '#)/ ? # ' ' B ' C '='-$',.' ,.' @!'8,.,8 0'*&' 5,0),//%5' 3')%$' %%5',.'+20)%$,('/' '.0%0)+%0,''.5' ,.'026+,/,),('&&%(),*.0
" G " ' '&&%,.%'@!'-$',.0H 0'+(2/')%'*&'0*5,18' M '-$',.0H' 5,0),//%5' 3')%$')*' 8' 5$'(+8' D9' 8,.,8 0'k4&' -$',.R' C ')*'L'8,.,8 0'A '$),.5'/%' '.5' %0)' (*))R' '4/*,5 0'*&'('&&%,.%'0*5,*0'/,*2/')%' H&=' -$',.'8'2'/0*' 4%'10%5' 3 ',.'8'' /'$,(5'.%1$'/-,'' '.5'$+%18',08'8%-$,8' ,.0*8..,'' (+$*./(''/(+*'/,08'+20)%$,''('$; 5,'(' 5$6602'A*.''((*1.)'*&',)0'5,8%),(''(),*.R' '0)+8''''.5',.'6*,0*.,.-'42'*6,18''.5',)0' '/9'/*,50' '.5'(*86*1.50''/(*+*/' '.5'(*; (',.%
#2 " '6# 0 '6(D' / '' .5' I(' ' '$ "' '/'4'$,.%',0'.*)'10%5'+26*5%$8,('//2'41)' %0%$,.%'A6+20*0),-8,.%R' .5')+%'%B)$'()'+'7%' 4%%.'0*'%86/*2%5' +%'4%0)'6$%6'$'),*.',0')+')'*&' '$),.5'/%' .5' %0)(*))' B)$'()' *&' '/'4'$'4%'.' !'-$',.0H $%(),&,%5'06,$,)' 8H' 8,.,8 0H $14')*-%)+%$'),/' 08**)+' .5' '55' -18' '('(,'' 8H'-$',.0H 8,B' .5' '55' -$'51''//2'5,0),//%5'3')%$')*' =' *1.(%' C ' 9')*' @' 8,.,8 0' 3 ',.')%)'10')$,0810' .%*.')*$18' 0)$2(+.,.%'6*,0*.8-'%.1$%0,0' (
? ' 25$'$-2$18
? 'E !)
2' 8 ,.>%()%5'61$%' '.5'163'$50' .%1$'/-,''/18IH " G *F')+%'4%0)''*&'/*('/' 5%$8,('//2' $%.5%' $+*,50'08'//')18('7,')%')*B,(' %&&%()0' 0+*1/5''/*.%'4%'10=' 6*0%0' $'6,5/2' '.5' &,$%0+/2'6$%6'$%5'3+%$0' /' '.5'=' -$',.' '$%'),*.')*' ,)0' 10%' '0' '' 90' +'0'4%%.'%86/*2%5',.'+)'='(+*/,''')*'*7%$(*8%')+%'(H=' '.5''/(*+*/''.5')*'$%/,%,' .%1$'/-,' " G " ' +%=/')+%'4%0)'0'/)' &*$' +26*5%$8 ' -$',.')*' >=' -$',.' *5%,.%= 8' -$',.H A+0)>//%5'3')%$' 16')5' A D' 8,.,8 0'e'=' -$',.R' 3 K' 8% ,)10H '/0*' 8' -')0)$*52.,'/' (''.(%$''.5''0)+8' " " G " " ' '.5',)0' 0'/)0=' 4$*8')%' *&'(*.,.%' 8' -$',.H 5,0),.2' @!'8,.,8 0' C ' ')*'"' 8,.,8 0' '0)+8''' .-,.'' 6%()*$,0'6%$)100,0'/'=' 8 10'0)$,57510',(5*1/*1$%1B'(+*$%''A $,(+)*.' $*3.%R') 0%/%00',.')%)'.$1b' 0)$2(+.,.%'6*,0*.,.- G ' 0'4%0)'-,7%.'+26*)=' 8,('//2' C ' -$',.',.''6%$'(%.)'8)%,,/' 'E1%*10' 0*/1),*.' *$' '')'4/*,5' A>' -$',+=' 3 ')*'(*.)$*/')+%'06'08'0'*&')%)'.10' '.1=' +25$*6+*4,' C /2 " 'I(2 ' / ") GC ' " '.5'I(" " C '*&' 5')1$8%'TTT' -$'8H'*&'0)$'8*.,18'%B)$'()' %)*'5'-$',.' 3 ',.'%86+20%8''.%1$'/-,'')%)'.10''.5')$%8*$'A6'$'/20,0''-,)'.0R C 0 3" ?C 0 " ' 10)'*./2'4% 10%5',.'($20)'//,.%'&*$8H'/'*)+%$'&*$8 0''$%' ,861$%' '.5')8$%/,'4/%' C ' >,>' -$',.')'8*,5' 3 '*./2'%B(%6),*.'//2'014(1)'.%; *10/2',.''(*.,)%'6*,0*.,.-'+%'$)5,0%'0%0' 06%$8')*$$+*%''.5'%B*6+)+'/8,(' -*,)$%' A '$)+*/*3R C # /" GC " ' C ' JTT' -$',.' 3 ',.'%B*6+)+'/8,(' -*,)$%' A 1>'$5,.' %'18%)CR'6+)+,0,('/' 03%')0' A 14/%$' .5' *)+%$0R'.5''0)+8' I 0 " /" GI 0 " " ' $-*),.',0')+%' 3')%$2'%B)$'()'*&'%$-*)' $-*),.,.%',0')+%' ($20)'//,.%'/9'/*,5' C '*&'*.>%'.<0'%$-*:'),.'@')*' '-$',.0',.'-/2(%$,.%'.5'5,0) /%5' 3')%$'16')*'<H'8,.,8 0H*&'%$-*),.,.%',.')'4; /*,5' J=' *$'>/>'-$',.' 3 '4%('10%'*&',)0' '(),*.'*.',.7*/1.)'$2'810(1/'$'&,4$%GA8R')*' (*.)$'()')+%'1)%$10H A<H')*'(*.0)$,.-%'4/**5; 7%00%/0'.'+'%8*6)20,0'.5')+)+%$'&*$80'*&' 4/%%5,.-' +*1/5'/3'20'4%'5%%6/2',.>%()%5 . G5 " ' +%' 62$*6+*06+')%' *&',$*.'3,)+'(,)$')%'*&'0*5,18'D<'-$',.0'.'<H' 8,.,8 0R''.5''8 8*.,*(,)$')%' *&',$*.',.

926*-'0)$,('$% (+,%&'2' ^ * 8')' ,0' , ')+%' ' 8 '$ >'3+,(+' *6%$')*$' +,0' =)+')')+%' *6%$' ' ,0' 101'//2' 6%$ ' '(,6'ƒ , . (,0,* . ' ,0' $*)* 8 2' &*$' , .)%0 ' 0 0'$,' .' 0%(),*. ')+%' 8 ' . 2'$%(%.)' ' . 5' *6%$'),* . 0 ' +%')'66%5' '4*7%')+%' F&')+%' 8 0)%. 5%5'4/'55%$' '&*$ 8 , . -' '')18*1$' +'0' 4%%.' '/$%'52' $%' &* 8 %.)0' +%$%' &$* 8')+%0%' ^% 5,'-. *0%5' &$* 8' 6%T7,*' 9, . 50' 3+,(+' , . ' -$*3, . -' +%' '45* 8 %. ' *(('0,*. ''//2' /,%' $%-,* . ' , . 0)%' 5' *&' %,)+%$' 0)')+%' 8 *$4,5' (* . 5,),* . 0' *&' 9ƒ >'$,%)%0' , . ')+%' +26*-'0)$,('U%E1,$%' 06%(,'ƒ 8 %.),* . ' '$%' '4')%5' 3 ,)+' 5,0%'0%'*&')+%'/18 4 '$' *((' 0,* . ''//2' 6*, .)' '4*7%')+%' %,)+%$' 0,5%' *&')+%' 8 .55/%' /, . %' $, . ' 01(+' ''('0%',0' . *$ 8 ''//2'0,)1')%5' ;')+%'6%$,)*. %1 8 ' . 5')+%'&'0(,'')$' . 0 ' +%' . ')*8,('ƒ(* . 5,),* . 0' 4%'$, . -' *6%$')," . 0' &*$' , .)%$. 'ƒ +%8,0%' ^(' 44% 8 *0)' ('$%&1//2' (* . 0,5%$%5H '0' ''$1/%' 8 %0,'ƒ/, . %' ,0' *$' 0+*1/5' 4%' 0%/%()%5' &*$' *8, . 'ƒ%B6/*$'),* .

+ &7' 6

% 2 ! ! 3 ' 6 *' +' ' G +%' +T$6*- *00'ƒ . %$7%' ,0')+%' 8 *)*$' . %$7%' &*$')+%')* . -1%' ' . 5' &*$' 8 *0)' *&')+%' *)+%$' 8 10(/%0' 3+,(+' '$%' '))' (+%5')*')+%' +2*,5' 4* . %')+%' %B(%6),* . 0' 4%,. -')+%' 0)2/*; +2*,5')+%' 82/* +2*,5' ' . 5')+%' 8,55/%' (* . ; 0)$,()*$' *&')+%' 6+'$2 . B')' '/0*' 0166/,%0')+%' 0)%8 *)+2$*,5' 8 10(/% ' '$' /20,0 G '$'/20,0' *&')+,0' . %$7%' ,0' 0+*3 . ' (+,%&/2' 42')+%' $%01/), . -' , .)%$&%$%. (%' W ,)+')+%' 8 *7%8%.)' *&')+%')* . -1% l' -/*00* ' 6/%8 ' <

=* $ G= +% +26*-/*00'ƒ . %$7%' 8 '2' 4%' 5' 8 '-%5', . ' . 2'6'$)' *&',)0' (*1$0%' 42')+%' -$*3)+' *&')18*1$0' %7%. ' *1)0,5%')+%' 091//H 41)' ,0' 8 *0)' (* 8 8 *. /2' '&&%()%5' ')' ,)0' *$,-. , . ' &$* 8')+%' 8 %51//' ' 42' 6$%001$%' 8 %. , . -,),0' 026+, /,), ('6$*(%00%0' *$' 42' ('$,%0' *&')+%' 166%$' (%$7, ('ƒ7%$)%4$'%' +%')* . -1%', 0' '/0*' 6'$' ; /20%5' 42' 5,0%'0%'*&')+%' . 1(/%10' *&' *$,-, . ' *&')+%' +26*-/*00'ƒ &, 4$%0' 41)' ,)0' 6'$'/20,0' ,0')+%. ' '00*(, ')%5' 3,)+')' *&')+%' /,60' ' . 5' (* 8 8 *. /2' '/0*' *&')+%' 6 '/')%' 6+'$2 . B' ' . 5' -/*)), 0' ' :C$: $' D ' 1(+' 6'$'/20,0' 8 '2' 4%' 0155%. ' &$* 8' /*('ƒ 0*&)%. , . - ' *$' -$'51'/' &$* 8' . 1(/%'$' 5%; -%. %$'), * . ' ' +%' /')) %$' &*$ 8', 0' *&)%. ' 6'$)' *& 6$*-$%00,7%' 8 10(1/'$' ')$*6+2' ,0%'0%' *&)+%' 8 *)*$')$'()' '4*7%')+%' . 1(/%10' '/0*' ('10%0' 6'$'/20,0' *&')+%')* . -1%')*-%)+%$' 3,)+')+% &'(%' '$8' ' . 5' /%-' *&')+%' 0' 8%' 0,5%' +%' /*00' *&'7*/1.)'$2' 6*3%$' *&'6$*)$10,*. ' ,0' 81(+' -$%')%$' 3+%. ')+%' 6'$'/20,0' ,0' *. ')+%' $=+)' 0,5%')+' . ' 3+%. ' *. ')+%' /%&)' 41)' 6$*4'4/2' *. /2' 3+%. ')+%' 5,0%'0%' ,0' , ')+%' (*$)%B' ' . 5' '6+'0, '' ,0' '00*(, ')%5' 3,)+')+%' +%8,6/%-, ' ' ,/')%$'ƒ -/*00*6/%-, '' (* 8 8 . /2'$%01/)0' &$* 8' 5,0%'0%' *&')+%' . 1(/%10' *$' ,)0' . %, -+4*1$+**5' $'$%/2'&$* 8'02 8 8%)$,('ƒ 5,0%'0%'*&')+%'(*$)%B' , . '060%15* 41/4'$'6'$'/20,0 ‹ ./')%$'ƒ 6'$' ; /20,0')7+%. ' ,0*/')%5', 0' -%. %$'//2'51%')*' 5,0; %'0%' *&')+%' &,4$%0' *&' 3 %' . %$7%' 3,)+, . ' *$ *1)0,5%')+%' 8 %51//'

! (! G . ' 1. /')%$'ƒ 6'$'/20,0')+%')* . -1%')' $%0)', 0' , . ' ,)0' . *$ 8 'ƒ 6*0,)*. ' , . ')+%' 8 *1)+' 41)',)0' $**)', 0' +, -+%$' 16' *. ')+%6'$'/20%5')+' . ' . *. ')+%' . *$ 8 'ƒ 0,5%' , . ' (*. 0%; E1%. (%' *&')+%'/*00' *&')+%')* . , (' *$' 7*/1.)'$2' (* .)$'(), *. ' *&')+%' 6*0)%$,*$' &,4$%0' *&')+%' +2* -/*0010' ,)+, . ')+%' 8 *.)+')+%')* . -1%' , 0' 8 *7%5' &$%%/2')*')+%' +%'/)+2' 0,5%' 41)' , 0' . *)' 8 *7%5')*')+%' 6'$'/20%5' 0,5%' +%' . 6$*)$15%5',)' 5%7, ')%0')*3'$50')+%' 6'$'/20%5' 0,5%' 4%('10%')+%' 6$*)$10, *. ' , 0')+%' $%01/)' *&')+%' '(), *. ' *&')+%' &,4$%0' *&')+%' -%. , * -/*0010' . 5')+%')* . -1%', 0' 610+%5' *7%$')*3'$50')+%' 3%'9%$' 0,5%' . ' 4,/')%$'ƒ 6'$'/20,0')+%')* . -1%' /, %0', . ')+%' 8 *1)+' 4%+ 85')+%')%%)+' . 5' (' . . *)' 4%' 6$*)$15%5' &')+%' /*00' *&' 6*3%$' , 0' (* 86/%)')+%')* . -1%' (' . . *)' 4%' 6$*>%()%5' *7%$')+%' /*3%$') %)+')', 0' 4$*'5' . 5' &/'442', &')+%$%', 0' . *' ''$*6+2' . 5'0*8%;), 8 %0' 3+%. ' ')$*6+2', 0' '00*(, ')%5' 3,)+' &'))2' *7%$-$*3)+' +%. ')+%$%' , 0' 3 '0), . -' '0', 0' -%. %$'//2')+%'('0%'3+%. ')+%' . %$7%' *$' . 1(/%10', 0' 5,0%'0%'5')+%')* . -1%' , 0' 0+$1. 9%. ' . 5',)0' 01$&'(%' , 0' 3$, . 9/%5' *. ' *. %' 0,5%' *$' 4*)+' +%' &'$'5,(', $$,)'4, /,)2' *&')+%' 8 10(1/'$' &,4$%0' , 0')+%. ' /*0)' . ' 1. /')%$'ƒ 6'$'/20,0' '$),(1; /')*. ' . 5' 5%-/1),), *. ' '$%' /,))/%' , 8 6', $%5' +%' 6$*. 1. (, ')*. ' *&'/'4, '/0' . 5')+%' 6$*51(;), *. ' *&' &'/0%))*' . *)%0' 8 '2' +*3%7%$' 4%' 5, &&, ; (1/)' . ' 4, /')%$'ƒ 6'$'/20,0' '$),(1/'), *. ' , 0' , 8 6*00, 4/%' +*. '), *. ' , 0' . *)', 8 6', $%5' 1. ; /%00')+%'/'$2. B' , 0' /0*' 6'$'/20%5' '0'), (', *. ' , 0', 8 6%5%5'4%('10%')+%' &**5' ('. . *)' 4%' 8*7%5' '4*1)' , . ')+%' 8 *.)+' %-/1),), *. ' , 0' /0*' . ;)%$&%$%5' 3,)+' 4%('10%')+%' &**5' ('. . *)' 4% $*//%5', .)*')+%' &'1(%0H ' . 5' 0*&)' &**50' 3+%. ')+%2' $%'(+')+%'6+'$2. B' 8 '2' 4%' 5$,7%. ' '-', .)*')+%' 8 *1)+' , . ' (*. 0%E1%. (%' *&')+%' '4; 0%. (%' *&')+%' . ')1$'ƒ 0166*$), . -' 8 *7%8%.)' *&')+%')* . -1%' '0)%', 0' *)'6$, 8 '$, /2' '&&%()%5' 41)' 8 '2' 4%' 0*8%3+')' 51//%5' 4%('10%')+%6'), %.)' , 0' 1. '4/%')*' 8 *7%' 0'6, 5' 0140)' . (%0' *7%$')+%' 0$1&'(%' *&')+%')* . -1%

& G= +% 6*0,), *. ' *&')+%' /%0, *. ' , 0', . 5, ()%5' 42')+%' 00*(, '), *. 0' *&')+%' 6'$'/20,0' &')+%' 5,0%'0%', 0' , ')+%' 8 *)*$')' ()' '4*7%')+% . 1(/%10' A6*. 0' ($10' *$' +%8,06+%$%R')+%$%' ,0' +%8,6/%-,(' 3%'9. %00' *. ')+%' 0,5%' *&')+%6'$'/20,0' *&')+%')* . -1%' . 5,0%'0%' *&')+%' . 1(/%10')+%' 6'$'/20,0' ,0' (* 8 *. /2' 4,/')%$'/' ,0' '00*(, ')%5' 3,)+' 6'$'/20,0' *&')+%' 88 0' ' . 5')+$*')' ' . 5')+%$%' ,0' 101'//2' 3 '0), . -' ,0%'0%' *&')+%' &,4$%0' *&' *$, -, . ' 3,)+ 8')+%' 8 %51//'' 8 '2

’*&’,.&/’.1.’$’)’*&’ ’(1)%’%00’ /’)*$2’6$*51()0’ 60%/0’ ’.5’),001%0’ 8)+%’0’8%’ ’ 0%’*&’ ’.’ *$58’$2’ &%0’0%7%$%’,.’(+’$’(’ .*’)%.5’0*’ $%’5,/2

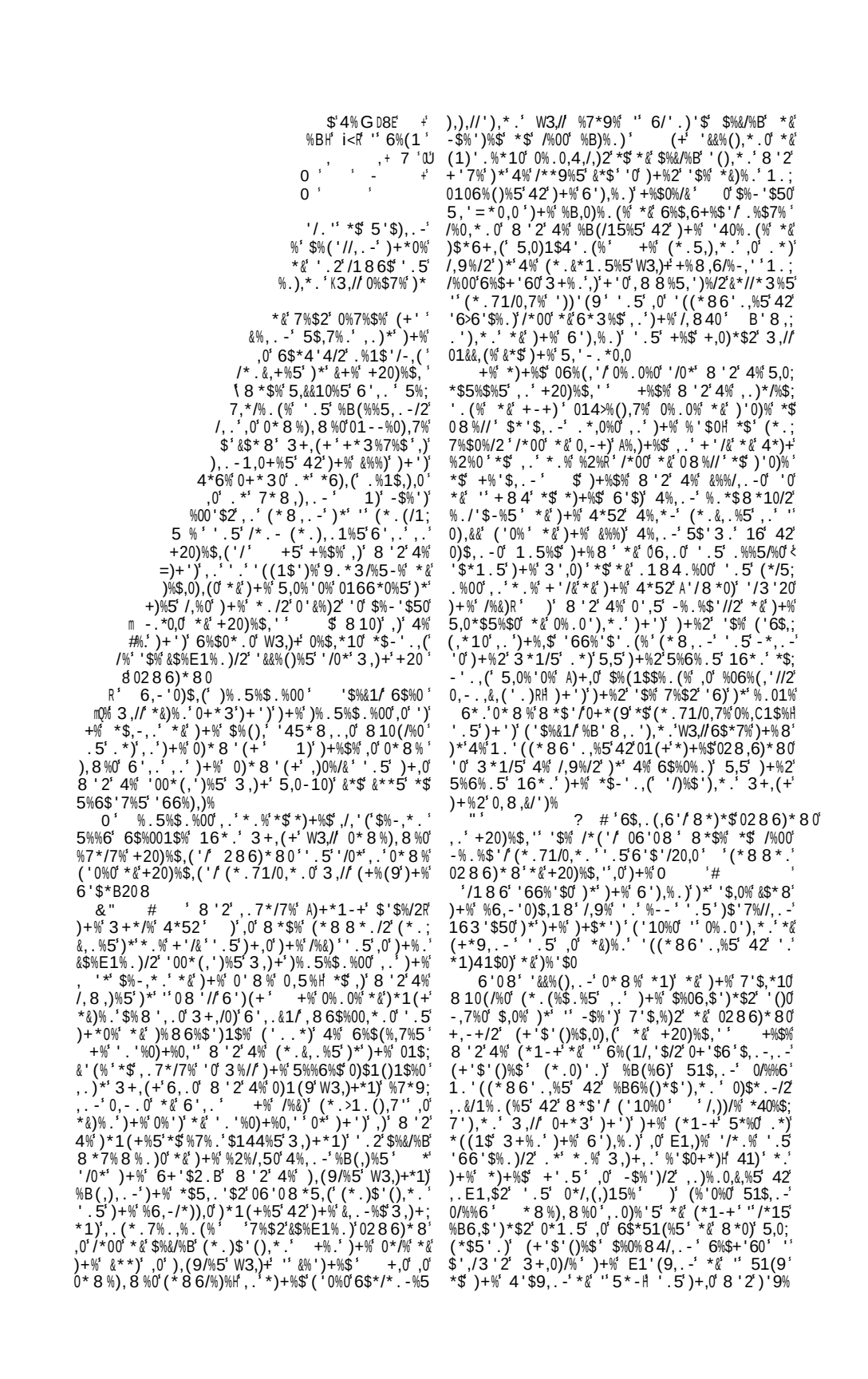
6,0,.-’)+%’(’10%’’/)%$’ 47,*.0/2’)+%’$’),*.’/’ ’),%’ (*.-%0),*.H’ ’55,’ ,.5’-,.-’,0’ .%(%00’$2’ %’0%0’(’$5,’(’0),8 1/’.)0’ (%’,.’)+%’ 6$%7%.),*.’*$’ 1),*.’ ,.’(*..%B,*.’ 3,)+’)+%’+%’$)<0’ ’(),*.’4%’ %.’ 1’ ’ 6

5 ’,) O ’)+%’ 3*84H ,a ’8’,.’)+%’ 3*84’ &$%’ 0%5’)*’4%’*&’’’.%1$’/-,(’8,)1,$%’ 5,0%’0%0’*&

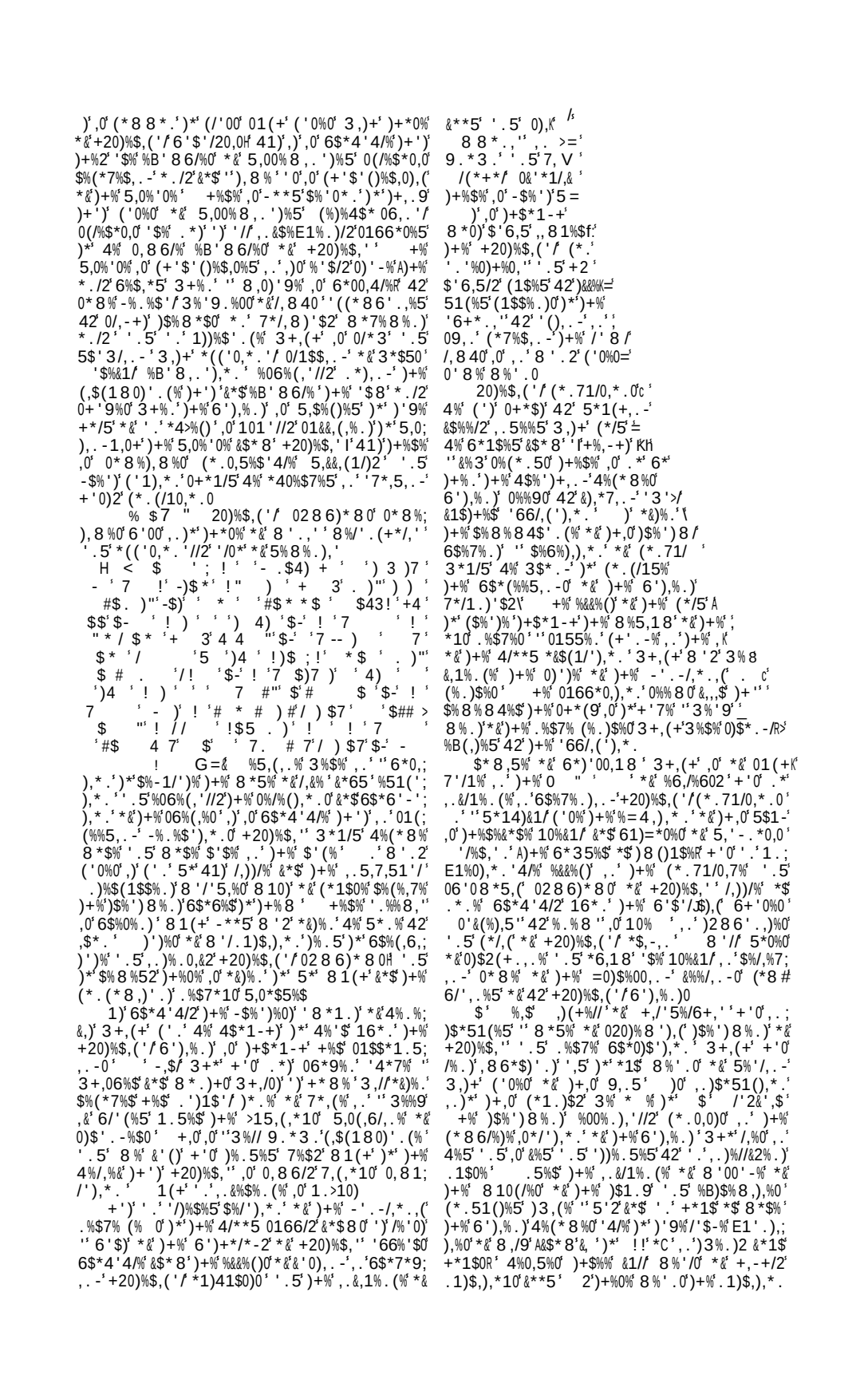
$ ’) ’)+%’ *84R G 6)’ $P H %$’ 3 ’ 4.(,* G0’ 20)%$,’’<,0’’’)%$8’)+%’ F-2’*&’3+,(+’,0’8,0/%’5,.-’’.5’+’5’ ,%$%&*$%’ 4%’5,0$%-’$5%5’ ’,0’*&)%.’ U6%$/2’’66/,%5’)*’(’0%0’*&0,86/%’8’/,.’ .-’’.5’*)+%$0’3+,(+’5*’.*)’’58,)’*&’ 2’%B6/’.’),*.’)0’10%’,0’4%0)’$%0)$,()%5’ =’’(*.5,).’*&’)+%’.%$7*10’020)%8’&’,$/2’ /%&,.%5’41)’)+%’,.),8’)%’6’)+*/*-2’*&’3+,(+’ ’.*)’9.*3.’(+’$’()%$,0%5’42’)+%’*((1$%.(%’ ’*&’(*.71/0,7%’ %,C1$%0’.5’42’5%6’$)1$%0’&$*8’ .*$8’/&1.(),*.’*&’7’$,*10’*$-’.0’/%’5,.-’)*’ 7%$2’.18%$*10’’.5’*&)%.’6%$6/%B,.-’02,.6’)*80’+%0%’$%’’6)’)*’0,81/’)%’)+*0%’(*8; 8*./2’’$,0,.-’&$*8’5%&,.,)%’’/)%$’),*.0’*&’ 0)$1()1$%’41)’5,&&%$’&$*8’)+%’/’))%$’,.’)+%’&%%)’)+’)’)+%2’8’2’*&)%.’%7%.’3+%.’’)’)+%,$’3*$0)’ 4%’$%8*7%5’,.0)’.)’.%*10/2’101’’/2’1.5%$’)+%’,.&/1%.(%’*&’0)$*.-’%8*),*.’)’3*1/5’ 0%%8’)+’)’)+%$%’,0’’’5,0)1$4%5’*$(*.-%.,)’//2’ 5%&%(),7%’(*.5,),*.’*&’)+%’(%$%4$’/0140)’.(%’ ,.7*/7,.-’,.’’//’*’0%0’)+%’+,-+%0)’.%$7*10’ (%.)$%0’’.5’,.’7’$,*10’%B’86/%0’%B)%.5,.-’ 8*$%’*$’/%00’’/0*’)*’0*8%’*&’)+*0%’3+,(+’ 6$%0,5%’*7%$’’1)*8’),(’6+%.*8%.’’’’$),’/’ *$(*86/%)%’0106%.0,*.’*&’,.+,4)*$2’,.&/1%.(%’ 3*1/5’’66%’$’)*’4%’)+%’8*0)’6’)%.)’$%01/)’*&’)+%’(*.5,),*.’3+’)%7%$’,)’4%H’’.5’),0’,0’ $%(*-.,0%5’’0’3%/’.’$%-’$5’)*’)+%’8%.)’/’’0’)*’)+%’8*$%’%7,5%.)/2’6+20,(’/’6$*(%00%0’4%; /*.-,.-’)*’(%$%4$’/’8.%),*.’’’/’1-+’3+,(+’ (’,8*)’4%’(+%(9%5’41)’(*.),.1%0’1.),/’)%’$0’ &/*3’*$’)+%’/,84 0’4%(*8%’(*.71/0%5’,0’*’)26,(’/’%B’86/%’*&’01(+’’’0106%.0,*.’*&’(*.;)$*/’’.5’,&’0)15,%5’)+$*30’/,-+)’16*.’)+%’ .’)1$%’*&’’*(*.0,5%$’4/%’6*$),*.’*&’)+%’6+%; .*8%.’’*&’+20)%$,’’ +%’>%$9,.-’%B6,$’),*.0’ *&’/’1-+)%$’$,0%’&$*8’%.(,)’),*.’*&’)+%’$%06,; $’)*$2’(%.)$%H’.5’3+%.’)+,0’%B(,)’),*.’1.; (*.)$*//%5’42’+,-+%$’(%.)$%0’’(E1,$%0’’.’ ’4.*$8’/0)$%.-)+’,)’%B)%.50’)*’*)+%$’6’$)0’ *&’)+%’8%51//’’*4/*.-’)’’’.5’06,.’/’(*$5 ’.5’6$*51(%0’-%.%$’/(*.71/0,*.0’)’*7%$; &/*30’’0’,)’3%$%’,.)*’*)+%$’.%$7*10’(%.)$%0’ 3+,(+’,.’+%’/)+’3*1/5’$%(%,7% .*.%’*&’)+% %B(,),.-’,8 61/0%’ %)3%%.’)+%’/*3%0)’A’1)*; 8’),(R’&1.(),*.0’*&’)+%’(%$%4$*06,.’/.%$; 7*10’020)%8’’.5’)+%+,-+%0)’A602%8(’/R’)+%$% ,0’’.’%7%$,..%$%’0,.-/2’(*86/%B’020)%8’*&’ %B(,)*8*)*$’6$*(%00%0’3+,(+’8’24%’,’6’$)’ *$3+*//2’1.5%$’)+%’6’)+*/*-,(’/.,&/1%.(%’ 3+’)%7%$’,)’4%’ %.(%’)+%’ I ’(+’$’()%$ *&’)+%’+20)%$,(’/’6+%.*8%.’’’.5’)+%’(,$; (180)’.(%’)+’)’)+%02 86)*8 0’/3’20’,.(/15% 8*5,&,(’),*.0’*&’)+*0%’6$*(%00%0’3+,(+’1.5%$; /,%’)+%’8%.)’/&’(1/),%0’ +%’0106%.0,*.’*&’)+%’6*3%$’*&’(*.)$*/6*00%00%5’42’)+%’+,-+%$ (%.)$%0’%B6/’,.0’)+%’,$%-1/’$ 8*7%8%.)0’ 06’080’’.5’(*.71/0,*.0’ .’+20)%$,’’+26%$’ 0%0)+%0,’’’.5’6’,.’’$%’6$*4’4/2’5%6%.5%.)’ 16*.’01(+’’’8*/%(1/’$’(+’.-%’4%,.-’,.),’)%5’ ,.’)+%’0%.0*$2’-’.-/,*.,(’(%.)$%0’’0’,0’*5,.; ’$,/2’6$*6’-’)%5’&$*8’)+%’6%$,6+%$2’ 20;)%$,(’/’6’$’/20,0’*.’)+%’*)+%$’+’.5’0,-.,&,%0’)+’)’)+%’6*3%$’*&’)+%’+,-+%$’(%.)$%0’,.’ /,4%$’),.-’*8*7%8%.)0’,0’,.’’4%2’.(%’3+,/0)’)+%’ $%&/%B’’(),*.0’3+,(+’$%01/’&$*8’%B(,)’),*.’*&’0%.; 0*$2’.%$7%0’’$%’6%$&*$8%5’,.’’.’*$5%$/2’ 8’..%$’’6’),%.)’8’2’*$9’’.%%5/%’3,)+’ &,.-%$0’3+,(+’(’.’4%’)*1(+%5’*$’6$,(9%5’3,)+; *1)’)+%’’()’4%,.-’&%/)’’()./%’,86$%00,*.0’ ’$%’(*.7%2%5’)*’)+%’-’.-/,*.,(’(%.)$%0’42’ \)+%’’&&%$%.)’.%$7%0’’.5’%B(,)%’)+%’’(),*.’*&’ \%&&%$%.)’.%$7%0’0*’)+’)’)+%’810(/%0’’$%’(*.;)$’()%5’ +’)’,0’3’.),.-’.0’)+%’6’$),(,6’;),*.’*&’)+*0%’+,-+%$’(%.)$%0’,.’3+,(+’(*.; 0(,*10.%00’$1.0’6’$’//%/’)*’)+,0’6+20,*/*-,(’/’ ’(),*.

) .6?6 "0’ G)’,0’ 6$*4’4/%’)+’)’’0)’)%*&’8*$%’*$’/%00’,86%$&%()’ 5%7%/*68%.)’*&’)+%’+,-+%$.%$7*10’(%.)$%0’ *&’(*.-%.,)’/’*$,-,.’7%$2’&$%E1%.)/2’1.5%$/,%0’)+%’7’$,*10’(,$(180)’.(%0’3+,(+’’66’$%.)/2’ (*.51(%’)*’)+%’+20)%$,(’/’(*.5,),*.0 +%’&%8’/%’0%B’,0’81(+’8*$%’6$*.%’)+’.’)+%’8’/%’)*’)+%’’&&%(),*.’3+,(+’101’’//2’*(; (1$0’4%)3%%.’)+%’-%0’*&’&,&)%%.’’.5’)+,$)2’ ’.5’8*0)’&$%E1%.)/2’*&’’//’4%)3%%.’&,&)%%.’ ’.5’)3%.)2’ 1B1$2H’,// 5,$%()%5’%51(’),*.’ ’.5’1.+’662’01$$*1.5,.-0H’(%/,4’(2’3+%$%’ .*)’*&’(+*,(%’41)’%.&*$(%5’42’(,$(180)’.(%0H 1.&*$)1.’)%’8’$$,’-%0H’/(*+*/,08H6$%8’)1$% (%00’),*.’’*&’*71/’),*.H’’.5’/*.-(*.),.1%5’)$*14/%G’//’6$%5,06*0%’)*’+20)%$,’’ ’0*8%; 3+’)’ &$%E1%.)’ ’.)%(%5%.)’ ’.)%(%5%.)’ ,0’’’/*.-’’.5 3%’$,0*8%’.1$0,.-’’&’’’0,(9’$%/’),*.’3,)+ 81(+’4$*9%.’$%0)’ +%’5,0*$5%$’,0’*./2’ %B(%6),*.’.’//2’&*1.5’,.’3*8%.’01&&%$,.-’ &$*8’5,0%’0%0’*&’)+%’-%.,)’/’*$-’.0’’.5’,)0’ $%/’),*.’)’*’)’1)%$,.’’.5’*7’$,’.’5,0)1$4’.(% ,0’6$*4’4/2’.%,)+%$’8*$%’.*$’/%00’)+’.’)+’ 3+,(+’*4)’,.0’,.’*)+%$’.%1$*0%0’B(%6),*.’ 810)’4%’8’5%’,.’)+%’(’0%’*&’6$*0),)1)%0’ ’&&%()%5’3,)+’7%.%$%’/5,0*$5%$0’3+*’’$%

U



C



= a,86$*7=' ℟4%,. .-' *&)%.' F. . ')+%' 09,. ' 4.'' 001 8 %0')+%' =$%-',. 0' . ')1$'/ 3+,/0)' 7'$,*10' =/*('/)%.5%$.%00' ,.')+%'/,8 40$G5,0' 8('0%0' 3+%$%' 0,-. 0' 6$%0%.)')+')')+,0' 4,%7%0' %B)$'*$5,. '$2

.' 3+%)+%$')+%' +20)%$,' +%$%')+%' 5,0*$5%$' ,0' B'/ +%'/)+',0' -* 5'8 '$' 0%5' 0166*0,. -')+')')+%' 662'1.,*.' '$%' &'7*1$'4/%' ('0%0' . 5'%06%(,''//2'3+%.' 0)$*. -' .%1$*),(' +,0)*$2',.' 0>,*1/5' 4%' 5,0(*1.)%.'. (%5' '$8' (' .' 4%' %B6%()%5'&,*8')+%' 40),*' ('$%0'16*.' '*(*.-%.,)''//2' *10'020)%8

' 1CC .

& 3 ' 6 ! 3 M3 + 7'$,%)2' *&',.0'.,)2'8'2'6$%0%.)' ''6'),%.)0' &%')1$%0'3+,(+''$%' (*8' &9.*3.' '.5')%$8%5' 0+20)%$,('/ (+*/,(',.5,7,51'/0'3,/'4%' '&&/,()%5'3,)+' %'/' 6'$'6/%-,'' *$' *)+%$' 6'$'/20%0 ' 3,/' 4%(*8%' (')'/%6),(' *$' '66'$%.)/2' 4.0(,*10')+%$0'3,/'5,06/'2''/')+%'6+%' '%.'' *&' +20)%$* %6,/%602' *)' ,.&$%' %.)/2'5*' 3%'0%%' ''7,*/%.)' *1)41$0)'*&'(1)%' 1'.,'' (1/8,.'),.-'' .5' 0140,5,1-',.' '' 4$,%& 6%$,*5'*&'),8%'$%0%84/,.-',.')+,0' .'*$5,. '$2' ')'(9' *&'0+20)%$,(0<)' 8'2'4%' 5*14)&1/' +*3%7%$'3+%)+%$'+20)%$,('/ ,.0'.,)2'0+*1/5' 4%'/**9%5'16*.' '0' ''06%(,'/'7'$,%)2' *&')+%' 8'/'52')'0%%80'8*$%'(*$$%()')*'/**9'16*.' ,)'0',.0'.,)2'*((1$$,.-',.'+20)%$,('/6')%.)0' '.5'(+'$'()%$,0%5'42')+%'6+%.*8%.''6%(1/,'$')*')+%8' %'8'2'%B6%()'0155%.' (+'.-%0' *&'02836)*80'0155%.'$%/'60%0

$ G +%6$*-.*0,0,0 .&'7*1$'4/%' '0')+,0'&*$8'*&',.0'.,)2',0'&*1.5',.'6'),%.)0' *&'.'1.0)'4/%' .%$7*10'*$-'.,0'),*.'6$*.%')*'&$%E1%.)'5%$'.-%8%.)' 7%.',&'$%(*7%$2')'9%0' 6/'(%' '))'(90' '$%' .*)' 1./,9%/2')*' *((1$0140%E1%./)2

! G 1(+6%$0*.0'4*7%''//*)+%$0' $%E1,$%'8*$'/)$%')8%.)' %5,('/)$%')8%.)' 0+*1/5' 4%' 5,$%()%5')*3'$50')+%',86$*7%; 8%.)'*&')+%'-%.%$'/ +%')/+'$')+%$')+'.')+%' $%8*7'/ *&'06%(,''/02836)*80

U 'A1)$$%6'')+%3*84R = .' &/'88'),*.''*&')+%'3*84' ' 1 !) ,0; %'0%0'*&

U ' G' 9 $'P 3 '_P 'OD ' ℍ %$'P

- G ')%$8'' 66/,%5')*'' &*$8' *&+20)%$,'' *&'1.101'/-$'7,)2')+%' (*.71/0,*.0 ,.')+%,$'7,*/%.(%'$%('//,.-')+*0%' *&'%6,/%602' '.5'(+'$'()%$,0%5'42')+%' *((1$$%.(%' *&'$%; 8'$9'4/%'&*$80'*&'.0%0)+%0,''6'$'/20,0'.5' (*.)$'()1$%'*&'8 10(/%0 , $,* *'2 G +%'(*.5,),*.',0' *.%' 3+,(+' 8 10)'4%'(/'00%5'3,)+'+20)%$,''' .5'.*)' 3,)+' %6,/%602''.5')+%'(,$(180)'.(%0'3+,(+')%.5')*')+%'6$*51(),*.'*&')+%'&*$8%$' 5,0%'0%' '$%' +%$%'%E1''//2'6*)%.)' ' ! ' F <&< ; ',0')*')+%' $%.(+'0(+**/' '.5'%06%(,''//2')*' $*&%00*$' +'$(*)'*&' '$,0')+'}'3%*3%')+%' 8*0)',8; 6*$)'.)'5%0($,6),*.0' &)+,0'5,0%'0%' 3+,(+' 3*1/5''66%'$')*'4%' 8*$%'(*8 8*.'*.')+%' *.),.%.)')+'.',.' .-/'.5' +%'02 8 6)*80' 8'2'4%' 5,7,5%5',.)*,G A8℟ ' '.5'A<℟ "

' G *.71/0,7%' 0%,C1$%0' *((1$' 6$%(%5%5'42'.'+20)%$,('/ '1$''A'45*8,.'/ *$'%6,-'0)$,(℟'3+,(+'101''//2'-,7%0')+%'6'),%.)'),8%/2' 3'$.,.-'%.*1-+')*'%.'4/%' +%$')*' 6/'(%' +%$0%/&',.''6*0,),*.'*&'0'&%)2' +%.' +%$%' ,0''0+$, 9')+%'&'(%' ,0'6'//,5''.5'0+%' &'//0'A6%$+'60'3+,/0)'%.5%'7*+$,.-')*' E1,)')+%' $**8℟')+%' &%')1$%0'4%(*8%' 5,0)*$)%5' '.5')+%' /,840'6'00',.)*' '' 0)')%*&')*.,(' $,-,5,=' +%$%' ,0'&*'8,.-''')+%' 8*1)+' 0*8%),8%0')+%')*.-1%',0'4,))%.'.5'.5')+%$% 8'2'4%'0*8%'(/*.,('%*+71/0,*.0'3,)+'/,7,5,)2' *&'&%')1$%0' U%/'B'),*.'*&')+%' 810(/%0'.5' ''8*$%' *$' /%00'(*8')*0%' (*.5,),*.'01((%%5')*' 4%' &*//*3%5'0+*$)/2'+*3%7%$'42'(*.)*$;),*.0'.5'-%0),(1/'),*.0' *&' ''7,*/%.)' (+'; $'()%$'(*'$0%/2'01--%0),7%*&')+%',.&/1%.(%*& 7'$,*10'6'00,*.0G=3$')+' &%'$' 5,0-10)'/10)' $')+%$%' 8'2'4%' 8%'.,.-/%00'3$,)8.-0'6$%; 0%.),.-'' /15%*10'06%()' *')+,0'6+'0% 0*8%),8%0'01((%%50'+'//1(,.'),*.'*&'7,0,*.' *$'*&'+%'$,.-' ')0'.5'0%$6%.)0'.5')*+%$' *4>%()0'*&'+*$$*$'$%'0%%.' +%')')'(9'%.50' 3,)+'0*40' *$' +20)%$,('/ /'1-+)%$' +%$%' 8'2'$%8',.''')%86*$'$2',.'4,/,)2')*' %86)2')+%'4/'55%$'*$')*'03'//*3'&**5 *.71/0,7%'0%,C1$%0'*&),0'(* *$5,.')%5'*$' 61$6*0,7%'(+'$'()%$'/)+*1-+'81(+'8*$%' (*88*.',.')+%'&%8'/%')+'.')+%'8'/%'0%B' '$%'42'.*'8%'.0'(*.,.&$%5')*')+%'&*$8%$' +%'(*.5,),*.',0'.*)',.&$%E1%.)/2'*40%$7%5' ,.'4*20ℍ/%0'*&)%.',.'8%.' .')+%/')%$')+%$%',0'101'2')+%'+,0)*$2'*&'0*8%'-$%')' 8*$'/0+*(9'.)%(%5%.)')*')+%'&,$0)' *1); 4$%'9

.'6'),%.)0'/,'4/%')*'))'(90'01(+''0'+'7% 4%%.'5%0($,4%5',)',0'.*)'1.(*88*.')*'&,.5''' ' *&'*.%'*$' 8*$%'/,840' +,0' 8'2'001 8%')+%' # 0 ' *$' 0 ' &*$8ℍ'.5',)'8'2'4%'*&''6'00,.-'(+'$'()%$ /'0),.-''' &%3'5'20'*./2'*$'%.51$,.-'&*$ 8'.2'2%'$0' +%'')),)15%'8'2'4%'%,)+%$)+')'*&'$,-,5'&/%B,*.''*$'%B)%.0,*.ℍ'.5',)',0' &*1.5')*'$%8',.'51$,.-'0/%%6'*./2'$%/'B,.-' ,85%$')+%'6$*&*1.5'%&&%()'*&'(+/*$*&*$8' .'$(*0,0' +%'/,84'0*''&&%()%5'5*%0'.*)' 01&&%$',.',)0'.1$,),*.''.5')+%'$%'(),*.'*&')+%'810(/%0')*'%/%()$,('/(1$$%.)0'$%8',.0' .*$8'/

),%'66$*'%+'/$,'6'10%''U'),*.'/'0),..'('0%''-',.')+%'6$%7,*10/2'0%.')'%7,5%.(%'*&''*0%.)+'/'.'5'/%&%(),7%'%/%()$,('/155%.',.)%$$16),*.'&%.)',.')+%'(%$%4$'/)+%'0,5%'W3+,(+',0'UR'02 8 6)*8 0'.')+%'&%'%B6%$,8%.)'3'0'&*/'6%',8 6$*7%8%.)',.')+%

/%0'*&'+20)%$*%6,/%602'\R''.2')$%')8%.)'42'5$1-0'W,8 6$%00,*.0'%06%(,'//2'&=''.5,..-',.&/1%.(%',.')+%'1)''$%'8*$%'6*)%.)'+'.'='4$,.-,.-'4*1)'$%(*7%$2'7'20')+')')+%0%'(''.'4%'4$*1-+)

)*'4%'$'')',0'5%0,$'4/%')+%$%&*$%')+')',.'01,)'4/%'('0%0')+%',.&/1%.(%'*&')+%'8%'01$%0'>10)'5%0($,4%5'0+*1/5'4%')%0)%5'.'('0%0'*&(*.71/0,*.')0)$*.-'6$%001$%'0+*1/5'4%'8'5%16*.')+')'*7'$,'.'$%-,*.',.'3+,(+')%.5%$;.%00',0'5,0(*7%$%5'.'%B'8 6/%0'*&(*.)$'(;)1$%''.5'+%8,'.0%0)+%0,'''.'66(')','*.'*&8%)'//,('6/')%0'*&'7'$,*10'9,.50'8'2'3%//'4%8'5%')*')+%'09,.'*&')+%''&&%()%5'0,5%

%$2'10%&1/'%&&%()0''$%'*&%.'6$*51(%5'42')+%''66+(''),*.'*&'0)$*.-'&'$'5,(' (1$%.)0'3+,(+'8'2'$%E1,$%')*'4%'6%$0,0)%5',''%$%'.2',.&/1%.(%',0'6$*51(%5' /,0)%$0'&&/0*'$%6%')%5'%7%$2')+$%%'*$'&*1$'5'20''$%'*(('0,*.'//2'7%$2'10%&1/',.'('10,.-')+%'$%/'B'),*.'*&''(*.)$'()1$%5'/,84''.5')+%'$%)1$.'*&'0%.0,;4,/,)2')*''.''.%%0)+%),('09,.U%8*7'/'*&')+%'6'),%.)'&$*8')+%'&,8,/2'(,$(/%''.5')+%&0*(,%)2'*&'&$,-+)%.%5'*$'0282;6')+,0,.-'&$,%.50',0',.'8*0)'('0%0''''T''"'*&'01((%00&1/)$%')8%.)

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&&% %%+! 3' 25' 61$,&*$8'=`'))%$H''.5'*)8')+%'4/**5?&'8*$4,5'(*.5,),*.'*&')+%'4/**5'('10%5'#')+%'40*$6'K),*.'*&'0%6),(' 8')%$,'/0'':¢'.5'(''!

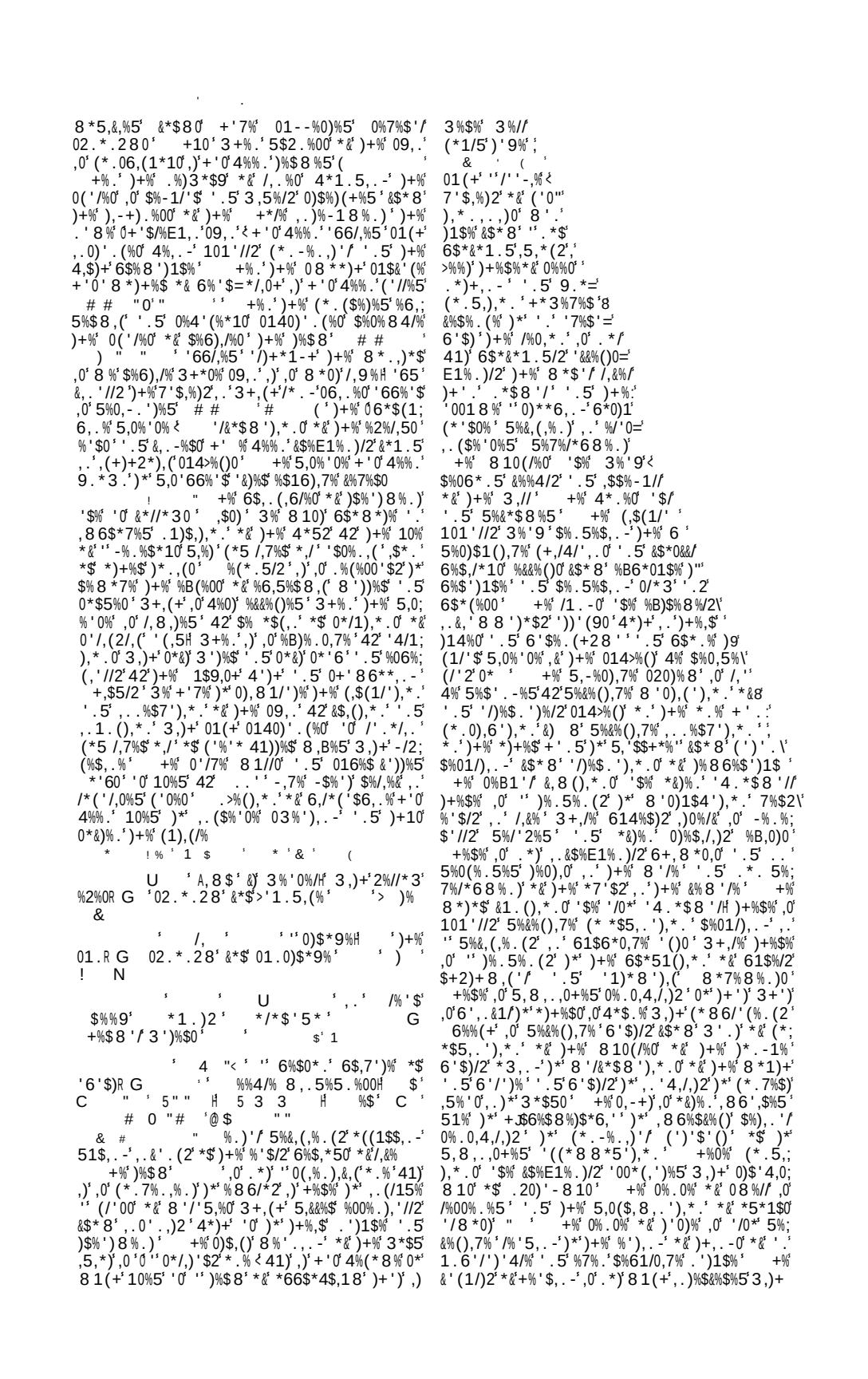
&% % ! !' D1- K#'&,0+%('/%R''',0+09,.',0%'0%H$'##g%$'.##)"#D

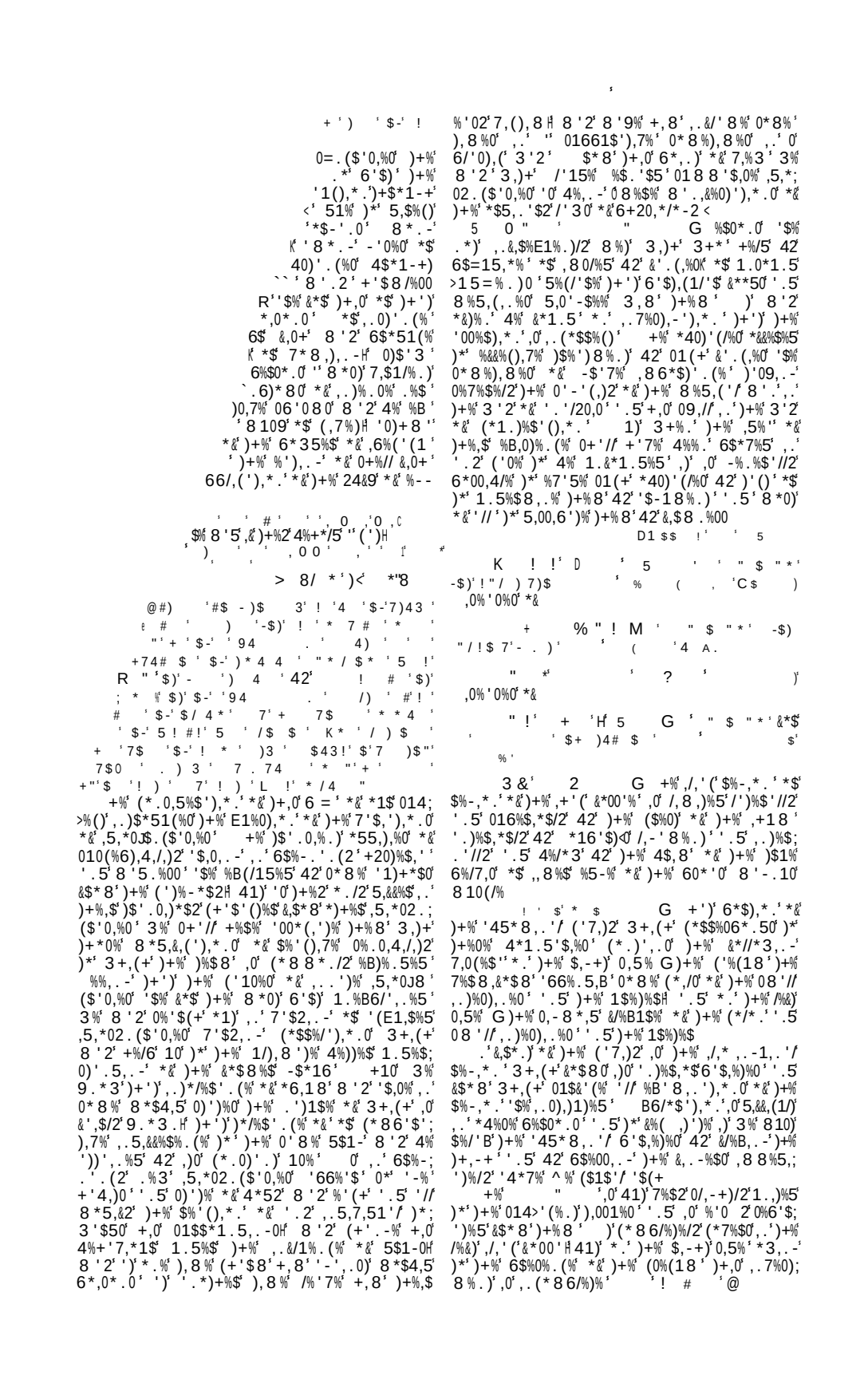
&#G'5,0%'0%'3+,(+'+'0*4)',.%5',)0'.'8%'&$*8')+%'5,7,0,*.'*&')+%'(1),(/%',.)*'6*/2-*.'/'6/')%0'0*8%3+')'/,9%')+%'0('/%0'*&')+%'&,0+''/)+*=+'.'*'*7%$/'66,.-'%B,0)0'+%'09,//',0'5$2'5,-,5'$*1-+''.5'-$%2,0+-$%%.'0*&)%.'*&')+%'+1%'*&')+%'166%$'01$&'(%'*&')+%')1$4*)H''.5')+%'(1),(/%'%B&*/,')%0',.'0*8%6/'(%0''0'51%)',.'*)+%$0''0')+,.'0+,.,.-'/'8,.0%'/,9%'8,('''*$'4$'.

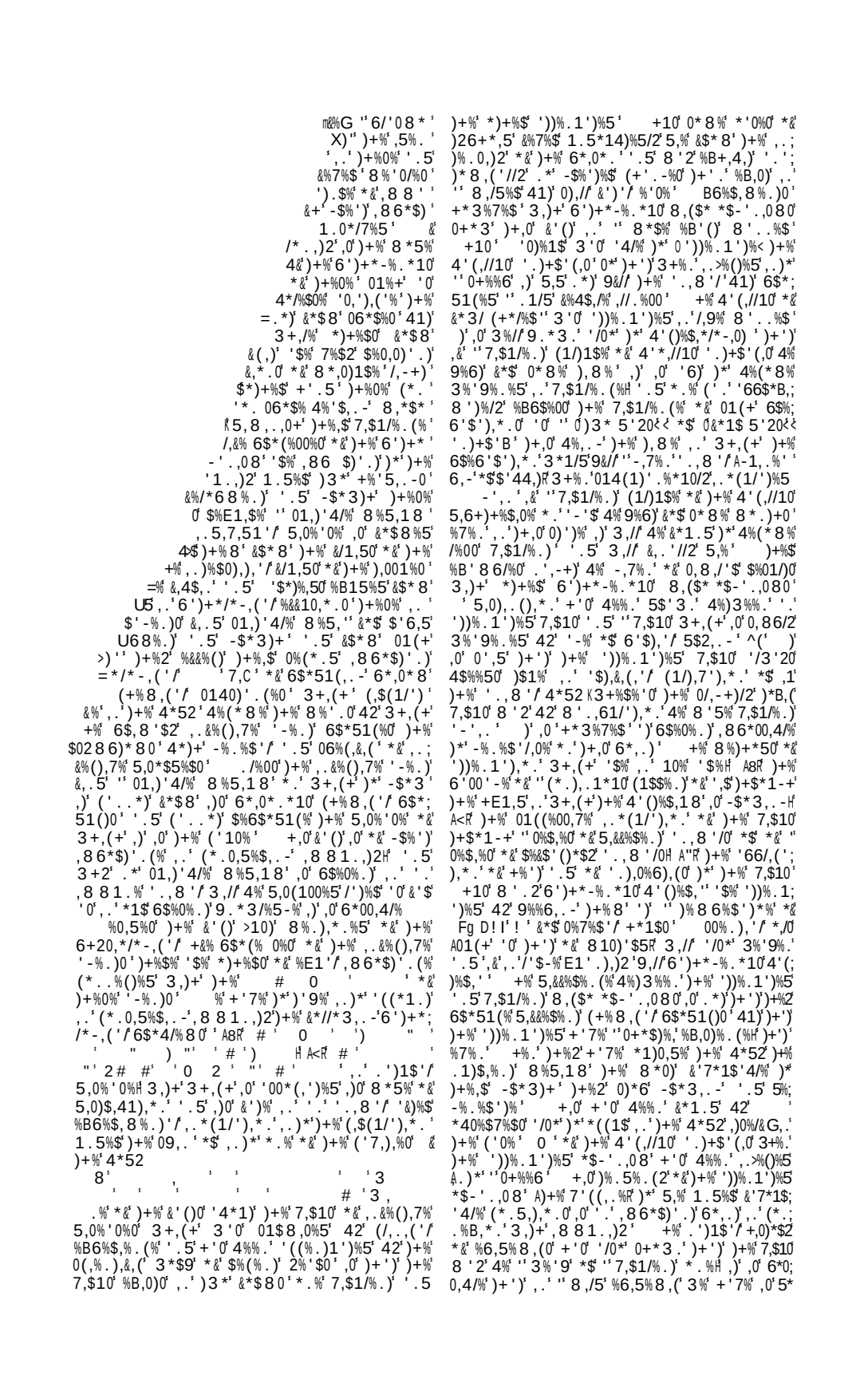
&&,,G(+)+2*0,0'8'2'4%'$%-'$5%5'''0''5%&%()'*&'5%7%/*68%.)'*&')+%09,.'101''//2'+*3%7%$''66%'$,..-'0*8%'8*.)+0'&)%$'4,$)+'.'$'$%',.0)'.(%0',)'+'0''$,0%.',.''51/)0''/%0''$%''&&%()%5')3%.)2',8%0''0'*&)%.''0'&%8'/%0'%$%5,)2'0*8%),8%0'*4)',.0'+%'5%-$%%'*&',)0'8'$1&%0)'),*.'8'2'5%6%.5'*.'7'$,*10'(,$(180)'.(%0'%06%(,'//2')+*0%'$%;/'),.-')*'0('.)2'&**5'.'5'3'.)'*&'(/%'./,.%00')'8'2'4%'$%-'$5%5''0'%.5%8,('.')+%'*;/1((''0/'.50

)#'%G=+%(1),(/%',0''4.*$8'//2'(*6,*10H')+%'&,4$*10'),001%'*&')+%'5%$8'',0'(*.5%.0%5H')+%'6'6,//%%'$%'%./'$-%5''.5'/%.-)+%.%5''.5''$%'0*8%),8%0'6')*'4/%%5'*.'0/,-+)',.>1$2H')+%'$%*/'$'/'2%$',0'/'B'.'5'&%)/%00''.5')+%'3+*/%',.;)%-18%.)'3'.)0'01((1/%.(%''.5'%/'0),(,)2'1$)+%$')+%'(1),(/%',0'+'$5'.'5'4$,))/%')+%',.*&-'.,(''8'))%$'4%,..-',.($%'0%5'&*1$&*/5''.5',)'6$'(90'/*.-')+%'/,.%0'*&'8*),*.'3,.9/%0'*&')+%'0/8H')+%'&$'-8%.)0'4%,..-'6*35%$2'6*.')+%.%(9'&$*.)'*&')+%')$1.9''.5'&/%B1$%0'*&')+%'>*,..)0''.-1/'$''.5'6$*;8,.%.)'*.')+%,$'%B)%.0*$'06%()0''.5'08**)+'.5'6*/2+%5$'/*.')+%$%0)'*&')+%/,840'+%&*/+(/%0'$%&,//%5'3,)+'5$2'%6,)+%+18'.5'0%418'3+,(+',.'*)+%$'6/'(%0'8'2'(*.($%)%'.5''55')*')+%')+,(9.%00'*&')+%'($10)'+%09,.'0''3+*/%'&*$80'(*'$0%'3$,.9/%0''.5'&$*8')+%'/'B.%00'*&')+%'014(1)'.%*10''$%*/'$),001%',)'8*7%0'&$%%/2'*7%$')+%'&'0(,''+%*,/2''.5'0*8%),8%0')+%'E1%*10'0%($%),*.0'$%'0(''.)2''.'1.6/%'0'.)'*5*1$',0'*&)%.'%B;+'/%5''.5')+%')$'.06'$%.(2''.5'/10)$%'*&)+%'+%'/)+2'9,.'$%'3'.),.-'+%'+%'/)+',0'101'//2'-**5'41)'('$5,'(''+26%$)$*6+2'+'0'4%%.'.*)%5'+%'(*/5'*&'3,.)%$',0'&%/)'0%7%$%/2''.5'5%')+'*&)%.'$%01/)0'&$*8'61/;8*.'$2'(*86/,.)0

#'G(+)+2*0,0'7'$,%0''((*$5;,.-')*'0,)%'.')+%'/,840',)',0'8*0)'028;8%)$,('/''.5')+%'0('/%0'$%'/'$-%)H*.')+%+'.50''.5'&%%)')+%'(1),(/%',0'+*$.2''.5')+%$%'$%'5%%6'3$,.9/%0H''.5'*.')+%'&'(%')+%'5%;)'(+%5'%5-%0'*&')+%'6/')%0'('10%'-$%')'$*1-+;.%00''.5')+%'(*86/%B,*.',0'/)%$%5')*''',4$,(9$%5''$,%),%0'$%'/0*'6$*51(%5'42')+%'8*1.)'*&'0%418'3+,(+'8'2'&*$8'%,)+%$)+,(9'0('/%0'*$'6$*>%(),.-'06,.%0'1(+







E1%0),*.'*&',8 8 1 .,)2',.')+%8'8 10)')+%$%&*$%'
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6$%0%.)'0)')%'*&'9.*3/%5-%''0')*' 3+2'.,8'/0'
5*' .*)' -%)' (+*/%$'' *$)26+*,5' &%7%$' .'
*)+%$0'+*3%7%$')+%' 7,$10' ,0' 9.*3.''.5',.'
0*8%'3%//'0)15,%5' 6%(,'/',.)%$%0)')'(+%0'
)*')+%'E1%0),*.'*&',8 8 1 .,)2',.')+*0%'5,0%'0%0'
3+,(+'$%'.')1$'/'5,0%'0%0',.'4*)+' 8''.''.5'
K'.,8'/0'*$ 3+,(+' $%' .')1$'/' 5,0%'0%0',.'
8'.''.5'3+,(+' $%',.&%(),7%')*' .,8'/0'42'
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*0,),7%'$%01/)0' '$%'*4)',.%5'3,)+'7%$2'/'$-%'
5*0%0',.>%()%5',.)*')+%' 6%$,)*.%'/' ('7,)2'
&"# (''' .')1$'/5,0%'0%',.'*B%.'0+%%6'
'.5',.'8'.',0'*40%$7%5' '/0*' ,.'6,-0'-*')0'
'.5'+*$0%0H 41)'%B6%$,8%.)'+'0'0+*3.')+')'
'51/)'3+,)%'$')0' /-%$,'.'0+%%6'5*-0''.'5'
6,-%*.0' '$%'5,&&,(1/')*' ,.&%()'.'5''$%',.'&'()'
$%&$')()*$2')*')+%' 5,0%'0%' *' # # '''
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)+%$,[' *' # '.*'.',8'/'('.'4%'0',5')*'
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-1,.%'6,-0'41)',0'.*)'0*' '(),7%',.'$'44,)0'
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7'$2,.-'5%-$%%'42')+%'0%7%$'/''.,8'/0'('//%5'
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4'(,//10')%)'.')+%2''$%',8 8 1.%')*''/%00'
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&')'/'3+,/%''08'//'5*0%'3,//'6$*51(%''8,/5'
,//.%00'%.5,.-',.'(*86/%)%'$%(*7%$2' 51)'
3+,)%'$')0''$%'$%&$')()*$2')*')+%'4'(,//10'.'
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.184%$'4%',.*(1/')%5'3,)+''7,$1/%.)'7,$10'
/%00')+'.'+'/&'3,//'5,%'*&')+%'5,0%'0%')+%'$%;
8',.5%$'0+*3,.-'*./2''6'00,.-',//.%00'*$.*'
,//.%00''')' '//' .-%*.0')**' ('.'4%'9,//%5'
3,)+')+%'4'(,//10''/)+*1-+'8'.2'01$7,7%''.5'
0+*3''/%0,*.''')'+%'0,)%'*&',.*(1/'),*.'')'
,0''09%5'K +')',0')+%'$%'0*.'*&')+,0',8 8 1.,)2'
G 3+')'6+20,*/*-,('/5,&&%$%.(%',0')+%$%'4%;
)3%%.')+%'(*3''.5')+%'5*-')+')'.)+%'&*8%$
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*$'4%)3%%.')+%'2*1.-'$')''.5')+%''51/)'3+,)%

$')')+')+%'&*$8%$''(E1,$%''.)+$'B''.5')+%'
/'))%$'.*)'J'*$)+')'' 3%// 4$%5'6,-',0'010(%6;
),4/%')*'03,.%%$20,6%/'0''.5''' 8*.-$%/'$%;
&$'()*$2']' +%',.7%),-'),*.'*&')+%0%'&'()0'
,0')+%'#*,.)*&')+%'E1%0),*.'1.5%$'5,0(100,*.=
'.5'+'0'/%5')*')+%' 5,0(*7%$2'*&',8 6*$)'.)'
&'()0'4%'$,.-'*.',8 8 1.,)2')*' 5,0%'0%
@' & T ' " G .' 8'.')+%$%'
,0'6%$+'60'0*8%'%7,5%.(%')*'0+*3')+')'*.%'
'))'(9'*&''.',.&%(),7%'5,0*$5%$'6$*)%()0'0')+%'
,.5,7,51'/'-',.0)'0140%E1%.)''))'(90H 41)'
)+%')$1)+',.')+%'8'))%$',0'5,&,(1/)'*'0;
(%$)',.'*3,.-')*')+%'40%.(%'*&'(*$$%()'$%;
(*$50' +%$%',0'.*'5*14)')+')'.''))'(9'*&'
08' 6*B',0'6$*)%(),7%''0')+%'$%01/)0'*&')+%'
.*3'*40*/%)%',.*(1/'),*.'0+*3%5')',0'+*3;
%7%$''.'00186),*.')+')'*.%'))'(9',.'%7%$2'
('0%'*&''.',.5,7,51'/'5,0%'0%'(*.&%$0',8;
8 1.,)2' +%$%',0',.5%%5'0*8%'%7,5%.(%')*'
0+*3')+')'.'))'(9'*&'%$20,6%/'0'*$'*&')14%$;
(1/*0,0'.*)'*./2'5*%0'.*)'(*.&%$',8 8 1.,)2'
41)'()1''//2'6$%5,06*0%0')*'0140%E1%.)')'))'(90'
1)',0'6*.)'*&'7,%3''*&')+%'014>%()',0'0*'
+%5-%5'42'5,&&,(1/),%0')+')'/,))/%'-**5'3*1/5'
(*8%'&$*8''5,0(100,*.'*&',)')'3,//'4%'4%0)'
)+%$%&*$%')*'6'00'.')*')+%'E1%0),*.'*&',8;
8 1.,)2'(E1,$%5'%B6%$,8%.)'//2' +%'4'0,0'
*&'8*0)'*&')+%'%B6%$,8%.)0'6%$&*$8%5',0')+')'
.')'))'(9'*&''5,0%'0%'6$*)%()0''-',.0)''014;
0%E1%.)'))'(9''.5')+')'')'/)+*1-+')+%'&,$0)'
'))'(9'8 10)'4%'8,/5',)'8 10)'.*)'4%')*'8,/5'
$'.*'6$)%(),*.',0'&/&*5%5')'3,//'.*)'4%'
)**'8 1(+')*'0'2')+')'//'$%(%.)'%B6%$,8%.)0',.'
,8 8 1.,)2'+'7%'4%%.'4'0%5'*.')+%',5%''*&')+%'
6$*)%(),*.'&&*$5%5'42'7'((,.'),*.''-',.0)'
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@# ' ?6) ") '
"'# '4%%.'(/',8%5')*'+'7%'4%%.'
6%$&*$8%5'42')+$%%'(/'00%0'*&'6$*51()0G
A8R'42')+%' " ') '*&')+%'5,0%'0%H
A<R'42')+%'# ' '*&')+%'7,$10'
*$'6$,8'$2',.&%(),7%''-%.)H A"R'42'# '
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) G +%$%'$%'.*3'0%7%$'/'%B'86/%0'*&'
+,0'9.*3.')*'%B6%$,8%.)'/'0(,%.(%' +%'
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4'(,//10'.)+$'(,0'3+%.''))%.1')%5'8'2'4%'
4)',.%5''0',.')3'9,.50'*&'7'((,.%'(/%5'
'.5' (') "' +%' '
) "',0',.>%()%5'014(1)'.%*10/2',.'0+%%6'
'.5',0'&*//*3%5''&)%$'.',.)%$7'/'42')+%',.>%(;
),*.'*&')+%'8*$%'6*3%$&1/' (3 ' +%'
'.,8'/',0''&)%$''),8%'41)'.*)',8 8%5,')%/2'
,8$.,8%'-',.0)''.)+$'B''.5')+%',8 8 1.,)2'
/'0)0'6$*4'4/2'...,%'*$')%.'8*.)+0' +%'
(+'.-%0'3+,(+')+%',.*(1/'),*.'6$*51(%0'3,//
4%'5,0(100%5'/')%$' '0)%1$'0,8,/'$/2'))%.1;
')%5')+%'4'(,//10'*&'&*3/(+*/%$''.'5')+10'
8'.1&'()1$%5''7'((,.%'-',.0)')+%'5,0%'0%'
)'+'0'.*)'4%%.'&*1.5'6*00,4/%')*''))%.1')%'
)+%'7,$10'*&'//'5,0%'0%0'0*)+')''7'((,.%('.'
4%'6$%6'$%5' +%')%.1')%5'(1/)1$%0'*&')+%'
4'(,//10')%)'.,'5*.*)'(*.&%$',8 8 1.,)2'-',.0)'
0140%E1%.)',.*(1/'),*.'0'*&'7,$1/%.)'(1/)1$%0

Q*&')+%' 4 ' (,//10H $ ' 44,)0' + * 3 %7%$' + ' 7% 4%% .' 8 ' 5%' , 8 8 1 .%' 42' , . >%() , . -') +%' 4 ' (,//10' . 5')$%') , . -') +%' ' . , 8 ' /0' 0 . 40%E 1% .)/2' 3,) +') $, ; (+/*$,5%' *&' ,*5, . %' +,0' 0140)' . (%' 6$%7% .)0' L)+%' &') ' /' $%01/) ' 41)' '6>#%' $0') *' ' //*3') +%' 4 ' % /10') *' -$*3' 01&&, (%.)/2') *' 6$*51(%' , 8 ; 8 1 . ,)2 ' , VC* . ' . ' . 5' ') ' . . ' 1), /, 0, . -') +%' &' ()') +') ' 5*-0' . 5' 6, -%* . 0' $%' $%&$' ()*$2') *')%) ' . 10' *4) ' , . %5' ''7' ((, . %' &$* 8') +%' 4/**5' *&') +%0%' ' . , 8 ' /0' ') +%2' + ' 5' 4%% . ' , . *(1/') %5' 3,) +') +%' 4 ' (,//10' %) ' . , ' 3 +, (+' 6$*51(%5' ' . ' ,// . %00' 41)' + ,0' 7 ' ((, 6%' 3 ,// 4%) +%' 014>%() ' *&' &1$) +%$' (* . 0,5%$ '), *. ' +%' 4 ' (,//10' 5,6+) +%$, [' 3 +, (+' + ' 0' 4%% . ' ')) %. 1 ') %5' 0, 8 6/2' 42') +%' 0 ' *&') +%' (1/) 1$%' 5*%0' . *) ' ' () ' 0' ' ' 7 ' ((, . %' $, %-%$' ' . 5' $. (+%/' + ' 7% ' +*3%7%$ ' &*1 . 5') +') ' ') +$%% 3%%, 0 */5' 4$*) +' (1/) 1$%' *&') +%' 4 ' (,//10=' 3 +%. ' 3 ' $8%5') *' D ! g M ! [' 6$*) %() 0' -1, . %' 6, =0' ' - ' , . 0) ' ' 0140%E1% .)' , . *(1/'), *. ' *&') +%' 7, $1/%.)' 4 ' (, /; /10 ' 6$*7,5%5') +') ') +%' 0%(*. 5' , . *(1/'), *. ' 5*%0' . *) ') ' 9%' 6/' (%' $8), /' &*1$) %% . ' 5 ' 20' &) %$') +%' &,$0) ' %+$, . -' ' /0*' *4) ' , . %5' ''5,6+) +%$, ''7 ' (; (, . %' 42' -$*3, . -') +%' 4 ' (,//10' 3,) +') $, (+/*$,5%$ *&' , *5, . %' 2' 5, &&%$%.)' 8 %) +*50') +%$%&*$%' ' . ')) %. 1 ') %5' 7, $10' (' . ' 4%' *4) ' , . %5' 3 +, (+' 3 , //' ( ) ' 0' ' ' 7 ' ((, . %' +%' 8 %) +*5, %8 6/*2%5' 42' '0) %1$' &*$*4) ' , . , . -' ' . ' ')) %. 1 ') %5' 7, $10' *&' +25$*6+*4, '' , 0' 5%0($, 4%5' %/0%3+%$%' '

(A@R' 5 ' " ' # ' # ' # &T ' < & ' ' #D') ' ' ' " / ' 0 " G +%$%' '$%' '' &%3' %B' 8 6/%0' 3 +, (+' 0+*3') +') ') +%' (+%8, (' / 6$*51() 0' *&') +%' 7, $10' 8 ' 2' '&&*$5' '' (%$) ' . ' ' 8 *1 .) ' *&' 6$*) %(), *. ' ' - ' , . 0) ' '' 0140%E1% .) ' , . *(1/'), *. ' *&') +%' 7, $1/%.) ' 7, $10' +10' 3,) +' ' .) +$' B') +%' 4 ' (,//10' 3 ' 0' -$*3 . ' , . ' 0*/1), *. ' . ' 5' 9, //%5' 42' +%') H') +%' 0*/1), *. ' $%8 ' , . , . -' ' () %5' ' 0' ' ' 7 ' ((, . %' ' - ' , . 0) ' ' .) +$ ' , B' A *100' , .) ' +' 1 ' 7%' 1R' , 8 , /' $/2' 3 ,) +') +%' 4 ' *, 10' 62*(2' . %10' A) +%' 4 ' *) %$, 18' *&' 4/1% 610R' ' . 5' 3 ,) +') +%' 7, 4$, *' (+*/%$ [' 0, '), ([' +%' 6$*51() 0' *&') +%' 4 ' (,//10') %) ' . ' (' . ' 0%$7%' 0' ' ' 7 ' ((, . %' , &') $%') %5' 42' +%') ' 1/) 1$%0' *&') +%' 4 ' (,//10' '$%' &, /) %$5') *' $%8*7%') +%' 8, ($*' *$-' . , 08' ' . 5' 0140%E1% .) /2' +%') %5') *' 4%) 3%%. ' F ! g' . 5' D ! g' H 3 +%. ') +%' /, E1, 5' , 0' $%6%') %5/2' , . >%() %5' , .) *' $' 44,) 0') +%' ' . , 8 ' /0' '$%' $%. 5%$%5' , 8 8 1 . %') *') +%' 5, 0%' 0%' A '&, /' $5R' . 0) %' 5' *&' +%') ' ' 0*/1), *. ' *&' , *5, . %' 8 ' 2' 4%' 10%5') *' 3%' 9%. ') +%' 6*, 0*. ' *' +*- (+*/%$' ') +%' , . &%() , 7%' ' -%.) ' *&' 3 +, (+' , 0') +%' 3 ' ' , 8 8 1 ; . ,) 2' 8 ' 2' 4%' 6$*51(%5' , . ' $' 44,) 0' 42' +%') , . -') *' 4%) 3%%. ' D g' . 5' F ? g' ') +%' 4/**5' *&' . , 8 ' /0' /*//%5' 42') +%' 8, ($*' *$-' . , 08 ' ') ' , 0' 6$*4' 4/%' , . ') +, 0' ('0%') +') ') +%' 7' ((, . %' , 0' $%' //2') +%' (+%8, (' / 6$*51() 0' *&') +%' (*((*4' (,//10' . ' 8 ' . 2' , . 0) ' . (%0' *&' (+%8, (' / 7' ((, . ') , *. ') +%' 7' ((, . %' , 0' , . '5%E1') %' ' . 5') +%' , . >%() , *. ' *&' 7' ((, . %' , 0' , . '5%E1') %' ' . 5') +%' , . >%() , *. ' *&' 7' ((, . ') , . -' &/1, 5' 8 10) ' 4%' $%-1/' $/2' 6%$&*$8%5' 4%&*$%' 6$*) %() , *. ') ' - ' , . 0) ') +%' 5, 0%' 0%' , 0' *4;) ' , . %5') ' + ' 0' 4%%. ' 0) ') %5') + ') ' *. % (/' 00' *&' 4 ' 0) %$, ' / 6$*51() 0' 7, C ' ' /4, 1 . *0%0' , 0' 7%$2' Q%&&, (, %.) ' 0' ' < 7 ' ((, . %' 41)') +, 0' + ' 0' . *) ' 4%%. ' Q (*. &, $8%5

A"R' 5 " ' ' ' ' # ' " ' ' " # ' *. E&3 = *0)' *&') +%' &') (0' '0(%$) ' , . %5' 1. 5%$') +, 0' +%' 5, . -' ' $%' 0), /' 014' < '41)') +%2' 6$*8, 0%' ' ' &, 8,) &' / &, %/5' &*$' , . 7%0), -'), *. ' **/5$, 5-%' 0+*3%5') +') ' 0*8%' 6$*) %(), *. ' , ' $' 44,) 0' 3 ' 0' '&&*$5%5' ' - ' , . 0) ' ' .) +$' B' 42') +%' , .) $' 7%. *10' , . ; >%() , *. ' *&' '' 0*/1), *. ' *&'), 001% &, 4$, . *-%. ' ' ' 6%(1/, '$ &*$8' *&' -/*41/, . ' *4) ' , . %5' &$*8' (%$) ' , . '), 001%0H ' . 5') +') ') +, 0' %&&%() ' *&' 6$*;) %() , *. ' 3 ' 0' , .) %. 0, &, %5' , &') +%' 4 ' (,//10' ' .) +$' (, 0' 3 ' 0' 6$%7, *10/2' -$*3 . ' '' 0+*$) ' , 8 %' , . ') +%' 0*/1), *. ' *&' &, 4$, . *-%. ' ' . 5' $%8*7%5' 4%&*$%') +%' 0*/1), *. ' 3 ' 0' 10%5' ' 0' '' 7 ' ((, . %' +%0%' %B6%$, 8%.) 0' 3 [$%') +%' 0) '$), . - 6*, .) *&' 8 ' . 2' *) +%$0' 3+, (&/==%. 5%5') *' 0+*3') +')) +%$%' %B, 0) %5' '' (/' 00' *&' 4*5, %0' 6$*7, 0, *. ' //2' (' //%5' 05%&%. 0, 7%' 6$*) %, 59< 3+, (+' 3%$%' 7 ' (; (, . %0' &*$', . 5, 7, 51' / , . &%() , 7%' 5, 0*$5%$0' +10' %B6%$, 8%.) 0' + ' 7%' 4%%. ' 6%$&*$8%5') *' 0+*3') + ')) +%$%' 4/**5' . 5' 06/%%. ' *&' ' . , 8 ' /0' . ') 1); $' //2' $%&$' ()*$2') *' '' 5, 0%' 0%' (*.) ' . ' (+%8, (' / 4*5, %0' A0&%$8%.) 0' < *$' 06$4) %, 50' R' ('6'4/%' *&' 7 ' ((, . '), . -' ' - ' , . 0) ') +%' 5, 0%' 0%' +%' 4/**5' *&') +%' 5*-' ' . ' ' , 8 ' / $%&$' ()*$2') *' ' .) +$' B' 0 ' + ' 0' 4%%. ' 0' , 5') *' (*.) ' , . ' '' 0&%$8%.) ' < 3+, (+' , 0' ' 7 ' ((, . %' ' - ' , . 0) ') +%' 4 ' (,//10' ' .) +$' (&0H ' . 5') +%' 06/%%. ' *&') +%' $') ' 3+, (+' , 0' ' /0*' $%&$' ()*$2') *') +%' 0' 8%' 5, 0%' 0%' , ' 0' , 5') *' (*.) ' , . ' ' 7 ' ((, . '), . -' -/*41/, . ' +%0%' %B; 6%$, 8%.) 0' + ' 7%' . *) ' 4%%. ' (*. &, $8%5) ' . 5') +%' 7 ' ((, . '), . -' , . &/1%. (%' *&') +%0%' 4*5, %0' , 0' 7%$2' 0/, -+) ' , &' ,) ' %B, 0) 0' ') ' //

+' . -%0' *((1$$, . -' , . ') +%' . , 8 ' /' *52') +%' U%01/) ' *&' . *%1/'), *. +%' , . >%() , *. ' *&') +%' ')) %. 1 ') %5' 7, $10' *$' *&') +%' 4 ' () %$, ' / (+%8, (' / 6$*51() 0' 6$*51(%0' ' 5%&, ; . ,) %' , // . %00' 3+, (+' , 0') $' . 0, %.) ' ,) ' (*. 0, 0) 0' , . ' ' $, 0%' *&' 4*52) %86%$') 1$%' / ' 0) , . -' ' 7 ' $, '4/%'), 8%' . 5' ' ' &%3' -%. %$' / 02 8 6) *8 0' 5%0($, 4%5' '0' 8 '/', 0%' . 5' / ' 00,) 15%' 4 ' +%' , .) , 8 ') %' (+%8, (' / (+' . -%0' '$%' 41)' /,)) /%' 9. *3. R * 8%' *&') +%' %B6%$, 8%.) 0' 3+, (+' +' 7%' 4%%. ' 6%$&*$8%5' '$%' +*3%7%$' . *) ' 3,) +*1) ' , .) %$%0) ' 8 8 1 . ,) 2') *') +%' 4 ' (,//10') %) ' . ' , +' 0' 4%%. ' (*. &%$$%5' *. ' $' 44,) 0' ' 0' 6$%7, *10/2' 0) ') %5' 42') $%') , . -') +%' ' . , 8 ' /0' 3,) +') $, (+/*$, 5%' *&' , *5, . %H') +%' ' . , 8 ' /0' 3%$%' 0140%E1%.) /2' , . *; (1/') %5' 3,) +') +%' 4 ' (,//10' +%' 4/**5' 5$' 3. ' '&) %$' 0*8%' 5' 20' &$*8') +%' ('$*), 5' '$) %$2' 3 ' 0' &*, 85' . *) ' *. /2') *' (*. &%$' , 8 8 1 . ,) 2' ' - ' , . 0) ') +%' 4 ' (,//10') %) ' . ' , ' , . ' 8, (%' 3+, (+' '$%' 7%$2' 010(%6), 4/%') *') +%' 5, 0%' 0%' 41)') *' 5%0) $*2') +%) %) ' . 10' (+%8, (' / 6*, 0*. ' A %+$, . -' ' . 5' ' ,) , ' 0') *R' , -%*. 0' ' . 5' 5*-0' '$%' $%&$' ()*$2') *') %) ' . 10H , . *(1/'), *. ' 0' 3,) +') +%' 4 ' (,//10' 8 ' 5%') +%' ' . , 8 ' /0' , //' 41)' 5, 5' . *) ' (' 10%' 5%' &&, ') +%' ' . , 8 ' /0' 4%, . -' ' &) %$') $%') 8%.) ' , 8 8 1 . %' ' - ' , . 0) ') +%' , . >%() , *. ' *&' 7%$2' 7, $1/%.) ' (1/;) 1$%0' *&') +%' 4 ' (,//10' +%' 4/**5 0%$18' *&') +%0%' 6$*%() %5' 5*-0' 9, //%5') +%') %) ' . 10' 6*, 0*. ' A*1) 0, 5%') +%' 4*52R' . 5' (*. &%$$%5' 6%$&%() ' , 8 ' 8 B 8,) 2' *. ' . *) +%$' 5*-' ' . 5' *. ' 8, (%' 41)' 5, 5' . *) ' 6$*%() %() ' $' 44,) 0' . 5' -1, . %' 6, -0' ' - ' , . 0) ' , . *(1/'), *. 0' 3,) +') +%' 4 ' (,//10' A , CC*. ' , ' . 5' ') ' . , R' . ') +%' ('0%' *&' $' 44,) 0' 6$*) %() %5

'-',.0)' +*- (+*/%$''')+%' 0%$18'*&')+%' 4/**5' '()'' '0' '' 7'((,.%' '-',.0)')+%' (*((* 4'*,//10' 01188' +1)',)' 6*00%00%0' .*' 4'()%$,(,5'/' *$' '.),)*B,.' 6$*6%$)2' '.5' 5*%0' .*)' '))%.1')%')+%'4'(/10' A %)0*+.,9*&,&R' +,0' (+'.-%',.')+%'4/**5' 0+*3.',.')+%0%' %B6%$,8%.)0' 3,)+')%)'.10' *$'+*- (+*/%$'',0' '' $%8'$9'4/%' *.%' '.5'('..*)' ')' 6$%0%.)' 4%' %B6$%00%5',.'.'.2'(+%8,('/')%$80' +%' %B6%$,8%.)0' $%E1,$%'(*.&,$8'),*.' +%' &')%' *&')+%' '))%.1')%5'7,$10',.')+%' 4*52' +'0' 4%%.' 0)15,%5'3,)+'0*8%3+')' &$1,)&1/ $%01/)00' .' '.)+$'B',)'8'2'4%/,8,)%5')*')+%' 0,)%' *&',.*(1/'),*.'*$',)'8'2')*' 0*8%' %B)%.)' 5,0)$,41)%' ,)0%/&'*7%$')+%'4*52'%06%(,'//2',.')+%'06/%%.' .'%,)+%$'('0%',)'5,%0'4%(*8,..-'6-%.%$')%5' '0,8,/'$'%&&%()' +'0'4%%.'*4%2%5'3+%.')+%' 7,$1/%.)'7,$10'+'0'4%%.',.*=*&)%5',.)*' ''6$4)%()%5'*$''$%&$')*$2'.,8''',)',0'.*),(%'4/%')+')',.'8'.2'('0%0'6$* ())7%',.*(1/'),*.',0'%&&%(;),7%'&*$*.*/2'' 7%$2'0+*$)'6%$,*5'$%(9*.%5'42'5'20'3+,/%',.'*)*%$'*'0%0')+%$%',0'.*'6$*;)%(),*.'1.),/ ' '' '$%(9*.%5'42'5'20'.5')+')'07'((,.')%5'<'.,8'/0',.;*(1/')%5'3,)+')+%'7,$1/%.)'7,$10'4%&*$%')+,0'6%$,*5'+'0'%/'60%5''()1'//2'0+*3'' -$%')%$'010(%6),4,/,)2')*',.&%(),*.')+'.')+%'.*.7'(;(,.')%5

'),,$%'*&' 8 8 1.,)2 G +%',.),8')%$'(+'.-%0'4*)+'(+%8,('/''.5''.')*8,('/'*(;(1$$,.-',.')+%' 4*5,%0' &',8 8 1.%''.,8'/0''$%',86%$&%()/2'9.*3.')',0'.*)')+%$%&*$%'01$6$,0,.-')+')''.'%B6/'.')',*.'*&')+%' $%'/'.')1$%'*&',8 8 1.,)2',0'.*)'1)+%' 6$%%.)' &*$)+,(*8,.-' *)+',.'.')1$'/'.5''(E1,$%5',8;8 1.,)2')+%$%',0'.'.')'-*.,08'4%)3%%.')+%'4*52''.5')+%',.7'0,*.'*&')+%' 7,$10'*$ 6$,;8'$2',.&%(),7%'-%.)G.'.')'-*.,08'3+,(+'$%01/)0',')+%'7,()*$2'*&')+%'),001%0' .'010;(%6),4/%'.,8'/0')+%$%' 8'2'4%'0*8%'.)'-*;.,08'41)'+%' 7,$10',0')$,186+').' +%'WE1%0),*.',0' +')',0')+%$%',.')+%' 4*52'*&'.',8 8 1.%''.,8'/3+,(+'.)'-*.,0%0')+%'-$*3)+'*&')+%' 7,$10'6$%7%.),.-',)'6$*51(,.-',)0'(+%8,('/6$*51()0'3+,(+'$%')+%'('10%'*&'5%')+]' *%0')+%'.)'-*.,0),(''-%.)'$%0,5%',.')+%'&/1,50'%&')+%'4*52'*$',.')+%'(%//1/'$'%/%8%.)0]' 0',8 8 1.,)2''E1%0),*.'*&'(+%8,;('/'.)'-*.,08'*$'+*%'*&'W7,)'/'.)'-*.,08G'))+%'(*84')'*&'(%//0'-',.0)')+%'W7,$10 # 0 7 ']' 1(+' +'$8' +'0' 1.5*14)%5/2'4%%.'5*.%'42'-%.%$' 0,.-'&$*8',0*/')%5'%B;6%$,8%.)0' +%' 7,$10'()0',.'' 6'$),(1/'$'8'..,5,7,51'/,.&%(),7%'5,0*$5%$0',.'.)+$'B',)',0'5,&,),0%5')+$*1-+')+%'4*52',.'5,6+)+%$,'',)',0'/*('/,0%5')*')+%')+$*')''.5',.')%)'.10')*')+%'0%')'*&',.*(1/'),*.''0'/$%'52'0)')%5')',0')+%$%&*$%',86$*4'4/%')+')+%'%B6/'.'),*.''*&'(*.&%$$%5',8 8 1.,)2',0')+%'0'8%',.''//5,0*$5%$0H'.5''0'3%'+'7%'0%%.'W.*'0,.-/%'84)+*5'*&'(*.&%$$,.-',8 8 1.,)2',0'(*8 8*.')*''//',.&%(),7%'5,0%'0%0' ,)+'$'(',.%0'3+,(+'(*.0,0)'%,)+%$'*&')+%'''))%.1')%5'7,$10'*$'*&')+%'(+%8,('/6$*51()0'*&')+%'7,$10',)',0',86*$)'.')*'4%'$',.'8,.5')+%&*/,*3,.-'(*.0,5%$'),*.0' +%' '))%.1')%5

W7,$10',.>%()%5',.)*''.''.,8'/6$*51(%0''.',//.%00'42'8%'.0'*&')+%'(+%8,('/6$*51()0',)'&*$80'3+,(+''$%'('$$,%5')+$*1-+')+%'4/**5'.5'/286+0)$%'8'*7%$')+%'4*52' +%0%'6$*51()0''$%'&*$8%5'0/*3/2''.5''$%'%/,8,;.')%5'0/*3/2'0*')+')'+%,$'%&&%()'*.')+%',001%0',0''6$*/*.-%5'*.%'/'0),.-'6$*4'4/2''&)%$''//%7,5%.)'0286)*80'+'7%'0140,5%5'+%0%'6$*51()0''')'.2'$')%',.')+%'('0%'*&')+%'4',(//10'.)+$'(,0''$%'*&')+%'0'8%'.')1$%'0')+*0%'6$*51(%5'42')+%'7,$1/%.)'4'(,//10H)+%2'8'2')+%$%&*$%'42')+%,$'06%(,&,('(),*.'6$%6'$%')+*'),001%0'&*$'$%(%,K7,.-''' /'$-%$'5*0%'*&')+%'6*,0*.G)+%2'8'2''((10)*8')+%'.,8'/')*')+%'4'()%$,'/6*,0*.'+,0',5%''',0'$')+%$'(*.&,$8%5'42')+%'&'()')+')',.'0*8%('0%0'0'5,6+)+%$,'R')+%'.,8'/,0'.*)',8;81.%'1.),/0*8%')8%'&)%$'7'((,.'),*.H,&',.*(1/'),*.'3,)+'7,$1/%.)'7,$10',0'8'5%'4%&*$%')+%'.,8'/5,%0'E1,(9/2')+'.'101'/'.')+%'('0%'*&'0*8%(+%8,('/6*,0*.0')+,0'(),*.',0'3%//9.*3.''0',.')+%0)'4/,0+8%.)*&)+%0 8*$6+,.%+'4,)<'.5',)'+'0'4%%.'5 8*.;)0)$')%5'3,)+'0.'9%6*,0*.'A %3'R'.5')+%6*,0*.'*&' & ' A>%E1,$,)2R'*)+')+%0%'6*,0*.0'4%'$''(//*0%'$%/'),*.')*0*8%'4'()%$,'/6*,0*.*10'6$*51()0H''.5',.'4*)+'$%6%')%5'08'//5*0%0'6$*)%()'.''.,8'/'-',.0)''0,.-/%/'$-%''.5'&')'/5*0%'',)+''/,7,.-'7,$10')+%'('0%',0'+*3%7%$'5,&&%$%.)')+%'%&&%()'*&''(+%8,('/6*,0*.'/'0)0'41)''0+*$)'),8%H)+')'*&''(+%/,7,.-'7,$10',0'(*.0)'.)/2',.($%'0,.-'1.),/')+%'010(%6),4/%''.,8'/5,%0'%'$%'0),//')+%$%&*$%'(*.&$*.)%5'3,)+')+%'E1%0),*.'3+2')+%'7,$1/%.)'7,$10'5*%0'.*)'6$*51(%',0'&')'/6$*)%()%5'*$$%&$'()*$2''.,8'/'*'4')%$,8'$2',.&%(),7%'-%.)G.'.')'-*.,08'3+,(+'$%01/)0',')+%'7,()*$2'*&')+%'),001%0'.'010;(%6),4/%''.,8'/0')+%$%'8'2'4%'0*8%''.)'-*;..,08'41)'+%'7,$10',0')$,186+').'+%'WE1%0),*.',0'+')',0')+%$%',.')+%'4*52'*&''.',8 8 1.%''.,8'/3+,(+'.)'-*.,0%0')+%'-$*3)+'*&')+%'7,$10'6$%7%.),.-',)'6$*51(,.-',)0'(+%8,('/6$*51()0'3+,(+'$%')+%'('10%'*&'5%')+]' *%0')+%'.)'-*.,0),(''-%.)'$%0,5%',.')+%'&/1,50'%&')+%'4*52'*$',.')+%'(%//1/'$'%/%8%.)0]' 0',8 8 1.,)2''E1%0),*.'*&'(+%8,;('/'.)'-*.,08'*$'+*%'*&'W7,)'/'.)'-*.,08G')+%'(*84')'*&'(%//0'-',.0)')+%'W7,$10 # 0 7 ']' 1(+' +'$8' +'0' 1.5*14)%5/2'4%%.'5*.%'42'-%.%$' 0,.-'&$*8',0*/')%5'%B;6%$,8%.)0' +%' 7,$10'()0',.'' 6'$),(1/'$'8'..,5,7,51'/,.&%(),7%'5,0%'0%0' ,)+'$'(',.%0'3+,(+'(*.0,0)'%,)+%$'*&')+%'''))%.1')%5'7,$10'*$'*&')+%'(+%8,('/6$*51()0'*&')+%'7,$10',)',0',86*$)'.')*'4%'$',.'8,.5')+%&*/,*3,.-'(*.0,5%$'),*.0' +%' '))%.1')%5

'-',.0)'+*- (+*/%$''')+%' 0%$18'*&')+%' 4/**5''()'' '0' '' 7'((,.%' '-',.0)')+%' (*((* 4'*,//10' 01188' +1)',)' 6*00%00%0' .*' 4'()%$,(,5'/' *$''.),)*B,.' 6$*6%$)2' '.5' 5*%0' .*)' '))%.1')%')+%'4'(/10' A %)0*+.,9*&,&R' +,0' (+'.-%',.')+%'4/**5' 0+*3.',.')+%0%' %B6%$,8%.)0' 3,)+')%)'.10' *$'+*- (+*/%$''',0' '' $%8'$9'4/%' *.%' '.5'('..*)' ')' 6$%0%.)' 4%' %B6$%00%5',.'.'.2'(+%8,('/')%$80' +%' %B6%$,8%.)0' $%E1,$%'(*.&,$8'),*.' +%' &')%' *&')+%' '))%.1')%5'7,$10',.')+%' 4*52' +'0' 4%%.' 0)15,%5'3,)+'0*8%3+')' &$1,)&1/ $%01/)00' .' '.)+$'B',)'8'2'4%/,8,)%5')*')+%' 0,)%' *&',.*(1/'),*.'*$

0,7%' '0 0%$18 5*%0 . *) %B,0) '0 01(+ , .')+%
/,7,. -'4*52H ' .5 , 8 8 1. ,)2 8 '2 0),// 4% &*1.5
)*'4% 8'6'$)'%&&% ()%5'42' /)%$, . -')+%%1/),7), . -
8 %5,1 8 , .')+% /,7, . -' 4*52 . *. %' ('0% *&
7' ((, . '), * .' A)+')' &*$)%)' .10)+%$% ,0 '' 6$*;
&*1.5' (+' . -% , .')+% 4/**5H)+% %B6%$,8 %.)0
+' 7% '/$% '52 4%% .' (>1*)%5 . ')+% 8 ,)' 3 '0
0+*3 .')+')' &)%$ '' 5*-' + '5 4%% .' , .*(1/')%5
3 ,)+')+%')' . 10 4' (,//10 ,)0 4/**5 0%$18 +'5
)+% 6*3 %$'. *)' *. /2* &' (*. &%$$, . -', 8 8 1. ,)2 *. '
' . *)+%$ 5*-' '. 5 *. ' 8 ,(% ' 41)' *& 9,//, . -')+%
)%) ' .10 (+%. ,,(' /6*,0* . ' +% 0166*0%5=014;
0)' . (% + '0 4%%. ' ('//%5')%) ' . 10 0 ' .),)*B, . <
' + ' - *(2)*0,0 G +% (+% 8 ,(' /* %B ' 8 , . ';
), *. '*&, 8 8 1. %' ' , 8 '/0, 0'*&-$% ', 8 6*$) ' . (%H
41)')+%' &' (0) . *3'9 . *3 . ' 0=% 0*' , . (*. (/10, 7%'
)+')',)', 0, 8 6*00, 4/%') *' 0)')%') +%, $' %B' ()'4% '$, . -'
*. ')+%' E1%0), *. '*&, 8 8 1. ,)2 ' . ' . ')*8, (8'
0)152' *&') +%'), 001%0' *&, 8 8) 8% ' . , 8 '/0' + '0'
/%5') *') +%' 5,0(*7%$2' *&' , .)%$%0), . -'&' ()0'5% '/;
, . -' (+, %&/2' 3 ,)+')+% &')%' *&')+% 7, $10' 3+% . ',)'
, 0', . >%()%5', .)*' 6$*)%()%5' . , 8 '/0' *$)+*0%'
. ')1$'//2' , 8 8 1. % ' + %)+%*$2' *&' 6+' -*;
(2)*0, 0', 0' +%/5' 42' %)0(++, 9*&&)*' %B6/', . ')+%'
6+%. *8%. '*&'. ')1$' /' . 5' (E1, $%5', 8 8 1. ,)2 '
+' -*(2)%0' '$%' (%//0' 3+, (+' +'7%')+%' 6*3%$'
&') '9, . -', .)')+%, $', .)%$, *$' 0*/, 5' 6')$), (/%0'
5%'5'*$' /, 7, . -H ' . 5' '$%' *&') 3*' 9, . 50' . %'
&*$8' (' //%5' " ' '$%') +%' /%1(* J,)% '
$' 8, -$')$2' (%//0' *&') +%' 4*52' 3,)+' '' /*4%5'
*$' 8 1/), 6/%' . 1(/%10H)+%' *)+%$' 9, 5' -'
" ' '$% 01(+' 0 0) +%' &, B%5' (%//0' *&'
(*. . %(), 7%'), 001%')+%' /, . , . -' (%//0' *&')+%'
61/8*. '$2' /7%*/10' . '. 5' ' *)+%$' (%//0' ('6' '
4/%' *&')' /5 . -', ' 0*/, 5' 6')$), (/%0' ' . '. 5' (*. ;
)', . , . -' ' 0, . -/% /'$-% . 1(/%10' /%00' %'0, /2'
0)', . %5')+' . '), , ')' *&')+%' 8, *$ 6+' -%0 (;
(*$5, . -') *')+, 0')+%*$2' . ')1$' /', . 8, 1. ,)2', 0'
51%') *')+%' &' ()')+')')+%' 6+' -*(2)%0')' 9%', .)*'
)+%, $' 0140)' . (%')+%' 7, $1/%.)' 7, 8 0' 3+%. ',)'
-', . 0' %.)$' . (%', .)*' 4*52' . ' 5' 5%0)$*2'
,)' . ' . , 8 '/0' 10(%6), 4/%') *' ' . 2' 6')$), (1/'$
5, 0%' 0%' (8') +%' *)+%$' +' . 5')+%' 6+' -*(2)%0'
' /)+*1-+')+%2' 8 '2')' 9%' , . ')+%' 7, 8 0' '$%'
B 8 '4/%')*' 5%0)$*2',)H ,)' -', . 0')+%' 166%$' +' . 5'
' . 5' 6$*51(%0')+%' 5, 0%' 0%' . ' *(E1, $%5', 8 ;
8 1. ,)2')+%' 6+' -*(2)%0' '$%' 0*' '&&%()%5')+')'
)+%2' '$%' %. '4/%5')*' 1((%00&1//2' (*8 4')')+%'
8, ($* *$-' . , 08' ' . 5' 5%0)$*2',)' /*0, . -')+, 0'
' (E1, $%5' 6$*6%$)2' 3+%. ')+%' ' . , 8 '/ 4%(*8%0'
'-', . ' 010(%6), 4/%' ' 0' ,)' 101' //2' 5*%0' +%'
&' ()')+')' /%1(*(2)%0', . -%0)' 6'$), (/%0' +' 0' /*. -'
4%%. ' 9. *3. H')+%2' '$%' '(), 7%' -%.)0' , . ')+%'
. *$8 '/' 40*$6), *. ' *&' &')0' ')+%', .)%0), . %'
' . 5' , . ' . *$8 '/ (*. 5,), *. 0')+%2' +' 7%' 4%%. '
&*1.5')*' (*.)', . ' 0*8%' *&')+%' 81. %$*10' 4' (;
)%$, '' *&')+%' , 1)%0), . '/ (*.)%.)0' %)0(+. , 9*&&
+' 0' 8' 5%' '. ' %B)%. 0, 7%' , . 7%0), -'), *. ' , .)*'
)3*' *' 0%0' *&' . ')1$' /' , 8 8 1. ,)2' 7, C')+')'
&')+%' 6, -%. ' . 5' *&')+%' '51/)' 3+,)%' $')'
'-', . 0)' .)+$' B' /)+*1-+')+%' , 8 8 1. ,)2'
, 0' . *)' 6%$&%()' 8' . 2' . , 8 '/0' $%(*7%$' &, *8'
)+%', . *(1/'), *. '*&7, 8%.)' 4' (, //, ' .)+$' (, 0H
' . 5', . ' 01(+' *' 0%0' +%' +' 0' 0)')%5') +)')+%$%', 0'
18' '41. 5' .)' 6+' -*(2)*0, 0')+%' 8, ($*6+' -%0'
= . 5' 8' ($*6+' -%0' (*.)', . , . -')+%' 8 '>*$,)2' *&
)+%', . >%()%5' 4' (, //, ' +%. ' '41. 5' .)' 6+' -*;
(2)*0, 0' 5*%0' . *)' *((1$')+%' ', 8 'H 4%(*8%0'
'&&%()%5' 3,)+' .)+$' B' . 5' %7%.)1'//2' 5, %0'
+%' 4' (, //, ' . >%()%5' '$%' . *)' 0*/%/2')+%' 5%'5'
*. %0' 41)' $%', . ' 8 ' . 2', . 0)' . (%0' ')' /%0')' /, 7, . -
+%. ' 6$*)%()%5' ' . , 8 '/0' 8 *$%*73 ' '$%, . '
(), /')%5' ,)+' ' 7, $1/%.)' 7, $10' %)0(+. , 9&&
0)')%0')+')' . ' ' 41. 5' .)' 6+' -*(2)*0, 0' *((1$0H
&*$' %B' 8 6/%', . ' ', 8 '/0' 7' ((, . ;)%5' &*$' .)+$' B'
42')+%' '))%. 1')%5' 7, $10') , . ' $' 44), 0' 7' (;
(, . ')%5' '-', . 0)' +*-(+*/%$' ', . ')+%' 8' . . %$'
'/$% '52' 5%0($, 4%5' 3+%. ')+%2' *' $%', . *(1/')%5'
3,)+')+%' 7, $1/%.)' (*((*4' (1/10' 0118')+%0%
4' (, //, ' $%') 9%. ' 16' 42')+%' 8, ($*6+' -%0' ' . 5'
8' ($*6+' -%0' ' . 5' 5%0)$*2%5' 42')+%8 ' . '
)+, 0' ('0% ' ')+*1-+')+%' 4/**5 0%$18', 0' ''7' (;
(, . %',)' (' . . *)' 9 /*$'))%. 1')%')+%' 4' (, //10H
' . 5' %)0(+, 9*&& *. (/15%0')+')',)' 6$*4' 4/2'
0), 8 1/')%0')+%' 6+' -*(2)%0' . ' *)+%$' ('0%0',)'
, 0' 0166*0%5')+')+%' (+%8, ('/6$*51()0' *&')+%'
7, 8 0' A01(+' 6$*51()0' 4%, . -')+%' 7' ((, . %H')$' ()'
)+%' /%1(*(2)%0')*')+%' 06*)' . 5'0), 8 1/')%')+%8'
)*'))' (9')+%' 4' ()%$, 18' * 8%' (+%8, ('/
140)' . (%0' '$%' 9. *3 . ')*'))$' ()' /%1(*(2)%0'
)+%$0')' $%6%/')+%8H)+%' &*$8%$' '$%' 5%;
0($, 4%5' '0' %7%$), . -' 4 2 ' # % ')+%'
/'))%$' ' ' 0) ' +%8*)' B, 0', 0' . ' *40%$7%5'
6+%. *8%. *. H 41)' '0' ')+%*$2', . ' (*. . %B, *. '
3,)+' 6+' -*(2)&, (' , 8 8 1. ,)2',)' ^, 9')*' %B6/', . '
3+')' -, 7%0')+%' 6*3%$')*')+%' /%1(*(2)%' . '5'
*)+%$' (%//0' *&')+%', 8 8 1. %' . ', 8 'H)*' 5%0)$*2'
)+%' 7, $1/%.)' 7, >80' +%' %B' ()' ' 3+, (+'
6+' -*(2)*0, 0' 6/'20' , . ' , 8 8 1. ,)2' . ' 5')+')'
3+, (+')+%' (+%8, ('/ (*. 0),)1%.)0' *&')+%' 4*52'
6/'2' 8 10)')' 6$%0%.)' $%8', . '1. 0%))/%5
- B & D' &F % ' #' & G +%'
E1%0), *. ' *&', 8 8 1. ,)2', 0' (/*0%/2' (*. . %()%5'
3,)+')+')' *&')+%' (1$%' *&' 5, 0%' 0%' . ')+%' 6$%;
0%.)' 0)')%' *&' 9. *3%5-%' 41)' /,))/%' %B(%6)' *&'
'')+%*$%), ('/9, . 5' ('. ' 4%' 0', 5' *. ')+, 0' 6*, .)'
8 8 1. ,)2', 0')+%' 6$%7%.), *. ' *&')+%' -$*3)+'
*&' '7, 8 0' '&)%$',)' +' 0' 4%%. ' . ,)$*51(%5H (1$%'
, 0')+%' 6$%7%.), *. ' *&',)0' &, /$)+%$' -$*3)+' '&)%$'
,)0' 5%7%/*68%.)' +' 0' (*8 8%. (%5' '. 5')+%'
02 8 6)*8 0' *&' 5, 0%' 0%' +' 7%' '/$%' 52' '66%' $%5
&" 0 " ' ' ") ' G . /2'
4$, %&' . *), (%' (' . ' 4%')' 9%. ' *&')+, 0' 6*, .)' +%'
-$*3)+' *&')3*', . &%(), 7%' '-%.)0' 8)=2' 4%' (*. '
(1$$%.)' , . ')+%' 0' 8%' ', 8 'H 4*52' +%2'
8 '2' *$' 8 '2' . *)' . %1)$' /, 0%' %' (+' *)+%$' +%'
(*. (1$$%.)' *$' '&)%$' 5%7%/*68%.)' *&' 610'
8, ($* *$-' . , 08 0' , ' (*. . %B, *. ' 3,)+')14%$(/%'
5, 6+)+%$, ' ' . 5')26+*, 5' &%7%$' , 0' 9. *3. G'
+%$%')+%$%' , 0' . *' ' .)'-*. , 08' +%$%' '$%'
+*3%7%$' 0%7%$' H %B6%$, 8%.)' H %B' 86/%0' *&'
.)'-*. , 08' *&' 8, ($* *$-' . , 080' +10')+%'
4' (, //10' 62*(2' . %10' *$' ,)0' 6$*51()0' 3, H
(*1.)%$' ()')+%' 4' (, //10' .)+$' (, 0H' . 5',)' +' 0'
4%%. ' 0)')%5')+')')+%' 4' (, 10' 6. %18*. , '%
A $, %5/' . 5%$R' . 5')+%' 8, ($*(*((10' %$20, 6%'
/'), 0' 3, H /' %' (+' (*1.)%$')')+%' 4' (, //10' . ;
)+$' (, 0' 1(+', 0*/')%5' ^ ()0' '0')+%0%' '$%' . *)'
3,)+*1)' , 86*$)' . (%' 03')+%2' , 5, (')%' *. %'
8 %)+*5' 42' 3+, (+' ,)' 8 '2' , 1')+%' &1)1$%' 4%'
&*1.5'6*00, 4/%')*')$%')' . ', . &%(), 7%' 5, 0*$5%$

W810(/%' +%' ,. ($%'0%5' ,. &/*3',0'51%')*'$%'/'B'),*+'*&')+%'810(1/'$'&,4$%0' ,.')+%0166/2;
,.-' '$)%$,%0' '.5' ,.')+%' ('7%$.*10'),001%' *&'
)+%'6%.,0' +,0' $%/'B'),*.' ,0' 6$*51(%5' 42'
)+%'.%$7,'%$,-%.)%0'3+,(+')$'.08,)',8610/0%0'
*$,-,.'),.-',.')+%'-'.-/,*.'(%//0'*&')+%'%$%(;
),*.'(%.)$%'.')+%'/*3%$'6')' *&')+%'06,.'/
(*$5' +,0' (%.)$%' ,0' ,)0%/&' %B(,)%5' %,)+%$
$%&/%B/2' 42'0),81/'),*.' *&'6%$,6+%$'/.%$7%'
%.5,.-0'*$'6%$+'60'0*8%),8%0'1)*8'),('//2'
42')+%'E1'.),)2'*$'E1'+)2'*&')+%'4/**5'016;
6/,%5')*',)' '$),'/*$'(*86/%)%/*00'*&')+%'
-/'.0'6%.,0'8'2')+10'42'5%0)$1(),*.'*&')+%'
.%$7%%.5,.-0',86',$'*$'6$%7%.)')+%'$%&/%B'
%B(,)'),*.'*&')+,0'(%.)$%' 1)',)',0'/0*' (*.'
1%()%5' 42'&,4$%0' ,.')+%'06,.'/(*$5'3,)+'
+,-+%$'(%.)$%0' ,.')+%'(%$%4$18'3+,(+'(.'
,.+,4,)'*$'%B(,)%',)0' '(),*.' 86*)%.%2'8'2'
)+%$%&*$%'$%01/'&,*8'5,0)1$4'.(%'*&')+%'51%'
$%/'),*+'4%)3%%.')+%'0%7%$'/6')$)0'*&')+,0'
(*86/%B'.%$7*10'66'$')10'*$'&,$*8',.>1$2'
5,0%'0%'*5%-%.%$'),*.'*&',)

86*)%.%2'*&'.%$7*10'*$,-,.'8'24%'(/'00,I'
&/%5' ' # ' ' "&'

6 # ',86*)%.%2'$%01/)0'&$*8')+%'1.;
51%'6$%5*8,.'.(%'*&')+%'(%$%4$'/.+,4,),.'
(%.)$%0' .' .%3/2'8'$$,%5'8%.'3+*'+'7%'
6$%7,*10/2'/%5'(+'0)%'/,7%0',)'8'2'4%',.51(%5'
42'3'.)'*&'0%/&(*.&,5%.(%G%B(%00,7%'66$%;
+%.0,*.'*&',.'4,/,)2')*'6%$&*$8'3%/'+Z'51)2'
&')+%'0%B'''&%%/,.-'*3+,(+',0'*&)%.'-$%')/2'
'--$'7')%5'42')+%'6%$10'/'*&')+%'6$*51(),*.'0'
&'E1'(90'.'5')+%$',86*0)*$0' .'01(+'
'0%0' '*).,(' 8'2'4%'6$%0($,4%5''.5')+%'
6'),%.)'4%'5,$%()%5')*' '40)',.'&$*8''//
'))%86)0' ')',.)%$(*1$0%'3+,/0)'1.5%$')$%');
8%.)'H'.5'3%'8'2'$%0)'0'),0&,%5')+')'.*)
8'.2'5'20'W3,// 6'00'*7%$'4%&*$%'.')1$%'
'00%$)0'+%$'%86,$%' .(*1$'-,.-'001$'.(%0'
3,'5*'8*$%',.'%&&%(),.-'(1$%')+'.'0),81;
/'),.-'8%5,(,.%0'*$' .'2'0*$)'*&'8%5,(/'
)$%')8%.)'0,.-/%'01((%0'4'.,0+%0')'*.(%'
'//'&%'$0'.'5'-,7%0'0%(1$,)2'&*$')+%'&,,)1$%'
1)',.'('0%0'3+%$%'%B(%00,7%'7%.%$2'*$
8'0)1$4'),*.'+'0'4%%.'6$'(),0%5')+%$%'8'2'
4%'5,8,.,0+%5'%B(,)'4,/,)2'*&')+%'/184'$
(%.)$%' +%'(*.5,),*.',0'101''//2'*&'7%$2'
4$,%&'51$'),*.' *$%'$'$%/2',86*)%.%2'8'2'
4%'%B6%$,%.(%5' ,.' '))%86)%5',.)%$(*1$0%'
3,)+'*.%'6%$0*.'.'5'.*)'3,)+'*)+%$0' *0;
0,4/2')+%',.+,4,),*.',.'01(+'('0%0',0'$%&/%B'
'.5'%B(,)%5'42'0*8%'6%(1/,'$,)2',.')+%'
&%8'/%

5 ',86*)%.%2',0')+%'$%01/)'*&',851%'
%B(,)'4,/,)2'*&')+%'.%$7*10'(%.)$%0')'*((1$0'
'&)%$' +'4,)1'/' 8'0)1$4'),*.'*$'%B(%00,7%'
7%.%$2' +%'0%8%.',0'%>'(1/')%5'4%&*$%6%.%;
)$'),*.'+'0'4%%.'%&&%()%5''.5')+%'%$%(),*.'
06%%5,/2'0140,5%0

'$1 ,),(',86*)%.%2'8'2'4%'51%')*',.>1$2'
5,0%'0%'*$' 5%-%.%$'),*.'*&')+%' .%$7*10'
(%.)$%0' +%'.18%$*10'$%(*$5%'('0%0'3+%$%'
,86*)%.%2'6%$8'.%.)'*$')%86*$'$2'+'0'&*/;
/*3%5',.>1$,%0')*')+%'+%'5'*$'4'(9'('.'*./2'
4%'%B6/',.%5'42')+%'00186),*.'*&'0*8%'
,&&%(),*.'*&')+%'.%$7*10'020)%8' ,0%'0%0
'.5',.>1$,%0'*&')+%'06,.'/(*$5'6$*51(,.-'
6'$'6/%-,''.%(%00'$,/2'6$%7%.)'(),7%'(*61/';
),*.'H'41)',&')+%'06,.'/0,*.'4%'*4*7%')+%
%$%(),*.'(%.)$%'%$%(),*.''.5'(*8,%B,*.'
8,-+)'4%'6*00,4/%')+%'8'.'4%,.-''6'00,7%'
'-%.)' '0%0''$%'%(*$5%'3+%$%'%7%.'
,86$%-.'),*.'+'0'*((1$%5',.'01(+'(*.5,;
),*.0

*8%'5$1-0''$%'($%5,)%'Q3,)+'6$*51(,.-'
,86*)%.(%' $0%.,(''((*$5,.-')*' +'$(*)'
3+%.')'9%.'&*$''/*.-'),8%'+'0')+,0'%&&%()'
41)'7,$,/,)2',0'$%-'.%5'3+%.')+%'5$1-',0'.*'
/*.-%$')'9%.' 6,18%'),.-''.5'%B(%00,7%'
.51/-%.(%',.')*4'((*' +'7%'4%%.'0,8,/'$/2'
'((10%5' ,1$%),(0''0')+%'.,)$')%'*&'6*)'0;
0,18'.5'4,('$4*.')%'*&'0*5,18''$%'3%'
9.*3.')*''()''0'.'6+$*5,0,' 0

,$,+)2',0'8*$%'*$'/%00''&&%()%5'42'(*.;
0),)1),*.'/'5,0%'0%0' %3'(*86/',.)0'+'7%'
-$%')%$',.&/1%.(%',.',86',$,.-')+%'-%.%$';
),7%'&1.(),*.0')+'.')+0%'*&')+%'9,5.%2'
.',$$,)'),7%'5206%60,''3,)+'5%6*0,)0'',.'
)+%'1$,.%'*&'%')$)+2'6+*06+')%0'*$'*B'/')%
*&'/,8%')+%$%'0'-%.%$'//2'0*8%',.'4,/,)2'
86*)%.%2',')+%0%('0%0',0'*./2'.*%'*&
)+%'8'.,&%0')',*.0'*&'5%&%(),7%'00,8,/'),*.'
.5'5%6$%00%5'7,)'/'&*$(%' .'5,'4%)%0'.5'
'/418,.1$,'')+%'$%6$*51(),7%'*$-'.0''$%
3%'9'.5'*&)%.'E1,)%'..'(),7%'41)'8'2'
$%-','.)*.%'0')+%'*$-'.0'$%'$%0)*$%5')*'
'+%')+2'0)')%'*1)'.5'+%6'),('5,0*$5%$'
'/0*'8'2'%86*$'$,/2'6$*51(%''0,8,/'$'
(*.5,),*.

86*)%.%2'0*8%),8%0'*((1$0',.'8,55/%'/,&%
3,)+*1)'.2'*4K7,*10'('10%' .'01(+'6%$0*.0'
)+%'Q3$,)%$+'0'.*),(%5''(*.0),)1),*.'/'(+'.-%
0,8,/'$')*')+')'3+,(+'*((1$0',.'%1.1(+0'41)'
/%00'8'$9%5' +%2'+'7%'4%%.'*40%$7%5')*'
-$*3'0/%%9''.5'(*$61/%.)')*'+'7%'(*0(.)2'
4%'$5'.5')*'4%',.5,06*0%5')*'(),7%'810(1;
/'$%B%$),*.' .'-%.%$'/)+%2'%7,.(%'.*'1.;
+'66,.%00')'+%,$'/)%$%5'(.5,),*.' .'
)*.,(,86*)%.%2')+%'%B)%$./'*$-'.0'&&*$5'
,.5,(',*.0'*&')+%'3'.)'*&'6*3%$' *)'./2'
'$%')+%')%0),(/%0'0*&)'.5'&/'((,5'&$*8')+%'
'40%.(%'*&'4/**5',.')+%'7%00%/0'.5'06%$8'
,.')+%')14%0'41)'+%'6%.,0',0'08'//'.5'
0+$,7%//%5'.5')+%'-/'.0'$%/'B%5' +%'0($*;
)18',0'/0*'/**0%' +%0%'6')0''$%'6'/%'
&%%/(*/5''.5')+%,$'0%.0,4,/,)2')*'(*.)'()',0'
5,8,.,0+%5

) ! G %$)',.'8%5,(,.%0'$%61)%5'
)*'6*00%00')+%'6$*6%$)2'*&'0),81/'),.-''.5'
87,-*$'),.-')+%'0%B1'/'*$-'.0'+'7%'4%%.'
(/'00%5''0' # ''.5'0*8%'*&')+%8'
'$%0',5')*'4%'10%5'%06%(,'//2',.')+%' '0)'42'
)+%'0%.01'/,0)')*'%B(,)%')+%'*$-'.0'3+%.'%B;
+'10)%5'42'0'),%)2'.5'%B(%00' %7%$'/'()'
*.''.5'0),81/')%')+%'1$,.'$2'*$-'.0''.5'
)+%$%42',7%')%86*$'$2'6*3%$')*')+%&1.(),*.'
*&'%$%(),*.H41)')+%2'6$*51(%/,))/%*$'.*'%&&%()'
.')+%'06%(,'/'0%B1'/'$-'.0' +%2'5%)%$8,.%
4/**5')*')+%'6%.,0''.5'('10%' 8*$4,5'%$%(;
),*.0'W3,)+*1)''.2'7*/16)1*10'0%.0'),*.0'.5'
5%0,$%0' 1(+'66%'$0')*'4%')+%'(+'$'()%$'*&
8%',.&/1%.(%'6$*51(%5'42'('.)+'$,5%0')+%

&1$)+%$' 6$*/*. -')+%' , .)%$7 '/' .' , . (14 '),*. ' 6%$,*5' *&' *. /2' &,7%' 5 '20' + '0' 4%% .' . *)%5 ' *. (%' &$* 8 ' (* .)' 8 , . ')%5' 8 ,/9 ' ' . 5' *. (%' &$* 8 ' , . ; &%(),* . ' +%$%' $%' . 0)' . (%0' *&' . '%, -+)' 5 '20 , . (14 '),* . ' 3+%. ' 0* 8 %' *&')+%' 6*, 0* . '+ ' 5' 4%%. ' , . + '/%5

' & "! `` 26+10' + '0' , . ')+%' -$%') 6$*6*$),*. ' *&' ('0%0')3%/7%' 5 '20' *&' , . (14 ';),* . ' +%' /')%' $' 1$(+,0*. ' -,7%0')+$%%' ('0%0')+ ')' + '7%' %B(%%5%5')+,0' 6%$,*5' 42')3*' *$')+$%%' 5 '20' ' . 5' *. %' *&') %.)2 *. %' 5 '20)%. ' *&' +,0' ('0%0' &%// 0+*$)' *&' ,)' 42')3*' 0,B' *$' %, -+)' 5 '20 ' *. %' *&')+%0%' 5,5' . *)' %B(%%5')3*' 5 '20 ' . 5' . . ')3*' *&')+%8')+%' /')%.)' 6%$,*5' 8 10)' + '7%' 4%%. ' ' ' &%3' +*1$0' *. /2' +%' 5,0), . (),7%' $' 0+' '66%' $0' *. ')+%' &*1$)+' *$ &,&)+' 5 '2' *&' ,// . %00

@' "0' .) G +,0' &%7%$' + '0' &,7%' 5 '20' *&' , . (14 '),*. Ĥ)+,0' %B' ()/2' ' -$%%0' 3,)+')+%' /,&% +,0)*$2' *&')+%' ' *40%$7%5' , . ')+%' 4/**5' 51$, . -')+%' &%7%$' +%', . (14 '),*. ' 6%$,*5' 8 '2' + *3%7%$' 4%' 6$*/*. -%5')* ' 0%7%. ' . , . %' *$')3%/7%' 5 '20' *$' 0+*$)%. %5')* ')3*' 5 '20' ' . 2' ('0%0' + '7%' &*//*3%5' '/8*0)' , 8 8 %5, ')%/2' *. ' %B6*01$%')* ' '* (*. (%.)$')%5' , . &%(), *.

?' 6 0 G '-1%' ,0' (*8 8 1. , (')%5' , . ' &$* 8 ')3*')* ' &,7%' 5 '20' +%' &%7%$' 8 '2' (*8 ; 8 %. (%' *. ')+%' &,$0)' 5 '2 ')+%' -/ ,51/'$' 03%//; , . -0' *. ')+%')+,$5' *$' 0*8 %), 8 %0' -/' . 51/' $')%. 5%$. %00' 4%-, . 0' 3,)+')+%' &%7%$' '6%$,*5' *&' &*1$' 5 '20' 01&/ (%0')* ' 0%)' 16')+%' (*. 0),)1;), *. ' /02 8 6)*8 0' 3+%. ')+%' 6/' -1%' ,0' (*. 7%2%5' 42' , . *(1/'), *.

Y ' i 2' %//*3' &%7%$' + '0' 0+*$)' , . (14 '), *. ' *&' &$* 8')3*')* ' 0, B' 5 '20' $' $%/2' %B(%%5, . -' %=+)' 5 '20' $' '$-, //' *&' 8 ', (' ' -, 7%0' ' ' ('0%' &')'/')+%' 5 '2' &)%$' %B6*01$%')* ' , . &%(), *.

F' %. -3 G %. -1%' , 0' E1, (9/2' 5%7%/*6%5' G 101 '//2', . ')+$%%' 5 '20' +%' &%4$, /%' , . -$%0' , 0' 0155%. ' ' . 5' 6$%(%5%0')+%' $' 0+' *. /2' 42' ' ' &%3' +*1$0

D' # G . (14 '), *. ' , . ' (+*/%$' ' /' 0)0' &$* 8 ' ' &%3' +*1$0')* ' &*1$' 5 '20' +%' $%6*$)0' *&' . 18%$*10' (*8 8 , 00, *. 0' -, 7%' &$* 8' *. %')* &, 7%' 5 '20' ,)+, . ' &, 7%' 5 '20' 4%&*$%')+%')+, 5' . 5' . *)' /')%$')+' . ')+%' &*1$)+' 5 '2' . 5, ; 7, 51 '/' ('0%0' *&)%. ' &' //' *. ')+%' 0%(*. 5' *$)+, 5 5 ' 2Ĥ)+%' 6$%8*. ,)*$2' 5, '$$+*%' ' 0+*1/5' 4%(*. 0, 5%$%5' '0' 6' $)' *&' ^ %' 5, 0%' 0%

M' G +%', . &%(), *. ' *&) $1%' 8 '/' $, ' , 0' . *)' -, 7%. ' *&&' 42')+%' 4*5, %0' *&')+%' 0, (9' 41)' , 0' /, 8,)%5')* ' (%$)', . ' /*('/',)%0' +, 0' 9, . 5' *&' 8, '0 8 ')* ' 3+, (+')+%')%$8' 0, . &%(), *. ' , 0' 0* 8%;), 8 %0' , 8 6$*6%$/2' $%0)$, ()%5' + '0' ' ' 8 '$9%5' 6%$, *5' *&' , . (14 '), *. ' 3+, (+' , 0' *&)%. ' ' '/%. -)+; %. %5' *. %' +%' . *. (*.)' -, *10' 8 '/' $, *10' &%7%$0' *&')+%' %0)' *'0)' *&' &$, (' ' 0+*3' ' . , . (14 '), *. 6%$, *5' *&')%. ')* ')3%/7%' 5 '20' . ' 1/2' ? ! ' *1$')$**60' , . ' , (, /2' &%// , ' 3,)+' $%8,))%.)' &%7%$'), $)%%. ' *$&*1$)%%. '5 '20' &)%$ %B6*01$%')* ' 8 '/' $, ' ' %. ' (*.), . 1%5')* ' &'// , /' &*$')3%/7%' 5 '20' '&)%$')+%, $' $%8*7' /' &$*8')+%' , . &%()%5' 0,)%' +%. ' $, 0+' + '$7%0)8%. ' (' . '%)* ' *1$' &%. ' 5, 0)$, ()0')+%2' %,)+%$')**9 ' -1%' ')')+%' %. 5' *&')+%, $' 8 *.)+<0' 3*$9' *$' . *)'), /')3*' *$')+$%%' %%90' &)%$')+%, $' $%)1$. ' -1%' 8 '2' '66%' $' 8 *.)+0' &)%$' $%0, 5%. (%' , . ' ' 8 '$0+2' 5, 0)$, ()

?' # G +%', . 51$'), *. ' *&' ' 026+, ; /,), (' 0*$%' '66%' $0' &)%$')%. ' 5 '20Ĥ 0, B' 3%%90' /')%$')+%' $' 0+' *$' 0*$%)+$*')' +%' /*('/, 0%5' (+' . -%0' *&')+%' , . ,)')*$2' 6%$, *5' 8 '2' *((162' &$* 8')+$%%' 5 '20')*')+$%%' 3%%90' *$' %7%. ' /* . -%$Ĥ, . ')+%' 0+*$)%0)' , . 0)' . (%0' 3,)+', 8 8 %; 5, ')%' '5%. *6')+2')+%' %$16), *. ' &*//*30', . '0, B' 3%%90' *+. ' 1.)%$' -, 7%0')+%', .)%$7 ' /&$* 8')+%' /*(' /')*' -%. %$' /, . &%(), *. ' ' 0')3*' 8*.)+0Ĥ)+, 0' 8 '2' %B)%. 5')*' %, -+)2' 5 '20')+%$' (*. ; 0),)1), *. ' /02 8 6)*8 0' *((1$')' 8 1(+' /*. -%$' , .)%$7 '/0' +%' (*.)' -, *. ' *&0%(*. 5' $2' 026+, ; /, 0' $%E1, $%0' &, 7%' 3%%90' *$' /*. -%$')*' 4%(*8 %' . , &%0)

P' $ ' G' 25$*6+*4, '' 6$%0%.)0' 10' 3,)+')+%' /*. -%0)' ' . 5' '/0*' 3,)+')+%' 8 *0)' 7' $, ' 4/%' 6%$, *5' *&', . (14 '), *. Ĥ)+, 0' +*3%7%$' +'0' '' /, 8,)' *&' -$%')' 6$' (), ('/' 7' /1%' +%' 0+*$)%0)' , .)%$7' /' %B(%%50' '' 3%%9' 0*')+')' ,//%&&%()0' &%/)' , . ' '' /%00'), 8%)+' . ')+, 0' *$' &*//*3; , . -' $' 6, 5/2' '&)%$')+%' 4,)%' ' $%' $%' 5, /2' 5, 0;), . -1, 0+%5' &$* 8' $' 4, %0' +%' 101' /' 6%$, *5' *&', . (14 '), *. ' , 0' 0, B' 3%%90' +$%%' 3%%90', 0' . ' %B(%6), *. ' //2' 0+*$)' 6%$, *5')+$%%' 8 *.)+0' . *)' %B(%6), *. ' //2' /*. -' $' %' 5' -, 7%0' ('0%0' *((1$$, . -' '&)%$' %/%7%. ' ' . 5' &, &)%%. ' 8 *.)+0' ' /')%. (2' *&')+, $)%%. ' 2%' $0' + '0' 4%%. ' $%; (*$5%5' &)%$')+%' 0%(*. 5' 8 *.)+' + '0' %' 60%5')+%' &%' $' *&' ' . 2' 1/)%$, *$' (*. 0%E1%. (%0' 4%; (*8 %0' /%00' ' . 5' /%00' +%' , . (14 '), *. ' *&')+%' 5184' &*$8' *&' $' 4, %0', . *(1/')%5' 42' ' '0)%1$<0' 8 %)+*5', . ')+%' $' 44,)' , 0' $%51(%5')*' 0%7%. ' 5 '20' . ')+%' 5*-')+%' 101' /', .)%$7' /, 0' &$* 8')+$%%')*' 0, B' *$' %, -+)' 3%%90Ĥ,)' + '0' *((1$$%5' '&)%$')+$%%' 8 *.)+0' ' . 5' , . ' *. %, . 0)' . (%' $%(*$5%5' 42' *1')' '&)%$' 0%7%. ' 8 *.)+0' +%' 0+*$)%0)' , .)%$7' /' -, 7%. ' 42' %-. ' 1/)' &$* 8')+%' 4,)%' 0, -. 0' *&' $' 4, %0', . ')+%' 5*-', 0')%. ' 5 '20Ĥ *&' +, 0' 0, B)2 %, -+)' ('0%0')%. ' 3%$%' &$* 8' ' ' &*$). , -+)')*')+$%%' 3%%90' ' . 5' &, &)2 0%7%. ' ')' /*. -%$' , .)%$7' /0' 16')*')+$%%' 8 *.)+0

+%' , . (14 '), *. 6%$, *50' *&')+%0%' 3, 5%/2' 5, &&%$, . -' 5, 0%' 0%0' 3+, /%' $%)', . , . -' 5, 0), . (), 7%' 5, &&%$%. (%0' 8 %$-%' , .)*' %' (+' *)+%$' +%' /*. -%0)' , .)%$7' /0' *40%$7%5' &*$' 0('$/%)' &%7%$' (*$$%06*. 5' 3,)+')+%' 0+*$)%0)' *40%$7%5' , . ' 8 %' 0/%0Ĥ 2%)' 8 ' . 2' 5, 0%' 0%0' '$%' 0%6' $')%5' 3, 5%/2' 42')+%, $' /%. -)+' *&' , . (14 '), *. ' ' 0' 08 ' 6*B' &$* 8' (+*/%$' ' 2%//*3' &%7%$' ' . 5' 6/' -1%' &$* 8')26+10' ' . 5' 0), ' 8 *$%' 3, 5%/2' &$* 8')+%' $%(1$$%.)' 6' /15 ' /' &%7%$0

1 $$!' %

' G ' * (2

(' 5 :&

' " ' ' 6*, .)' *1)R G' +')' 3+, (+' 01--%0)0' *$' (/%' $/2' 5%8*. 0)$')%0')+%' (*1$0%)*' 4%' 61$01%5' ' . 5')+%' $%8%5, %0')*' 4%' 5*6)%5' 42')+%' 6$' (),)*. ' %$' %,)+%$' &*$')+%' 6$%7%.), *. ' *$', . ')+%' '(0)1' /')%')8%.)' *&' 5, 0%' 0%'

&)%.'0 ,.'+%('0%&'+%*.0%)*&'(1)%5,0%'0%',0'.'/*-*10)*+%$,-*$ K3+,(+10+%$0',.'.'(1)%'))'(9',*/5%$6%$0*.0 *8%),8%0',0)$1%'(*.71/0,*.0'$%6$*;51(%5',.')+%(+5'0',.')+%'51/)'42'0%7%$%(%$%4$'/5,0%'0%H41)',.'01(+'('0%0')+%'&,)0''$% &$%E1%.)/2'$%6%')%5'.5''$%'01((%%5%542'$,-,5,)2'6'$'/20,0'.5'*)+%$'0,-.0'*&(%.)$,(',$$,)'),*.' 0''' $1/%'0,.-/%'&,)0'*$(*.71/0,*.0'*((1$$,..-'3,)+*1)'*)+%$'0,-.0'*&.%$7%/%0,*.',.'''+%'/)+2',+,/5''$%6).%/2'$%&/%B''.5'+'7%'.*'-$'7,)2'3+')%7%$ +%',86$%00,4,+)2'*&')+%'.%$7*10'020)%8',0',.($%'0%5'42'('10%0'3+,(+'6$*51(%''0155%.'5%6$%00,*.'*&0)$%.-)+'01(+''0''4'5'))'(9'*&5,'$$+*%''*$'/*00''*&'4/**5''.5',.'*.%'(+$*.,(',5,0%'0%G$,(9%)0G),+%.%$7*10',$$,)'4,/,)2',0'7%$2'-$%')' +%%&&%()'*&'(+$*.,(' 3'0),-.'16*.')+%'(+,/5',0'+*3%7%$'101'//2')*'6$*51(%''.'*66*0,)%'$%01/)H'.5'1.5%$')+%'/*.-(*.),.1%5',.&/1%.(%'*&'%.;&%%4/,.-'5,0%'0%')+%'%B(,)'4,)2'*&')+%'.%$;7*10'020)%8'4%(*8%0'-$'51'//2'/%00''.5'/%00'8'.,&%0)'1.),f',)'&,.'//2'5,0'66%'$0''/8*0)'%.),$%/2')',0'*&',86*$)'.(%')*')+%'6$'(),;),*.%$')*'4%*$)+,0'&')',.'8,.5'&*$',.''(+,/5'81(+'$%51(%542'(+$*.,(',//.%00')+%'6$%;0%.(%'*&'.',.)%$(1$$%.)'(1)%'(*86/,('),*.'G01(+'0',.&/'88'),*.'*&')+%'/1.-G8'24%',.5,(')%5'42'7%$2'&%3'0286)*80')+%'020)%8'+'7,.-'4%(*8%888*0)',.0%.0,4/%')*'.%$7*10',86$%00,*.0 .*)+%$'6%(1/,'$,)2'3+,(+'0)$,9%0')+%'))%.),*.'*&''.2*.%''((10)*8%5'*./2')*'5,0%'0%'0',)'*((1$0',.')+%'51/)',0')+%'7'0)'6$%6*.5%$'.(%',.'.&'.),/%'5,0*$5%$0'*&'8%$%5,0)1$4'.(%'*&&1.(),*.''.5')+%'5,0'0)$*10'(*.0%E1%.(%0'3+,(+'82'%.01%'&$*8'01(+'5%$'.-%8%.)0'.&'.)0'$'6,5/2'6'$)'W3,)+')+%,$'+%')''.5''$%'%'0,/2'(/%5'+%2''$%)+%$%&*$%'%B(%00,7%/2'0%.0,),7%')*'(+'.-%0'*&'%86%$')1$%''(')'$$+',0''(*88*.'',/;8%.)',.')+%'2*1.-'(+,/5''.5',0'))%.5%5'427'$,*10'5'.-%$0'((*$5,.-')*')+%'6')$'*&')+%81(*10')$')()'3+,(+',0'&&%()%5'42',)'0;)$,(')'$$+',)+'73,/%.)'.5'$%6%')%5'78*.);,.-'.5',.)%0),.'/'(')'$$+'3,)+'1.(*.)$*//;'4/%'5,'$$+*%''$%'.03%$'4/%&*$''/'$-%'6$*6*$),*.'*&')+%'5%')+0'8*.-0)'2*1,='(+,/5$%.'51$,.-')+%'3'$8%$'8*.),,0'7%.',.'%'0%0'K+%$%')+%'(')'$$+'&&%(),.-')+%'5,-%0),7%'*$-'.0>0'*&'*'/%00'(1)%'.5'7,*/%.)'(+'$'()%$')+%',001%',0'*&)%.'7%$2'0%$,*10'+%'-$'51'/&'./1$%',.'61)$,),*.'3+,(+',0')+%'$%01/)'*&'01(+'.',,86%5,8%.)')*')+%'5,-%0),*.'*&'&**5',0''(*88*.'('10%'*&*3'0),.-',.'2*1.-'(+,/5$%.H'.5'1./%00'8%'01$%0'4%')'9%.'%'$/2')*'$%0)*$%')+%'6$*6%$'3*$9,.-'*&')+%'/,8%.)'$2'&1.(),*.0')+%'('0%'8'2'%.5'&')'//2'.')+%''1)18.''.5'3,.)%$')+%'4$*.(+,'/'81(*10'8%84$'.%',0'8*)%'&$%;E1%.)/2'))'(9%5'.'01(+'('0%0'+*3%7%$''66'$%.)/2'0/,-+)'8'2'4%')+%'('$$+''''3%'9/2',3'.)',0''/3'20'%B6*0%5')*')+%'5'.-%$*&'61/8*.'$2'<*//'60%H''.5''$'6,5',.)%$&%$%.(% 3,)+')+%'$%06,$')*$2'&1.(),*.01(+''0')'9%0'6/'(%'3+%.'(*//'60%'*&'0*8%%B)%.)'*&'/1.-',0'E1,(9/2'4$*1-+)''4*1)',0'*&)%.''('10%'*&'0155%.'5%')+)',0''&$%E1%.(2'*&&1.(),*.'/5%$'.-%8%.)0''.5'),$'5'.-%$*10'(+'$'()%$')+)'' %B'8,.'),*.',.'.&'.)0'$%'0*'*&)%.'1.0'),0&'()*$2',.'.*)'&,.5;,.-''.2'66%'$'.(%0'%B6/'.')*$2'*&')+%'('10%'*&'5%')+ $'' ,!G+%'(/,.,('/%B;'8,.'),*.'*&'2*1.-'(+,/5$%.'$%E1,$%0')'()'.5'6'),%.(%'41)'18%00')+%'(+,/5'4%'7%$2'1.$1/2',)',0'.*)'5,&&,(1/)'+%'6'),%.)'('..*)'+,80%/&5%0($,4%'+,0'0286)*80'41)'//.%(%0;0'$2',.&*$8')',*.'('.'4%'-',.%5'&$*8')+%'6'$%.)0'*)+%$0''$%''0''''$1/%'-**5'*40%$7%$0''.5''//*3,.-'&*$')+%,$'.')$''/'.B,%)2''.5''0/,-+)')%.5%.(2')*'%B'--%$';),*.')+%,$'0)')%8%.)0'('.'101'//2'4%$%/,%5'16*.'%'('.')+10'/%'$.')+%'6$%7,*10'0)'%*&')+%'(+,/5')+%'%B'()'5')%''$'3+,(+'+,0'0286)*80'4%-'.''.5')+%'*$5%$',.'3+,(+')+%2''66%'$%5'.&'.)0'0+*1/5'4%''/3'20'0),66%5'&*$'%B'8,.'),*.'0*')+')')+%'3+*/%4*52'8'2'4%$%B6*0%5')*'7,%3'%&*$%'+*3;%7%$'*$5%$,.-')+%'$%8*7'/*&')+%'(/*)+%0'3%0+*1/5'4%'('$%&1/')*'0'),0&2'*1$0%/7%0'16*.'(%$)',.'6*,.)0'3+,(+'('.'*./2'4%'6$*6%$/2'*40%$7%5'3+,/%')+%'(+,/5',0',.'$%6*0%'+10',.'*$5%$')*'(*1.')+%'61/0%'.5'$%06,$'),*.'6%$&%()'E1,%)',0',.5,06%.0'4/%'&*$)+%'/%'0)'8*7%8%.)'E1,(9%.0')+%'+%')$)<0''(),*.''.5'/)%$0')+%'$'6,5,)2'*&')+%'4$%')+,.-')+%'0'8%),8%')+%'%86%$')1$%'('.'4%')'9%.'42'+%')+%$8*8%)%$',.')+%'$%()18'+%'3+*/%4*52'0+*1/5')+%.'4%'%B'8,.%5'&*$06*)0'*$03%//,.-0H)+%'(*.5,),*.''*&')+%'09,.'('.'4%.*)%5G3+%)+%$'5$2'*$'8*,0)H')+%'&*.)'.%//%B'8,.%5H''.5'3%'('.'0(%$)',.')+%'0)')%''*&)+%'4%//2'3,)+'$%-'$5')*'+'$5.%00''*$'0*&);.%00''*&')+%'45*8,.'/'3'//0'.5')+%'0,C%'*&)+%'/,7%$''.5'06/%%.'&')+%'(+,/5'($2'')+%),8%'3%'8'$9')+%'(+'$'()%$''*&')+%'7*,(%'&*$+*'$0%.%00',0''.'%'$/2'0,-.'*&'(*.-%.,)'/026+,/,0 .')+%'6+20,('/%B'8,.'),*.'*&')+%'(+%0)'.')+%'6+20,('/%B'8,.'),*.'*&')+%'(+%0)'.',.''(+,/5',)',0',86*$)'.)')*'))%.5')*')+%&*//*3,..-'6*,.)0H*'%86/*2'6%$(100,*.'*&'')+%')3*'0,5%0''')+%'0'8%'6%$,*5'*&')+%$%06,$')*$2'8*7%8%.)')+')',0'51$,.-'%B6,$';),*.'*$'51$,.-',.06,$'),*.H)*')0),$9%'-%.)/2'W3,)+'2'&,.-%$0'&*$'42')+,0'8%'.0''/'$-%$7*/$1.%*&'0*1.5',0'4$*1-+)'*1)''.5'0/,-+)'51/.%00',0'8*$%'%'0,/2'5%)%()%5H'/3'20')*'10%''')%)+*0(*6%',.0)%'5'*&')+%'1.'00,0)%5'%'$',.'*$5%$')*'/8,/)'+%'('$%''/,0)%.%5')*H'.5')*'8'.'-%'0*')+')'+%'(+,/5<0'8*1)+'4%*6%.'51$,.-'10(1/)'),*.'0*'10*&'8')+%'(+,/5<0'8*1)+'4%)$'.08,00,*.'*&'0*1.50'&$*8')+%')+$*')' .''.',.&'.)')+%'4'(9',0'4%0)'%B'8,.%5'42'6/'(;,.-')+%'(+,/5'*.')+%'.1$0%<0'/%&)'0+*1/5%$'W3,)+'+,0K/%&)''$8'$*1.5'+%$'.%(9'&')+%(+,.'4%'.*3'5%6$%00%5'42')+%'.1$0%<0'+'.5'*.')+%'(+,/5<0'+%'5')+%'8 10(/%0'*&'4*)+'0+*1/5%$0''$%'$%/'B%5'+%'&$*.)'.5'0,5%0'*&')+%'(+%0)'('.'4%'%B'8,.%5'0')+%,.&'.)

(* 8 % ' f (*$610(/%0 ' 41) ') + ') ') + % . 1 8 4 %$ * &
) + %0 % , 0 , . (* . 0,5 %$ ' 4 /% (* 8 6 ' $ %5 ' 3 ,) + ') + * 0 %
3 +, (+ ' % 7 %. ' , . ' ' . * . 7 ' 0 (1/ ' $) , 001 % / , 9 %) + %
(*$. % ' ' ' $ % 5 %$, 7 %5 ' & $ * 8 ') + % 7 %00 %/0
+ % 6 $ * (%0 0 * & ' . &/ ' 8 8 ') , * . ' . ' *) + %$. * . '
7 ' 0 (1/ ' $ 6 ' $) 0 ' 01 (+ ' ' 0 (' $) , / ' - % ' + ' 0 4 %% . '
0) 15 , %5 ' , . ') + % 0 ' 8 % 3 ' 2 ' ' 0 . ') + % (* $. % ' '
. 5 ') + % ' - % . % $ * / ' $ %01/) ' , 0 ') + % 0 ' 8 %
" 0 ' " ') / ' G + %0 % '
) + * 1 - + ' 66 ' $ % .) /2 ' 8 * $ % ' 8 4 , - 1 * 1 0) + ' . ' , . '
. * . 7 ' 0 (, // ' $ ' 6 ' $) 0 ' ' $ % 2 %) ' 0 * 8 %) , 8 % 0 ' 010 (%6 ;
) , 4 / % * & ' 8 * $ % 8 , . 1) % ' 0) 152 ' . ') + % * 8 % .) 1 / . '
* & ' 8 8 ' /, ' ' (+ ' . - % 0 * ((1 $ 51 $, . - ' , . & / ' 8 8 ' ;
) , * . ' , . ' 3 + , (+ ' 1 . 4 , ' 00 %5 ' * 40 %$ 7 ') , * . ' (' . ' 0 %% '
. *) + , . - ' % / 0 %) + ' . ' (%// 5,7,0 , * . ' -$ * 3) + ') ' . 5 '
- %, 8 , . ') , * . ' + %$ % , 0 ' , . 5 %% 5 ' $ % ' 0 * . ') * '
4 %/, % 7 %) + ') ' 01 (+ ' ' 66 % ' $ ' (%0 ' ' $ % & * 1 . 5 '
. * $ 8 ' //2 ' ' 0 ' % 7,5 % . (% ' 8 % $ % / 2 ' * & ' - $ * 3) + ' 41) '
) + % , . & / ' $ 1 8 ') * $ 2 ' (+ ' . - % 0 ' ' $ % 5,0) , . - 1 , 0 + % 5 '
& $ * 8 ') + % . * 8 / ' 42 ') + % , $ ' - $ % ') % $ ' & $ % E 1 % . (2 '
' . 5 ' /1B) , $, ' . (% ' . ' & , 4 $ * 1 0 ' (* . . % ( ) , 7 % '
) , 001 % 0 , 8 , / ' $ ' 6 $ * (% 00 % 0 ' + ' 7 % ' / * . - ' 4 % % . '
* 40 % $ 7 % 5 ' ' . 5 ' 0 , . (% ' ')) % .) , * . ' 3 ' 0 ' 5 $ ' 3 . ') * '
) + % 8 ' 42 ' , $ (+ * 3 ' + ' 7 % ' 4 % % . ' $ % - ' $ 5 % 5 ') , / /
') % / 2 ' ' 0 ' 0 + * 3 , . - ' , . ') + % ' (/ % ' $ % 0) ' 8 ' . . % $ '
) + ') ') + % ' & , B % 5 ' (% // 0 ' * & ') + % ') , 001 % ' - % $ 8 , . ') % '
' . 5 ' 6 $ * 51 (% ' . % 3 ' % / % 8 % .) 0 ' + , 0 ' 0 6 $ * / , & % $ ' ;
) , * . ' * & ' (* . . % ( ) , 7 % ') , 001 % ' ‹ ' , 0 ' ' . ' * 47 , * 1 0 ' & ' ( ) '
41) ' ,) 0 ' , 8 6 * $) ' . (% ' , 0 ' (+ , % & / 2 ' , & ' . *) ' % .) , $ % / 2 '
, . ' $ % / ') , * . ') * ') , 001 % & * $ 8 ') , * . ' ' . 5 ' . *) ' , . '
) + % ' 6 $ * 51 ( ) , * ' & ' / 2 8 6 + * , 5 ' * $ 610 (% // 0 ' * &) % . '
' 0 ($, 4 % 5 ') * ' ,) ' $ * 1 . 5 ' , . & / ' 8 % 5 ' 6 ' $) 0 ') + %
(* , 8 % ( ) , 7 % ') , 001 % ' , 0 ' * &) % . ' & * 1 . 5 ' , . & , /) $ ') % 5 '
3 ,) + ' / 2 8 6 + * , 5 ' (% // 0 ') + % * $, - , . ' * & ' 3 + , (+ ' 3 ' 0 '
& * $ 8 % $ / 2 ' 0 %) ' 5 * 3 . ') * ' 6 $ * / , & % $ ') , * . ' 1) ' ,) '
0 % % 8 0 ' 8 * $ % . . ') 1 $ ' / ') * ' $ % - ' $ 5 ') + , 0 ' 0 0 8 ' / / '
(% // % 5 ' , . & , /) $ ') , * . ‹ 3 + , (+ ' , 0 ' ' ' 7 % $ 2 ' & $ % E 1 % .) '
' ((* 8 6 ' . , 8 % .) ' * & ' , . & / ' 8 8 ') , * . ' ' ' 0 ' $ % 0 , & ,) , . - '
& $ * 8 ' 8 , - $ ') , * . ' * & ' / % 1 (* (2) % 0 ' & $ * 8 ') + % ' 7 % , . 0 '
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6 * 00 , 4 , / ,) 2 ' + * 3 % 7 % $ ' * & ') + % 6 $ * 51 ( ) , * . ' * & '
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& , B % 5 ' % / % 8 % .) 0 ' (' . . *) ' 4 % ' ( ) 1 ' // 2 ' 5 % . , % 5
+ % $ % ' , 0 ' ' / 0 * ' $ % ' 0 * . ') * ' 4 % / , % 7 % ') + ') ') + %
/ % 1 (* (2) % 0 ' % 8 , - $ ') % 5 ' & , * 8 ') + % 7 % 00 % / 0 ' 8 ' 2 '
& ' $) + % $ ' 5,7,5 % ' . 5 ' 0 6 $ * / , & % $ ') % ‹) $, % 9 % $ ' . 5 '
/ % , . ' + ' 7 % ' 4 *) + ' * 40 % $ 7 % 5 ' ' ( ) 1 ' / ' (% // 5,7,0 , * . '
) ' 9 % ' 6 / ' (% ' 1 . 5 % $ ') + % 8 , ($ * 0 (* 6 % ' Ḥ 0 * ') + ') '
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5 % 0 (% . 5 ' .) 0 ' * & ' % 8 , - $ ') % 5 ' (* $ 610 (/ % 0 ' %
8 ' 2 ') + % . ' (* 8 6 ' $ % ') + % 0 8 ' / ' * $ ' / 2 8 6 + * , 5 '
(% // 0 ' * & ' , . & / ' 8 % 5 ' 6 ' $) 0 ' * ') + % ' 6 * 61 / ') , * . ' * & ' ' '
(* / * . 2 ' 3 + % $ % ' 8 * 0) ' ' $ % ' % 8 , - $ ' .) 0 ' * $ ') + %
5 % 0 (% . 5 ' .) 0 ' * & % 8 , - $ ' .) 0 ' 41) ' 0 * 8 % ' & % 3 ') $ ' (% '
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" ' 0) G * $ % ' , 8 6 * $) ' .) ') + ' . ') + %
, . & , /) $ ') , * . ' * & ' / 2 8 6 + * , 5 ' (% // 0 ' ' $ % ') + % 5 % & , . ,) %
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(* 8 4 , . ') , * . ' * & ' $ %) $ * - $ ' 5 % ' * $ ' 5 % - % . % $ ') , 7 %
3 ,) + ' 6 $ * - $ % 0 0 , 7 % ' * $ ' - % $ 8 , . ') , 7 % ' (+ ' . - % 0 '
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) + % ' * . % ' 0 * 8 %) , 8 % 0 ') + % *) + % $ ' 6 $ % 5 * 8 , . ') , . - '
' ((* $ 5 , . - ') * ') + % 0 % 7 % $,) 2 ' * & ') + % ' , . > 1 $ 2 ' . ' 5 '
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& , 4 $ % 0 ' 3 +, (+ ' 8 ' 2 ' % . 5 ' , . ' / , E 1 % & ') , (* . ' % 0 6 % ;
(, ' / / 2 ' 3 + % . ') + % $ % 6 , 0 ' 01661 $ ') , * . ' + % ' 6 $ * ;
- $ % 00 , 7 % ' (+ ' . - % 0 ' (* . 0 , 0) ' . ' 6 $ * / , & % $ ') , * . ' ' . 5 '
& * $ 8 ') , * . ' * & ' . % 3 ' (% // 0 ' & * $ ') + % ' 61 $ 6 * 0 % ' * & ' $ % ;
6 ' , $ ' 6 % (, ' / + , 0) * / * - , (' / 8 %) + * 50 ' - % . % $ ' / / 2 '
6 % $ 8 ,) ' 10 ') * ' 5,0) , . - 1 , 0 + ') + % 0 % ' % / % 8 % .) 0 ' & $ * 8 '
8 , - $ ') * $ 2 ' / 2 8 6 + * , 5 ' (* $ 610 (/ % 0 ' 1 (/ % ' $ '
(+ ' . - % 0 ' 9 ' $ 2 * 9 , ' % 0 , 0 ' . 5 ' 9 ' $ 2 * 8 ,) * 0 , 0 ' 8 ' 2 '
* &) % . ' 4 % ') $ ' (% 5 ' , . ' , . & / ' 8 % 5 ' 6 ' $) 0 ' 42 ' 6 $ * 6 % $ '
8 %) + * 50 ' ' . 5 ' ' $ % ') + % ' 8 * 0) ' (% $ ') , . ' 7,5 % . (% ' * &
(% // 6 $ * / , & % $ ') , * . ' ' $ $ 3 ' ,001 % $ % 6 ' , $ '
4 % - , . ' 0 ' 3 ,) + ') + % ' & * $ 8 ') , * . ' * & ' 0 * (' / / % 5 ' % 6 , ; ;
) + % / , * , 5 ' (% // 0 ' * $ ' & , 4 $ * 4 / ' 0) 0 ' A & , 4 $ * 6 / ' 0) , (' (% // 0 '
* & ') + % ' * / 5 % $ ' 8 , % $ * 0 (* 6 , 0) 0 R ' 3 +, (+ ' 0 * 8 %) , 8 % 0 '
% . / ' $ - % ' , .) * ' - , ' .) (% 0 ' A + % ') + % * $ 2 ' * &
V , % - / % $ ') + ') ' 01 (+ ' (% // 0 ' 8 ' 2 ' 4 % ' & * $ 8 % 5 ' * 1) ' * &
/ % 1 (* (2) % 0 ' , 0 ' . * 3 ' - , 7 % . ' 16 ' 42 ' ,) 0 ' ' 1) + * $ R
+ % ' . 1 (/ % , ' * & ') + % 0 % ' (% // 0 ' 4 % (* 8 %) + % ' . 1 (/ % , ' * &
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' $ % ' 6 $ * 4 ' 4 / 2 ' & * $ 8 % 5 4 2 ' 06 / ,)) , . - ' 16 ' &) + % ' 6 $ * H
) * 6 / ' 0 8 ' * & ') + % (% // 0 ' 1) - $ * , $) + 0 ' & $ * 8 ') + %
01 $ $ * 1 . 5 , . - ' 4 / * * 5 7 % 00 % / 0 ' $ 1 . ' , .) * ') + % . % 3 '
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, 0 ') + 10 ' * . % ' * & ' (* .) , . 1 * 10 ' - $ * 3) + ' E 1 ,) % ' , . 5 % ;
6 % . 5 % .) ' * & ') + % ' 8 , - $ ') * $ 2 ' / 2 8 6 + * , 5 ' (% // 0 ' ' . 5 '
* & ') + % ' + 26 % $ ' 0 8 , ' ' ' . 5 ' % B 15 ') , * . ' % B (% 6) ' , . ' 0 * '
& ' $ ') + ') ') + % ' / ')) % $ ' + % / 6 ' 42 ' ' & & * $ 5 , . - ' ' ' 8 * $ %
' 41 . 5 ' .) ' 0166/2 ' * & ' . * 1 $, 0 + 8 % .) ' Ḳ + % ' $ % / ' ;
, * . ' * & ') + % ' / 2 8 6 + * . 5 ' (% // 0 ') * ' $ % 6 ' , $ ' , 0 ') + 10 '
7 % $ 2 ' * 40 (1 $ % ' ' . 5 ' ,) ' , 0 ' 6 * 00 , 4 / % ') + ') ') + % 2 '
8 ' 2 ' 4 % ' 8 % $ % / 2 ' ' ' + , . 5 $ ' . (% ' Ḥ) + * 1 - + ') + %
. *) , * . ' + ' 0 ' 4 % % . ' 0) ' $) % 5 ') + ') ') + % 2 ' 0 % $ 7 % ' ' 0 '
6 ' 41 / 18 ') * ') + % - $ * 3 , . - ') , 001 % (% // 0 ' 1) '
) + % 2 ' 6 % $ & * $ 8 ' * . % ' , 8 6 * $) ' .) ' & 1 . ( ) , * . ') + ') + ') ' * &
$ % 8 * 7 , . - ' , . > 1 $, * 10 ' & * $ % , - . ' 6 ' $) , (/ % 0 ' & , $ * 8 '
) + % ' 0 % ') ' * & ' , . & / ' 8 8 ') , * . ' * / % (1 / % 0 ' * & ' & ') '
6 , - 8 % .) - $ ' . 1 / % 0 ' . 5 ' *) + % $ ' ' * & ') , 001 % '
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' . 5 ') + % $ % ' , 0 ' $ % ' 0 * . ') * ' 4 % / , % 7 % ') + ') ') + % 2 ' ' / 0 * '
(' $ $ 2 ' ' 3 ' 2 ' 4 ' ( ) % $, ' ' +%) + % $ ') + % , $ ' ' ( ) , * . '
. ') + % 0 % ' * $ - ' . , 0 8 0 ' , 0 ' 6 $ % (, 0 % / 2 ') + ') ' 3 +, (+ '
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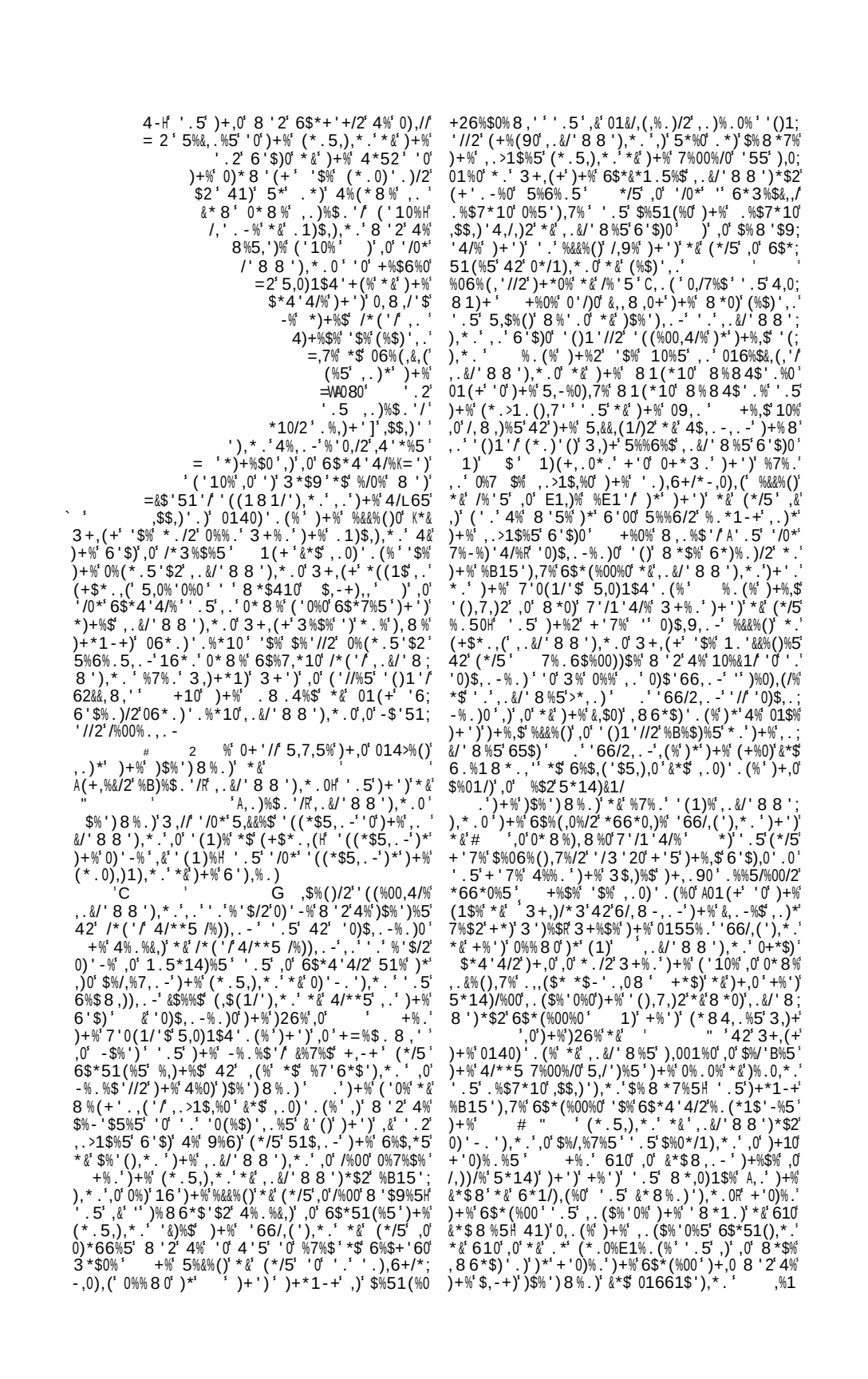
6%$0,0)%.(%' *&')+')' %6.5,),*''' *&')+%' 7%00%/0' 3+,(+' 6%$8,)0' %B15')',*.'' .5' (%// %8,-$'),*.' 3,)+'/%00' +26%$0%8,'' '.5' -%.%$'/' &%7%$')+'.' ,.')+%' '(1)%' &*$8 ' .' 81(*10' 01$&'(%0')+%' (+$*.,(' &*$8' 5,&&%$0' /,))/%' &$*8')+%' '(1)%' %B(%6)' ,.')+%0%')3*' $%06%()0' .' 0%$*10' 8%84$'.%0' (+$*.,(',.&/'8 8 '),*.' 6$*51(%0' &,4$*10' 5+%0,*.0' 3,)+' /,))/%' *$.*' /,E1,5' %B15'),*.' .')+%',.)%$0),),'/'),001%' *&' 0*/,5' *$-'.0' '' /'$-%' '8*1.)' *&' .%3' (*..%(),7%'),001%' ,0' 6$*51(%5'42' (+$*.,(',.&/'88'),*.' 3+,(+' &,$0)' (*86$%00%0')+%' 06%(,'/'%/%8%.)0' ('10,..-')+%8')*' 3')0%''.5')+%.' (*.)$')(0',.' 41/9' 0*')+')')+%' *$-'.' 4%(*8%0')$*6+,%5' '.5' 101'//2'+'$5%$' '.5' 8*$%' &,4$*10' +,0' ,0')+%' 6$*(%00' ('//%5' 0&,4$*,5' 5%-%.%$'),*.' '0',.'(,$$+*0,0'*&')+%'/,7%$' 0 +$*.,('6'$%.; (+28')*10' ,.&/'88'),*.0' '$%' 0,86/%' 5%; -%.%$'),*.0''0'0%%.',.')+%'9,5.%2,

! G +%'8*0)'&'7*1$'4/%')%$8,; .'),*.'*&',.5'88'),*.',0'3+')',0'('//%5' 7 "','.'3+,(+')+%'7'0(1/'$'6+%.*8%.*''' .5'),001% (+'.-%0'5%(/,.%')*-%)+%$'.5'6'00' '3'2'3,)+*1)'/%'7,.-'.2')'.-,4/%'8')%$,'/'$%01/)' 7%.',.')+%''66'$%.)/2'8*0)'6%$&%()' ('0%0'*&'$%0*/1),*.')+%$%',0'/,))/%'5*14)')'6$*51()0'*&'%0%'3+%.')+%'7'0(1;/'$' (+'.-%0'+'7%'0140,5%5''.5''$%'0/*3/2' $%8*7%5'42')+%'/286+'),(0')+%$'0*(' %5')%$8,.'),*.0''$%" ' *$')*)'/'5%')+' &)+%'6')Ĥ .5'6'$),'/'5%0)$1(),*.'42'016; 61$'),*.' "' 1)',&'.2'/*00'*&' 0140)'.(%'*((1$0')+%',.&/'88')*$2'6$*(%00' ('..*)'4%'$%-'$5%5''0')'.'%.5',/'')+%'/*00' ,0'3+*//2'*$'6'$),'//2'$%0)*$%5'42'.%3/2' &*$8%5'(*..%(),7%'),001%' +%$%')+%$%',0'.*')+%0%'$1(),*.'*&'),001%'41)'*./2'8'00%0'*&',E1,5' *$'0*/,5'%B15'),*.')+%',.&/'88')',*.'),*.'6$*51(%0'&%7%$',0'.*')2%)'6%$&%()/2'1.5%$; 0)**5' +%'5%-$%%',.'3,.(+'/*('/',.&/'88';),*.0'('10%'&%7%$'7'$,%0''.5'5*%0'.*)'66%'$)*'5%6%.5'3+*//2'*.')+%'8'00'*$')+%',.)%.0,)2' *&')+%',.&/'88'),*.')+*1-+'4*)+%0%'(*.; 5,),*.0''$%'6'$))/2'(*.(%$.%5' (1)%',.&/'8; 8'),*.0'6$*51(%'8*$%'&%7%$')+'.'(+$*.,(H)+*0%'*&'(*..%(),7%),001%'8*$%')+'.')+*0%' *&'81(*10'01$&'(%0Ĥ''.5'8*0)'*&''//')+*0% 3+,(+'%.5',.'01661$'),*.' .' .&%(),7%',.; &/'88'),*.0')+%'&%7%$',0'-%.%$'//2'+,-+'41)' .*)')*'4%')$,41)%5')*')+%'/*('/',.&/'88'),*.' 4%,.-''' (*.(1$$%.)'%&&%()'*&')+%'0'8%'('10%=')+%',.&%(),7%'6*,0*.' %0,5%0'-%.%$'/&%7%$')+%'06%(,'/'(*.5,),*.'('//%5' ',.'3+,(+' @' B " ' T " G +%' %&&%()' *&')+%$'/*('/',.&/'88'),*.0'$%01/)'8'2'4%' (*.0%E1%.(%'*&'6$,8'$2',.&/'88'),*.Ĥ 41)Ⱪ *./2'3+%.'(%$)',.'06%(,'/'('10%0'$%')'3*$9' ' . #'¢ '.5': 6" ''G' *0)' ,.&/'88'),*.0' '$%' ('10%5'42'0*8%',.>1$2G%,)+%$' 8%(+'.,('/' '0'42'()1'/'7,*%.(%Ĥ*$'6+20,('/''0'(+'.-%0' *&')%86%$')1$%Ĥ*$'(+%8,('/'42'6*3%$&,//2' '(),.-' 0140)'.(%0' '0' '(,50' '/9'/,0' '.5' 8''.2'8*$%' ' 8*0)',86*$)'.)'0%(*.5'$2' &'()*$',0')+%'(*.5,),*.''*&')+%'4*52'3+%)+%$' 1.5%$' *$'*7%$.*1$,0+%5' *$',.'0*8%' *)+%$ 6'$)Ĥ)+,0'6$*(%00'$',0,.-'&+%')%86=')+%'4/**5'6'00,.-')+$*1-+')+%' *&')+%' 3+*/%'4*52'42'8%'.0K 1)')+,0'0,86/%'%B6/''.'),*.',0')'+'0'%7%.'4%%.'81(+'5,0 +%')' *&',.&/'8%5'6'$)0'(' *&')+%'4/**5')+*1-+')+%'= &/'8%5'%B)%$.'1$%'+%' 8'/',.')+')'0,1),*.= (*$$%06*.5,.-'6'$)'; 0,5%'*&')+%'4*52' +26%$0%8,''.,.';K)%86%$')1$%'+%' $-'.0' B6%>,' /%5')*'7%$2'%*>' '.5' %4%$' $ *&' '(*4-*.''.' '00188E'.')'()1'/ &/'8=''6'$)0')+,0' ```` 0+*3.'42'('/(1/'),*.')*' (=' *&')%86%$')1$%',.')+%' 3+*/%' '/0*'4%%.'0166*0%5')+')'0*8%&%7=' ' *+' 0 " '0140)'.(%'6'00%0',.)*'8 &$*8' %7%$2',.&/'8%5'6'$)' '.5' ('10%0' 8' $%'0%5',001% (+'.-%' 3,)+' (*.0%E1%.)' ,.; ($%'0%5'6$*51(),*.'*&'+%')')+$*1-+')+%'3+*/% 4*52Ĥ *$ %/0%'%B%$)0' ''06%(,'/''(),*.'*.')+%' +%') (%.)$%0' %7%$'/0140)'.(%0'+'7,.-'' 62$*-%.,('6$*6%$)2'+'7%'4%%.',0*/')%5' +%2' '$%' %,)+%$' '.,88'&%$8%.)0' A%.C28%0R *$' /4188*0%0'6$*51(%5'42')+%''(),*.'*&'4'()%$,'' *.'6$*)%,5'0140)'.(%0' ,.''//2',)' ,0'+%/5')+')')+%'.%$7*10'020)%8'+'0''')'$-%'*$%7%.')+%' (+,%&'0+'$%',.')+%' 6$*51(),*.'*&'&%7%$Ĥ)+%',.&/'8%5'6'$)''(),.-')+$*1-+')+%' .%$7%0' *.')+%' (%$%4$'/'+%') (%.)$%0'(*.)$*//,.-')+%)%86%$')1$%*&')+%'4*52' 1)'.*.%*&')+%0%')+%*$,%0' ,0' 5%&,.,)%/2' %0)'4/,0+%5' '.5')+%' 8'..%$')+%$%&*$%',.'3+,(+'/*('/',.&/'88';),*.'6$*51(%0'&%7%$',0'.*)'2%)'6%$&%()/2'1.5%$; 0)**5' +%'5%-$%%',.'3,.(+'/*('/',.&/'88';),*.0'('10%'&%7%$'7'$,%0''.5'5*%0'.*)''66%'$)*'5%6%.5'3+*//2'*.')+%'8'00'*$')+%',.)%.0,)2' *&')+%',.&/'88'),*.')+*1-+'4*)+%0%'(*.; 5,),*.0''$%'6'$))/2'(*.(%$.%5' (1)%',.&/'8; 8'),*.0'6$*51(%'8*$%'&%7%$')+'.'(+$*.,(Ĥ)+*0%'*&'(*..%(),7%),001%'8*$%')+'.')+*0% *&'81(*10'01$&'(%0Ĥ''.5'8*0)'*&''//')+*0% 3+,(+'%.5',.'01661$'),*.' .' .&%(),7%',.; &/'88'),*.0')+%'&%7%$',0'-%.%$'//2'+,-+'41)' .*)')*'4%')$,41)%5')*')+%'/*('/',.&/'88'),*.' 4%,.-''' (*.(1$$%.)'%&&%()'*&')+%'0'8%'('10%=')+%',.&%(),7%'6*,0*.' %0,5%0'-%.%$'/&%7%$')+%'06%(,'/'(*.5,),*.''('//%5' ',.'3+,(+' @' B " ' T " G +%' %&&%()' *&')+%$'/*('/',.&/'88'),*.0'$%01/)'8'2'4%' (*.0%E1%.(%'*&'6$,8'$2',.&/'88'),*.Ĥ 41)Ⱪ *./2'3+%.'(%$)',.'06%(,'/'('10%0'$%')'3*$9' ' . #'¢ '.5': 6" ''G' *0)' ,.&/'88'),*.0' '$%' ('10%5'42'0*8%',.>1$2G%,)+%$' 8%(+'.,('/' '0'42'()1'/'7,*%.(%Ĥ*$'6+20,('/''0'(+'.-%0' *&')%86%$')1$%Ĥ*$'(+%8,('/'42'6*3%$&,//2' '(),.-' 0140)'.(%0' '0' '(,50' '/9'/,0' '.5' 8''.2'8*$%' ' 8*0)',86*$)'.)'0%(*.5'$2' &'()*$',0')+%'(*.5,),*.''*&')+%'4*52'3+%)+%$' 1.5%$' *$'*7%$.*1$,0+%5' *$',.'0*8%' *)+%$



6))0' ,0' *. (%' &*$8%5')+%' 0' 8%')$%')8%.)' ,0'),0%&*/', .'-1,5, .-',)' , .')+%' 5,$%(),*.',.' +,(+' ,)',0'/%'0)'+1$)&1/' , .''//2',)'8'2'4%'4%. %&,(,'/)*' '66/2'+%')' . 5' 8*,0)1$%' 016%$&,(,''//2')*' $%+%7%' 5%%6 0%')%5'*$-'.0'42'0),81/'),.-')+%' 7'0(1/'$' .5'/2 8 6+'),(' (,$(1/'),*.')+$*1-+' L)+%' 09,.' +10',.' '66/2,.-' 6*1/),(%0' &*$ 6.%18*.,''3%'5*'.*)' 8 =%')+%'/1.-'*$ %7%.')+%'6/%1$''+*))%$'41)' $%/,%7%')+%' *7%$/*'5%5' 4/**5 7%00%/0' .5'/=6+'),(0

1$)+%$',.')$%'),.-' ''/' 016%$&,(,'/,.&/' 8; 8'),*.0' 3%' 8 10)' -1'$5' '-',.0)' '.2)+,.-' 3+,(+',.($%'0%0')+%' ,.>1$2' 01(+' '0' 8*7%; 8%.)' &1$)+%$',$$,)'),*,' 42')+%' ',$' *$' 42' '.2)+,.-' (*.)',.%5',.')+%' ',$' +10',.' 0*8%' 098 5,0%'0%0''0'+%$6%0'C*0)%$'0%(*.5; '$2',.&/'8 8'),*.',0'6$%7%.)%5'42'.'$),&,(,'/Q(*7%$,.-'*&' (*//*5,*.' .),0%6),(' 01$-%$2' 0+*30')+')'.*)'+%' ,$'41)'4'()%$,''(*.7%2%5' 42')+%' ,$'*$*)+%$3,0%'$%')*'4%'&%'$%5''.5' ,&')+%0%' '$% %B(/15%5'81(+',.&/'8 8'),*.',0' 6$%7%.)%5' +%'4%.%&,)0'*&'8%(+'.,(''/$%0)' ,.')$%'),.-',.>1$,%0'*&')+%'/,840'.%%5'.*)'4%' 8*$%')+'.'8%.),*.%5H' .*$')+')'*&'6+20,*; /*-,(''/$%0)'3+%$%7%$',)'(''.'4%*4)',.%5',.')+$%')%.%5'*$%B,0),.-',.&/'88'),*.'*&'.2' '(),7%'*$-'.' 3+')%7%$G&*$ %B'86/%')+%' 4$',.')+%'0),6'(+'*$')+%'9,5.%2

.' 8'.2' '(1)%',.&/'88'),*.0' +*3%7%$' 3+%$%'3%'9.*3')+%'(*1$0%'*&')+%',.&/'88';),*.'.5')+')'3%'('..*)'40*/1)%/2'0)*6')+%' 6$*(%00' 1$4%0)'8%)+*5'8'2'4%'8%$%/2')*' '66/2'6'//,'),7%0')+')',0')*' '5*6)')*' (9 '

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C ',0''/0*'*&'-$%')',86*$)'.(%' +%$%',0' /,))/%'5*14)')+%',.)%.0,)2'*&''/',.&/'88';),*.0',0'/%00%.%5'42'-$%')/2'5,8,.,0+,.-')+%' &**5')'9%.' .'-*8%'(1)%',.&/'88'),*.0' %06%(,''//2'&%7%$0'3%'8'2'61$01%''5,&&%$%.)' 020)%8'3,)+')+%'7,%3'*&'0'7,.-')+%'6'),%.)0' 0)$%.-)+H 41)',)',0'6*00,4/%')+')',.')+%$%'(;),*.''-',.0)+%'0)'$7,.-'6$*(%00'0)+%'&%%5,.-' *&'&%7%$0H 8'2'4%',.')+%'6$%0%.)'5'2'0*8%),8%0' ('$$,%5')**

.')+%')$%')8%.)'*&' # " ' " "' ,.' '((%00,4/%'6')$*0')+%'&,$0)' ',8'3,/'4%')*' Q(+%(9')+%'%B1=),*.''.5'(%// 8,-$'),*.')+')' ,0')*'4$,.-')+%'7'0(1/'$'3'//' ,.)*' ''+%'/)+2' Q0)')%' %$%'3%'&,.5')+')'8%)''//,('.5'7%-%;)'4/%' '0)$,.-%.)0' '$%' 8*0)' 10%&1/' 1)',)' 8'2'8)+')+%'0'8%'*4>%()'4%'3%/'*' 5$'3' 8*$%'4/**5',.)*')+%' 6=',.'*$5%$')+')')+%' 7'0(1/'$'3'//'8'2'4%'4%))%$'.*1$,0+%5' +,0' ,0'%&&%()%5'42' " '3+,(+''$%'*&'3%//' 9.*3.' %&&,('(2' .'(+$*.,(',.&/'88')*.' *8%'*&')+%0%'-%.)0''$%')+%'0'8%'0')$),.; -%.)0'41)',.''*8*$%'(*.(%.)$')%5'&*$8G' .,)$')%' *&'0,/7%$'01/6+')%'*&'(*66%$'^(H *)+%$0'/,9%',*5,.%''.5'(')+'$,5%0''$%',$$,;)'.)0' +%'/*('/'(),*.'*&'(%$)','.'0140)'.(%0' 3+,(+'8'2'4%'('//%5' ',.'+%'/,.-' 0*8%'9,.50'*&'(+$*.,(',.&/'88')*.',0'8*0)' $%8'$9'4/%' +10')'$'%,)+%$'&$*8'3**5'*$ &$*8'(*'/''.5'0,8,/'B'4*5,%0''$%'10%5',.' (+$*.,(',.&/'88')*.0'*&'(%$)%5'42')+% Q(14%40'0'.5'/3**5'^('3+%.'%B($%)%5'42')+% 1$,.%''()'4%.%&,(,''//2',.'(+$*.,('(20),),0''.5' 1$%)+$,),0'%.C*,.')+%')'$0'(*6',4''*/1' .5'8'.2'*)+%$'*8'),('.'.5'$%0,.*10'(*8; 6*1.50'3+%.'%B($%)%5'42')+%'/1.-0''()',.')+%'0'8%'3'2'*.'(+$*.,('4$*.(+,),0' +% " '*&')+%'(),*.'*&')+%0%'5$1-0',0'5,&&,; (1/)'*'1.5%$0)'.5'41)')+%2''$%''//'*B,5,0'4/% 0140)'.(%0'3+,(+'1.5%$-*'0/*3'*B,5'),.'.' .')+%''$'*&)%.'''((*86'.,%5'42' '*C*.,0,.-' '(),*.' -',.','.)'8'2'+'66%.')+')',)',0'4%0)')*'03%%6')+%'*/5'),001%''3'2''.5''//*3'.%3' 7%00%/0'*' 4%'&*$8%5'3+,(+'3,//'6$*4/2' +'7%' +%'/)+,%$'3'//0' +,0',0'%&&%()%5'42' 5%0)$1()7%' '0'.,)$')%'*&'0,/7%$'6*')'00''&10''(+/*$,5%'*&'C,.('*$%7%.')+%''()1'/ ('1)%$2

.'(+$*.,(',.&/'88'),*.0',.)%$.'/')$%'); 8%.)',0'*&)%.'*&'-$%')'0%$7,(%''0'3%'0+'// 6$%0%./)2'0+*3

ALR'5" ' DP ')$%')8%.)' *&',.5,$%()/2''((%00,4/%',.&/'88'),*.0'*$'3+')' '8*1.)0')*')+%'0'8%')+,.-')+%')$%')8%.)'42' ,.)%$.'/A-%.$'/R'8%)+*50'%7%.'*&'5,$%()/2' '((%00,4/%',.&/'88'),*.0',0'81(+'/%00'0'),0; &'()*$2')+'.')+%'/*('/ +%'&,$0)',.5,(''),*.',0')*'-,7%')+%'6'$)' ')1'/'$%0)'8%(+'.,('/'*$6+20,*/*-,('/' +% .%B)',0')*'(*.0,5%$'&')+%$%',0''.2'3'2'*&'$%51(; ,.-')+%',.)%.0,)2'%,)+%$'*&')+%'/*('/'$%'(),*.' *$'*&')+%'&%7%$' &01(+'8%'.0')+%'(+,%&'$%-%.%$'/4/**5/%)),.-H)+%'-%.%$'/'66/,(''),*.' *&'(*/5H'.5'(%$)',.'6'$),(1/'$5$1-0'01(+'0' 8%$(1$,'/0''.),8*.,'/0'61$-'),7%0'5,-,)'/,0' '(*.),%'E1,.,.%')*5'''.184%$'8*$%

&'0 " ' "0'3%'('.*)'0'2' 81(+'+%$%' +%$%'('.'4%/,))/%'5*14)')+')' ,)'*&)%.'/*3%$0')+%'%.%$-2'*&',.&/'88')*$2' 6$*(%00%0',.''.'%'$/2'0)'-%' &',)' +'0'-*.%' *1)'*&'10%',)',0'6$*4'4/2'4%('10%')+%'(*1$0%' *&'8'.2'5,0%'0%0',0'.*3'4%))%$'9.*3.''.5' %5*'.*)'%B6%()')*'(1)')+%8'0+*$)H 4%('10%')+%'/,0)'*&',.&%(),7%'5,0%'0%0',0'%./'$-%5H'.5' 4%('10%')+%' 4%.%&,)0' '$%' 4%/,% %5')*' 4%'*1); 3%,-+%5'42')+%' 0166*0%5' 5$'34'(90',.' 5,8,.,0+,.-')+%'0)$%.-)+'*&')+%'6'),%.)' &' # '3%'.%%5'*./2'+%$%'0'2')+')+%2' '$%&'$'8*$%'6*)%.)',.' (+%(9,.-')+%'(*.5,;),*.'*&'&%7%$')+'.''.')*66,.-'/*('/',.&/'88';),*.' &' 0 '5,-,)'/,0',0'0166*0%5')*' '()'42' 5%6$%%00,..-')+%'+%'$)<0''(),*.H 41)'''')+%*$2')+,0',0'5*14)&1/''.5',.'6$'(),(%'3%'0%%'/,))/%' %&&%()'*.' *$-'.,(''.&/'88'),*.0' (*.,)%' '/0*'+'0'/,))/%'/*('/'%&&%()'41)'5*%0'8*5,&2')+%' &%4$,/%'0)')%' X1,.,.%',0')+*1-+)'*.')+%*; $%),('/'.5'%B6$%,8%.)'/'-$*1.50')*'(+%(9')+%'%8,-$'),*.'*&'/%1(*(2)%0'.5')*'9,/')+%' 6')+*-%.,('4')()%$,''+%'&,$0)'4%/,%&',0' %B6%$,8%.)''//2')1%'&')+%'5$1-',0',.''('(%$)',.' 5%-$%%'*&'(*.(%.)$'),*.H 41)'3%'+'7%.*'0'&%' 8%'.0'*&',.)*51(,.-',)'.')+,0'5%-$%%'*& (*.(%.)$'),*.',.)*')+%'4/**5' +%'0%(*.5',0' %B)$%8%/2'5*14)&1' /(*+*/%7%.'+'0'4%%.' $%(*88%.5%5''0')*'.),6+/*-,0),(''*.')+%' -$*1.5')+')',)'/*3%$0')+%')%86%$')1$%',.' +%'/)+' 1)'%7%.')+,0',0'*)'(*.0)'.)'.5')+%$%',0'.*'-**5'$%'0*.'&*$'),.9,.-')+')',)

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*&')+%' '%$,'/ 8 1(*10 8 % 8 4$' .%' *$'/1 .-0 '$%' 8 *$%' 8 '$9%5')+%$%' 4%, .-' 5%(,5%5' E1, .02' /'$2 .-%'/ 02 8 6)* 8 0' ($*16' 4$*.(+,),0' *$' 6 .%1 8 *.,' ' &')+%0%')+%' 8 *0)' &$%E1%.)' '.5' ,8 6*$)' .)' '$%')+%' 4$*.(+,),(' '.5' 6 .%1 8 *.,(' (* 8 6/,(',*.0

$ " # G +,0' +'0' %06%(,'//2')+%')%.; 5%.(2')*' 001 8 %')+%' '(1)%'(' 6,//'$2'&*$ 8 ' .$ ('0%0' *&'' (3&%' / ' " # '*(% 8 $,.-' '0' ''(* 8 6/,(',*.'*&',.&/1%.C ')+%$%',0' 101''//2' ,.')+%' ' 0)'-%' ,.($%'0%5' &$%E1%.(2' '.5' 0* 8 %' 5,&, *1/)2' *&' 4$%')+,.-' (*.0)$,(),*.' *&')+%' (+%0)' '.5' 0*$%.%00' *$' 0),&^,%00' *&')+%')+$*')' +%' (*1-+')+*1-+' 0/,-+)',0')$*14/%; 0* 8 %' &$* 8',)0' &$%E1%.(2' +%' %B6%()*$';),*.',&')+%$%' 4%' .2',0' 0(' .)2' '.5'*&''-/',$2' W(+'$')()%$' +%')*.-1%',0' 101''//2'$%5')')+%'),6'.5'%5-%0' '.5'(*7%$%5'*.')+%' 5*$01 8 ' W3,)+' '(%' 8 2' 8 1(10' *$' W3,)+' '3+,)2' 4$*=3.'&1$H *((' 0,*.'//2',)',0' 8 *$4,5/2'$%5')+$*1-+*1)' +%' 61/0%',0''((%/%$')%5'4%'),.-' -%.%$'//2' 88<'*$' D',.')+%' >>,.1)%' '.5'*((' 0,*.'//2' 8 *$%' &$%E1%.)/2' +%' 09,.',0'.*)' 101''//2'+*)'%B(%6)',)'4%' ')'+%'(* 8; 8 %.(% 8 %.)'*&')+%')')'(9' '.5',&'0*',)' 101''//2' 4%(* 8 %0'(**/%$',.')3*' *$')+$%%'5'20' ,)+')+%0%' 02 8 6)* 8 0')+%$%' '$%')+%' 8 '$9%5'6$*:; 0)$'),*.'*&'0)$%.-)+')+%' 0%7%$%' &$*.)'/'+%'5; '(+%')+%' -%.%$'/ 0*$%.%00' *&')+%' 4*52' '.5')+%' 6',.0',.')+%' 4'(9' '.5'/,8 40' 3+,(+' +'$')()%$,0%')+%' *$5,.'$2'('0%0'*&',.&/1%.C' +%.')+%'(+%0)',0' %B'8,.%5',.')+,0'0)'-%' *&')+%' 5,0%'0%')+%' *./2' 8 *$4,5' 0,-.0' 5%;)%()%5''$%' '' $*1-+.%00' *&')+%',.06,$')*$2' 0*,8 5'6'$),(1/'$/2'3+%.' ''&*$(%5',.06,$'),*.' ,0' 5$'3.H 0* 8 %' 0/,-+)' ($%6,)(''),*.' '15,4/% 8 *$%' %06%(,'//2')*3'$50')+%'/*3%$'6'$)'*&' %'(+'5*$0'/' $%-,*.H &%%4/%.%00' *&')+%' 7%0,; (1/'$' 8 K1$81$H '.5'6%$+'60'0/,-+)'0,4,/'.)' $+*.(+10',.'&$*.)' +%' $%06,$'),*.',0'+*3; %7%$' E1,(9%$' '.5' 0+*$)%$')+'.' .')1$'/' '7%$'-,.-'@?'?@'*$' !',.')+%' 8 ,.1)%H)+%' 5206.*%''0'-$%')%$')+'.',0'%B6/',.%5'42'+%' *47,*10'6+20,('/0,-.0H '.5' 8 *0)'-%.%$'//2')+%$%$',0'0* 8 %'/,=055,)2'*&')+%'&'(% .')+%' " ')0)'-%''/')+%0%' 02 8 6)* 8 0' '$%' 8 1(+''-$'7')%5' +%' $%06,$')*$2''()0' '$%' 6%$&*$ 8 %5' E1,(9/&' '.5',8 6%$&%()/2')+% $%06,$'),*.0',.')+%' 8 ,.1)%' 7'$2,.-'&$*8'"!')*' !'*$'F!' +%' (+%%90' '$%' 8 1(+'&/10+%5' '.5')+%' /,60'*&''0*8%3+')'61$6/%' (*/*1$' %.%$'//2')+%$%',0'.*)' '(1)%'6',.',.')+% (+%0)'41)'$')+%$'''0%.0%'*&'(*.0)$,(),*.''.5' 0*$%.%00H)+%' (*1-+')+*1-+'&$%E1%.)' '.5' *((1$$,.-' ,.' 6'$*B2080',0' .*)' 101''//2' 0%7%$%' +%' %B6%()*$'),*.' 0),//' (*.),.1%0' 0(''.)2' '.5'(*.0,0)0' *&' 08''//' 2%//*=3,0+' 3+,)%'6%//%)0'&*$8,.-')%.'(,*10'8'00%0'*&''' 6%(1/,'$'.*51/')%5'*$'4*)$2*,5'/&*$8'7%$2' 8 1(+'$%0%8 4/,.-' 3+%.'&/*'),.-',.'3')%$' &$'-8%.)0'*&'0*8%'*&')+%'/'$-%'**/,),(',8%; 0)*.%0''-1%',0'8*0)/2'(*7%$%5'3,)+'')+,(9'3+,)2 4$*3.'&1$''.5'0*8%3+')'5$2' '.5''*&)%.'$%5''')'+%',6'.5'%5-%0H *$ 8 *$4,5/2'$%5''.5'-/'C%5' +%' 61/0%',0' 8 1(+''((%/%$')%5'4%'),.-' @!' "!'*$' !

),8%0',.')+%' 8,.1)%' 41)',)',0'-%.%$'//2' 0 8 '//' .5'7%$2'(* 8 6$%00,4/%' d,' 0* 8 %,.0)'.(%0''&)%$' 4%,.-'/*3''.5'&%%4/%')')+% *1)0%)'*&')+%' 5,0%'0%',)' (E1,$%0''' 8 *$%0)+%..(+'$')()%$',.')+%' 0%(*.5'0)'-%' +% 09,.',0'$'$%/2'5$2'*$' 8 1(+'4*7%)+%.')1$'/)% 8 6%$')1$%H'.5')+%'+'.50'.5'&%%)'$% -%.%$'//2'(**/' +%' 09,.'*&')+%' %B)$% 8,),%0' ,0''/0*' 8 1(+'(*.-%0)%5'0*')+')'3+%.' 4/'.(+%5'42'6$%001$%')+%'(*/*1$'5*%0'.*)' $%'5,/2'$%)1$.' +%'6$*0)$'),*.'*&0)$%.-)+' '/0*' 4%(*8%0'-$%')%$H'.5')+%$%',0'81(+' +%'5'(+%''.5'*&)%.')$'.0,%.)'5%/,$,18'%0; 6%(,'//2'51$,.-')+%'.,-+)' .'6%$(100,*.')+%'(+%0)'5*%0'.*)'6$%0%.)'.'=' 8 '$9%5''/)%$; '),*.''*&'$%0*..(%'1./%00')+%$%'%B,0)0'0* 8 %*)+%$'5,0%'0%'*&')+%'/1.-H'.5'*.''10(1/; ')',*.'($%6,)'),*.'*&''8*$%'*$'/%00'&,.% (+'$'()%$',0'15,4/%'3,)+')+%',.06,$'),*.' &,$0)',.')+%',.&%$,*$'6'$)'*&'*.%'*$'4*)+' 5*$0'/$%-,*.0')+%.'06$%'5,.-'$'6,5/2+,-+%$ 16',.')+%'4'(9'.5')*3'$5')+%'4'0%0'*&')+% /1.-0',.'&$*.)'3+,/0)'0,4,/'.)'$+*.(+10',0' +%'$5',.'*)+%$'6')0'*&)+%'(+%0) +%' # '0)'-%'*&')+%'5,0%'0%',0'8'$9%5' 42')+%'5206.*0''4%(*8,.-'0*'0%7%$%')+')')+% 6'),%.)0'$%'(*8 6%//%5')*'0,)'(*.0)'./2'16; $,-+)',.'4%5'*$')*'/%'.'&*$3'$50'$%0),.-'*.')+%,$'$8 0'.5'%/4*3 0H)+,/0)')',.)%$7'/0')+%'$%06,$'),*.'4%(*8%0'7%$2'/'4*$,*10' +% 8 5,)2'*&')+%'(+%%90'/,60''.5'+'.50',0',.; ($%'0%5H)+%'%2%0'4%(*8%'6$*8,.)H'.5')+%'%B6$%00,*.'*&'(*1.)%.''.(%',0'%B)$%8%/2' '.B,*10' +%'(*1-+',0'&$%E1%.)''.5'*&''0+*$)'4*$),7%'(+'$'()%$'0)"0')+%',8; 6$%00,*.'*&'W7,0(,5'0%($%),*.',.')+%/1.-' 3+,(+')+%'6'),%.,)'+'0'.*)'6*3%$')*'%B6%(;)*$')%H3+,/0)',0'--$'7')%5'42'6'$*B2080' 3+,(+'(10%'6',.',.')+%'+%'5'.5',.($%'0%5' /,7,5,)>&' +%061)18'.*3'4%(*8%0'/'$-%',.' E1'.),)2H,)',0'*&''-$%%.,0+2%//*3'(*/*1$' 7%$2'W7,0(,5'(*.),.0'/,))/%',$'.5',0'*(' (' 0,6.'//2'0)$%'9%5'W3,)+'4/**5' +%'$%06,; $'),*.0'$%'7%$2'&$%E1%.)'F!')*'D!'*$%7%.' 8 *$%H '.5'%B6,$'),*.',0'7%$2'/'4*1$%5''.5' 6$*/*.-%5' +%'61/0%',0'7%$2'&%%4/%''.5' %,)+%$'%B)$%8%/2'E1,(9G !'F!'*$D!',.')+%'8,.1)%G*$',.)%$8,))%.)'0*''(0')*'1.84%$' *./2'/** *$' @!'4%')0' +%')*.-1%',0' (*7%$%5'3,)+'')+,(9'2%//*3,0+3+,)%'*$ 4$*3.'&1$''.5',0'-%.%$'//2'5$2H 0*$5%0''/0*' &*$8'16*.')+%')%)+'+*2'4%(*8%0'(**/'.5'4')+%5',.'6%$; 06,$'),*.'H'.5')+%+'.50''.5'&%%)'5%(,5%5/2' (*/5' +%'5%/,$,18',0'8*$%'(*.0)'.)H3,)+')+%'5%('2,.-'0)$%.-)+')+%'(*1-+'5%(/,.%0H)+%'%B6%()*$'),*.'(%'0%0'*$4%(*8%0'0/,-+)H '.5')+%'6'),%.)'0,.90 ,)+')+%'6$*-$%00'*&')+%'5,0%'0%')+%'6+20,; (''/0,-.0'(+'.-%' +%'(+%0)',.'&$*.)'2,%/50' ''1.,&*$8/2'(/%'$'0*1.5'*.'6%$(100,*.'3+,/%' 4%+,.5')+%$%',0''-.%$'/,86',$8.)'*&')+% $%0*.''.(%' +%'($%6,)',)',*.'-$'51''//2'%B)%.50' *7%$'/'$-%$'6*$),*.0'*&')+%'/1.-0'4%,.-'*&''' &,.%$'(+'$'()%$',.')+%'6'$)0'8*$%$%(%.)/2',.; 7*/7%5H -,7,.-' 6/'(%')*' 014($%6,)'.)''.5

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5 % 0 ($, 4 % 5 ' ' . 5 ' , 0 ' . *) ' 5 $ 2 ℍ 41) ' 0 * 8 %) , 8 % 0 ' ,) '
5 * % 0 ' 4 % (* 8 % ' 5 $ 2 ' ' . 5 ' 4 $ * 3 . ' + % ' $ % ' , 0 ' * &) % . '
7 % $ 2 ' 8 ' $ 9 % 5 ' 5, 0 * $ 5 % $ ' * & ') + % ' 5, - % 0), 7 % ' * $ - ' . 0 '
G 0, (9 . % 0 0 ' . ' 5 ' 7 * 8 ,) , . -' ' . ' 5 ' 5, ' $ $ + * % ' ℍ ' . 5 '
101 ' / / 2 ' 0 * 8 % ' 0 / , - +) ' > ' 1 . 5, (% 5 ') , . - % ' * & ') + % '
09, . ' , 0 ' * 40 % $ 7 % 5 ' + % $ % ' , 0 ' ' / 0 * ' ' . *) ' , . & $ % ;
E1 % .) / 2 ' 0 * 8 % ' 5 % / , $, 1 8 ' . ' 5 ' 0) 16 * $ ' * & ' 8 , . 5 ℍ
' . 5 ') + % ' 6 $ * 0) $ ') , * . ' * & ' 0) $ % . -) + ' , 0 ' * &) % . '
% B) $ % 8 %

. ' % B ' 8 , . , . -') + % ' (+ % 0) ' , . ' ' 55,) , * . ') * '
) + % ' 0, - . 0 ' * & ' 4 $ * . (+,) , 0 ' 3 +, (+ ' ' $ % ' + ' / 3 ' 20 '
6 $ % 0 % .) ') * ' '' - $ % ') % $ ' * $ ' / % 0 0 ' 5 % - $ % % ') + % $ % '
' $ % ') + % ' 101 ' / ' , . 5, (') , * . 0 ' * & ' 6 . % 1 8 * . , ' '
) ' & , $ 0) ' & , . % ' ($ % 6,) ') , * . ' , 0 ' 6 % $ (% , 7 % 5 ' , . ') + % '
0 % ') ' * & ') + % ' 5, 0 % ' 0 % ℍ) * ') + , 0 ' 8 * $ % ' * $ ' / % 0 0 '
8 ' $ 9 % 5 ' 51 / . % 0 0 ' * . ' 6 % $ (100, * . ' 4 $ * . (+, ' / '
$ % 06, $ '), * . ' . 5 ' , . ($ % ' 0 % 5 ' $ % 0 * . ' . (% ' * & ') + % '
7 * , (% ' ' . 5 ' (* 1 - + ' 01 ((% % 5 ℍ ' . 5 ') + % 0 % ' 0, - . 0 '
) + * 1 - + ' - % . % $ ' / / 2 ' & * 1 . 5 ' , . ' * . % ' * $ ' 4 *) + ' 5 * $ 0 ' /
$ % - , * . 0 ' 8 ' 2 ' 4 % 8 * $ % ' Ƙ 3,5 % / 2 ' 5, & & 10 % 5 ' *) ;
3 ,) + 0) ' . 5, . -' + * 3 % 7 % $ ') + % ') + $ % ') % . , . -'
(+ ' $ ' ( ) % $ ' * & ') + % ' 02 8 6) * 8 0 ' ,) ' 3 ' 0 ' * 40 % $ 7 % 5

,.')+%'%6,5%8,(' *&' ? M')+')')+%'5,0%'0%'3'0' .*)'7%$2'&')'/' '.5')+%'0,-.0'*&'(*.0*/,5'),*.' 5,0'66%'$%5' 8*$%' $%'5,/2')+'.' ,.' 8*0)' *$5,.'$2'('0%0' *&'6.%18*.,''' +%'$%0*/8'),*.'3'0'0+*3.'42')+%'$%)1$.'*&'($%6,)'),*.')+*1-+'*&''' (*'$0%$' (+'$')(%$' ,.')+%'0%')' *&'(*.0*/,5'),*.H'.5'42')+%'-$'51'/5,8,.1;),*.'*&')+%'4$*.(+,'/ $%06,$'),*.'' '.5' *&')+%' 51/.%00' *.' 6%$(100,*.' &)%$' '),8%')+%' .')1$'/ 7%0,(1/'$' 4$%')+,.-' '-',.' 4%('8% '15,4/%' +%'51$'),*.'*&')+%' 5,0%'0%' 3'0' 7%$2' 0,8,/'$')+')' ,.')+%' ('0%0' *&' (1%')('6,//'$2'4$*.(+,),0' .')+,0''0',.')+%'*)+%$' &*$8 0' *&',.&/1%.C''')+%' (*.7'/%0(%.(%' 3'0' *&)%.'7%$2' 6$*)$'()%5H)+%$%' 3'0')+%'0'8%')%.5%.(2')*'$%(1$$%.(%'*&')+%' 0286)*80'*.' '.2'0+-+)'%B(,),.-'('10%'H'.5')+%'$+%18'),(' 6',.0'*&)%.'(*.),.1%5'/*.-')*' 5,0)$%00')+%' 6'),%.) "'& - ' (, # *(*86/,(')%5'3,)+' + '.5' A ,' *'.5'*&''' '(+'$')(%$)'+'0'/$%'52'4%%.'0)')%5')+')'8*$%'*$ /%00'8'$9%5'0286)*80'*&'-'0)$*,.)%0),.'/ '.5'+%'6'),(' 5,0*$5%$' 8'2'+%'6$%0%.)H'.5')+')'$+%18'),(' 6',.0'+'7,.-''' 8*$%'*$'/%00' 5%(,5%5/2'$%8,))%.)'(+'$')(%$'8'2'4%' 4; 0%$7%5')'+'0'&1$)+%$'4%%.'0',5')+')',.')+%'('0%0',.'3+,(+')+%'61/8*.'$2'(*86/,('),*.' '0018%0')+%'6.%18*.,(' &*$8')+%0%'0286;)*80'8'2'4%-%.%$'//2'8*$%'8'$9%5')+'.',.')+%'('0%0'*&'(1)%'(6,//'$2'4$*.(+,),0 .'0*8%'('0%0'+*3%7%$')+%''/'))%$'0286;)*80' 3%$%')+$*1-+*1)'+%' 6$%5*8,.'.)' &%')1$%H'.5''0'0,8,/'$'*40%$7'),*.0'+'7% 4%%.'8'5%'0')*'&*$8%$'%6,5%8,(0'('0%0'*&)+,0'9,.5'8'2'&',$/2'4%'$%-'$5%5'0'(*.0),;)1),..-''06%(,'/&*$8'*&')+%'5,0%'0% .')+,0'&*$8'*&')+%'%6,5%8,(' .'10%''.5'0,(9.%00-%.%$'//2'*((1$%5''')'.'%'$/2'6%$,*5' *&')+%')'(9'.5'*&)%.'4%('8% %$2'1$-%.)' 0286)*80' +%'8')))%$07*8,)%5'+&)%.'+'5' '4,/,*10'),.-%H'.5')+%$%' 3'0'-%.%$'//2''' 8'$9%5'4,/,*10'),.-%'*&')+%'(*.>1.(),7['.5' -%.%$'/01$&'(%'*&')+%'4*52''8*1.),.-',.' 0*8%('0%0')*'5%(,5%5'>'1.5,(%' +%$%'3'0' *&)%.'5,'$%+*%'H'.5'0*8%),8%0'4/**5'3'0' 6'00%5',.')+%'0)**/0' +%'6',.0',.')+%'+%'5' 4'(9'/*,.0'.5'%B)$%8,),%0'3+,(+' '$% 6$%0%.)'3,)+'8*$%'*$'/%00'0%7%$,)2',.''' &*$8'0'*&',.&/1%.C''3%$%'^*8')+%'&,$0)'*& ''0%7%$%' +'$'()%$'*$',.($%'0%5'3,)+')+%' 6$*-$%00'*&')+%'5,0%'0%'),/')+%2'(*.0),)1)%5''' 6$%5*8,.'.)'&%')1$%' +%'6',.'3'0'101'//2' 8*0)'5,0)$%00,.-',.')+%' +%'5'%06%(,'//2',.')+%'&*$%+%'5''.5',.'0*8%('0%0'3'0'/,8,)%5')*'.%)%6/%'.%'%2%4$*3''*$'.%'%2%4'//' +,0'3'0'-%.%$'//2'*&'.',.)%$8,))%.)'*$ $%8,))%.)'(+'$')(%$'(*8,.-'*.''.')'.,-+)'&)%$' 8*$%'*$'/%00'5,0),.()'$%8,00,*.'51$,.-')+%' 5'2H'.5'3'0'))%.5%5'3,)+'0,.-,.-',.')+% %'$0'5,0)$%00,.-'$%0)/%00.%00'-',)',*.''.5' ,.'4,+)2')*'0/%%6'3+,/0)'5%/,$18'-%.%$'//2' ,.($%'0%5'51$,.-')+%'%B'(%$4'),*.' .'0*8%' ('0%0',)'*./2''8*1.)%5')*''/,))/%'%B(,)%8%.)' '.5',.(*+%$%.(%' 41)',.' *)+%$0',)'3'0'0* 1$-%.)''0')*'$%E1,$%')+%' %86/*28%.)'*& $%0)$',.)')*'$%)',.')+%'6'),%.)',.'4%5''.5 0*8%),8%0',)'(*.),.1%5'3,)+*1)',.)%$8,00,*.' &*$0*8%'+*1$0'')'3'0'+*3%7%$'$%8'$9'4/%' +*3'(*86/%)%/2',)'0140,5%5''0''$1/%',.')+% 8*$.,.-',)+')+%0%'0286)*80')+%$%'3'0' 101'//2'81(+')$%8*$'*&')+%'%B)$%8,),%0H'.5')+%'%2%'3'0'6'/%'.5'-/'002')+*1-+')+% 616,/'3'0'&$%E1%.)/2'(*.)$'()%5 '$/2',.')+%'))'(9')+%'61/0%'3'0'E1,(9' .5'&%%4/%'.5'*&''' 6%(1/,'$/2'7,4$')*$2' (+'$'()%$')+*1-+'0*8%),8%0',)'3'0'41)'/,))/%' '((%/%$')%5'}'''/')%$'6%$,*5',)'*&)%.'4%('8% 7%$2'$'6,5'.5'&%%4/%'*$!&%//' 4%/*3')+% .')1$'/ 0)'.5'$5'*&'&$%E1%.(2'4%,.-'7%$2' 0*&)'.5'(*86$%00,4/%'.5'*((' 0,*.'//2',.;)%$8,))%.)'+%')*.-1%'3'0')'&,$0)'8*,0)' *7%$%5'3,)+')+%'101'/3+,)2 4$*3.'&1$'.5' $%5''')')+%',6,'0140%E1%.)/2',)'+'5''')%.; 5%.(2')*'4%(*8%'5$2' +%'4$%')+'+'5''' 6%(1/,'$'*&&%.0,7%''(,5'*5*1$'+/6,0)'B,0' *((' 0,*.'//2'*((1$$%5''.5'0*8%),8%0',)'*'.' '/'$8,.-''8*1.)'+%'09,.'3'0'-%.%$'//2' 8*,0)''.5')+%'6%$06,$'),*.'+'5')+%'101'/ 0*1$'$+%18'),(' 08% ' +%'1$,.%'3'0')' &,$0)'0(')2'41)'&)%$3'$50',.($%'0%5',. E1'.),)2''.5'5%6*0%),%5'81(+'0%5,8%.)'*& 1$')%0' ((' 0,*.'//2',)'3'0'0/,-+)/2''/41; 8,.*10 6 ')+%0%'0286)*80')+%$%'3%$%'7,5%.(%0' *&'0*8%'61/8*.'$2'5,0*$5%$G4$*.(+,),0'*$ 6.%18*.,'H'.5'7%$2'&$%E1%.)/2'81$81$0' %$%'+%'$5''')')+%'+%')'3+,(+'3%$%'.*)' +*3%7%$'-%.%$'//2'6%$0,0)%.) &)%$')+%'%B'(%$4'),*.0'+'03%'),.-'3'0' *&)%.'7%$2'6$*&10%'0*')+')',.')+%'8*$.,.-')+%'6'),%.)'3'0'&*1.5'(*86/%)%/2'4')+%5',. 6%$06,$'),*.''.5')+%'4%5(/*)+%0'3%$%'E1,)% 3%)'+%'6$*0)$'),*.'*&0)$%.-)+'/0*'3'0' *&)%.'%B)$%8%'0*')+')'+'.50''.5'&%%)'H 4%('8%/,7,5''.5'(*/5''.5')+%'6'),%.)'$%; 0%84/%5''6%$0*.',.')+%'-/.,5%0)'-%'*& (+*/%$' *)3,)+0)'.5,.-')+%,$'0%7%$,)2')+%'('0%0' *&')+,0')+,$5'&*$8'*&',.&/1%.C''-%.%$'//2'5,5 3%//')+*1-+')+%'6'),%.)0'/*.-'01&&%$%5'&$*8')+%'$+%18'),(' 0286)*80'.5'*./2'7%$2' 0/*3/2'$%(*7%$%5')+%,$'0)$%.-)+'0'0%%.' &$*8')+%'U%-,0)$'$%.%$'/<0'$%6*$)0')+%$% '0''-$%')',.($%'0%'.5')+%'5%')+0'&$*8' 0$+%18'),08'<51$,.-')+%'6$%7'/%.(%'*&')+% %6,5%8,('3+,(+'6$*4'4/2'$%&%$$%5')*'('0%0'*&)+,0'9,.5 ;' $,' ' '0 A O M .'//7,0,)'),*.0'*&',.&/1%.C''*&'3+,(+'3% +'7%'5%)',/%5''((*,8)0)+%'%6,5%8,('+'0'4%%.' '))%.5%5'42'.'1.101'/6$%7'/%.(%'*&')+%$ &*$8 0'*&'5,0%'0%''.5'%06%(,'//2'*&')+%'06%(&,(' &%7%$0G'.5')+%'&%')1$%0'*&'01(+'5,0%'0%0' +'7%'4%%.'81(+'8*5,&,%5'42')+%'%6,5%8,(' ,.&/1%.C''*'$%'')+,0'$1/%'+%',.&/1%.C''*& ?M'&&*$50'.*'%B(%6),*.' 0'0+*3.'42')+% $%6*$)0'*&')+%'5%')+0',.'*.5*.'.'5')+% (*1.)$2'-%.%$'//2')+%$%'3'0''-$%')',.($%'0% ,.')+%')*)'/'8*$)'/,)2H)+,0'%06%(,'//2'0+*3%5

/f5%6$%00,.-')$%')8%.)'0+*./5'4%''7*,5%5' +%' 6'),%.)0' '$%')**' 81(+' 6$*0)$')%5') *' '58,)' *&',)0' %86/*28%.)' .' %'(+' *&')+%' 5,&&%$%.)' &*$80' *&',.&/1%.C'' ,)' ,0' .%(>%0' 082')*' '58,.,0)%$' 0166*$)' 7%$2' &$%%/2'' .5' 0**.%$' *$'/')%$')*' %=4,)' 0),81/'.)0' .')+%' ('0%0' ,.' 3+,(+')+%$%' ,0' 61/8*.'$2' *$' *)+%$' /*('f (*86/,(','),*.')+%' 0)$%.-)+' 4%; (*8%0' 8*$%' $'6,5/2' .5' 8*$%' 0%$,*10/2'5%; 6$%00%5''.5'0),81/'.)0' .5'0166*$)' '$%' 0),// 8*$%' 1$-%.)/2' .%%5%5H '.5',.5%%5',)' ,0' .%(%00'$2')*' +'7%' $%(*1$0%')*')+%8' ')' '.' %'$/,%$' 6%$,*5')*' %B+,4,)')+%8' 8*$%' &$%%/2' '.5')*' 6%$0%7%$%' ,.')+%,$' 10%' &*$' '' /*.-%$' 6%$,*5' ,.' 01(+' '&&%(),*.0' 3+%.' *((8$$,.-' 51$,.-' '.' '))'(9' *&',.&/1%.C'')+'.' +%.' '$,0,.-' '0',5,*6')+,(' 5,0%'0%0' .')+%' 8'.; '-%8%.)' /0*' *&')+%' *)+%$' &*$80' *&' &%4$,/%' '&&%(),*.0'3+,(+' '$%'0%%.'51$,.-' '.'%6,5%8,(' *&',.&/1%.C'' '' 8*$%' $%0)*$'),7%' '.5'0),81; /'),.-')$%')8%.)' ,0' $%E1,$%5')+' .' 1.5%$' *$5,.'$2',($(180)'.(%0'&*$' '//01(+'5,0%'0%0' 6')'9%'*&')+%' 6%(1/,'$/2''0)+%.,(')26%'*&')+%' %6,5%8,(

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((1 ĸG '*'30 8'$9%5'3,5%06$%'5' %6,5%8,(' *&',.&/1%.C'' *((1$$%5' '&)%$')+')' *&' ? M ?' 1.),f ??P' +%' %6,5%8,(' 3+,(+' (*88%.(%5',.' 1$*6%',.')+%' '1)18.'*&')+')' 2%'$' (/*0%/2' $%0%84/%5' 6$%7,*10' 7,0,)'),*.0')' 3'0' 6$%0%.)' ')' *9+'$'',.' %.)$'f 0,' ,.' '2' ??PH ,)' 3=``&,$0)' $%(*-.,0%5',.') ' %)%$041$-' '4*1)' 8,5 ()*4%$H ,.' %$/,.' '.5' '$,0')*3'$50')+%'%.5'*&' *7%84%$H ,.' 6',.' '.5')'/2' %'$/2',.' %(%84%$H ' .5',.')+%' .,)%5' ,.-5*8' ,.')+%' /'0)' 5'20' *&' %(%84%$G '/)+*1-+' ,.')+%' /,-+)' *&' 014; 0%E1%.)' 9.*3/%5-%' ,)' (''.' 4%' 0+*3.')+')' ('0%0' *((1$$%5' ,.' *.5*.' 0,B' 3%%90' *$')3*' 8*.)+0' %'$/,%$' .')+%' 3%0)%$.' 0+*$%0' *&')+%')/'.),(' ,)' '66%'$%5' &,$0)' ,.' '8',(' %'$/2',.' %(%84%$H ,.')+%' %'0)%$.'6*$)0' *&')+%' .,)%5')'/%0' '4*1)')%.' 5'20' /')%$H '.5',.')+*0%' *&' '.'5'' '&)%$' '' &1$)+%$',.;)%$7'f *&')+%' 0'8%' 51$'),*.' +%'-%.%$'f 5,$%(),*.'*&'6$*-$%00' 3*1/5')+%$%&*$%' '66%'$)*' +'7%' 4%%.'&$*8'%'0')*' 3%0)H 41)')*'),0')+%$%' 3%$%' 8'.2'%B(%),*.0' .' &$,('')+%' %6,5%8,(' '66%'$%5')' /%B'.5$,'' ')' +$,0); 8'0' ??PH ')' ,'$*''&*$).,-+)'/')%$H ,.' '6%' */*.2',.' '.1'$2H,.' '01)*/'.5')3*'8*.)+0' /')%$H ,.')+%' +,$,' ,-+/'.50',.' ()*4%$H '.5' ,.' '1$,),10',.' 1-10)' ?P!' .5,'' %2/*.' '.5' '6'.' 3%$%' ,.7'5%5',.' %4$1'$2' %3' V%'/'.5' '.5' 10)$'/,'',.' '$(+' ?P!' *')$'.0&%$%.(%' &$*8' %'0)')*' 3%0)'8*$%*7%$' (*1/5'4%'*40%$7%5',.' %'(+' (*1.)$2',.7'5%5H)+%' %6,5%8,(' *.')+%' (*.)$'$2' '66%'$%5')*' $'5,')%'&$*8')+%'0%'6*$)0'*$'/'$-%')*3.0' .')+,0' (*1.)$2'&*$'%B'86/%' *.5*.''66%'$0')*' +'7%'4%%.')+%'&,$0)' .-/,0+'(%.)$%'*&')+%'5,0; %'0%',.' ??PH 1/f,.' ?P ')',0'6$*4'4/%')+') $%')' $,)',.'+'5'.*)'4%%.'%.),$%/2'&$%%'&$*8' ,.&/1%.C'',.')+%',.)%$7'f 4%)3%%.')+%' 0140,; 5%.(%'*&')+%'%6,5%8,(',.')+%'06$,.-'*& ?P!''.5' ,)0'$%($15%0(%.(%',.' ?P '41)')+%'&,$0)')*3.')+')' 01&&%$%5'&$*8'5,0),.()'%6,5%8,('6$%7'; /%.(%'3'0' 1//H)+%'%6,5%8,('4%-'.')+%$%',.')+%' 0%(*.5'3%%9'*&' '$(+' +%&&,%/5'3'0' '))'(9%5''4*1)')+$%%'3%%90' %%50''.5' $'5; &*$5''4*1)'&,7%'3%%90'/')%$' +%0%')*3.0' 3,)+')+%'%B(%6),*.'*&' 1//''+'5',85*14)%5/2' 01&&%$%5'&$*8')+%'%6,5%8,(',.')+%' 6$%7,*10' 2%'$' +%' %6,5%8,(' '/0*' $%'66%'$%5',.' *.5*.''.5''&&%()%5'8'.2'*&')+%')*3.0''.5' 7,//'-%0',.' *$90+,$%'.5')+%' 8,5/'.5'(*1.;),%0'41)'3'0'/%00'3,5%06$%'5')+'.',.' ?P!' +%' %6,5%8,(' $%(1$$%5',.')+%' '1)18.'*&' ?P H ,.' $%')' $,)',.',)' 6$%7',/%5'&,$0)',.')+%' %'0)'*&' (*)/'.5''.5')+%' 0*1)+ 3%0)'*&' .-/'.5')'06$%'5'&$*8')+0%')3*'5,0)$,()0' *7%$')+%'3+*/%(*1.)$2''.5'66%'$%5'%'$/2' ,.')+%'.*$)+'*&' $%/'.5' 1$,.-')+%'3,.)%$' *&' ?P P@'/0*',.&/1%.C'' 6$%7',/%5''0''.' %6,5%8,(',.'%7%$2'(,7,/,0%5'(*1.)$2''.5',.' %7%$2'E1'$)%$'*&')+%'-/*4% # G +%')+$%%'(/,.,('f&*$80'5%0($,4%5' 42')+%'/')%' $' %'(*(9'3%$%'*40%$7%5')+%'/')%0)'%6,5%8,(0' +%'&*//*3,.-'(/,' (',*.'3+,(+'+'0'4%%.'7%$2'3,5%/2''((,' 3,'0%$7%')*',.5,(')%')+%'-%.%$'f (+'3' *&')+%'&*$80'$%(%.)/2'8*0'6$%7'/%.) ' # '8'$9%5'42'(*.>1.*/ '.5'1')%.5%.(2')*' (*86/,('),*.0''&')+%'$%06,$')*$2')$'()G6+'$2.-,),0')$',' 4$*.(+,),0'4$*.(+*6.18E.,''.5' 8*.,' ' B ' 8'$9%5'42'0155%.' 0%)' *& 7*8,),.-''.5'5,'$$+%%' !'N) ' 8'$9%5'42'0%7%$%' +H ''.5'4'(9'(+%''.5'-$%')'5%6$%00,*. +%'/'0) .'8%5'&*$8'3'0')+')'8,' ,0'*&)%.' 8%)' 3,)+' +%'6'),%.)'&)%$'' &,)'(+,// ,0'0%,C%5'3,)+'6',.',.')+%'%2%4'//' &$*.)'/ +%'5'(+%''.5'6',.0',.')+%'4'(9' /,840H ')+%'4'(9'(+%',0',.'8'.2'(''0%0'7,' 0%7%$%' '.5'+'0'4%%.'(*86'%5'42'3*8%' 8H+'7%$ 4*$.%'(+,/5$%.')*')+%'6'.-0*&'(/1,$' /,$)+' +%')%86%$')1$%'$,0%0'$'6,5/2'$%'(+,' ,)0'8'B,' 818',.''' /'$-%'6$*6*$),*.'*&'(,' /%0'3,)+,.')3%.)2&*1$' +*1$0H)+%' $,0%' -%.%$'//2' /,8,)%5')*' <g'*$9g'41)')%86%$')8%' *&/!g ' '.5'%7%.'+,-+%$' +'7%' 4%%.')%5' +% 51$'),*.'*&')+%'&%4$,/%'6%$,*5'7'$' 0'&$*8'*.%')*' ,.%' *$')%.' 5'20' 41)',0' 10,' //2')+$%%' &*1$' *$'&,7%'5'20' +%'8'B,8,' ,0' '0' '' $1/%'*./2'8'.,)',.%5'&*$''&%3' *1$0' +% &'//',0'0*8%),8%0'$'6,5' '' 5,0,,,.()'($,0,0' '((*86'.,%5'42'6$*&10%'03%'),,' -' *((1$0' '.5')+*')%86%$'),1$%5%(/,.%0')*')\ % .*$8'/' *$' %7%.' /*3%$',.')3%/7%' +*1$0' .' *)+%$' ('0%0')+%' &%7%$' +'0'' $%8,))%.)' (+'$'()%$' 3,)+'$%-1/'$'5',/2'&/1()1'),*.0'42' 3+,(+')+%)%86%$')1$%'$%)1$.0')*')+%'.*$8'/ ,.')3*'*$)+$%%'5'20' %/'60%0'3%$%' 8*$%' &$%E1%.)/2 *40%$7%5',.')+%'$%(%.)'%6,5%8,(0')/ ' .',.'.2' 6$%7,*10'*.%''&)%$'&$*8'&*1$')*'0' ,$' 5'20'*& &$%%5*8'&$*8'&%7%$')+%')%86%$')' (1%''-',.' $*0%''.5''/')+%'02 86)*80'$%(1$$%5'HW'0'8'.2' '0')+$%%'01(+'$%/'60%0'+'7%'4%%.' 40%$7%5

.’ ‘’ &%3’ (’0%0’ ,.’ 3/,,*+’)+%’ 0286)*80’ 3%$%’*)+%$3,0%’3% ’8 ’$9%5 ’)+%’)%86%$’,1$%’ $%8 ’,.%5’ ’)’ *$’4%/*3’. *$8 ’/)+$*1-+*1)

+%’ 61/0% $’)%’$,0%0’ 3,)+’)+%’)%86%$’)1$%’ 41)’)+%’ 61/0%’%7%.’3+%.’7%$2’$’6,5’$%8 ’,.’0’0*&)Ĥ 0 -+)’ (2’. *0,0’ ,0’ .*)’ 1.(*88*.’ 51$; ,.-’)+%’ 62$%B,’ ’ ’.5’ 5%’)+’ ,0’ 0*8%),8%0’ 51%’)*’ (’$5,’(’ &’,/1$%Ĥ ‘’ $%8 ’$9’4/2’ 0/*3’ 61/0%’ AF!’ *$’ /%00Ŕ ,0’ *((’0,*. ’//2’ *40%$7%5’ 51$,. -’5%&%$7%0(%.(%’ 1$,.-’)+%’ ’(1)%’0)’-%’)+%’6 ’),%.)’ %B6%$,%.(%0’-$%’)’ 5%6$%00,*.’ ’.5’ /’00,)15%G0286)*80’ 3+,(+’ 6%$0,0)’ ’&)%$’)+%’ 6’,.’ ’.5’ 62$%B,’ ’ +’7%’ 5,0’66%’$%5’ ’.5’ ’$%’ *&)%.’ ’--$’7’)%5’42’,.0*8 .,’Ĥ ,.’0*8%’(’0%0’ (*.7’/%0(%.(%’,0’6$*/*. -%5’&*$3%%90’*$%7%.’ 8*.)+0’ ’.5’*((’0,*.’ ’//2’3%// 5%&,.%5’8%/’.; (+*/,’ ’ 5%7%/*60’ +%’6$*0)$’),*.’ ,0’ ’((*8; 6’.,%5’42’ ’.’%8,’ ’ (1)%’8%.,.-,),0’6%$,; 6+%$’/ .%1$,),0’ ’.5’8 2%/,),0’8 ’2’4%’8%.’;),*.%5’ ’8*.-’)+%’$’$%$’(*86/,(’),*.0’ ’&$%E1%.)/2’(*. ; .%1$’/-,’’ *&’7’$,*10’$%-,*.0’,0’&$%E1%.)/2’ *40%$7%5’ ’.5’0*8%),8%0’6%$0,0)0’&*$’/*.-’ 6%$,*50’ *00’ ’)+%’0%.0%’*&’)’0)%’,0’ ’’ .*)’1.(*88*.’02886)*8’’.5’&$%E1%.)/2’(*. ;),.1%0’4%2*.5’)+%’6%$,*5’ ’(*.7’/%0(%.(%’ ((’0,*.)5/2’%,)+%$’ ’)’)+%’ *.0%)’ *$’51$,.-’ 5%&%$7%0(%.(%’)+%’6’),%.)’6’00%0’,.)*’’(*. ; 5,),*.’*&’0)16*$’3+,(+’ 8’2’4%’8,0)’9%.’&*$ (’)’/%602’ +%’6’,.0’,.’)+%’/,840’$%0’8%;),8%0’((*86’.,%5’42’ ’(*5,0),.0)’ ’$)+$,),0’ 6,/%6),(’02886)*80’*&’ ’ 8,/5’&*$8’, ’ ’$%’.*)’,$8%E1%.) +%’02886)*80’*40%$7%5’,.’)+%’-’0)$,(’&*$8’ ’$%’01(+’ ’0’)+*0%’5%0($,4%5’42’ $’ %’(*(9’ 1.5%$’+,0’)+,$5’&*$8’ +,/5$%.’,.’6’$),(1/’$ 01&%$’&, *8’)+,0’&*$8 ’ ’’0155%.’ ’))’(9’*& *8,),.-’,0’&*//*3%5’42’5,’$$+*%’’)+%’0)**/0’ 4%,.-’ .*)’ ,.&$%E1%.)/2’4/**50)’,.%5’ +%’ 5%-$%%’*&’6$*0)$’),*.’,0’*&)%.’*1)’*&’6$*6*$;),*.’)*’)+%’0%7%$,)2’*&’)+%’62$%B,’’*$8’$’ $+*%’’ +%’,()%$,(’),.)’*&’0/*.’)+%’%6,0)’B,0’ ’.5’)+%’/418,.1$,’’.*)%5’42’ $’ %’(*(9’ +’7%’ ’-’,.’4%%.’*40%$7%5’’.5’’ &1//%$’5%; 0($,6),*.’*&’)+%’02886)*80’3*1/5’8%$%/2’,.; 7*/7%’’’$%6%),),*.’*&’3+’)’+%’+’0’3$,))%.

+%’0’8%’$%8’$9’ ’66/,%0’)*’ *’0%0’3,)+’ (*86/,(’),*.0’ *&’)+%’ $%06,$’)*$2’)$’()’ ’)’$$+’*&’)+%(*.>78(),70%’.*0%’’.5’6+’$2.B’ ,0’ 6$%0%.)’,.’ ’ %$2’/’$-%’ 6$*6*$),*.’ *&)+%0%’ (’0%0’ ’.5’4$*.(+,),0’ ’.5’4$*.(+*; 6.%18*.,’’ &$%E1%.)/2’ ’66%’$’)*’4% 8%$%/2’ %B)%.0,*.0’*&’)+%’ (’)’$$+’/6$*(%00’)$’(%’4/%’)*’,86$15%.)’%B6*01$%’ 1)’,.’0*8%’ (’0%0’ 6.%18*.,’’ %$%8 0’)*’ 4%’)+%’ $/,%0)’ 8’.,; &%0)’),*.’*&’)+%’ 5,0%’0%’ +,0’6.%18*.,’’)+*1-+’ /*4’$’ ,.’ 5,0)$,41),*.’ ,0’ 6$*4’4/2’ ’/3’20’ (’)’$$+’/ ,.’)26%Ĥ ,)’ ,0’ ’00*(,’)%5’ 3,)+’)+%’ 6$%0%.(%’*&’)+%’ 0)$%6)*(*((10’62*; -%.%0’’.5’*1-+)’ 6%$+’60’)*’ 4%’ $%-’$5%5’ ’0’ ’’ (*86/,(’),*.’*((8$,.-’7%$2’ %’$,2’,.’)+%’ 5,0%’0%Ĥ ,)’ ,0’ &$%E1%.)/2’ ’((*86’.,%5’42’ 6/%1$,02’’.5’*((’0,*.’//2’$%01/)0’,.’ 61/8*; .’$2’’40(%00’ *$’,.’62*6.%18*)+*$’B’ +%’)%86%$’)1$%’(1$7%’,0’8*5,&,%5’%00%.),’//2’42’)+%0%’ (*86/,(’),*.0’3+,(+’)%.5’)*’ 6$*/*.’)+%’6%$,*5’*&’62$%B,’Ĥ 3+%.’4$*.(+*6.%1; 8*.,’’ ,0’6$%0%.)’)+%’&’//’3+,(+’6$%(%5%0’ (*.7’/%0(%.(%’,0’0/*3’’.5’,$$%-1/’$ 8*.-’)+%’7%$2’.18%$*10’*((’0,*.’/ 0286)*80’*$’(*86/,(’),*.0’)*’3+,(+’ ’))%.;),*.’3’0’5,$%()%5’58&,.-’)+,0’%6,5%8,(’$%; &%$%.(%’8’2’4%’8’5%’)*’)+%’&*//*3,.-’ $’0+’,.’0*8%’(’0%0’%$2)+%8’)*10’,.’*)+%$0’ ’’0(’))%$%5’6’61/’$ %$16),*.Ĥ,0’*((’0,*.’//2’ *40%$7%5’ %$6%0’0*8%),8%0’7%$2’3,5%; 06$%’5’’.5’’.’’&&%(),*.’*&’)+%’(*$.%’’66’; $%.)/2’*&’.’+%$6%),(’(+’$’()%$’+’7%’/0*4%%.’ $%(*$5%5’ 1$61$’’014 (.>,8(),7’/+’%8*$; $+’-%’’.5’+’%8*$$+’-%0’&$*8’)+%’0)*8’(+’ /1.-0’*$’1)%$10’66%’$’)*’+’7%’*((1$$%5’,.’ ’.’1.101’/ 6$*6*$$,*.’*&’(’0%0’,.’0*8%’ /*(’/,),%0’ +%’0)’)%8.)0’*&’5,&&%$%.)’*4; 0%$7%$0’0’)*’)+%’(*.5,),*.’*&’)+%’06/%%.’’$% (*.&/,(),.-’41)’,)’3’0’6$*4’4/2’%$5’$-%(/,.’ +’/&’*$’,.’8*$%’)+’.’+’/&’)+%’(’0%0’ .&/’8; 8’),*.’*&’)+%’8,55/%%’$’+’0’4%%.’&$%E1%.)/2’ .*)%5

’ ’’ ’ G .%’))’(9’*& ,.&/1%.C’’5*%0’.*)’ ’&&*$5’ 8*$%’)+’.’ ’’7%$2’ ,86%$&%()’6$*)%(),*.’ ’-’,.0)’ ’’0%(*.5’ +%’6$*6*$),*.’*&’)+%’6*61/’),*.’ ’&&%()%5’42’)+%’%6,5%8,(’+’0’4%%.’7%$2’7’$,*10/2’%0),8’)%5’ .’)’ %)%041-’,)’3’0’61)’ ’)’)3*)+,$50’,.’ %$/,.’)’*.)+,$5’,.’ *.5*.’’)’ ’’=’6%$’(%.)’ 8*.-’)+%’0*/5,%$0’*&’)+%’ *8%’ ,0)$,()’ 51$,.-’)+%’&,$0)’+%’&,$0)’+%’%6,5%8,(’ A’&)%$’3+,(+’,)’7%$2’$’6,5/2’5%(/,.%5Ĥ)+% 6%$(%.)’-%’’58,))%5’&*$)$%’)8%.)’3’0’ !IFM’ 3+,/%’*.%)+,$5’*&’)+%’6%$0*.0’%86/*2%5’,.’)+% %.%$’/ *0)’ &&,(%01&&%$%5’ $’ 8%%’ +’0’%0),8’)%5’)+’)’9’6%$’(%.)’*&’)+%’)*)’/ 6*61/’),*.’*&’ 1$*6% 3%$%’ ’))’(9%5’51$,.-’ ??P PX’ +%’8*$)’/,)2’0($,4%5’)*’,.&/1%.C’’ 5,$%()/2’3’0’.*)’/’$-%’41)’*.’)+,0’0’*.’6$%; 7,*10’*((’0,*.0’)+%’((1$%.(%’*&’%6,5%8,(’ *&’,.&/1%.C’’+’0’+’5’’’7%$2’$%8’$9’4/%’%&&%()’ 16*.’)+%’5%)+’$’)%’*&’’)*3.’ .’ *.5*.’ &*$’,.0)’.(%’)+%’5%)+’$’)%’$*0%’&$*8’<HS9’,.’)+%’3%%9’%.5,.-’ %(%84%$’@?’ ??P’)*’’’@I’ .’)+%’3%%9’%.5,.-’ .1’$2’ ??P’)+%’5%)+’$’)%’,.’ +%&&,%/5’$*0%’&$*8’@ IM,.’)+%’3%%9’%.5,.-’ 6$,/’)*’M!IF’,.’)+%’3%%9’ %.5,.-’ ’2’@Ĥ,.’ ’$,0’’)’)+%’+%,-+)’*&’)+% %6,5%8,(’)+%’ .184%$’*&’5%)+0’&$*8’ ’// (’10%0’3’0’.%’$/2’)$%4/%5’ .’ ’.’/20,0’*&)+%’7,)’/0)’),0),(0’*&’)+%’)*3.0’.5’(*,8)$,%0’ ’&&%()%5’0+*30’)+’)’)+%’%B(%00,7%’8*$)’/,)2’ 6$*51(%5’42’,.&/1%.C’’,0’51%’8’,./2’)*’ ’’ /’$-%’,.($%’0%’,.’)+%’.184%$’*&’5%)+0’)$,; 41)%5’)*’ 5,0%’0%0’*&’)+%’$%06,$’)*$2’*$-’.0’ ’.5’0%(*.5’$,/2’)*’ ’.’,.($%’0%’,.’)+*0%’ ’))$,; 41)%5’)*’ 5,0%’0%0’*&’)+%’(,$(1/’)*$2’020)%8’3%$%’’ ?’’4*7%’)+%’ ’7%$; ’-%’ +,0’%B(%00’*&’5%’)+0’51%’)*’ $%06,$’;)*$2’5,0%’0%0’3’0’8’5%’16’’0’&*//*30’ $*.; (+,),0’P Ĥ6.%18*.,’’ DFĤ6+)+,0,0’’’MH

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4%'$%-'$5%5' '0')+%'('10%0'.*)'*&',.&/1%.C''
41)'*&',)0'$%06,$')*$2'(*86/,('),*.0' /%40'
+'0'0')%5')+')'+%'4/**5'51$,.-')+%'&%4$,/%'
0)'-%'(*.)',.0'&/'-%//')%'6$*)*C*'' ,.'7%$2'
/'$-%'.184%$0'%,)+%$'&$%%',.')4%'6/'08''*$'
'5+%$,.-')*'*$'3,)+,.')+%'$%5'4/**5(*$610;
(/%0H'+%'(*86'$%0')+%8')*')+%'8*.'50'*&'
8'/'$,''0'*40%$7'),*.0'+'7%'.*)'4%%.'
(*.&,$8%5

*$%'$%(%.)/2'A'.1'$2' ?P@R''4'(&//10'
6$%7,*10/2'1.9.*3.')*'4'()%$,*/*-,0)0'+'0'
4%%.''00%$)%5')*'4%')+%'06%(,&,('%B(,),.-'('10%'
&',.&/1%.C''s &%,&&%$'3+'&*,85',)',.''/')+%'
6'),)%.)0'A)+,$)2*.%R'+%'%B'8,.%5'0)')%0')+')'
,.'1.(*86/,()%5'('0%0',)'%B,0)0''/*.%''.5',.'
%.*$8*10'.184%$0',.')+%' 4$*.(+,'/'0%($%;
),*.0''.5',0'('6'4/%'*&'6%.%)$'),.-',.)*')+%'
6%$,4$*.(+,'/'),001%''.5'%7%.')*')+%'01$&'(%'
&')+%'6/%1$'' ..'&*1.5',)',.')+%'4/**5'
58,.-')+%'&%4$,/%')-%''.5',.'/'$-%$'.18;
4%$'51$,.-'5%&%$7%0(%.(%' +%'4'(,//10'3+,(+'
,0'7%$2'8,.1)%'4%,.-'08'//%$')+'.')+')'*&'
8*10%0%6),('[8,''-$*30' ')')%86%$')1$%0'
'4*7%'@?g''*.'-/2(%$,.%'-'$'&*$8,.-'08'//'
(*/*.,%0'/**9,.-'/,9%'5$*60'*&'3')%$' +%0%'
(*/*.,%0'5**.*)'$1.')*-%)+%$'41)'$%8',.'5,0

2 ! ' 3)) ( ) ' ' ! ' '21 ' ! ' '
4*+)'$-'7 !'' ' 3 7' 7'L '7)# "'
)+4 7'$' -4 0'5'Q 1'+4'!' * '
!' 4*+)'7)# "' 7' 7)# "'74'$' ' '
'5!#!' '94 . '$'7 !)'$-' *$'
8/)'*

),.()' +%'4'(,//10'3+,(+',0',8 8*4 %''/0*'
-$*30',.' "'&*$8,.-',.')8%'''3+,)%'
3**//2'8'00''')+%'4*))*8'*&')+%'7%00%/
.6 ! +%'+,0)*$2'*&')+%'%6,5%8,('
.*3'1.5%$'(*.0,5%$'),*.'0)$*.-/2'0166*$)0'
)+%'7,%3')+')',.&/1%.C'',0'6$*6'-')%5'8',./2'
,&'.*)'%.),$%/2'42'+18'.',.)%$(*1$0%' +%'
%7,5%.(%',.'&%7*1$'*&')+,0'+'0'4%%.'&,,//2'
0)')%5'42' $' '$0*.0 I' +%'%6,5%8,(' +'0'
.*)')$'7%//%5'&'0)%$')+'.'+18'.'4%,.-0'(*1/5'
)$'7%/'41)',)'+'0')$'7%//%5'&'0)%$'51$,.-')+,0'
%6,5%8,(')+'.'')'%'$/,%$'5')%0'3+%.'8%'.0'
&'(*881.,(',),*.'3%$%'/%00'$'6,5')'+'0',.'
%'(+'(*1.)$2'66%'$%5'&,$0)',.')*3.0H'.'5')+%'
)*3.0'%'$/,%0)''&&%()%5'+'7%'4%%.')+%'('6,)'/'
$'0%'6*$)0'$'&$*.),%$')*3.0'+'7,.-')$'5%
3,)+'(*1.)$,%0'/$%'52'&&%()%5' +%$%'+'0'
4%%.'.'*'0)%'52'6$*-$%00'&$*8'%'0)')*'3%0)'
%,)+%$'*7%$')+%'3*$/5'*$',.'6'$),(1/'$'(*1.;
)$,%0H'.'5'.%,-+4*1$,.-'(*881.,),%0'+'7%'
&)%.'01&&%$%5')'(*.0,5%$'4/%',.)%$7'/0'&'
),8%' +%'$%(%.)%6,5%8,(' +'0'.*)'('+5,0)$,()'42',.5,751'/0'
(*8,.-'&$*8'6/'(%0'3+%6,5%8,('/$%'52'6$%7',/=''.5')+')'+%'&,$0)'('0%0',.'
)+%'.%3'/*('/,),%0'+'7%'*((1$%5',.'6%$0*.0
4$*=+)',.)*',.),8')%'$')',*.0'3,)+')+%'.%3'
'$%,7'/0' +%',.)%$7'/'4%)3%%.')+%'&,$0)'('0%
*&')+%'5,0%'0%',.''('8 8 1.,)2''.5')+%'.%B)'
5%7%/*6,.-',.'%/')',*.'3,)+',)'+'0'4%%.'
&*1.5)*'7'$2'&$*8')3*'5'20'*$'/%00')*'0%7%.'
$'%,-+)'5'20' '(*.0,5%$'4/%'.184%$'&'
,.0)'.(%0'+'0'4%%.'$%(*$5%5',.'3+,(+''.'
'))'(9'*&')+%'5,0%'0%'+'0'&*//*3%5''0+*$)'
,.)%$7,%3'3,)+''6'),%.)'/$%'52'01&&%$,.-H'
)+%' 01'/',.)%$7'/',.')+%0%'('0%0'+'0'4%%.'
)3*')*')+$%%'5'20' &')+%'%'$/,%$'('0%0'3%$%'
*7%$/**9%5'*3,.-')*',)+%,$'4%,.-'&%3',.'
.184%$''.5'*&''4%.,-.'(+'$'()%$',)'3*1/5'
'66%'$'0',&')+%'5,0%'0%'+'5'0155%./2'4$*9%.'
1)''.5'.)')+',)'+'5'8%$%/2',.($%'0%5',.'
0%7%$,)2''.5',.')+%'.8.4%$'*&',)0'7,(),80I'
+%',C,&/1%.(%'*&'+18'.',.)%$(*1$0%',0'/0*'
0%%.',.')+%'&*//*3,.-'&'()0'AR %$0*.0'
/,7,.-',.'0141$40'-*,.-'5',/2')*'410,.%00',.'
)+%')*3.'+'7%'-%.%$'//2'4%%.')+%'&,$0)')*'
01&&%$*)+%$'8%84%$0'*&')+%'+*10%+*/50''.5'
6%$0*.0%86/*2%5',.')+%'0141$40'4%,.-'');
)'(9%5'/')%$H A<R'6%$0*.0%86/*2%5')*-%)+%$
,.'/'$-%'.184%$0',.'%.(/*0%5'06'(%0'+'7%'
01&&%$%5',.'/'$-%$'6$*6*$),*.')+'.')+*0%'%8

' ! '/)3)/!'!.'+ ')5) ' #'!'
/4+ #_$'$-F)'H_)$ N'=! 4 .')/$)'4 '
E)4 *''*') 7)'')*'/'*<%3*0' 'B
7''"87<211 '+"'F)'H)$ (+4'!'5))'
!7'/) .$4 "'+#$*'/#$.#7'$-'!'#$)) #'
$-'!'.5'!) ' '-$)!

-'+' 4*7'-$)'"'7 ' ! '!' ' '
#4+ $'/)$7'$-'5$'7 "' 7'!'!' #!'/ '
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! '!'4*+)'$-/)$7'!'5 "'
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5 " .!'7"'$.)'3!'!$4 7

=*2%5' &%3')*-%)+%$' *$' ,.')+%' *6%.' ',$H=
A"R' ,.',.0),)1),*.0',.'3+,(+')+%',.8')%0'3%$%
4$*1-+')*81(+'.,)*' '00*(,'),*.')+%' 06$%'5'*&'
)+%'%6,5%8,('+'0'4%%.'8*$%'$'6,5'.5'%B)%.I'
0,7%')+'.',.'+*0%',.'3+,(+')+%',.8')%0'3%$%
8*$%'0%(/15%5'&$*8'*.%' .*)+%$
+%'&'()'$%8.',.0'+*3%7%$')+')',)'0'.*)'
'/3'20'6*00,4/%')*')$'(%'%*881.,(')',*+'4%;
)3%%.' '.',.&%()%5' '$%'' .5')+')',.'3+,(+'
'' &$%0+'*1)4$%'9'*((1$0H' .5')+%''((%)'.(%'
*&')+%'7,%3')+')',.&/1%.C'',0''0''$1/%')$'.0;
8,))%5'42'+18'.',.)%$(*1$0%'5*%0'.*)'.%(%0;
0'$,/2',.7*/7%')+%''001886),*.')+')+%'7,$10'
('..*)'4%'6$*6'-')%5'*1)0,5%)+%'+18'.'4*52
+%'*6,.,*.')+')',.&/1%.C'' 8'2'4%'(*.;
7%2%5'42'5,$%()',.&%(),*.'&$*8')+%'5*8%0),('
'.,8'/0' 8*$% %06%(,'//2')+%'+*$0%'&*1.5'
0166*$)',.')+%' 6$%7'/%.(%'&')+%' 5,0%'0%'
('//%5',.&/1%.C'' '8*.-'+*$0%0',.' .-/'.5'
&*$'0*8%),8%'4%&*$%')+%'%6,5%8,('*1)41$0)'
.5',.'),0' $%'66%'$'.(%',.' ?P@' ,8,/'$'
*40%$7'),*.0'+'7%'4%%.' 8'5%' 58$,.-'6$%;
7,*10'%6,5%8,(0'41)'*.'*)+%$'*((')0,*.0',.;
&/1%.C''+'0'6$%7',/%5''0''.'%6,C**),(' 3,)+;
1)''.2'(,.(,5%.)'%6,5%8,(H 6%$0*.0'%8;
6/*2%5'8''))%.5,.-'*.'+*$0%0'01&,%$,..-'&$*8'
,.&/1%.C''+'7%'.*)'01&&%$%5'%'$/,%$'*$*8*%
)+'.'*)+%$'8%84%$0'*&')+%'(*881.,)2''.5'
,.&/1%.C'' +'0'*((1$$%5' '8*.-' 0)'4/%8%.'
3,)+*1)'.2'(*,.(,5%.)'%6,C**),(' .5%$')+%'
.'8%'0,.&/1%.C'<+*3%7%$'0%7%$'/5,0%'0%0'
W*&')+%'+*$0%' '$%' 6$*4'4/2'(*.&*1.5%H''.5'
)+*1-+'$%(%.)'%7,5%.(%',0'*66*0%5')*')+%'
7,%3')+')')+%'%E1,.%'5,0%'0%'('.'4%'(*8'
8,8,(')%5')*'8''.')+%'6*00,4,/,)2'&'01(+''.'
W*$,-,.'('..*)'4%'40*/1)%/2'5%.,%5'
+%'0155%.'*.0%)'&')+%'5,0%'0%')+%'0+*$)'
51$'),*.'*&')+%'&%4$,/%'6'$*B2088''.5')+%'
(('0,.'/*((1$$%.(%'*&'$%/'60%0'+'7%'4%%.'
E1*)%5',.'0166*$)'*&')+%')+%*$2')+')',.&/1%.C''
,0'//,%5')*'8'/'$,'/..)%$8,))%.)' +%'8*5%'
*&'06$%'5'*&')+%'%6,5%8,(''/*.-'(*88%$(,'/
$*1)%0',)0'$'6,5'800%8,.'),*.'''.5')+%'4;
0%.(%'*&''.2'(*.0)'.)''.)%(%5%.)'8%)%*$*;
/*-,('/(*.*5),*.0'8,/,)')%''-',.0')+%'7,%3'
)+')',)'<'8,'08'),(''$4*8%'5,0%'0%
+%'$%0%84/'.(%'*&')+%'5,0%'0%')*'5%.-1%'
'& % 3+'0'4%%.'6*,.)%5'*1)'42'8''.2'
Q3$,)%$0'0*8%'*&'3+*8'+'7%'+%/5')+')'+%'$%;
(%.)'%6,5%8,('3'0'5%.-1%' .'7'$,*10'6')$)0'
&')+%' %7'.)''.'%6,5%8,(&'5%.-1%'6$%(%5%5'
42''&%3'8*.)+0')+%'$%(%.)'%6,5%8,(*&',.&/1;
%.C''3+,(+')+%$%'6$%0%.)%5')+%'0'8%'(/,.,('/
&%')1$%0''0',.'*$)+%$.'1$*6%'%.-1%'
+*3%7%$',0''5,0%'0%'*&'3'$8'(/,8')%0''.5'
&'+)'0%'0*.0H',)'06$%'50'81(+'/%00'$'6,5/2'
'.5''.'%6,5%8,('6%$0,0)0',.''')*/*('/,)2'81(+'
/*.-%$H &1$)+%$')+*1-+',.5,7,51'/'('0%0'*&
)+%')3*'5,0%'0%0' 8'2'$%0%84/%'%'(+')+%$

K(' # ,' ' 0 $ ' $' '
' '5 +6 ') $' '0 0 '
) '# $' C;ĝG0 ' ' ' # ' '
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7%$2'(/*0%/2')+%'-%.%$'/'(/,.,('/'6,(0)1$%',0'
5,&&%$%.)' .'5%.-1%')+%'&%7%$',0'-%.%$'//2'
+,-+ $''.'%B'.)+%8',0')+%'$1/%')+%'6'.0',.'
)+%'/,840''$%'8*$%'5,0),.()/2'/*('/,0%5',.')+%
>*,.)0''.5')+%'(*86/,(''),*.0'0*'(*88*./2'
*40%$7%5'3,)+',.&/1%.C'' '$%'$'$%',.'5%.-1%
0')*')+%'8*5%'*&'*$,-,.'*&'%6,5%8,('.;
&/1%.C''.5')+%'(,$(180)'.(%0'3+,(+'&'7*1$'
,)0'3,5%'5,00%8,.'),*.'.*)+,.-'+'0'4%%.'
(%$)',./2'0(%$)',.%5')'+'0'4%%.',8'-,.%5'
)+')',85%$'(%$)',.'&'7*1$'4/%'(*.5,),*.0',)'
8'2'4%'%7*/7%5'&$*8'0''(*88*.'(/5'.5'
,.'0166*$)'*&')+,0'+>=6*)+%0,0',)'+'0'4%%.'
6*,.)%5'*1)')+')'+%'%'$/2'('0%0',.'%'(+'
(*1.)$2'51$,.-')+%'$%(%.)'%6,5%8,('3%$%'*&''
8,/5')26%''.5')+')'+%'/')%0)'3%$%'*&)%.')+%'
8*0)'0%7%$%' +%'.')8%'*&')+%0%'&'7*1$'4/%
(*.5,),*.0'+*3%7%$'+'0'.*)'4%%.'5%&,.%5'
'.5',)'('.'*./2'4%'0',5')+')')+%2'+'7%'.*;
)+,.-')*'5*'3,)+')%86%$')1$%'8*,0)1$%''*$
3,.5''.5'$%','&'()'%.),$%/2'1.9.*3.
)'+'0'4%%.'00%$)%5')+')',.&/1%.C'',0'%.;
5%8,(',.'7'$,*10'6'$)0'*&')+% 100,'.'%8;
6,$%'.5',.' +,.''.5',)',0')+%'&')')+')')+%)
5,$%(),*.',.'3+,(+')+%'%6,5%8,(' 06$%'5'*.'
)+,0'0'*.'&*8$%$*((')*.0',0'.*)',.(*8;
6'),4/%'3,)+')+%' 7,%3')+')',)'+'5',)0'*$,-,.'
8' '0)%$.' 0,'

G 1)'+))//%'('.'4%'55%5')*'
)+%'*40%$7')*.0'8'5%'1.5%$')+,0'+%'5'42'
$' %'(*9' *' 06%(,&,('+'0'4%%.'&*1.5'
'.5')+%')%')%)8%.)'5*6)%5'+'0'4%%.'8',./2'
0286)*8'),(' +%.'V*.%'.5'6+%.'(%),.'3%$%
10%5' 3,)+'0*8%'01((%0')*'01451%')+%'0%7%$%
+%'5'(+%'.5'810(1/'$'6',.0H 0&5,(2/')%'&'
0*5,18' *$'0'+(,.' 0%%8%5')*' 4%'*&'7'/1%'
%06%(,'//2',.'('0%0' 6$%0%.),.-' $+%18'),('
0286)*80H'$%0)/%00.%0'' .5',.0*.8,'+'7%'
4%%.')$%')%5'42'6$%&%$%.(%' ,)+'4$*8,5%'&'
'88*.,18' +%'5'.-%$*&'10,.-'5%6$%00'.)'
$%8%5,%0'.0'1.,7%/2'10%5'4*)+'0'+'6$*6+2'
/'(),(''.5',.')+%'%'$/2'0)'-%'*&')+%'')'(9H
,)0'7'/1%'3+%)+%$'0''+'6$*6+2/'(),(''*$'0''+
$%8%52',0'6$*4'4/2'7%$2'08''/'+%'6$%;
6'$'),*.'8*0)'-%.%$'//2'10%5'3'0')+%'8'
8*.,')%5'),.()8%''.5')+%'8*$'/'%&&%()'*&'
8*5%$')%'5*0%0'*&')+,0'.*)'1.6'/')'4/%'5$1-'
+'0'6$*4'4/2'4%%.'5,0),.()/2'&'7*1$'4/%'51$;
,.-')+%'&,$0)'5'20'*&''/'$8''.5'6'.,(
+%'8',.'6*,.)',.'01((%00&1/')$%')8%.)',0'
''$%(*-.,),*.'*&')+%')$1)+')+')',.&/1%.C''0'*'
0%$,*10'8'/'52''.5'.*)*)*'4%'(*86'$%5')*''
0'(*88*.'(/*5'6'),%.)'3+*'&,-+)0''-',.0'
)+%'5,0%'0%',.')0'%'$/2'0)'-%'*$'3+*'&%)1.0'
)*'3*$9')**'0**.'&)%$'X,%0140,5%.(%'*&'
'(1)%'0286)*80',0'&'$'8*$%'/,9%/2')*'01&&%$
&$*8')+%'0%7%$%'61/8*.'$2'(*86/,(''),*.0'
8*$%'%06%(,'//2'6.%18*.,''+'.'*.%'3+*'
0148,)0')*')%')8%.)'%'$/2''.5'(*.),.1%0')*'
)'9%'6$%('1),*.0'-',.0'(*/5''.5'*7%$%B%$;
),*.'1.),/+,0'0)$%.-)+',0'(*86/%)%/2'$%-',.%5'
+%$%',0'6$*4'4/2'.*'*.%'(&$*8.0)'.(%
3+,(+'3*1/5').%.5'0*'81(+')*'5,8,0+')+%'
8*$)'/,)2'&$*8',.&/1%.C''''0')%.),*.')*'+%'
$1/%'3+,(+'+'0'4%%.'&*$81/')%5'42'0'8%G

□

&*$)2 %,-+)' +*1$0', . '4%5' '&)%$')%8 6%$ ')1$%' +'0' 4%(*8%. *$8 '/'0

&')+%' 7,%3' 4%' '((%6)%5')+')' %6,5%8 ,(', . ; &/1%. C'', 0', . ' . , . %' +1. 5$%5' ' . 5' . , . %)2 . , . %' ('0%0' *1)' *&' '')+*10' . 5' (*8 8 1 . ,(')%5' 42' , . &%(),*. '&$*8')+%' 0,(9')*')+%' +%'/)+2')+%. ')+%'6$*6$,%)2' *&'6$*)%(),. -' 5%/,(')%' ' . 5' '-%5' 6%$0*. 0' ' . 5'6'), %.)0' 01&&%$, . -' &$*8'6+)+,0,0' *$*)+%$'61/8*. '$2'5,0*$5%$0', 0' *47,*10' +%' 7,%3', . ' E1%0),*. ', 0' 0*' +, -+/2'6$*4'4/%')+')',)' 3*1/5' '66%'$')*' 4%' 6$*6%$')*' ')' 16*. ',)

& @ 1 $$!

'),*/*-2' *& G %% & ' 10%0' $-

' +%$'6%1),(' 0%0 *&' "# ' ' 4$%')+%' ,. R G .+'/'),*. ', 0' '' 8%)+*5' *&' 66/2, . -' $%8 %5,'/' -%.)0')*')+%' $%06,$')'*$2')$' () ' 3+%$%42')+%0%' 0140)' . (%0' , . ' '' -'0%*10' *$')*8,0%5' &*$8' '$%' 4$*1-+)' ,.)*' (*.)' ()' 3,)+')+%' 81(*10' 8%84$*. %' *&)+%' . *0%' 8*1)+' 6+'$2. B' /'$2. B' '. 5' 4$*. (+,' '. 5' 8'2' %7%. ' 6%. %)$')%')*')+%' %6,)+%/,18'*&')+%' ',$ (%//0' .+'/'),*. '5')%0' &$*8')+%'5'20'&' ,66*($')%0' '. 5'*&' '/%. ' '. 5' +'0' 4%%. ' 8*$%' *$' /%00' , . ' 7*-1%' , . ' '// ' -%0H 41)' *. /2'/')%/2'+'0',)' 4%%. ' 6$*7%5')+')')+%' , . +'/%5' 8')%$,'/' 6'00%5')+$*1-+')+%' &, . %0)' $' 8, &, (', *. 0' *&')+%' 4$*. (+,' , .)*')+%' 61/8*. '$2' '/7%*/, ' '. 5' , . ' 0*8%' , . 0)' . (%0' 4%(' 8%' '40*$4%5' 42')+%' ('6,//'$,%0')+10' %.)%$, . -')+%' -%. %$'/' (,$(1/'), *. ' +%' %B; '8, . '), *. :'*&')+%' $8-0' *&' (*//,%$0' -$, . 5%$0' '. 5'*)+%$0' %. -'-%5', . '510)2' *((16'), *. 0' +'0' 0+*3. ')+')')+%', . +'/%5'510)' (' . ' 4%5%)%()%5' , . ')+%'/1. -),001%' 3+%$%' ,)' , . 51(%0' (+$*. , (' 6. %18*. , ' ' +%' %B6%$, 8%.)0')')+%' (' 5=8,%'5%' %5%(, . %'6$*7%5')+')8%5,(' /'06$'20' '$%' %E1'&/2'6%. %)$'), . -

G= +%'8*5%0' *&', . +'/'), *. '7'$2' 3,)+')+%' 5$1-' 10%5' 5%6%. 5, . -' 8', . /2' *. ')+%')%86%$')1$%' ')' 3+, (+',)' 7*/'), /, 0%0' ' . 5' '/0*' *. ')+%' 8%5, (, . '/' %&&%()0' ', 8%5' ')

W +/*$*&*$8 'W)+%$'4, (+/*$, 5%*&'8%)+2/%. %' ' . 5' . ,)$,)%' *&' 82/'%7'6*$')%' ')' *$5, . '$2')%86%$')1$%0' ' . 5' *. /2' . %%5')*' 4%' 5, /1)%5' 3,)+' ', $')*' 4%0'&%/2', . +'/%5' '/'*8%/' . 5' 01/6+1$' '$%' 014/, 8%5' ')' +, -+')%86%$')1$%0' , . ' 06%(, '/' '66'$')10H 41)')+%' 8'>*$,)2' *& 5$1-0' '$%' 4%0)' 7'6*$, 0%5')+$*1-+')+%' 8%5, 18' *&' +*)' 3')%$' *$' 0)%' 8' *$' %51(%5')*' &, . %' 06$'2' 42' 6'00, . -' (*86$%00%5' ,$')+$*1-+')+%, $' 0*/1), *. 0

' . 2' &*$8 0' *&', . +'/%$' '$%' , . ' 10%' 41)' , . ' 0%/%(), . -' *. %' &*$' 3'$8' , . +'/'), *. 0')+%' $%E1, 0, 0,)%0' '$%GA R)+')',)' (' . ' 4%' 10%5' 3,)+*1)' 5, &&, (1/)2' 42')+%' 6'), %.)H A@R)+')' '')%86%$')1$%' *&' "!g')*' F!g' (' . '4%' U%'5, /2

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8', .)', . 5H A?R)+')')+%' 0)%' 8' 4%')+*$*1-+/2' , 8 6$%-. ')%5' 3,)+')+%' 8%5, (' 8%.)H ' . 5' A R)+')')+%', . +'/, . -')14%' 4%&,))%5')*')+%' . *0)$, /0' '0' 3%/' '0')*')+%' 8*1)+' 0*' '0')*' %. 01$%' ' 01&&, (, %.)'0166/2'*&')+%', . +'/%5'7'6*1$' %%<0)%' 8 5$'1-+)' , . +'/%$' , 0' %06%(, '//2' 10%&1/' &*$' 6$*>%(), . -' ' &1/' (1$$%.)' *&' 0)%' 8', .)*')+%')+$*')' ' . 5' ', $ 6'00'-%0' +%' &*$(%' . 5')%86%$')1$%' '$%' '/,9%' (*.)$*//%5' 42')+%' 0/, 5, . -' 7'/7%' *. ')+%' , . +'/, . -' 6, 6%' +%. ' . *' , . +'/%$' , 0' ')' +' . 5' '' >1-' 3,)+' ' 3, 5%' 8*1)+' ' . 5'+'/&', //%5'3,)+'+*)' 3')%$' 8'2'4%' 10%5' '')*3%/' 4%, . -' 6/' (%5' $*1. 5' 4%)3%%. ')+%' 8*1)+' ' . 5' . *0%' *&')+%' 6'), %.)' ' . 5')+%' *6%. , . -' *&')+%' >1-')*' 6$%7%.)')+%' %0('6%' *&')+%' 7'6*1$', .)*'), $

E ' 6 G .+'/'), *. 0' '$% %86/*2%5' (+, %&/2', . ' 5, 0%'0%0' *&')+%' 6+'$2. B' /'$2. B' '. 5' ', $ 6'00'-%0' '. 5' 8'2' 4%' (/'00%5' '0') ' 3 " ' '. 5' " 3

) G)%' 8', 0' 0**)+, . -')*')+%')+$*')2' 3+%. ')+, 0' 6'$)' , 0' 5$2', . &/' 8%5' '$' , $$,)' 4/%' . ', . (, 6, %.)' /'$2. -), 0' '. 5' ($*16' '0' 3%/' '0' , . ', $$,)' 4/%' 4$*. (+,), 0')+%' , . 06, $'), *. ' *&' 0)%' 8' &$*8' 06%(, '//2' '$$' . -%5' 9%))/%0' , 0' 7%$2' -$')%&1/')+%' 8*, 0)' 7'6*1$' 6$*8*), . -' 0%($%), *. ' '. 5' %B6%()*$')*, *.

%)0' *&' 0)%' 8' '$%' 10%5', . ' +*06,)'/0' '. 5' 4')+' %0)'+/, 0/, 8%.)0' '0' 7%+, (/%0' &*$')+%' , . ; +'/%5' 5$1-0' '. 5' '$%' 5, $%()%5' , .)*')+%' 6'), %.)◁' 8*1)+

0' 0%5'), 7%0')+%' 7'6*$%*. , . 0%' '. 5')+%' 7'6*$' (, 5, '+25$*%2' . , (, '*&')+%' 6+'$8' (*6%,'' '$%' $%(*88%. 5%5', . ' ('0%0' *&' /'$2. -%'/' *$' 61/; 8*. '$2', $$,)'), *. ' ' 0%5')' , 7%' , . +'/'), *. ' 8'5%' *&' *. %' 6')$)' *&' (+/*$*&*$8' '. 5')3*' *$')+$%%' *&' $%(), &, %5' 06, $,)G*&' 3+, (+' *. %')%' ' 06**. &1/' 8'2' 4%' 55%5')*' ''6, .)' *&' 3')%$' ')D!g')*' !!g' G, 0' 81(+' (*884. 5%5', . ' +'2' &%7%$' '. 5'/'$2. -%'/' 06'08' ' (*84, . '), *. ' *&' (+/*$*&*$8' '. 5' (*. , 18', . ')+%' 6$*6*$), *. ' *&' F8, . , 8 0' *&')+%' &*$8%$')*' ' 5$'(+8' *&')+%' 01((10' (*. . ' , . ' +'/&'' 6, .)' *&' 4*, /, . -' 3')%$' , 0' 10% ' , . ' 6+)+, 0, 0' '. 5' 0*8%' &*$80' *&' 0)+8' ' .% 5$'(+8' *&' /, E1*$' 6*)'000%' 0+*1/5' 4%' 55%5' &*$')+, 0' 6$*8*)%0')+%' 7*/' ;), /,)2' *&')+%' **. , . %' ' 0', . ')+%' *&&, (, '/' 7'6*$%*. , . 0%')' 810)' 4%' $%8%84%$%5')+')' (+/*$*; &*$8', 0' 7%$2'6*3%$&1/3+%. ' -, 7%. ' 3,)+'0)%' 8' '0' . ', . +'/'), *. ' .% 5$*6' *&' (+/*$*&*$8', . ' ''6, .)' *&' 3')%$' ')' D!g' 8'2'6$*51(%-, 55, . %00 " G), 81/'), . -' 8*, 0)', . +'/'), *. 0' (' . ' 4%' 6$%6' $%5' 3,)+' 7'$, *10' 7*/'), /%' *, /0' ,/0' *&' 6, . %' . 5' *&' (14%40' $%' 10%&)5' 0), 81/' .)0', . ' ('0%0' 3+%$%')+%$%' ,0' 81(+'0%($%), *. ' &$*8')+%')+$*')' . 5' ', $)14%0' +10' @' 5$'(+80' *&' *, /' *&' 6, . %' *$' *, /' *&' (14%40' 8'2' 4%' 8, B%5' 3,)+' D!' -$', . 0' *&' /, -+)' ('$4*. ')%' *&' 8' -. %0, 18' , . '" *1. (%0' *&' 3')%$H ' . 5' *&')+, 0' 8, B)1$%' 5$'(+8' 8'2' 4%' 10%5', . ' '' 6, .)' *&' 3')%$' ')' %'(+', . +'/'), *. ' .% 5$'(+8' *&')+%' (*86*1. 5$'), . (0)1$%' *&' 4%. ; C*, . ', . '+'/&'' 6, .)' *&'+*)' 3')%$', 0' *&)%. '10%&1/', . ' (+$*. , (' 4$*. (+,), 0' ' . 5' /'$2. -,), 0' , /' *&')1$6%.), . %' *$')+%' 7'6*$' *%, ' 6, . ' 02/7%0)$, 0' *&')+%' 6+'$8'(*6*%, '' 8'9%0' ' . ' %B(%//%.)

0),8 1/' .)' ,.+'/'),*.' ,.' ('0%0' *& 5,/')%5' 4$*.(+,
&" G .),0%6),(' ,.+'/'),*.0' '$% 10%5' 3+%$%) +%' *4>%()' ,0')*' (*$$%()' '' &%),5' 0%($%),*.''0' 3%//'0')*'0),8 1/')%')+%'0%($%),.-' 8%8 4$'.%')*' &$%0+' '(),*.' .' &%),5' 4$*.(+*$$+*%''.' -'.-$%.%' *&')+%' ...-',.' &%),5' '40(%00' .5',.'62* 6.%18*)+*$'B'4%.%&,)' ,0' 05%$,&$%5' &$* 8')+%' 7'6*$' ($%'0*),')+%'*&&,(,''/ 7'6*$' ,*5,' *$' &$* 8' -/2(%$,.%' *&' ('$4*/,(' '(,5' i&$* 8' @')*' "' 5$'(+8 0')*')+%' 6,.)' *& 4*,/,.-' 3')%$R'*$'-',.' K&$* 8' *,/' *&')+28*/' 6$%6'$%5'/,9%')+%'*)+%$'%00%.),'/' *,/ 7'6*1$0' 3,)+'/,-+)' 8'-.%0,'' .5'+*)' 3')%$'AD!'-$',.0')*')+%' "'*1.(%OR' '$4*/,(' '(,5'7'6*1$' (' .' 4%' /2%//' 5,&&10%5',.' '' $**8' 42' 8,B,.-')+%' '(,5' 3,)+' 3')%$',.' %%<0' 0)%'8 5$'1-+)',.; +'/%$'*$'42'5$*66,.-')+%'(,5' *.' '' +*)'6/')%' *&' 8%)'/ '0',.' '7*$2' ^' **$%<0' ('$4*/,(' 7'6*$,0%$' $%'0*)%' *$' %1('/26)10' *,/' 8,B%5' 3,)+' .'%E1'/ E1'.),)2' *&' %)+2/,%' '/(*+*/',0' *&)%.' %8 6/*2%5',.')+%' &*$8' *& 5$*60' A !')*' @!' 5$*60' ')' '),8 %' *.' ' 08'// 06*.-%' 6/'(%5',.' '' 6%$&*$')%5'C,.(' $%06,$')*$' +%' $%06,$')*$)+10' (+'$-%5',0'3*$.'42')+%'6'),%.)' &*$' *.%' +*1$ 8*$.,.-' '.5' %7%.,.-' 3,)+' '' 7,%3')*' ,8 6$*7,.-')+%' 0)')%' *&')+%' /1.-0' &)%$' '' &$%%' 8*$.,.-' %B6%()*$'),*.' &&,%' $%06,$')*$,.+'/%$' 0+*1/5' 4%' 10%5' '.5',.; 0)$1(),*.' -,7%.')*' ,.06,$%' 5%%6/2' 42')+%' 8*1)+' '.5' %B6,$%')+$*1-+')+%' .*0)$,/0' 3,)+')+%' 8*1)+' (/*0%5
&" G +%' &18%0' *& 41$.,.-' .,)$% 6'6%$' '$%' %86/*2%5' '0' ,.+'/'),*.0' ,.' ('0%0' *& 61$% 06'08*5,(' '0)+8' ',8(*8' 6/,(')%5' 3,)+' 4$*.(+,)0' +%' 6'6%$G6$%; 6'$%5' 42' 0*'9,.-' 3+,)% 4/*)),.- 6'6%$',.' 0*/1),*.' *& .,)$')% *& 6*)'00,18' A"!')*' !' -$',.0',.' '.' *1.(%' *& 3')%$RG,0'0*8%),8%0' 3'0+%5' *7%$ 3,)+'),.()1$%' *& 4%.C*,.' '.5')+,0',.' (%$)',.' ('0%0' 8'2' 4%' '.' ,86$*7%; 8%.)'H 41)',.'*$5,.'$2'&*$80' *&' '0)+8'')+%' .,)$% 6'6%$'41$.)',/')+%'6'),%.)',0'%.7%/*6%5' ,.' 08*9%'3,/' 101''//2'$%/,%7%')+%' '0)+8'),(' 6'$*B2028' +%&18%' *&' '' -$',.' *&' 6*3; 5%$%5' *6,18'7*/'),/,0%5' *.' +*)' 8%)'/ +'0' 4%%.' 6$',0%5' '0' ''$%8%52')*' (1')0+*$)' .'0'/ (')'$$+H '0'3%//'0'08*9,.-'0*/,5'*6,18',.')+%' +,.%0%&'0+,*.')+$*1-+' ''6,6%',.'06'0; 8*5,(' '0)+8''' ,-'$%))%0'6'0),//%0' '.5' 6*35%$0'(*.)',.,.-'0)$'8*.,18'4%//'5*..'' '.5')+%$'.),06'08*5,(0' '$% 3%/'9.*3.'0' $%8%5,%0',.'06'08*5,(' '0)+8'
& ' "# " ' ' ' +'7%' *& /')%' 2%'$0' (*8%' ,.)*' 5%0%$7%5' $%61)%' '0' 7'/1'4/%' ,5D')*')+%')$%')8%.)' &' (+$*.,(' 5,0%'0%0' *&')+%')+$*')' .'5'/1.-0' +%' 6$,.; (,6/%'*&')+%'+'.5 4'//' .5'0)%'8 06$'2')'*8; ,0%$0',0')+')',&')3*'('6,//'$2')14%0''$%6/'(%5' ')''' (%$)',.' '.-/%')*'%'(+' *)+%$'*.%'5,66,.-' ,.)*''&/1,5'3+,/%')+$*1-+')+%'*)%$%''0)$%'8' *&',$',0'5$,7%'42'+%')' *$' (*86$%00,*.' '' 7'(118',0'&*$8%5',.')+%'&,$0)' ('10,.-')+%' /,E1,5')*'6'00'*1)',.')+%'&*$8' *&',.%'06$'2' .' 10,.-')+%0%' ,.0)$18%.)0')+%' *6%$')*$ 0+*1/5' 0%%9')*' 4/*3')+%' 06$'2' ,.)*')+%
6'),%.)<0')+$*')' ')')+%'),8%' 3+%.' ' .',.06,.; $'),*.',0'4%,.-')'9%.' '0')+10')+%' 06$'2'3,//*4)',.' '' &$%%' %.)$'.(%')+$*1-+')+%' /'$2.B' ,.)*')+%')$'(+%' ')',0' 5*14)&1/,&' 8 1(+' 06$'2' %.)%$0')+%' ',$)14%0H 0*8%' (%$)',./2' 5*%0''0'+'0'4%%.'0)')%5' '4*7%'41)')+%' (*/5' 06$'20'5*'.*)' '66%'$')*' '&&*$5'0*' 8 1(+'$%/,%&)*' '&&%(),*.0'*&')+%/1.-0'0')+%' 3'$8',.+';/'),*.0' .'('0%0'*&')18,5,)2'*&')+%'/'$2.B' '' 06$'2' (*.)',.,.-' !' -$',.0'*&'/18')*' *1.(%'*&' 5,0),//%5' 3')%$' 8'2'4%' 10%5' .' 6/'(%'*&'/18'@' -$',.0'*&01/6+')%' *&',$*.' F'-$',.0'*&01/6+')%'*&'C,.(' '*$ F'-$',.0'*& 5$2'(+/*$,5%'*&',$*.' ,.' '*1.(%'*&' 3')%$' 8'2'4%'%86/*2%5' *$' .),0%6),('61$6*0%0' F'8,.,8 0'*&01/6+1$*10''(,5''*$' 8,.,8' *& ('$4*/,(''(,5')*' '*1.(%'*&')%$'*$''/,9% E1'.),)2'*&'0*/1),*.'*&',*5,.%8'2'4%'10%5' .' 61),$,5'0*$%)+$*')' .5'5,6+)+%$,'')+%' 3$,)%$ +'0'0%%.'%B(%//%.)' $%01/)0'&$*8',.*5,.%'%,)+%$,.+'/%5',.'7'6*1$' *$' '66+%5',.' 0*/1),*.' +$%%' .5' +'/&'5$'(+8 0'*&/'(),(',5',.' !'*1.(%0'*&' 3')%$'&*$8' '' 0*/1),*.' 3+,(+')+$*3.'0'06$'2',.)*')+$*')' ,0'*&' 10%&1/' ,.'5,6+)+%$,'H ,)'0%%80')*' 5,00*/7%')+%' %B1; 5'),*.' 0' '' 0)26),(' .5'+0%8*0)'),(' 06$'2' F!')*'@!' -$',.0'*&')'.,.(',5'$%'%86/*2%5' 5,00*/7%5',.' !' *,8(%0'*&' 3')%$'41)'&*$ $%/'B%5')+$*')' '' 3%'9%$'0*/1),*.' ,0' 10%&1/' *$'0%5',7%' 61$6*0%0''0*/1),*.' *&' 4$*8,5% *&'88*.,18'*$*.%' *.)',.,.-'+'/&''-$',.' *&')(%)')%'*&8*$6+,.%')*' *1.(%'*&3')%$' 8'2'4%' %86/*2%5' ,/1)%5',6%('(1'.+' 3,.%'06$'2',0'0',5')*' 4%'7%$2'%&&,('(,*10',.' $%/,%7,.-')+%'5206.*%'' *&'(+$*.,(' 4$*.(+,)0' .5'%86+20%8' +,0'06$'2',.'' &%3',.; 0)'.(%0'8'2',.51(%'7*8,)..-'41)',0''((,' 5%.)'8'2'4%'*47,')%5'42'5,/1),.-')+%'3,.% 3,)+''(*.0,5%$'4/%'6$*6*$),*.'*&'3')%$' //)+%0%'06$'20*/1),*.0'0+*1/54%&,/)%$%5')+$*1-+' 6'6%$')+%$3,0%')+%2'8'2'(*.)',.'08'//'6'$;),(/%0'3+,(+'(/*-')+%'6%$)1$%'*&')+%')*'; 8,0%$')'+%' *.),.%.)'/ 06'0',)',0'101'/)*' 8%5,(')%' /'$-%'(+'84%$0'42'8%'.0'*& 06$'20'.5'7'6*1$0',.'3+,(+'6'),%.)0'('.' 0,)'&*$'+*1$0'4$%')+,.-')+%'$),&,(,'/')8*; 06+%$%0H'.5',.')+,0'3'2'7'$,*10'8,.%$'/ 3')%$0'01(+'0')+*0%*&''*1$4*1/%'B' /%0 ',.0''.5' 1)%$%)0'$%/*('//2'66+%5 5" "',0''8%)+*5'*&'66/2,.-'6*3; 5%$0')*')+%'/'$2.B' '71/(',.)%')14%'(1$7%5' ')''01,)'4/%'.-/%',0'($$,%5'*7%$')+%')*.-1%')*')+%'/'$2.-%'/'6%$)1$%'.5')+%.')+%'6*35%$' 3+,(+'0'4%%.',.)$*51(%5')+$*1-+''08'// *6%.,.-'(*7%$%5'42''0/,5%',.')+%')14%',0' 4/*3.',.)*')+%'/'$2.B'.5')$'(+%'' +%' 4/*3,.-',0'%&&%()%5'0*8%),8%0'42'.'%/'0),(' 4'//')')+%%.5'*&')+%')14%')')*)+%$'),8%0'42')+%' 8*1)+'*&')+%' *6%$')*$' .'/'$2.-%'/ 6+)+,0,0'='*&''-$',.'*&' +25$*; (+/*$')%'*&8*$6+,.%'8,B%5'3,)+'01-'$'*& 8 9'8'2')+10'4%4/*3.',.)*')+%/'$2.B''.5' *&)%.'3,)+'-$%')'(*8&*$)')*')+%' 6'),%.)' -$',.'*&'4*$,(''(,5' '$%'*&)%.''55%5')*')+%'8*$6+,.%'6*35%$ = @ !

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(+0)$-%' '.5')+%' /*)$%$' '.5' 8*$% '1)*8'),(' (%.)$%0')+10' /,4%$')%5' '$%' 0),8 1/')%5')*' *7%$' '(),*.' 3+,(+' ,0' 8' .,&%0)%5' ,.' .*,02' '.5' 7,*/%.)' 5%/10,*.0' '.5'0*' *.')*' 8 %$% 5%/,$,*10' ,.(*+%$%.(%' .5' '&)%$')+%' 5,0(+'$-%' +'0' (%'0%5')+%$%' 8 '2' +%' '' 6%$,*5' *&' 5%8%.),'' '.5'(*8 6/%)%' *4/,)%$'),*.' *&' 8,.5'4%&*$%')+%' %B+'10)%5'4$',.' 4%-,.0')*' $%(*7%$' %$0*.0' W3+*' $%',.')+,0' (*.5,),*.' *&' 1.0)'4/%' .%$7%' %E1,/,4$,18' 8'2'4%')+$*3.' *&&')+%,$'4'/'.(%' 42' 8%.)'/ ('10%0G42' 0+*(9' *$' -$,%&' *$' /*00%0' +%,$'4$',.' 8'2' '/0*' 4%' &/%*)%5'42' 5,0*$5%$' &)+%')+%$' *$-'.0' *&')+%'4*52' 7 # .' '//01(+'6'),%.)0')+%$%',0' '' 6$%5,06*0,),*.' *&)%.' ,.+%$,)%5')*' .%$7*10' ,.0)'4,/,)2' .5' $'6,5' 5,0(+'$-%' '.5' 01(+' 0('10%0' 0' 614%$)2' 6$%-.'.(2' *$' (+,/5;4,$)+'4$,)=' *4*1)' '.' %B6/*0,*.' %$%')**')+%$%',0' 8'$9%5'(%$%4$'/+26%$'8,'6$*51(;,.-' '.' '4.*$8'/.1)$,),*.')*5'(*$%06*.5,.-' '4.*$8'/&1.(),*. ' ,0)1$4'.(%' *$' 5%&%()' *&' 8,.5' 8 '27'.(%0',.*.%'*$*)+%$*&')+%' 5,$%(),*.0'/$%'52' ,.5,()'%5' +%' -/**8'3,/, .($%'0%H (*$$%;06*.5,..-' 5%/10,*.0' 3,// 6$%0%.)')+%80%/7%0' 3,)+' '66$*6$,')%' ()0' .5' (*.51()H '.5')+%' 6'),%.)' 3,// 5$,&)' ,.)*' " # ' $'+$2' 3,// 4%(*8%' 8*$%' '.5' 8*$%'+,/'$,*10' '.-$2' %B(,)%5' *$' 0106,(,*10' '.5' '' 0)')%' 3,/' '$,0%)*' 3+,(+' &*$' 3'.)' *&' '' 4%))%$' 3%'-,7%')+%' .'8%'*&' " ' +*1-+' 5%/10,*.0' '$%' .*)' 101'//2'&*1.5',.')+%' 0)'-%'*&' /)%$'),*.')+%2' '$%' 0%/5*8' '40%.)' ,.')+%' 0%(*.5' '.5' 8*$%' '57'.(%5'6%$,*5' '.5'-%.%$'//2'(*$$%06*.5')*')+%' &%%/,.-'*&')+%' 01&&%$%' 0*' 8 1(+'0*')+')'+,0' '66%'$'.(%' '.5' +18*1$' 0*')*' 06%'9' &$%;E1%.)/2'%.'4/%'10' 3,)+*1)' 6$%7,*10',.&*$8';),*.')*' '$$,7%')')+%' 5%/10,*.0' 1.5%$' 3+,(+' +%' ,0' /'4*1$,.-' +,0' 0)'-%' ,0' *&)%.'(''//%5' " ' " ' *+$',.0'.,)2' 3,)+' 5%/1;0,*.0' '),%.)0'/'4*1$,.-'1.5%$'*.%'*$*)+%$' *&')+%0%'&*$80'7'$2',.')+%' 5%-$%%'*&',.0'.,)2' &$*8' '' (*.5,),*.',.'3+,(+')+%2' '$%' '4/%')*')'/9' (*+%$%.)/2'*.' 8'.2')*6,(0')*' *.%'*&' (*86/%)%' +1,*+%$%.(%' *$' 5%/,$,18' *')+%' &*$8%$')+%' .'8%' ' " ' ,0'*&)%.' '66/,%5 .*)+%$' (*.5,),*.' ,0')+')' *&' &')1,)2' *$' (+,/5,0+.%00' ,.' 7'$,*10' 5%-$%%0')' 8'2' (*8%'*.'$'6,5/2')+%'6'),%.)' 6'00,.-''*.(%,.)*')+,0'0)')%'3+,(+',0')+%.'('//%5' '*$' ' " H *$',)' 8'2'4%')+%' $%01/)'*&'2%'$0'*&',.0'.,)2'*$'4$',. 5,0%'0%''.5',0')%$8%5' # " '*$ " / ' " ' 01(+'6%*6/%'3%'&,.5'/*00'*&'8%8*$2',.'4,/,)2')*'$%7,7%')+%' $%/'),*.0'*&'&%%/,.-0'.5',5%'0' G.*)'%8*),*.'/ 5,0)1$4'.(%' 41)' $')+%$' .'40%.(%'*&''//*%8*),*. 0' $%-'$50')+%' 4*5,/2' 0286)*80' '/8*0)'%7%$2' 7'$,%)2' *&',.0'.,)2',0' 10+%$%5',.'42' 0/%%6/%00.%00H 0/%%6' 4%,..-'5%&,(,%.)' *$' /)*;-%)+%$' '40%.)' 6%$+'60'&*$'5'20'.'((*$5,.-')*')+%' (1)%.%00'*&')+%' '))'(9' +,0',.5,(')%0''5,0)1$4'.(%'*&')+%4$',. (,$(1/'),*.'3+,(+',0' '/0*' 0+* 3.42'+%')')*5'6',.'*&'+%'5',.>%(;),*.'*&')+%' (*.>1.(),70%'.5')+$*44,.-'*&')+%' ('$*),50' +%$%' 8'2'4%' %B(%00,7%' 7'0(1/'$

51()'*&')+%'6'),%.)'$%.5%$0',)'5,&&,(1/)')*'*4)',.'
'.',.)%$7,%3''.5'('$%'810)'4%')'9%.'.*)')*'
*7%$0)%6'/%-'/ /,8,)0'..')+%'))%86)'&')+%
6+20,(,'.'+'0')*'0%%')+%'6'),%.)'8')+%6$%;
0%.(%'*&*)+%$'6%$0*.0',)',0''.%(%00'$2'6$%;
('1),*.')*'.*'9%'(%$)',.')+')'+%'(/%'$/2'
1.5%$0)'.50'3+*8'+%',0')*'%0'8,.%'.'*4;
)',...-')+%',.)%$7,%3''')',.''8*1.)'*&'
0)$')'-%8'8'2'0*8%),8%0'4%'$%0*$)%5')*H'
41)',)',0'4%0')+')'+%'6+20,(,'.'0+*1/5'4%'
,.)$*51(%5'42'''%.5',.'+,0')$1%((+'$'()%$
'0''5*()*$''.5'*.'.*''((*1.)'0+*1/5'.2'
&'/0%'0)'%8%.)'4%'8'5%'0''8%$%'8'))%$'
*&'%B6%5,%.(2',)'3,/'4%'&*1.5')+')'.2'5%7,';
),*.'^*8')+,0'6$*51(%0'8*$%'%7,/')+'.'-**5'
&')+%',.)%$7,%3')'9%0'6/'(%',.')+%'6'),%.)<0'
+*8%'7'/1'4/%',.&*$8'),*.'&$%E1%.)/2'
4%*4)',.%5'42'*40%$7'),*.'*&')+%'*$5%$'*$
5,0*$5%$'3+,(+'6$%7',/0'+%'(*.5,),*.'*&'
)+%'&1$.,)1$%')+%'0)'%'*&')+%'6'),%.)<0'(/*)+;
,.-'+,0'8'..%$')*3'$50')+%'$%0)'*&')+%'
+*10%+*/5''.5')+%,$'4%'$,.-')*3'$50')+%$
6'),%.)'*1-+)')*'4%'.*)%5'+%'6'),%.)<0'
6+20,*-.*82')+%'(*.5,),*.'*&')+%'616,/0'
'.5''.2'-%0),(1/'),*.0'*$'(*.71/0,7%'*$
)$%81/*1%'8*7%8%.)0'810)'4%'*40%$7%5'
.'(*.7%$0)',*.',0'3%//')*'-%)'0'0**.'0'
6*00,4/%')*')+%'014>%()'*&')+%'6'),%.)<0'+%'/)+'
'0',)'$%/,%7%0'8'.2'.%(%00'$2'E1%0),*.0'*&'
)+%,$'*&&%.0,7%'(+'$'()%$'>6>((%.)$,(',5%'0'
1-+)'.)')*'4%'(*84')%5'8*$%')+'.'8'2'
',5','.'89,.-')+%'6'),%.)'5,0(/*0%')+%8'
&1//2H''.5'%7%$2)+,.-')%.5,.-')*'0+*3')+%'
6$%0%.(%'*$'40%.(%'*&'5%/10,*.0',$$'),*.'/
0106,(,*.0'*$'/*00'*&'8%8*$2'*1-+)')*'4%
%/,(,)%5'.2'*)+%$'6*,.)0'3,/'6$*4'4/2'
4%'01--%0)%5'42')+%'(*1$0%'*&'%'(+',.E1,$2H
'.5'8%',86*$)'.(%')*'4%'))'(+%5')*')+%8'
'0'3%''0')*')+*0%'>10)'8%.),*.%5'810)'4%
5%(,5%5'42''('$%&,/'0)152'*&'+*3'&'$')+%2'
'$%',.(15%5'*$%B(/15%5'42')+%'9.*3.'02866;
)*80'*&'.2'*&')+%'7'$,*10'&*$80'*&',.0'.,)2
.*$G%'.*3'6'00')*')+%'('10%0'*&
,.0'.,)2'3+,(+'$%'101''//2'06*9%.'*&''0'>#$%'
"0'*$'("0H,.'8'.2'('0%0'4*)+'
(*84,.%',.')+%'('10'),*.'*&')+%'5,0*$5%$
+%'04"0'('10%',0'.',.+%$,)%5'
5,06*0,),*.')*'.%1$*),('5,0*$5%$G*.%'5,&^(1/)
')*'%0),8')%''.5',.5%%5')*'5,0(*7%$'*3,..')*'
)+%'('$%'3,)+'3+,(+',)',0'(*.(%'/%5'41)')+%'
,86*$)'.(%'*&'3+,(+'(''.*)'4%'E1%0),*.%5'
)'+'0'4%%.''57%$)%5')*',')+%'0%(*.5'0%(),*.'
&')+%'6')+/*-,('/(*.5,),*.0''.5'3,//'-',.'
4%'.*),(%5'')'$%,%),%0'*&
+%.'3%'06%'9'*&'01(+'6$%5,0640,.'
('10%0''0'('0''.5'"'''',)'
,0'%7,5%.)')+')')+%2'('.'*./2'4%'('//%5'('10%0'
,.')+%'0%.0%'*&'4%,.-'(*.(1$$%.)'(*.5,),*.0'
,.'0*8%'*&'3+,(+''8'.'*$'3*8'.'0'8*$%'
/,9%/2')*'4%(*8%,.0'.%')+'.',.'/$%'52'%.18%$')%5'
+')'$%')+%$%/'),*.0'*&'(')*',.0'.,)2'
%&%$$,.-')*'0)',0),('/')'4/%0'3%'&,.5')+')',.'
)+%'%6*$)'*&')+%'.-/,0+'*88,00,*.%$0',.'
1.'(2'&*$)+%'2%'$'?P@')+%$%'3%$%'1.5%$
)$%')8%.)',.'.'02/180')')+%'%.5'*&')+%'2%'$'
?P'@P@P''8'/%0''.5''DP?'&%8'/%0

+%$%'3%$%'58,))%5'51$,.-')+%'2%'$'A.*)'
$%(9*.,.-'$%'58,00,*.0'*$')$'.0&%$0R'?@'''
8'/%0'.5'?DP!'&%8'/%0'3+,/%',.')+%'0'8%'
6%$,*5')+%$%'5,%5''FD!'8'/%0'.5'@P@'
&%8'/%0'+%'6$%6*.5%$'),.-'.184%$'*&'
&%8'/%0'1.5%$')$%')8%.)',0'6$*4'4/2'51%')*'
)+%'&')(')+')')+%'8*$)'/,)2'8*.-')+%8',0'
&'$'/%00')+'.''8*.-'8'/%0''.5'(*.0%E1%.)/2'
)+%2''((181/')%',.'02/180'+%'5,&&%$%.(%
.'^%'.8.4%$'*&')+%')3*'0%B%0'3+*'4%(*8%
,.0'.%',0'6$*4'4/2'.*)'8')%$,'/'41)',)'0%%80'
)+')')+%'8'/%0''$%')+%'/'$-%$'.184%$'*$'
/**9,.-')')+%'5,&&%$%.(%',.')+%'8*$)'/,)2'
)+%2'3*1/5'&'/'4%/*3')+%'.184%$'*&')+%
&%8'/%0'&'$)+%$')+'.')+%2'5*
,)+'$%-'$5')*'0'3%'&,.5')+')'=%')%.;
5%.(2')*','.0',)2',.($%'0%0'3,)+')+%'5%7%/*6;
8%.)'*&'4$',.''.5'8,.5'.')+%'&,$0)'5%('5%'
&'/,&%',)',0'$'$%'.')+%'0%(.5'3+,(+'
,.(/15%0')+%'6%$,*5'*&'614%$)2',)',0'8*$%'
(*88*.'41)'.*)'0*'81(+'0*''0',.')+%'.%B)'
+%'6%$,*5'4%)3%%.'@F''.5'!'2%'$0',0')+')'
,.'3+,(+')+%'-$%')%0)'.184%$'*&'('0%0'$,0%'
'.5',0')+')'*&')+%'+,-+%0)'5%7%/*68%.)''.5'
3*$9,.-'6*3%$'&)%$')+,0')+%'.184%$'5%;
(/,.%0',.'%'(+'5%('5%''0'4%&*$%',)'$*0%'',)+'
)+%'-%')+%'(+'$'()%$*&')+%',.0'.,)2'7'$%0'
.'2*1)+',)',0'5,06/'2%5',.'7,*/%.)''.5'
6'$*B208'/'8'.,''0*8%),8%0',.''(1)%'5%;
8%.),''.5'('))/%6)*,5'0)')%0'+%$%'
-$%')'8*)*$5,0)1$'.(%''.5'%8*),*.'/$'(')+%$'
)+'.',.)%//%()1'/'4%$$'),*.'''$%/2'$%')+%'
2*1.-'8%/'.(+*/,('.')+%'6$,8%'*&'/,&%'
)+%$%',0''(),7%'8'.,''3,)+'5%/10,*.0''.5'
,.)%//%()1'/',.0'.,)2''.5')')+,0'6%$,*5'3%'
8%%)'3,)+')+%'8*0)'(1)%'&*$80'')%$'
8%/'.(+*/,''6$%7',/0H3+,/%',.*/5'-%'3%'9;
.%00'*&'8,.5H6'00,.-',.)*'&')1),)2'.5'0%(*.5'
(+,/5+**5',.5,(')%0')+%-%.%$'/'5%('2'*&')+%'
4$',.''.5'.%$7*10'020)%8
0')*')+%'"3"'3'',.'3+,(+',.;
0'.,)2',0'8*0)'&$%E1%.)/2'&*1.5')+%$%',0'.*)'
81(+')*'4%'0',5'+')',)'*((1$0'8*$%'&$%;
E1%.)/2',.'(,7,/,0%5')+'.',.'4'$4'$*10'
(*1.)$,%0'8'2'4%'00188%5'3,)+*1)'$%(*1$0%
)*'&,-1$%0'4%('10%',.')+%'&*$8%$'8,.5'.5'
4$',.''$%'8*$%'(*86/%$'.5')+%$%&*$%'8*$%'
6$*.%')*'5,0*$5%$'')',0'+*3%7%$')+%'&',/;
1$%0'.5'7,(%0'*&'(,7,/,0'),*.')+')'4$,.-'*4*1)'
)+%'-$%')'8'00'*&',.0'.,)2'.5'*&')+%0%')+%(+,%&',0')'3,)+''/',)0'))%.5'.)'6+20,;
('/%7,/0'*&',.01&&,(,%.)'&**5'.5'3$%)(+%5'
53%/+.-0'.5'8*$'/%7,/0'*&'.B,%)2'.5'
5%-$'5'),*.'%B)')*'6*7%$)2'.5'(/*0%/2'
4*1.5'16'3,)+',)',0'/"0'3+,(+'8*.-'
)+%'3*9,.-'(/'00%0'6/'20''%&'$&1/'6')',.'
)+%'(10'),*.'*&')+%5,0%'0%'8*.-')+%'6$%;
5,06*0,.-'('10%0'*&',0'.,)2',.(/15%5'42')+%'
.)%$.'),*.'/*.'-$%00'*&'/,%.,0)'+20,(,'&,0'
,.'?DM'$%'4%0,5%0')+*0%''/$%'52'%.18%$')%5'
(*.0'.-1,.,)2'H-$%')'5,&&%$%.(%',.')+%'-%*&
)+%'6'$%.)0H,.&/1%.(%*&)+%'0*/'.5'01$$*1.5;
,.-0'H(*.71/0,*.0'*$%8*),*.0'*&')+%'8*)+%$'
51$,.-'-%0)',*.H%6,/%602''.5'*)+%$'.%$7*10'
'&&%(),*.0H6$%-.'.(2'/'()',*.'8%.0)$1'/
6%$,*50'($,),('/'-%'614%$)2'7%.%$%'/'%B(%00

0)152'*&')+%'8%.)'/02860*8 0'*&'5,0%'0%')+'.'+'0'2%)' 4%%.' -,7%.')*')+%8 ' 1)' 9'%5%; 0%$7%0')+%' ($5,)' *&'+'7,. -' -,7%.')+%' 8*0)' 6*3%$&1/ ,861/0%')*')+%' 61$%/2' 8%5,('/' '0' *66*0%5')*')+%'8%)'6+20,('/' 8*5%'*&'0)152; ,.-' ,.0'.,)2' .'&1$)+%$'.(%'*&')+,0'0*8%' 6$*-$%00'+'0'4%%.' 8'5%'42' /*10)*.' ')2' .9%''.5'*)+%$0'3+*'+'7%'614+0+%5'('$% ' 8*.*-$'6+0'*&'0*8%'*&')+%'8*$%' 6$*8,.%.)' &*$80' &'42'01(+' 8%'.0'3%'('.' -$*16')*-%)+%$'(*.5,),*.0'3+,(+' '$%' 0,8,/'$'.*)' *./2',.')+%,$'8%.)'/41)' /0*',.')+%,$'6+20,; ('/%'+'$')()%$0'3%'*4)',.'1.,)0'3+,(+'8'2' 1/),8')%/2'(*.)$,41)%')*')+%' 41,/5,.-'16'*&' '' 8*$%' 6%$&%()'020)%8' '.5'('.' .%7%$'4%' '/)*-%)+%$'5,0$%-'$5%5'42'(/'00,&,%$0',.'&1)1$%' *0)'*&')+%'))%860)0'3+,(+'+'7%'4%%.'8'5%')*'5%0($,4%'01(+'-$*160'8 10)')'6$%0%.)'4%' $%-'$5%5'$')+%$'0'7'/1'4/%'01--%0),*.0')+.' '0'3% %0)'4 0+%5'(/,.,('/'.5'6')+*/*-,('/ 06%(,%0' *$')+%'61$6*0%0'*&')+,0'3*$9',)'+'0' 4%%.'(*.0,5%$%5'4%0)')*'5%0($,4%',.')+%'6$%; 0%.)' '$),((/%')+%' 7'$,*10'6+'0%0'*&',.0'.)2' 3+,(+'+'7%'4%%.'$%-'$5%5'0'*&'06%(,'/,8; 6*$)'.(%'3,)+*1)' $%-'$5')*')+%' 6$,.(,6/%0' 3+,(+'1.5%$+%')+%,$'(*.(%6),*.H'.5''&)%$; 3'$50'/*' 5,0(100')+'7'$,*10'3%// 8'$%5' &*$80'*&')+%'5,0%'0%'1.5%$')+%,$'0%7%$'/+%'50' '/6+'4%),('//2''$$'.-%5 ' 25 ! ! G +%'-%.%$'/6$*-.*0,0'*&',.; 0'.,)2'3,//5%6%.5'A8R'*.')+%'51$'),*.'*&')+%' %B,0),.-'5,0*$5%$' %$+'60')+%'4%0)'%0)'4; /,0+%5'&')'*&'//',0')+')')+%'(+'.(%0'*& $%(*7%$2' 5,8,.,0+',.'5,$%()'6$*6*$),*.')*')+%'51$'),*.'*&')+%'8'/'52'.'5')+')',)'(,0' (*.0%E1%.)/2'*&')+%'1)8*0)',86*$')'(%')*' 6/'(%''6'),%.)'%'$/2'1.5%$'5%E1')%'.5' '66$*6$,')%')$%')8%.)' &''')3%/7%8*.)+' %/'60%0'3,)+*1)' '66$%(,'4/%',86$*7%8%.)')+%'(+'.(%0'$%5%(,5%5/2'1.&'7*1$'4/%' ,&' 5%/10,*.0'*$'+'//1(,.'),*.0'&*'/*.-'51$';),*.')+%'6$*-.*0,0',0'/%00'&'7*1$'4/%')+'.' 3+%.',)',0''6'00,.-'*$'((,5%.)'/'('10% A"R' 0')+%'6$*-.*0,0',8&'7*8'4/%',.'+%$%; 5,)'$2',.0'.,)2',]*' 81(+'*&')+%'0*('//%5' 0,86/%',.0'.,)2',0'+%$%5,)'$2')+')'3%'8 10)' '58,)')+'$%('7*$,%0'&,$*8',)''$%'.*)',.; &$%E1%.)'&*$',)',0'&$*8')+,0'0,86/%',.0'.,)2')+')'$%(*7%$,%0'(+,%&/2')'9%'6/'(%' %$%; 5,)'$2',.0'.,)2',0'5%7%/*6%5'42'7%$2'0/,-+)' %B(,),.-'('10%0''.5')+10')+%'6$*-.*0,0',0' *&)%.'&'7*1$'4/%''.5'$%(*7%$2')'9%0'6/'(%H 41)'$%/'60%',0')*'4%'&%'$%5''.5')+%'6$*-.*0,0' ,.''0%(*.5'*$')+,$5''))'(9',0'.*)'.%'$/2'0*' -**5' .')+,0'+%$%5,)'$2',.0'.,)2')*' 3%' &$%E1%.)/2'8%%)'3,)+')+%'('0%0'*&'$%(1$$,.-' '.5'0(,$(1/'$'<,.0'.,)2')+%'6$*-$%00'*& 3+,(+',0'8*0)'1.&'7*1$'4/%' *)+' '2'.5 $,%0,.-%$'+'7%'$%8'$9%5')+')')+%'6$*-.*0,0' ,.'+%$%5,)'$2',.0'.,)2',0'&'7*8'4/%'*./2' 3+%$%')+%',.5,7,51'/+'0'6$%7,*10/2'4%%.'*&' .*$8'/8,.5' +%.'+%'+'0''/3'20'4%%.' %((%.)$,(' *$'0%8,,.0'.%' .5'1.5*14)%5' ,.0'.,)2''')'/'0)'8'.,&%0)0',)0%/&')+%'6$*:-.*0,0',0'7%$2'4'5' AR' +%'8*$%'(1)%')+% 0286)*80')+%'-$%')%$')+%' (%$%4$'/5,0;)1$4'.(%'.5',.0*8.,'')+%'8*$%'&*7*1$'4/%' ,0')+%'6$*-.*0,0',&')+%'('0%',0'$%(%.)' *.; 7%$0%/2')+%'6$*-.*0,0',0'4'5'3+%.')+%$%',0' /,))/%'4*5,/2'5,0)1$4'.(%'3+%$%'0/%%6',0' 6$%0%.)')+%'66%),)%'.*$8'/'.5')+%'0%($%;),*.0',8'&&%()%5'%06%(,'//2',&'6%$0,0)%)' 5%/10,*.0'*$''.'%.),$%'8*$'/(8,.-%''$%' &*1.5'AFR'0'//5%7,'),*.'&$*8')+%'*$5,; .'$2'8%.)'/'0')%'.5'5,06*0,),*.',0',.5,(',)7%' *&',.0'.,)2'0*''.2'$%)1$.')*',),0''&'7*1$'4/% 0,-.'+*3%7%$')$,&/,.-')+%'(,$(180)'.*%08'2' 4%'ALR'86$*7%8%.)'+*3%7%$'0/*3',0''' -**5'0,-.',&',)'4%6$*-$%00,7%'*'/*.-'0')+,0'-*%0'*.'$%(*7%$2'8'2',)'9%6/'(%'41)' 8'.2'6'),%.)0',86$*7%'16')*''(%$)',.'6*,.)' '.5')+%.'-*'.*'&')+%$'AMR'+%'-%'&')+% 6'),%.)'810)'4%'(*.0,5%$%5' *1.-'6%*6/% $%(*7%$'.'-$%')%$'.18 4%$0')+'.')+*0%'5; 7'.(%5',.'8%' +%'/'))%$'$%(*7%$'.&')+%,$' ,.0'.,)2'4%8%/'.(+*/,'H41)',)'4%8'.,'' 3,)+'+'//1%,.'),*.0'.5'5%/10,*.0''.5'*4; 0(%.%'(*.51()''.5',5%'0'$%(*7%$2',0'$'$%' %06%(,'//2',&')+%'8%8*$2',0',86',$%5''.5' 0,-.0'*&'66$*'(+,.-'5%8%.),''$%'6$%0%.)' A9R'/'6%$,*5,(,)2',.')+%'5,0%'0%'01+'0' %B'(%$4'),*.0''.5'$%8,00,*.0'*.''/)%$.')% 5'20',0'1.&'7*1$'4/% # G ./2''&%3'-%.%$'/$%8'$90' *.')$%')8%.)'.%%5'4%*&&%$%5'+%$%'1$*4; >%()0'0+*1/5'4%)*'$%0)*$%')*'+%')/)+')+%'5,0; *$5%$%5'4$',.')*'('10%')+%',.(%00'.)'3'0)%')*'(%'0%')*'6$*8*)%''0)*$,.-'.5'.*)''.' %,ER%.5,)1$L'*&'.%$7%&*$(%' +%'4$',.'810)' 4%'.*1$,0+%5'42'+%')/)+2'4/**5' +%'E1'.;),)2'*&')+%')'))%$'3+%.',.'5%&%()'810)'4%' ,.(%'0%5H 3+%.',)0'E1'/,)2',0',.'&'1/',) 810)'4%',86$*7%5H3+%.')+%'4/**5&/*3',0',.' %B(%00',)'810)'4%'(+%(9%5H 3+,/%'/'('10%0' *&'5,0)1$4'.(%'%')(),.-'16*.')+%'4$',.'&$*8' *)+%$'*$-'.0'*&')+%'4*52'810)'4%'$%8*7%5)',0'.*)'*'4%'&*$-*))%.')+')'6*3%&%75' %&&%()0''$%'6$*51(%5')+$*1-+*1)'+%'.%$7*10' 020)%8'4*)+',.')+%'/*3%$'.5'+,-+%$'(%.)$%0' 42'3+')'+'0'4%%.')%$8%5'0,.+,4,),*.'2')+%'5,7%$0,*.'.'*&'.%$7*10''(),*.'&$*8'*.%' (+'..%/'*'.*)+%$'(*.0,5%$'4/%'.&/1%.(% 8'2'4%'%B%$(,0%5=' 8*),*.'/'%B(,)%8%.)' 8'2'4%'5,7%$)%5',.)*' 8*)*$'*$',.)%//%()1'/ (+'..%/0H'*$'42'*)+%$'%8*),*.'/'0),81/,' 8'2'4%'(*1.)%$'()%5'*$''$$%0)%5'.)%/; /%()1'/*$,5%'),*.'/)$*14/%0'8'2'4%5,7%$)%5' 42'8*),*.'/'/*.-,-0'*$'42'(*1.)%$'%),=' ,.)%//%()1'/61$01,)0'.5'&*$''')+,0'(%$)',.' '5>1.()0'$%'.%(%00'$2''.&1/'%8*),*.'/ 5,0)$%00',)+')+%',5%''*&',86%.5,.-'8,.',0' 6%$6%)1'//2'&*0)%$%5'42')+%'0,-+)'*&X)%/*7%5 ' F)' 7)'.)4 $'<' !+ $' 8 " "7"*' ' > 7') $' .2

&'(%0' *&' 3,&%' .5'(+,/5$%. ')+%'6'),%.)' 8 .0)'
)+%$%&*$%' 4%$%8*7%5'&$*8')+%8 1)41$0)0'
&'.-%$''$%'(.0)'.)/2'5,$%()%5''-'..0')+*0%'
8*0)' &'8,/,'$' '.5' 5%/10,*.0' (*$$%06*.5'
 +%0%' 810)' 4%' 4*/,0+%5'42'$%0,5%.(%''8*.-'
0)$'.-%$0' $%')' '0',0')+%' .%%5'*&' 8%5,;
(,.'/')$%')8%.)',.'8'.2'('0%0',)',0'.*)' '
1.,7%$0''//2'5%8'.5%5' '0',0')+%' $%8*7'/' *&'
)+%' 01&&%$%$')*'&$%0+' 01$$*1.5,.-0' %')$2'
'-',.' '.5' '-',.' ,.' '66'$%.)/2')+%' 8*0)'
6$*8,0,.-'('0%0')*' %&&%()' '' (1$%')' +*8%'
'.5'3%'&', ' +%.%(%00,)2'&*$%'$/2')$%');
8%.)',.',.0'.,)2',0' 53%/)' 16*.'42'%7%,2'
3$,)%$H '.5')+%')$%')8%.)'3+%.',.0'.,)2',0'
*.(%'&',$/2'%0)'4/,0+%5'*./2'4%-,.0' '&)%$')+%'
6'),%.)',0'$%8*7%5
  +%'&,$0)'E1%0),*.0')*' +%' 0*/7%5' '$%' +*3'
)+%' $%8*7'/',0')*' 4%' %&&%()%5H '.5')*'3+')'
6/'(%')+%' 6'),%.)',0')*' 4%' $%8*7%5' .')+%'
8'>*$,)2' *&'('0%0' %06%(,'//2',.')+%'(0%' &
)+%'6**$'.*' 5*14)'('.' '$,0%G_.' '02/18',0'
)+%' *./2' 6/'(%' %0,)'*')+%8 4%('10%')+%'
&$,%.50'4%,.-'6**$'('..*)' '&&*$5' '.2'*)+=
6/'.'*&')$%')8%.)''.5''$%'(*86%//%5')*'+'7%'
$%(*1$0%')*')+%' 614/,(' '02/)1.0' *&')+%'/'.5'
.' '02/18',0' .0_%09'$2' &*$ 8'.2' 4%('10%'
)+%'6'),%.)',0'5'.-%$*10')*'+,8 0%/&'*$*)+%$0'
*$' *1/5',.(%00'.)/2'0)$1--/%')*'%0('6%'&$*8'
''/%00'-1'$5%5'53%/+.-' 1)')+%$%''$%'0*8%'
6'),%.)0'3+*'8'2'4%'(1$%5'*1)'*&'.''02/18'
 8%'$%(*7%$'&$*8''(1)%' 41)')$'.0,)$2'');
)'(90'*&'5%/,$,*10'8'.,''7%$2'$'6,5/2'81(+'
'0'5*')+%'01&&%$%$0'&$*8'5%/,$,18')$%8%.0H
'.5',&'8%'01$%0'*&'0'&%)2'('.'4%')'9%.'3%'
8'2'3')(+'01(+'&*$'''&%3'5'20'.5'6%$(+'.(%'
)+%2'8'2'$%(*7%$' 3,)+*1)'$%8*7'/' '.2'
6%$0*.0'')+%'7%$2'*1)0%)'*&',.0'.,)2'8'2'
4%'(1$%5'42'$%8*7'/'.5'>15,(,*10')$%')8%.)'
,&')+%,$'&,.%.50'3,//*./2'*6%.')+%,$'%2%0'.5'
'(9.*3/%5-%')+%')+$%')%.,.-'%7,/''.5'.*)'
3',)''0')+%2'0*'*&)%.'5*'),//(*86%//%5'42'
(,$(180)'.(%0'),.)%$&%$%' 1(+'6'),%.)0'
810)'.*)' 4%'0%.)' '4$*'5' *$*1)'*&' $%'(+'
810)'.*)'-*'/*.%''*$'3,)+*1)' '4/%'*$'09,//%5'
(*86'.,*.0' +%2'8'2'-*' &$*8'6/'(%')*'
6/'(%''*$')*' '' &$,%.5<0' *$' 8%5,('/' 8'.<0'
+*10%' $%0+' 0(%.%0' '.5'&'(%0' '.5')+%'
(%00',*.'*&'3*9$' *$'3*$$2'3,//*&)%.'%&&%()'
'' (1$%' 1)')+%2'810)'4%'6%*6/%' '4/%')*'
3'/9'*1)',.'614+(')+*$*1-+&'$%0''.5')*'/,7%'
,.'+*10%0'1.5%$*$5,.'$2'6$%('1),*.0' +%$%'
)+%2'('.*)'3'/9',.'614/,('.5'('.*)'+7%'
,.''*+*10%'3,)+*1)',)0'4%,.-'(*.7%$)%5',.)*''
6$,0*.')+%2'*1-+)')*'-*')*''.''02/18'3+%$%'
)+%$%' '$%' -$*1.50'&*$' %B%$(,0%''.5'3+%$%'
&'(,/,),%0'&*$'%0('6%''$%'.*)''/3'20'01--%0),.-'
'))%86)0' '),%.)0<&,5%.50'(*.0)'./)2'8'9%'
''8,0)'9%'')+%2'9%%6')+%'6'),%.)'*1)'*&''.'
'02/18'')')+%),8%''02/18'$%')8%.)' *1/5'
(1$%'+,8''.5'0%.5'+,8')+%$%'3+%.''//'+*6%'
*&'(,.%',0' *7%$' '.5' 3+%.' '0' '' (+$*.,('
/1.'),('+%'(*1/5'4%'>10)' '0'3%/')'9%.'('$%'*&'
1)0,5%'.%

  ,)+'$%-'$5')*' 8%5,(,.'/')$%')8%.)'/,))/%'
.%%5'+%$%' 4% 0',5' +%' 8%5,(,.%0' '66$*;
6$,')%')*'%'(+'&*$8''*&',.0''.,)2'3,//'4%'06*9%.

&'1.5%$')+%' 5,&&%$%.)'+%'50' .',86$)'.)'
-$*16'(*.0,0)0'*&'0%5'),7%0' '.5' +26.*),(0H
''.5')*')+*0%'&*$8%$/2',.'10%''0')+%'4$*8,5%0'
6,18'(+/$'/''.5' .5,'.'+%86')+%$%'+'7%'
4%%.' '55%5'7'$,*10'.%3'5$1-0''0' +2*0(,.%'
+2*0(2'8,.%'6'$'/5%+25%' '.5'01/6+*./G'
)+%'/'0)')3*')+%' 8*0)' 7'/1'4/%' &' '//',.')+%'
 3$,)%$<0' %B6%$,%.(%' 6%'9,.-'-%.%,=2',)'
8'2' 4%' 0',5')+')',.')+%' 5%6$%00%5' '.5'
8%/'.(+*/,('('0%0')+%' 6$%6'$'),*.0'*&'*6,18'
'$%' *&3)+%' -$%')%0)' 0%$7,(%'.*)'*./2' &*$
6$*(1$,..-',=%%6'41)' &*$' '//'2,.-'5,%')%$$,4/%'
&%%/,..-'*&'-/**8'3+,(+' 6$%7',/0',.')+%'5'2;
),8%'.5' %06%(,'//2'*.' &,$0)' 3'9,.-' &$*8'
0/%%6' +%' %&&('(2'*&'*6,18'+%$%',0'.*)'
)+')'*&'.'+26.*),(*./2')')'()0'0''0),81;
/'.)'51$,.-')+% 3'9,.-'+*1$0''.5'&*$')+,0',)'
+'0'.*' $,7'/' %B)')*' ,)',.' 8%/'.(+*/,''
6'$'/5%+25%' 5%0%$7%0')*' 4%' 6/'(%5' .')+%'
*66*0,)%'(/'00')+%'%B(,)%5'*$8'.,'('/'*6,18'
$',$%/2'5*%0'-**5'.5'8'2'5*'+'$8'6$%7%.);
,.-',.0)%'5'*&'6$*51(,.-'0/%%6' .'6/'(%'*$
,)')+%'4$*8,5%0'3,)+'*$'3,)+*1)'(+/*$'/'8'2'
4%'-,7%.'*$'+26*5%$8,(',.>%(),*.0'*&'+25$*'
4$*8')%'*&'+2*0(,.%' +%'.'10%*10')0)%'*&'
6'$'/5%+25%'8'9%0',)'5,&&,(1/)')*'58,.,0)%$H
41)'01/6+*./'0')0)%%00'.5',&'8,B%5'3,)+'
&**5'3 ',.*)'4%'5,0(*7%$%5' %0,5%0')+0%'
)+%'(+,%&'8%5,(,.%0'$%E1,$%5''$%')*.,(0')+%
6$%6'=*.0'*&',$_8'4%,.-')+%'8*0)'7'/1'4/%'
 .0),6'),.'810)'4%'('$%&,,,/2'6$%7%.)%5
  5''.5'41.5'.)'&5',0''.'%00%.),'/',.'
)+%')$%')8%.)'*&')+%',.0'.%'),8+/'.)0'$%
$%E1,$%5',.' 8'.2'%'0%0'6'$),(1/'$/2')+%
5%6$%00%5''.5' '8%8,(&*$8H 41)' ,.')+%
*66*0,)%')+*1-+'*&)%.'10%&1/')+%2',.'0*8%
('0%0'6$*51(%'*$',.($%'0%'%B(,)%8.)'%06%;
(,'//2',.')+%'%'$/2'0)'-%' ,)+')+%'&**5'
)*.,(0'0+*1/5'4%-,7%.H''.5')+*0%'4%0)'01,)%5'
'$%','.')+%'3$,)%$<0'%B6%$,%.(%')+%'8,.%$'/
$')+%$')+'.')+%'7%-%)'4/%''.5'(+,%&'*&''//
)+%'6$%6'$'),*.0'*&',$*.'.5'.5'$0%.,(
5' $+2 +

5!35 * '3 $'
'.' (G .'*$5%$')*'%B;
'8,.%''.2'4$',.'06%(,8%.')+*$*1-+/2',)'0'
'5 7,0'4/%')*'%86/*2')3*'8%)+*50'A8R'&$%%C;
,-'(1)),.-''.5'0)',.,.-'&$%0+'6*$),*.0'3,)+'
.,/,.%'4/'(9H''.5'A<R'+'$5%.,.-'&*$'0*8%
3%%90',''*.%'*$')+%$'*&')+%'3%// 9.*3.'
0*/1),*.0G01(+'0' 1//%$<0' +%'&,$0)',0')+%
%00%.),'f6$*(%00')+%'0%(*.5',0'8',./2'10%&1/
'0'(*.&,$8')*$2'*&',)0'$%01/)0' +%')%'C,.-'
*1)'8%)+*5',0'7'/1'4/%'&*$')+%'*40%$7'),*.'
&'(%// 0)$1()1$%' 1/R 5,$%(),.0'*.'+,0'
014>%()'3,/R 4%'&*1.5',.' $' %7'.' %3,0<0'
('' R .(' '#
2')+%'&$%%C,.-'8%)+*5'0%(),*.0'('.'4%'014;
8,))%5')*')+%'8,($*0(*6%',.')3*'+*1$0'1.;
(+'.-%5'42')+%''(),*.'*&'$%'-%.)0''.5',&'
.%(%00'$2'('.'4%''.'*.(%'6+*)+-$'6+%5H'42'
)+%'+'$5%.,.-'6$*(%00'/'$-%$''$%'0'('.'4%
%B'8,.%5'(%$)',.'/%0,*.0''(%'8'5%'8*$%
6$*8,.%.)')+'.'42'&$%%C,.-''.5'0%(),*.0'('.'
4%'6%$8'.%.)/2'6$%0%$7%5

'(1)%' ,.&/'8 8 ')*$2' 6$*(%00%0' (*8 8 %1(,1-' ,.')+%' 014>'(%.)',001%0 ')'+'0'*((' 0,*.'//2')+*1-+'$'$%/2'4%%.'&*,8 5')+,(9%.%5' 0)%*; 6+2)%0'+'7%'4%%.' .*)%5',.'61%$6%$'/' ('0%0H 4*.2'6/')%0'+'7%'4%%.'$%(*$5%5' '.5')+%'&'/B' +'0'4%%.'&*1.5'*00,&,%5

ALR' 2 ' G = +% 014 51$'/ &/1,5' 8 '2' 4% (*.0,5%$'4/2' ,.($%'0%5' ,.' 3+,(+' ('0%')+%' 6,'' '0' '' 3+*/%',0' 8 1(+' '&%%()%5' 5+%0,*.0'4%)3%%.')+%'51$''' .5')+%''$'(+.*' 6,'' '$%'$'$%

6#'& #" ? ' '$-' ! ') $! $' / ' 3) "' -$4 7' $' $* ' = ' ' 4+E # ' -)* 77 ' 3 ' 7' ' / > # "' 5 ' *) 7' ' ! + 4 ' 7)4)7 ' $ 7) 3' ! ' 4+E # ' $' ' ! '/) > #/' "*/! $ 74 '$-' P)"' # . ' $)3 ' ' $' $' + ' 5$ 7) 7' ' ! ' $* ' . > 7 #' !$4 7'+ ' -'$-' ! '/)$74# '$-'5 ' ! ' * ! ' $-' ! ' 7 4$ ' * *+) ' . ' '! !"' 4+E # ' * "'-$)*' '$-' "' $ 0' #4 ' 7 $/ ! # * ' 7' * #!$ ' 7' '3) '/) " '$/ # "' ' $ # + ' ' '/) "') "' 3 ' .' !) ' # ' $-' #4 ' ;$/ ! $' * #!$ ' ! ' 4+E # '$-'5! #!'#$* * 7' 4 # 7 '5 ! ' =' 5 '$-' ! ' # 7 # '$-' ! '#$ 7 $ ' ! '5))'-$4 7'5 *) 7'/)"'$)' * "') ' $' * / # 3' ! '5!$ ' ")'+4 ' !$55 3' ! * . ' $ 3' ! '#$4) '$-' ! ' . %' !4 ' /4)/ ' 7' #$ 3 7' . ' !$5 7' '))$5'5! '+ 7'$' #!' 7'$-' =/$ 7' 4)- ! ') "' 7# $ ' ' # 4 7'+"') 47 $ ' !)$43!' ! '5 '*&' ! ' . ' ! ' + $$7' ' 5!$ ' * ')4 ' 7 +$4#! 3' $' ! ' 4 ' ' 3 ' $ >))"' $' '#4)) ' '/) #4) "'4 7)'#$ > 7 $ '$-'7 ' + '$' + ')7 7' . ' D!'/)'# '$-' ' 4+E # ' ! ') #! $' / ' !$5' 7# $ '$-'7 7' # $ ')' * "' + ' 3 $4 $$ 3'74 ' $')3 > * ' 7'7 $'$-' ! '/ *) ' "*/! ' / # '+"')$4 ' - 4 7% ! # ' 7' $/ 94 ' ' #$ 94 #'$-' ! ' -) $ '$-' =47 $ % 7' 5 '$## $ "'- 7' ! ' /) ' 5 7 "' /) 7' -)$*' ! ' . #) ' ")' ! ') ;' + #4 ' ! . 3' + ') #! 7' $)' 7)$" 7' ! ' //) # ') ' / # "' 5 ' *) 7' ' # ' 5! #!' ! . '+ ' ! ' 4+E # ' $-'/)$> $ 3 7' # '$-' =# * ' 5! !)' ' - -$) *' $-' * ' $)' * #!$ ' 7' 5!$' ! . ' / 7' $') * . ' 7 * ' ' * .' + ' $ 7' !) ' ! ' !$43!' * ' ' * * ' - 7' +"' = $ ' 7' * #!$ ' +"' 7 /) $ '$-' - 3'+$!') ' =/) $ '$-' =# * ' ! '5))'! ' * '5 !' # ' 5!) ' ! ' * *+) '5 ' $' * $) ' -- # 7' ! ' '3) "' ' ' /) $ '+4' ! ' 5) ' -$)' ! ' * $ ' /) ' # ' ' 5! #!' ! ' "' ! 7'+ '$-' ')4 ' !) 7)"' "/ ' . 7 # 7' +"' */ ' 7 4 $ ' #$ 7 $ ' 4 #$*/ # 7' +"' =# * %)3%%.')+%'51$''' .5')+%''$'(+.*6,''0*' ('//%5' 0'$'(+.*,5' (20)0<' *$' 06'(+28%.,.' -,),('< # " ' '$%' *&%.' &*1.5' *)+')%$80' '$%' %$$*.%*10')+%2' '$%' .*) (20)0')+%2' '$%' .*)' &*$8%5' &$*8' '.2' 8%8 ' 4$'.%' .*$' '$%')+%2')+%' $%01/)'*&',.&/'88';),*.' +%2''$%%.),$%/2'51%')*'%B)$'7'0',*.0' *&'4/**5'6$*4/2'6$*51(%5'51$,.-'6%$,*50' *&'(%$%4$5'%B(,)%8%.)'' .5'6$*(%%5,.-'&$*8')+%' 5'88%5 16'7%00%/0' *&')+%'6,'' ' . & &< ' $)' ,0%'0%0'*&R' 1(+'&'/0% 8%84$'.%0' 8 '2'4%'7%$2'%B)%.0,7%'*((162; ,.-')+%'3+*/%'016%$,*$' .5'/')%$'/'06%()0'*&' '' +%8,06+%$%'*$')+%2'8 '2'4%(*.&,.%5')*' '' /,8,)%5''$%'H)+%2'8 '2'4%')*1-+'.5'),(9'*$ 7%$2')+,.'' .5'0*'5%/,(')%' '0')*'$%.5%$',)'5,&&,; (1/)')*'/,&)')+%8'3+*/%'&$*8')+%'6,'H'*$)+% 0*('//%5'6'(+28%.,.-,),0'8 '2'4%'*./2'%7,; 5%.(%5'42'0)',...-'*&')+%'51$'' 8')%$'42' 4/**5 6,-8%.)' +,.'4/**5 (/*)0'+'7%4%%.' *((' 0,*.'//2'&*1.5',.')+%'(*7,)2'*&')+%'6,''.5' %4%)3%%.')+%'7,0(%$'/6,'' .5')+%'0,1&'(%'&')+%'(*.7*/1),*.0H'41)')+%0%'3%$%'.%7%$'0*')+*$*1-+/2'*$-'.,0%$'0')+%'&'/0%'8%84$'.%0' 4%)3%%.')+%''$'(+.*6,'' .5')+%'51$'' ')+%'0140)'.(%'*&')+%'4$',.',)0%/&')+%'3$,)%$' +'0'&*1.5',.')3*'('0%0'7%$2'08''// (/*)0'4*1)' '' /,.%'4%/*3')+%'01$^(%' .'4*)+')+%0%',.; 0)'.(%0')+%'($'.,18'+'5'4%%.'0148,))%5')*')$'18'),(',.>1$2H',.'*.%'*&')+%8'7'(1*/%0' 3%$%'0+*3.'(*.)',.,.-'4/**5 6,-8%.) +%' "' ',.')+%'(*7,)2'*&')+%'6,0' ,0'*&)%.'-$%')/2',.($%'0%5H 3%'8'2'8%'01$%' '0'81(+'0 8<'*1.(%0'41)')+%'8*$%'&$%E1%.)' E1'.),)2',0'&$*8'@')*' L'*1.(%0' 1(+'/'$-% '*%188$,/'),*.0'*&'&/1,5''$%'-%.%$'//2'&*1.5'8' ('0%0' 3+%$%')+%$%'+'0'4%%.'4$'., .5'' .5',0')+%$%&*$%(*86%.0')*$2' 1)',)'810) 4%'5,0),.()/2'1.5%$0)**5')+')',.'$%(%.)''.5 '(1)%'('0%0'&/1,5'3+%)+%$',.')+%'('7,)2'*&)+%'6,''*$',.')+%014 51$'/06'(%',0')+%51$%()' $%01/)'*&',.&/'88')*$2'6$*(%00%0' .5',0',.'.*' 0%.0%'(*86%.0')*$2H *.')+%'(*.)$'$2',)'8'2' 6$*51(%4$',.')$*6+2'42'6$%001$%' +,0',0' 6'$),(1/'$/2'3%// 8'$9%5'8'-%.%$'/6'$'/2; 0,0',.'$'6,5/2'&%)'/'('0%0'*&'3+,(+'(*.5,),*.')+%$%'8'2'%B,0')*6+2'*&'.%'+%8,06+%$%'3,)+'%B)%.0,7%'%&&10,*.',.)*')+% 014 51$'/.5'6,' 8')$'/06'(%0' %.%$'/ 6'$'/20,0',0')+%'$%01/)'*&'014 '(1)%',.&/'88';),*.'%,)+%$'(*88%.(,.-',.')+%'6,''.5'%B;)%.5,..-'-$'51' 2',.3'5$0''/*.-')+%'(*1$0% *&''$)%$,%0''.5'7%,.0'*$' '&&%(),.-')+%')3* $%-,*.0'02.(+$*.*10/2' .5%$')+%0%'(,$(18; 0)'.(%0')+%'6$*51(),*.'*&'%B15'),*.',0'' .%(%00'$2'(*.0%E1%.(%' 1)',.')+%'('0%'*& ,5,*6')+,(',.0'.,)2')+%'*$,-.'/ 0%')'*& ,$$,)',),*.',0')+%'-$%2'8')%$' 2',5,*6')+,(,.0'.,)2',)',0',.)%.5%5')*' ,.5,()%')+%',.; 0'.,)2'3+,(+'&*//*30'*.')+%''(),*.'*&'0*('//%5' 08*$'/<('10%0'-$,%&'3*$$2''.B,%)2'6$*; /*.-%5'0)152'^(G'.2'%8*),*.'*$8%.)'/ '(),*.'6$*51(),7%*&'6$*/*.-%5'%B(,)',*.'*&)+%'(%//0)',0''3%// '0(%$)',.%5'&'()')+')'8%.)'/ '(),*.',0''((*86'.,%5'42'&1.(),*.'/# ' 3+,(+',0'*&'(*1$0%''.%(%00'$2'(*.; 5,),*.'&*$'&$8(),*.'/''(),7,)2' 1.(),*.'/ +26%$0%8,'',0'6$*51(%5'%,)+%$'42',.+,4,),*.' *&')+%'7'0*8*)*'(%.)$%',.')+%'8%51//''*$

'&&%(),. -')f,%' 3+*/%'020)%8 ' +%.')+%' 8 %.)'/' (*.5,),*.' ,0' 101'//2')+%'5%6$%00,*.' 6$*51(%5' 42'*.0%8,'' 1)')+%$%' ,0'1' 8 %.)'/'5%$'.-%; 8 %.)'5,$%()/2'$%01/),. -'&$*8'0155%.'0166$%0; 0,*.'*&')+%' ()')8 %.,'')*'3+,(+')+,0'5,0),.(;),7%'.'8 %',0'.*)',.'6)/2''66/,%5' %$%')+%', .0'.,)2')'9%0')+%'8 '.,'('/&*$8 ')',0'0*8 %;),8 %0'10+%$%5',.'3,)+'1$-%.)'&%4$,/%02 8 6)*8 0',.'3+,(+'('0%')+%'8 '.,'' 001 8 %0')+%' '(1)%/2'5%/,$,*10'(+'$')()%$' +%$%'-%.%$'/ &%4$,/%'5,0)1$4'.(%',0'.*)' 6$*8,.%.)')+%' 8 %.)'/(*.5,),*.' ,0' 8 *$%' 0,8 6/2' 8'.,'('/' '.5'0*8 %),8 %0'5*%0'.*)' -%)' 4%2*.5'8 %$%' ,$$,)';4,/,)2' 3,)+'5%/10,*.0' +%' 6')+*/*-,('/(*.;5,),*.' 8 10)',.'%,)+%$'('0%' 4%' $%-'$5%5' 0'8 ',./2''+26%$0%8,''*&')+%'4$',.

! G +,0' 8 10)' 4%' 5,$%()%5')*; 3'$50')+%' $%0)*$')*.' *&')+%' '$$%0)%5' 5,0;(+'$-%' &')+%' 6'),%.)' 4%' 0%%.' ')')+%'(*8 8 %.(%8 %.)'*&')+%' '))'(9')+%' +,6 4')+'.5'' -%.)/%'61$-'),7%' 8 '2'$%('//',)' &')+%'8 %.0)$1'/6%$,*5'+'0'6'00=')+%')%.),*.'*&')+%'6$'(),),*.%$' 8 10)'4%'5%7*)%5')*')+%'$%/,%&*&')+%' 8 *$%'1$-%.)'0286)*80' &')+%')*80'*&' (%$%4$'/ (*.-%0),*.' Z$%' 5,0),.()'/%%(+%0'3,//'6$*4'4/2'4%'&*1.5'10%&1/'/*('//2'G4%+,.5')+%'%'$0'*$')*')+%'3*84' %-1'/'$' '(),*.'*&')+%'4*3%/0'0+*1/5'4%'0%(1$%5'41)''(),7%'61$-')*.'0+*1/5'4%''7*,5%5' +%'&**5'*1-+)'*')*'4%'%'02'*&'5,-%0),*.''.5'('$%'0+*1/5'4%')'9%.'.*)')*'/%)',)'4%5%&,(,%.)',.'E1'.),)2' &')+%'8 %.)'/%B(,)%8 %.)',0'-$%')''.5'/*.-(*.),.1%5',)'3,//.%(%00'$,/2'6$*;51(%'(*.0,5%$'4/%'%B+'10),*.''.5')+%'(*.;5,),*.'*&')+%'6')%.)'&)%$'$%(*7%$2'&$*8')+%'8 %.)'/%B(,)%8 %.)'3,//5%6%.5'7%$2'81(+'.'+%'%B)%.)'*'3+,(+')+%'0)$%.-)+'+'0'4%%.'0166*$)%5'51$,.-')+%'(*.),.1'.(%'*&')+,0'0)$'.' +%'$% '66%'$'.(%'*&')+%'(')'8 %.,''-%.%$'//2',86/,%0'$%(*7%$2'*&'8 %.)'/+%'/)+H41)'*'0%0'*((1$'3+%$%'6$*/.-%5''8%.*$$+*%''/%'50')*' '(+$*.,('8'.,'('/(*.5),*.'1/),;8 ')%/2'6'00,.-',.)*'+*6%/%00'5%8%.),'

= $

"'& ' $ G +%$%' 66%'$0')*'4%'.',.),8 ')%'(*..%B,*.'4%)3%%.')+%'6')+*;/*-,('/'4'0,0'&'(+*$%''' .5''('(%$)',.'5,0)1$4;'.(%'*&')+%'8 %.)'/&1.(),*.0' +%'6+20,('/'.5')+%'8 %.)'/02 8 6)*80'+*3%7%$'5*'.*)'.%(%00'$,/2'(*$$%06*.5',.',.)%.0,)2' *8 %;),8 %0'3+%$%')+%'(*.71/0,7%'02 8 6)*80'$%7%$2'0%7%$%')+%'8 %.)'/(*.5,),*.',0'8 %$%/2'*.%'*&'51/.%00''6')+2'*$',$$,)'4,+)2' .'(+,/5$%.',)'0+*30',)0%/&'-%.%$'//2',.''8 '.,';('/'$%0)/%00.%00'((*86'.,%5'42'5%/,$,8.'*&''6%(1/,'$/2''1)*8'),(' (+'$'()%$')',0'&$%;E1%.)/2''00*(,')%5')'//'6%$,*50'*&'/,&%'3,)+')+%'$+%18'),(' (*.5,),*.''.5'+%.(%',)'+'0'42'0*8 %''1)+*$0'4%%.'('//%5'$+%18'),(',.0'.,)2')'-%.%$'//2'(*88%.(%0'3,)+'0/%%6/%00.%00'.5'5%/,$,*10'%B(,)%8 %.)'*&'' $%8,))%.)'(+';$'()%$'3+,(+',0' *8%),8 %0''((*86'.,%5'42'7,*/%.)'(*.7$50,7%'%&&*$)' 0')+%'%B(,)%8 %.)'6'00%0'*&&'5%/10,*.0'*&'0106,(,'.' '$%' '6)')*''$,0%''.5' >+%0%' '$%'0)$'.-%/2''00*(,')%5'3,)+''.')'6')+%)(''8 %.)'/(*.5,),*.' .')+%''(1)%'&*$8')+%'6$*-.*0,0',0'&'7*1$'4/%'$%(*7%$2'-%.%$''//2')' 5.-'6/'(%'.-'&$*8'&*1$')*'%J+)'3%%90' +%'()%*.,('&*$8',0'6')*'6'00',.)*'5%8%.),'' = $

Q' 0 0 $ M '*($(''

F'(, $ G .0'.,)2'8 '2'4%'&%,-.%5',.'*$5%$')*'%0('6%')+%'*4/,-'),*.'*&'51)2''*$')+%'(*.0%E1%.(%0'*&($,8%' &'8 '.,;&%0)%5''')'''),8 %'3+%.' ,)0'$%(*-.,),*.'8,-+)'4%''' 4%.%&,)')*')+%',.5,7,51'/',)'4%(*8 %0'.%(%00'$2')*')%0)',)0'$%'/,)2')'8 10)'.*)'4%'$'0+/2',.&%$$%5',.' '.2'('0%')+')',.0'.,)2',0'&%,-.%5H'&*$,)'0*8 %),8 %0'$%01/)0'&$*8')+%'%B*,)%8 %.)'(*.0%E1%.)'*.'''0%.0%'*&'-1,/)'*$)+%'0+*(9'*&''&=%''((10'),*.H'*$',)'8 '2'$,0%'%*,.(,5%.)/2'41)',.5%6%.5%.)/2'*&'01(+'(*.5,),*.0' +%'4%0)'6$%6$'),*.'&*$'8 '9,.-''0'),0&'()*$2'%B'8,.'),*.',.'01(+''('0%',0''&'8 ,/,'$'(E1',.)'.(%'3,)+')+%'66%'$'.(%'.5'(*.5.*)'*&'6%$0*.0'1.5*14)%=2',.0'.% '6%$0*.'&%,-.,.-',.0'.,)2'810)')*'+%01(;(%00&1/'0,81/')%0*8%'9.*3.'&*$8'*&')+%5,0%'0%H'.5'0'%'(+'&*$8'6$0%.)0' 8*$%'*$/%00'5%&,.,)%-$*16'*&0286)*80''.',86*0)*$,0'6')*'$%7%'/)+%')$1)+'42'*8,00,*.0'*$42'55,),*.0',.(*.0,0)%.)'3,)+')+%'6')$')+')'4%'))%86)0')*'6/'2H41)')+%'8,0)'5(%-%.%$'//2'8 '5%42')+%',86*0)*$',0')*'*7%$'(')')+%'6')$)'+%&,.E1,$2'8 '2'*&'(*1$0%'1008%'7$,*10'06%()0' '6%$0*.'8 '2'6$%)%.5')*'+'7%4%%.',.0'.%' # &"' 2 7 %$%',)'0')*'4%$%8%84%$%5')+')+%',.0'.,)2',&'$%'/'3*1/5'.*)'6$*4'4/2'+'7%4%%.'(*.&,.%5')*'),8%'*&')+%(*8 8,00,*.'*&')+%($,8%H'.5'0*8%'%7,5%.(%'*&'6$%;8*.,)*$2'0286)*80'6$%7,*10')*')+%'()'3*1/5'6$*4'4/2'4%&*1.5'.'01(+'('0%0',)'0'6$*6%$')*'$%-'$5'3'.)'*&8*),7%''0'0*'&'$'.',.5,(';),*.'*&',.0'.,)2H+1)'3+%.')+%'0166*0,),*.'*&''0155%.'8%.)'/6%$)1$4'),*.',0'61)'&*$3'$5'0*8%'$%'0*.'3*1/5'+'7%')*'4%'0+*3.'&*$',)0'*((1$$%.(%H''.5'0*8%'+,0)*$2'*&')+%'*((1$;$%.(%'*&'(%$%4$'/,..>1$2'*$'*&'6$%7,*10'))'(90'*&',.0'.,)2'%6,/%602'*$'*)+%$'(%$%4$'/''&%(;),*.'*1-+)')*'4%'&*$)+(*8,.-' 6%$0*.'&%,-.,.-')*'4%',.0'.%' # / # '(" 8 10)'%.5%'7*1$')*'6$%0%.)'0286;)*80'*&'%,)+%$'8'.,''*$',84%(,/,)2' b +%.')+%0286)*80'$,0%'0155%./2'0,81/'),*.'*&')+%8 '.,'('/(*.5,),*.',0'-%.%$'//2''))%86)%5'+%'%B%$),*.'3+,(+')+,0'%.)',/0'3,//'+*3%7%$'-%.%$'//2'(*86%/'.',86%/')*'%B+,4,)'0286;)*80'*&'&'),-1%'.5'%7%.')*'0/%%6'3+%.')+%')$1%'

' .0%8,' ' +%')$%')8%.)'$%E1,$%5' ,0'$%0)')*')+%' 8,.5'4*)+' ,.' ,)0' ,.)%//%()1'/' .5'%8*;),*.'/' %.%$-,%0' 3,)+' (1/),7'),*.' *&' %7%$2;)+, .-'/,9%/2')*'5%7%/*6'6+20,('/7,-*1$' +%'5,%)'0+*1/5'4%' '41.5'.)' 41)' (+,%&/2' 8,/9' %--0' '.5'&'$,.'(%' ' 1)(+%$<0' 8%')'0+*1/5'4% 10%5' 06'$,..-/2' '.5' '/(*+*/6$*+,4,)%5' &')+%' +%$%5,)'$2')%.5%.(2',0' .*)' %B(%6),*.;'//2' 0)$*.-')+%' 6$*-.*0,0' ,0' .*)' 1.&'7*1$;'4/%

3 ' " " ' *((1$0' ,.' 8'/%0'4%)3%%.')+%' '-%0' *&' &,&)2' '.5' 0,B)2' '.5',.'&% 8'/%0'4%)3%%.'&*$)2' '.5'&,&)2')0'-%.%$'/(+'$'()%$',0' '&*$8' *&' 8%/' .(+*/,'' =' 51'/',.',)0'5%7%/*68%.)' 8'.,&%0),.-',)0%/&',.'/*00'*&' 0/%%6' &%'$' *&' 1.5%&,.%5' %7,/' $%+-,*10'5%06*.5%.(2' +'//1(,.'),*.0' *&')+%' 0%.0%0'$%&10'/' *&' &**5' '.5'&$%E1%.)/2',.'' 01,(,5'/)%.5%.(2' B(,)%8%.)'.5' %B'/)'),*.'*((1$'$'$%/2' '.5''$%' -%.%$'//2' *&' 0+*$)' 51$'),*.' +%' 8%.)'/' 5,0*$5%$' ,0' &$%E1%.)/2' '((*8;6'.,%5'42'7%$2' 8'$9%5' %8'(,'),*.' '.5')+%')%.5%.(2',0' +'/3'20')*' '.'%8,' ' +%')$%');8%.)'$%E1,$%5')')+%' (*8 8%.(%8%.)',0' (0;0'),*.'*&'8%.)'/'/'4*1$' .5'(+'.-%'*&'0(%.%' 1$,.-')+%' 3+*/%'6$*-$%00'*&')+%' 5,0%'0%')+%'5,%)'0+*1/5'4%' &1/' .5'.*1$,0+,.-'.5')+%'5,-%0),7%'&1.(),*.0'*&)%.'$%E1,$%')*' 4%'0),81;/')%5')*'+%'/)+2' '(),*.' .')+%' 8'>*$,)2'*&'('0%0')+%' 6$*-.*0,0' ,0' 1.&'7*1$'4/%' '.5'3+%$%'$%(*7%$2' 5*%0' .*)')'9%' 6/'(%' 3,)+,.'*.%'*$')' 8*0')3*'2%'$0')+%' (*1$0%',0'-%.%;$'//2')*3'5%8%.),'

" ' " " ',0'%00%.),'//2'*'&*$8'*&'5%;8%.),''3+,(+'(*8%0'*.'-$'51''//2',.'6%$0*.0'3+*'+'7%'6'00%5')+$*1-+')+%'%'$+%$'6%$,*50'*&'/,&%'3,)+*1)'5,0)1$4'.(%'*&')+%,$'.,%.)'/+%'/)+'41)'3+*'4$%'9'5*3.',.'*/5'-%')0'6$,.(,6'/&%'),1%0'$%'/*00'*&'8%8*$2'0/,-+)'%B(,)%8%.)0'3+,80,('/,9,.-0'.5'5,0/,9,.-0'8$%$1/*10.%00'.5''-$'51'/5%('5%.(%',.)*'8)1,)2')',0'014>%()*'*((',0,*.'/$%8,00,*.0'3+,(+'$%'0*8%,8%0' %$2'0+*$)'0'3+%.'('10%5'42')+%' 0),81/10'*&'(1)%' &%4$,/%0)')%0' 1)')+%0%' 8'2'4%'0*' 6$*/*.-%5''0')*'8*1.)'6$'(),('//2')*' $%(*7%$2' *)',.&$%E1%.)/2')+%' 4$%'95*3.'*&')+%' .%$7*10'020)%8'61$01%0'''$'6,5'(*8$0%' '.5',.'01(+'('0%0')+%$%',0' *&)%.''' 8'$9%5'0,8,/'$,)2',.')+%'02 8 6)*8 0')*')+*0%*&'-%.%$'/6'$'/20,0'+'0'4%%.'*40%$7%5''')+%'(*8 8%.(%8%.)'*$*./2''-$'51'/*00'*&'6+20,('/'.5'8%.)'/6*3%$' '$'/2),(0'8*$%*7%$' '$%'0%/5*8'*&'57'.(%5'-%

' *

9' 8 61/0,7%' .0'.,)2 G=,*/%.)'()6'$%'(*8 8,))%5'1.5%$'.',.0'.%',8 61/0%'42'8'.2'6'),%.)0'3+*0%',.0',)2',0'6/',.'.5''(9.*3/%5-%5' +%2'8'2'4%5*.%'1.5%$')+%',.&/1%.(%'*&'5%/10,*.0'*$*+'//1(,.'),*.0'41)')+%')%$8') ' " " ',0'(*8;

8*./2' '66/,%5')*' '5,0*$5%$' 8'.,&%0)%5'.*)'42'5%/10,*.0'.5'0,8,/'$'02 8 6)*8 0'41)'42' '()0'*&'7,*/%.(%')*'3+,(+''6'),%.)',0'5$,7%.'42'4/,.5'1.(*.)$*//'4/%'.5'8*$4,5',861/0%'3+%$%42')+%'3,/'.5')+%'$%'0*.''$%'*7%$6*3%$%5'&*$''/*.-%$'*$0+*$)%$',8%' +%0%''$%'&*$')+%'8*0)'6'$)' '()0'*&' '*$' # 9'.5',.'(*..%B,*.'3,)+')+%'/'))%$'-$%')'(*.)$*7%$02'+'0'$,0%.'0')*')+%'$%06*.0,4,/,)2'*&'6%$0*.0'(*8 8,)),..')+%8' %$%'0',.'8*$'/,.0'.,)2')+%$%'$%'.*'5%/10,*.0H'&$%E1%.)/2'.*'(+'.-%'3,/'+'7%'4%%.'5%)%()%5',')+%',.5,7,51'/6$,*$)*')+%'()'.'*$'3,/'+)+%$%'4%'*40%$7%$0'*&',)'.5',)',0''&'()')+')')+%',861/0%'8'2'4%0'),0&,%5''.5'%B6/*5%5',.')+%'()'.5'+'7,.-')+10'&*1.5''7%.)'8'2'4%&%/)'.*/*.-%$''))'.2'$')%'&*$''),8%')'8'2'4%'0'0155%.'0'.'%6,/%6),(',)'.5'8'2'/,9%')+%'/'))%$'4$,.-$%/,%&')*')+%'4$'..'.5%%5')+%$%',0''0)$*.-(*..%B,*.'0'3%/'0'.'/*-2'4%)3%%.')+%')3*'5,0*$5%$0'.5'0'$'150/%2'0'20',.0)%'5'*&''(*.71/0,7%'8*7%8%.)'+%$%',0'(*.71/0,7%',5%'

.'%0),8'),..-'01(+'()0'0')+%0%'3%'810)'.*)'*./2'(*.0,5%$')+%'()',)0%/&'.5')+%'8'..%$'*&',)''6%$&*$8'.(%'41)'810)'/0*'((/*0%/2',.E1,$%'..)*')+%'6'0)'+,0)*$2'*&')+%6%$6%)$')*$'.5'+,0'6$*-%.,)*$0' *$'/'/)+,0'3%'8'2'*$'8'2'.*)'+'7%'*66*$)1.,)2'&')+%')(',0'*.%'*&'))%86)%5'01,(,5%''.5')+%,.5,7,51'/,0'9%6)'1.5%$'*40%$7'),*.'3%'8'2'+'7%'.*'5,&/&,%./)2',.E1,$%'..)*')+%'6'0)'+,0)*$2'*&')+%6%$6%)$')*$'.5'+,0'6$*-%.,)*$0' *$'/'/)+,0'3%'8'2'*$'8'2'.*)'+'7%'*66*$)1.,)2' &')+%')(',0'*.%'*&'))%86)%5'01,(,5%''.5')+%,.5,7,51'/,0'9%6)'1.5%$'*40%$7'),*.'3%'8'2'+'7%'.*'5,&/&,%./)2',.'.5'*0.,)*$2'*&'+,0'&%8,/2'8'2'&',/'.*$'3,//+%'+,80%/&'4%1.5%$'09,//%5'*40%$7'),*.' *$%*7%$')+%'6%$,*5'>10)'&$%$')+%'(*8 8,))'/'*&''.',861/0,7%'+*8,(,5%'3,/ %$2'6$*4'4/2'4%')+%'*.%',.3+,(+'&%3%0)'02 8 6)*8 0'*&'.0'.),2'3,/+4%'.*),(%'4/%' +%'6%$,*5'8 8%5,')%/2'6$%;(%5,.-',)'3,/+4%')+')'3+,(+'8*0)'(/*0%/2'5%8'.50''0($1),.2'41)'3%'8'2'.*)'4%'4/%)*'-%)'.2',.&*$8')*.',&')+%''((10%5'+'0'4%%.'8*7,,='&$*8'6/'(%')*'6/'(%'+'0'4%%.''8*.-0)$'.-%$0'*$'+'0'+'5')+*0%''4*1)'+,8'3+*'3%$%'*4)10%'.5'1.*40%$7'.)' .2'('()0'*&'01,(,5%''.5'+*8,(,5%'3*1/5'4%'6$%7%.)%5',&')+%'&$,%.50'5,5'.*)'0+1)')+%,$'%2%0'3,)+'6%$),.'(,)2')*')+%'0)$'.-%'.5'/)%$%5'/**90'.5'(*.51()'*&')+%'6')%.)' 1)',.'+,8 61/0,7%'&*$8'/)+*1-+')+%$%'8'2'.*)'+'7%'4%%.'%.*1-+')*'3'$.')+*0%'4*1)''8'.')*'$%0)$',.'+,8')+%$%'8'2'+'7%'4%%.'02 8 6)*8 0'3+,(+'$%'01&&,(,%.)'0140%E1%.)/2')*',.5,(')%')*''6+20,(,'.')+%'6$%0%.(%'*&8%.)'/'5,0*$5%$' +%$%'8'2'+'7%'4%%.'%')'(90'*&',.0'.,)2'6%$,*50'*&'6%$+'60'0+-+)'5%6$%00,*.'3+,(+')+*1-+')*'2'))$')%$'()%5'/,))/%'.*),(%')+%'),8%'8'2',.5,(')%'.',.0'.%'5,')+%0,0' +%'01&&%$%$'8'2'+'7%'4%%.'0/%%6,.-'4'5/2'*$+'7%')'9%.'/%00'.*1$,0+8%.)')+'.'101'/ +%'8%5,('/'3,).%00'3,//',.')+%'('0%'*&

+* 8 ,(,5%‘ (‘$%&1//2‘ %B ‘ 8 ,1%‘ ‘ . 5‘ 6 ‘2‘ 06%(, ‘/ ‘))% .),* . ‘) *‘) +%‘ &*//* 3 , . -‘ 6 *, .)0 G

AoR‘ +%‘ . ‘)1$%‘ ‘ . 5‘ (+ ‘ $ ‘ ( ) %$‘ *&‘) +%‘ ‘ ( )‘ ,=,10)‘ 4%‘ . *)%5 ‘ +%‘ 6$%0% . (%‘ *$‘ ‘40% . (%‘ *&‘ 8 *), 7%‘ 8 ‘ 2‘ *&)% . ‘ ‘00, 0)‘ 10 ‘ +% . ‘) + %‘ 7, ( ), 8 ‘ ,0‘ . %‘ $‘ *&‘ 9, . ‘ ‘ . 5‘ 5% ‘ $/2‘ /*7%5 ‘ 0106, (, * . ‘ *& ‘ , . 0 ‘ .) ,2‘ 3 , /‘ ‘) ‘ + . (%‘ ‘$,0%‘ R ‘‘ * . ‘) + %‘ *) + %$‘ + ‘ . 5 ‘ ,)‘ ,0‘ ‘‘ 6%$&%( )‘ 0)$‘ . -%$‘ . %7%$‘ 4%&*$%‘ 0%% . ‘ 3 + %$%‘) + %$%‘ + ‘ 0‘ 4%% . ‘ . *‘ 6$%7, *1 0‘ 8 %%) , . -‘ *$‘ E1‘ $%/ ‘) + %‘ 0 ‘ 8 %‘ 0106, (, *‘ . ‘ 3 , // ‘$,0%‘ + %‘ 8 %) + * 5‘ *&‘) + %‘ ‘ ( )‘ 8 ‘2‘ -1,5%‘ 10‘ 0* 8 %3 + ‘) ‘ 41)‘ . *)‘ 0*‘ 8 1 (+ ‘ +%$%‘ 8 ‘2‘ 4%‘ 6$%8 %5,) ‘) , *‘ . ‘) + * 1 - + ‘ - % . %$‘ //2‘) + %$%‘ ,0‘ . *)

AxR‘ +%‘ 5%8 %‘ . *1$‘ *&‘) + %‘ 6$,0*‘ . %$‘ ‘&)%$‘) + %‘ ‘ ( )‘ 8 ‘2‘ ‘00,0)‘ 10 ‘ %$%‘) + %$%‘ ‘ *$‘ 3 %$%‘) + %$%‘ . *) ‘ ‘))% 8 6)0‘) *‘ (* . (%‘ ‘ / ,) ‘ ‘ *$‘) *‘ %0(‘6%‘ 5%) %( ), *‘ . ‘ ‘ . 5‘ ‘ $%%0) ‘ ‘ . 5‘ , &‘ 0*‘ 3 + ‘) ‘ 3 ‘ 0‘) + %‘ . ‘) 1$%‘ *&‘) + % 8 ‘] ‘ + ‘) ‘ 3 ‘ 0‘ 0‘ , 5‘ , . ‘ %B ; 6/‘ . ‘), *‘ . ‘] ‘) ‘ 0* 8 %), 8 %0‘ + ‘ 66% . 0‘) + ‘) ‘) + %$%‘ ,0‘ (* 8 6/%) %‘ 1 . (* . 0 (, *10 . %00‘ *$‘ &*$-%) &, , /. %00‘ *&‘ 3 + ‘) ‘ + ‘ 0‘ *((1$%5‘ ‘ . 5‘ 3%‘ 8 ‘2‘) + %‘ . ‘ 0) $*‘ . $&2‘ 0106%( ) ‘) + %‘ 6$%0% . (%‘ *&‘ %6, /%02

A(R‘ %‘ 8 10)‘ (/*0%/2‘ , . E1, $%‘ , .) *‘) + %‘ &‘ 8 , /2‘ +, 0) *$2‘ ‘ . 5‘ 0+ ‘ /‘ *&) % . ‘ ^ , 5‘) + ‘) ‘ , . ‘ (‘0%0‘ *&‘ , 8 61/0, 7%‘ + * 8 , (, 5% ‘) + %‘ & ‘ 8 , /2‘ *&‘) + %‘ ‘ ((10%5‘ + ‘ 0‘ 01&&%$%5‘ 3 ,) + ‘ , . 0 ‘ . ,) 2 ‘ . 5‘ 3 + %$%‘) + , 0‘ ,0‘ 0* ‘ 3 %‘ 8 ‘2‘ ‘/0*‘ &, . 5‘) + ‘) ‘ &, I* 8‘ 2*1) + ‘) + %‘ ‘ ((10%5‘ + ‘ 0‘ 4%% . ‘ 5%&, (%.) ‘ ‘ . 5‘ 3%‘ 9‘ , . ‘ , .) %/ ; /%( ) ‘ *$‘ *55‘ ‘ . 5‘ %((%.) $, (‘ +%‘ 3%‘ 9 . ‘ , . 5%5‘ , . ‘ &‘ ( ) ‘ 8 ‘2‘ 4%‘ -$*16%5‘ , . ‘ ‘ 06%(, ‘/ (/ ‘00‘ *&‘ + * 8 , (, 5%0 ‘ 0‘) + %$%‘ , 0‘ ‘‘ 3%‘ 9 8 , . 5%5‘ 8 *$‘ / , . 0 ‘ . ,) 2 ‘ 0*‘) + %$%‘ , 0‘ ‘‘ 3%‘ 9 8 , . 5%5‘ , 8 61/0, 7%‘ + * 8 , (, 5 ‘ / , . 0 ‘ . ,) 2 ‘) + %‘ 01&&%$%$0‘ &$* 8‘ 3 + , (+‘ + ‘ 7%‘ . *)‘ , . + %E1% .) /2‘ 4%% . ‘ + ‘ . -%5‘) + %, $‘ , . 0 ‘ . ,) 2‘ . *)‘ + ‘ 7, . -‘ 4%% . ‘ 01&&, (, % .) /2‘ 8 ‘$9%5‘) *‘ ‘40* /7%‘) + % 8 ‘ &, * 8‘ /% - ‘ / ‘ $%06* . 0, 4 ,) 2 ‘ ,) 0‘ , . ‘ (+, /5+**5‘ 8 ‘2‘ (* .) $, 41)%‘) *‘) , . 0‘ 0) ‘) % ‘ . 5‘) + $* 1 - + * 1) ‘ ‘) ‘) + %‘ ‘ - %‘ * &‘ 614%$) 2 ‘ *$‘ , . ‘ ‘51/)‘ /, &% ‘) + %$%‘ 8 ‘2‘ 4%‘ 0 - +) ‘ 41)‘ 01$% , . 5, (‘), * . 0‘ * &‘) + %‘ , . 0 ‘ . ,) 2‘) + ‘) ‘ + ‘ 0‘ 4%% . ‘ , . + %$,) %5 ‘ 3 + , (+‘ ‘$%‘ 5, 06/ ‘2%5‘ , . ‘ ‘ . ‘ , 8 61/0%‘) *‘ 8 , 0(+ , %& ‘ + * 8 , (, 5% ‘ *$‘ 01, (, 5% ‘ %7% . ‘ ‘0‘ , . ‘ *) + %$0‘) + %‘) % . 5% (2‘ , 0‘ 0 + * 3 . ‘ , . ‘ *$5, . ‘$2‘ ‘)) ‘ (90‘ *&‘ , . 0 ‘ . ,) 2

A5R‘ %‘ 8 10)‘ / *g‘ 7%$2‘ (/*0%/2‘ &*$‘ 02 8 6 ;) * 8 0‘ *$‘ ‘ + , 0) *$2‘ *&‘ %6, /%602‘ 1 (+‘ , . 5, (‘ ;) , *. 0‘ ‘0‘ . *( )1$. ‘ / ‘ 8 , ( ) 1$,) , *. ‘ *$‘ ‘‘ 4,)) % . ‘) * . -1%‘ 8 ‘2‘ -1,5%‘ 10‘) *‘) + %‘) $1) + H 3 + , /%‘ , . ‘ ‘ (9 . *3 /%5 - %5‘ %6, /%6) , (0‘ ,)‘ 8 ‘2‘ + ‘ 66%. ‘) + ‘) ‘) + %‘ + * 8 , (, 5 ‘ / ‘)) ‘ (9‘) ‘ 9%0‘) + %‘ 6/ ‘ (%‘ *&‘) + %‘ *$5, . ‘ $2‘ (* . 71/0, *. ‘ ‘ . 5‘ 3 ,) + * 1) ‘) + %‘ *((1$; $%. (%‘ *&‘) + %‘ / ‘)) %$‘) + %$%‘ 8 ‘2‘ 4%‘ ‘‘ 6%$, *5‘ *&‘ 1 . (* . 0 (, *10 . %00‘ ‘ . 5‘ 1 . (* . 0 (, *10‘ ‘ (), *. ‘ / ‘ 0) ; , . - ‘ 6%$+‘ 60‘ 8*$5‘ 20‘ (% 6, ‘ , *‘ +%‘ *((1$$%. (%‘ *&‘ * . %‘ + * 8 , (, 5 ‘ / ‘)) ‘ (9‘ *&‘ ‘) 0) $‘ . -%‘ *$‘ ‘ . * 8 ‘ / *10‘ (+ ‘ $ ‘ ( ) %$‘ 8 ‘2‘ 8 ‘9%‘ 10‘ &% ‘ $‘ ,) 0‘ $%(1$$%. (%H‘ ‘ . 5‘ 3 + %. ‘ 3 %‘ + ‘ 7%‘) *‘ %B ‘ 8 , . %‘ ‘‘ ($, 8 , . ‘ / 3 + *‘ + ‘ 0‘ (* 8 8 ,)) %5‘ * . %‘ ‘ ( )‘ *&‘) + , 0‘ 9 , . 5‘) ‘ , ,0‘ , 8 6*$) ‘ .) *‘ . E1, $%‘ 3 + %) + %$‘ + %‘ + ‘ 0‘ %7%$‘ ‘) ‘ ‘ . 2‘ &*$ 8 %$‘) , 8 %‘ 5*‘ . %‘ ‘ . 2‘ 0155%. ‘ ‘ ( )‘ *&‘ 7, *‘ /%. (%‘ *&‘ ‘ ‘ 0, 8 , /‘ $ 5%0($, 6) , *. ‘ *$‘) + , 0‘ $%‘ 0*. ‘ 01(+‘ 6‘) , %.) 0‘ 0 + *1/5‘ . *)‘ 4%‘ $%/%‘ 0%5‘ &$* 8‘ ‘ . ‘ ‘ 02/1 8 ‘ %B (%6)‘ 1 . 5%$‘ -$%‘) ‘ ‘ . 5‘ 06%(, ‘/ 6$%(‘ 1), *. 0

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P‘ ,%- ‘ /‘ . 0 ‘ . ,) 2 G = ‘32%$0‘ $%- ‘ $5‘ , . ; 0‘ . ,) 2‘ &$* 8‘ ‘‘ 5, &&%$%.) ‘ 6*, .) ‘ *&‘ 7, %3‘ &, *8‘ 8 %5, (‘ / ‘ 8 %. ‘ ‘ 8 %5, (‘ / ‘ 8 ‘ . ‘ ‘ 66/, %0‘ +, 0‘ 8 , . 5‘) *‘ ,) 0‘ 0) 152‘ 0*‘ ‘0‘) *‘ ‘0 (%$) ‘ , . ‘ +* 3‘ &‘ $‘ +%‘ 8 ‘2‘ , . &%$‘ &, H* 8‘) + %‘ %7, 5%. ((%0‘ *&‘ 8 %.) ‘ / ‘ (), *. ‘) + %‘ %B, 0)%. (%‘ *&‘ 8 *$4, 5‘ (* . 5,), *. 0‘ 3 + , (+‘ +%‘ 8 ‘2‘ +* 6%‘) *‘ ‘ //%7, ‘) %‘ *$‘ $%8 *7%‘) ‘ , 0‘) + %$%&*$%‘ +, 0‘ 51)2‘) *‘ 4%‘ ‘ (E1‘ , .) %5‘ 3 ,) + ‘ 01(+‘ 02 8 6)* 8 0‘ ‘0‘ -, 7%‘) + %‘ %‘ $/, %0) ‘ , . 5, (‘), * . ‘ *&‘) + %‘ ‘66$*‘ (+‘ *$ 5%7%/*6 8 %.) ‘ *&‘) + %0%‘ 8 *$4, 5‘ 6$* (%00%0‘ *$‘ ,) ‘ , 0‘ 51$, . - ‘) + %, $‘ , . ,) , ‘) *$2‘ 0) ‘ - %0‘) + ‘) ‘ + %‘ 8 ‘2‘ 8 *0) ‘ 01((%00&1//2‘ , .) %$7%. %‘ 3 ,) + ‘) + %‘ $%0*1$(%0‘ *&‘ + , 0‘ ‘$) ‘) *‘ (+%(9‘) + %, $‘ 6$*- $%0‘ *$‘) *‘ 3 ‘$5‘) + % 8 ‘ *&&‘ ‘ %‘) + %$%&*$%‘ , 5%.) , &, %0‘ 3 ,) + ‘) + %‘ %B, 0)%. (%‘ *&‘ 5, 0%‘ 0%‘ %7%$2‘ 5%7, ‘) , *. ‘ &$* 8 ‘) + %‘ + %‘ ‘ /) + 2‘ 8 %.) ‘ / 0) ‘ . 5‘ $5‘ 3 + , (+‘ . 5, (‘) %0‘) + %‘ . %(%00,) 2‘ &*$‘ 8 %5, (‘ / ‘) $%‘) 8 %.) ‘ *$‘ ‘5; 7, (%‘ ‘ / ‘ 32%$‘ *. ‘) + %‘ *) + %$‘ + ‘ . 5‘) ‘ 9%0‘ . *) %‘ *&‘ , . 0 ‘ . ,) 2‘ * . /2‘ , . ‘ 0*‘ &‘ $‘ ‘0‘ ,)‘ ‘&&%() 0‘) + %‘ 0 ‘&%) 2‘ *&‘ 6%$0*. ‘ *$‘) + %‘ 6$%0%$7‘) , *. ‘ *& 6$*6%$) 2‘ + %‘ E1%0) , *. ‘ 3 + , (+‘ + %‘ 0%9%0‘ 5%) %$ 8 , . %‘ , 0‘ 3 + %) + %$‘ ‘ 6%$0*. ‘ , 0‘ >10) /2‘ $%; 06*. 0, 4/%‘ &*$ (%$) ‘ . ‘ ‘) 0‘ 3 + , (+‘ + %‘ + ‘ 0‘ (* 8 ; 8 ,)) %5‘ *$‘ , 0‘ (* 8 6%) %.) ‘) *‘ 6%$&*$8‘ (%$) ‘ , . ‘ ‘) 0‘ 3 + , (+‘ + %‘ 8 ‘2‘ 4%‘ (‘ //%5‘ *. ‘) *‘ 6%$&*$8‘) ‘ , 0‘ %7, 5%.) ‘) + %$%&*$%‘) + ‘) + %‘ /%- ‘ / ‘ 7, %3‘ *&‘ , . 0 ‘ . ,) 2‘ 8 10)‘ . ‘)1$‘ //2‘ 4%‘ 8 1(+‘ 8 *$%/, 8 ,) %5‘) + ‘ . ‘) + %‘ 8 %5, (‘ / ‘ 0 ‘ / ‘ 32%$‘ 3 + %. ‘ 06%‘ 9, . -‘ *&‘ , . 0 ‘ . ,) 2 < 0‘ 20‘ ,$‘ ‘ 8 %0‘) %6+%. ‘ 0 8 %‘ . 0‘ (* . 51() ‘ *&‘ ‘‘ (%$) ‘ , . ‘ (+‘ ; $‘ ( ) %$‘ H ‘‘ 6+20, (, ‘ . ‘ 8 %‘ . 0‘ ‘‘ (%$) ‘ , . ‘ 5, 0%‘ 0%‘ * . %‘ * &‘) + %‘ %&&%() 0‘ *&‘ 3 + , (+‘ , 0‘) *‘ 6$*51(% 01(+‘ * . 51() H < ‘ . 5‘) + *1 - +‘) + , 0‘ + ‘ 0‘ 4%%. ‘ ‘57%$0%/2‘ ($,) , (, 0%5‘ ,)‘ 0%% 8 0‘) *‘ +*3‘ (*$; $%( ) /2‘) + %‘ 5, $%( ) , *. 0‘ , . ‘ 3 + , (+‘) + %‘) 3 *‘ 7, %3 0‘ 5, 7%$-%‘ +%2‘ 8 , -+)‘ 6%$+‘ 60‘ 4%‘ ‘0‘ &‘ , $/2‘ , . 5, (‘) %5‘ , . ‘ *) + %$‘ 3 *$50‘ , &‘ 3%‘ 0‘ 2‘) + ‘) ‘) + %‘ /‘ 32%$‘ + ‘ 0‘) *‘ 5%‘ / 3 ,) + ‘) + %‘ . ‘) 1$%‘ *$‘ E1‘ /,) 2‘ *&‘ (%$) ‘ , . ‘ ‘ ()0‘ 3 + , /%‘) + %‘ 6+20, (, ‘ . ‘ + ‘ 0‘) *‘ 5%‘ / 3 ,) + ‘) + %‘ (* . 5,) , *. ‘ *&‘ (%$) ‘ , . ‘ 6%$0*. 0‘ *‘ 0‘) , 0& ‘ ( ) 0*$2‘ -%. %$‘ / 5%&, . ,) , *. ‘ *&‘ / %- ‘ / ‘ , . ; 0‘ . ,) 2‘ + ‘ 0‘ 4%%. ‘ -, 7%. ‘ . ‘) + %‘ %‘ $/, %$‘ ‘ -%0‘ *&‘ *1$‘ /%- ‘ / ‘ 020)% 8‘ . 6 . %‘ 41)‘) + %‘ 8 *0)‘ *1) ; $‘ -%*10‘ (‘0%0‘ *&‘ , . 0‘ . ,) 2‘ 3 %$%‘ $%(*- . , 0%5‘ $‘ ( ) *. ‘ , . ‘) + %‘) + , $) %%.) + ‘ (%.) 1$2‘ 5%&, . %5‘ ‘‘ 8 ‘ 58‘ . ‘ ‘0‘ 0*. %‘ 3 + *‘ 5*%0‘ . *)‘ 1. 5%$0) ‘ . 5‘ 3 + ‘) ‘ + %‘ ,0‘ 5*, . - ‘ ‘ . 5‘ 3‘ .) , . -‘ 8 , . 5‘ ‘ . 5‘ $%‘ 0*. ‘ 5, &&%$0‘ ,)) / %‘ &, $*8‘ 4$1) %0 < ,$‘ 53‘ $5‘ *9%‘) + *1 - +‘ + %‘ $%(*- . , 0%0‘ 5, &&%$%.) ‘ (/ ‘ 00%0‘ ‘ ((*$5, . -‘ ‘0‘) + %‘ , . 0‘ . ,) 2‘ , 0‘ (*. - %. ,) ‘ / ‘ 6%$; 8 ‘ . %.) ‘ *$‘) %86*$‘ $2‘ *. /2‘ ‘ 58) 0‘) + ‘) ‘ ‘ 6%$0*. ‘ , 0‘ , . 0‘ . %‘ 3 + %. ‘ + %‘ ,0‘ " "‘ ‘ " ‘ *$‘ + ‘0‘ 3 + *// 2‘ /*0) ‘ + , 0‘ 8 %8 *=‘ ‘ . 5‘ 1 . 5%$0) ‘ . 5, . - ‘ ,$‘ ‘)) + %3‘ ‘ /%‘ 8‘) + %‘ 0%7%.) %%.) + ‘ (%.) 1$2‘ 3 ‘0‘) + %‘ &, $0) ‘)*‘ $%; (*- . , 0%) + %‘ %B, 0)%. (%‘ *&‘ /%0‘ %B) $%8 %‘ &*$8‘ 0‘ *&‘ , . 0‘ . ,) 2‘ 0 * 8 %‘ 6%$0*. 0 < + %‘ 0‘ , 5‘ 0) + ‘) ‘ + ‘ 7%‘ ‘ (* 86%) %.) ‘ 10%‘ *&‘ $%‘ 0*. ‘ , ‘ $%06%( ) ‘ *&‘ 0* 8 %‘ 014>%() 0‘ ‘ $%‘ 2%) ‘ , 85%$‘ ‘ 2 ‘ " ‘ , ‘ $%06%( ) ‘ *&‘ 0* 8 %‘ 6‘ $), (1/‘ $ 5, 0; (*1$0%0‘ 014>%() 0‘ ‘ *$‘ ‘66/, (‘), *. 0H‘ ‘ *$‘ %/0%‘ ,) ‘ , 0‘ 6‘ $), ‘ / ‘ , . ‘ $%06%( ) ‘ *&‘ 5%- $%%0‘ ‘ . 5‘ 5*%0‘ . *) ‘ %B (10%‘ 6%$0*. 0‘ 3 + *‘ (* 8 8 ,) ‘ (‘ 6,) ‘ / ‘ ( ) 0‘ , . ‘) + , 0‘ 0) ‘) %‘ 5%&, . %‘) + %‘ , . 7, 0, 4/%‘ /, . %‘) + ‘)

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'((18),/')%' .')+%'/'0)'0)'-%0'*&')+%' 8 '/'52'
)+%' $%/,-,*10' '.5' -%.%$'/ %8*),*.'/ %B'/)';
),*.' ,0' *&)%.' %B)$%8%' '.5' '()1'/ 5%/,$,18'
0*8%),8%0'*((1$0' .'*66*0,)%'8%.) ,',' (*.5,;
),*.' 8'2' 4%' 8%)' 3,)+' ,.' (+$*.,(' 6+)+,0,0'
8*$%'%06%(,'//2',.')+')' &*$8'*&',)'3+,(+'+'0'
4%%.' ('//%5' /')%.)' +$*1-+*1)'+%' (*1$0%'
*&')+%' 5,0%'0%')+%$%' ,0')+%.' '' 6$%7',/,.-'
5%6$%00,*.' ' .5' 5,0)$10)&1/.%00')+*1-+')+%'
6+20,('/02 8 6)*8 0' '$%' .%,)+%$'0*'5,0)$%00,.-'
.*$0**47,*10' '0',.')+%' '(1)%$'&*$80' +%'
8%.)'/ 02 8 6)*8 0' 0*8%),8%0' 6$%(%5%')+%'
6+20,('/' '.-1*$' '.5' 5%6$%00,*.' 8,.-/%5'
3,)+'3'23'$5.%00' '$%' (+'$')()$,0),(' *&')+%'
,.),'/ 0)'-%' +,0' ,0' 101'//2' '((*86'.,%5'
42'-%.%$'/ &1.(),*.'/ 5%4,/,)2'3+,(+',0'*&)%.'
'))$,41)%5')*' 8 %$%' 5,0)1$4'.(%' *&'5,-%0),*.'
'.5'.1)$,),*.' +%'09,.',0'+'4,)1'//2'6'/%'
'.5')+%' (,$(1/'),*.' &%%4/%' .' 8'.2'('0%0'
)+%'6+20,('/0,-.0'*&'61/8*.'$2'5,0%'0%'3+%.'
6$%0%.)'$%' '6)')*'4%' *7%$/**9%5'.'5'*((';
0,*.'//2')+%2'%0('6%' *40%$7'),*.'&'$' 2%'$0'
b +%$%')+%' 8,.5',0'81(+''&&%()%5')+%'*$5,;
.'$2'02 8 6)*8'),(' (*1-+' %B6%()*$'),4.' ''.5'
5206.*%'' '$%' *&)%.' '40%.)H' .5')+,0',0')+%'
('0%'0*8%),8%0'3+%$%' 6+20,('/ %B6/*$'),*.'
$%7%'/0')+%' %B,0)%.(%'*&'%B)%.0,7%7*8,(0%' '.5'
*)+%$' (+'$'()%$,0),(0' *&' '57'.(%5'5,0%'0%'
0')+%'&1$)+%$'0)'-%0''$%' $%'(+%5')+%'8%.)'/
(*.5,),*.' 4%(*8%0'/%00'*.%' *&' 5%6$%00,*.'
'.5'8*$%'*.%' *&'5,0),.()'%.&%%4/%8%.)' (;
('0,*.'/ &,)0%' *&'(*.0,5%$'4/%',$$,)'4,/,)2'.5'
-$%')'%B(,)%8%.)'*((1$' $' /*10)*.'3+*'
&,$0)'5$%3'06%(,'/ '))%.),*.')*')+,0'(*.5,),*.'
0'20'*&')+%'6'),%.)0')+')'0)+%$%',0''3'.)'*&'
&,B,)2',.')+%,$' 8%.)'/ (*.5,),*.' +%$%',0'
'' 5,0,.(/,.'),*.')*'%.)%$',.)*' .2'9,.5'*&'
'8 10%8%.)*$(*.),.1*10'3*$9H'.5',&')+,0',0'
7%$(*8%')+%$%',0'.' ,.)%$%0)'8'.,&%0)%5',.'
)+%'%86/*J8%.)')'8,-+)'4%'('//%5''' 8,B;
)1$%'*&'014'(1)%'8'.,'' '.5'5%8%.),''4%,.-'
0*8%),8%0')+%'*.%' '.5'0*8%),8%0')+%'*)+%$'
0')+%' ('0%' '57'.(%0')+%' 02 8 6)*8 0' *&'
5%8%.),'' (*8%')*' 6$%5*8,.')%H 41)',)',0'
0%/5*8'*&')+')'9,.5',.' 3+,(+')+%' 8%.)'/
&'(1/),%0''$%%.),$%/2'*40(1$%5'3,)+'.*'-/%'8'
'*&',.)%//,-%.(%'*$' '.2')%.5%.(2')*' %B(,)%;
8%.)' &')+%$%',0''.2')%.5%.(2')*'6$,*5,(,)2'
,.')+%' 02 8 6)*8 0')' '//')+%'$%8,00,*.0''$%'
.*)'0*'$%-1/'$'.*$*0*'(*86/%)%'.*$*0*'/*.-'
'0',.'*$5,.'$2'6%$,*5,('/',.0'.,)2' &')+%$%'
,0'5%6$%00,*.',)',0''((*86'.,%5'3,)+',$$,)';
4,/,)2'.5')+%'3'.)'*&'.2'&,B%5'5%6$%00,.-'
,5%''*$'5%/10,*.' &')+%$%',0'.2'0,.-/%')%.;
5%.(2')+')'(+'$'()%$,0%0')+%0%'('0%0')')'0')*'
4%0106,(,*10 +%$%' '.2'(+$*.,(' &*$8'*&
,.0'.,)2',0''00*(,')%5'3,)+' 6+)+,0,0')+%'
(+'.(%'*&'(*86/%)%'$%0)*$'),*.')*'0'.,)2',0'
7%$2'08'//
.')+%''&&%(),*.'5,0),.-1,0+%5'42'%8*),*.'/
%B')'),*.'.*' 06%(,'/')$%')8%.)',0'('//%5'&*$'
+%'*./2',.5,(')*.'*&')$%')8%.)',.')+%'*)+%$'
)26%'*&'5,0%'0%',0')+%'.%(%00,)2'*&'9%%6,.-'16'
'' &1/' 0166/2'*&'.*1$,0+8%.)')*')+%' 4$',.'
42')+%'10%'*&'.1)$,%.)'%.%8')''*$*)+%$3,0%'
+%$%')+%' 8%.)'/' (*.5,),*.',0' 81(+'5,0;

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)1$4%5''')$10)3*$)+2'))%.5'.)'*1-+)')*'4%'
%86/*2%5''.5')+%'-%.%$'/)$%')8%.)'0+*1/5'
'/3'20'4%')*.,(''.5'0),81/'),..-' U%8*7'/
)*''.'02/18'*1-+)',.' 8*0)'('0%0')*'4%'
'7*,5%5' = $

"' 1%$6%$'/ .0'.,)2 G '!5"'
" 'B /) '5" '6 g
5" S " g'.'. '6 #'
%$'6)D
& # G .0'.,)2' 5%7%/*6%5' 51$,.-'
6$%-.'.(2'6')$)1$,),*.''*$/'()',*.
)'+'0' 4%%.')+%' (10)*8' *&''1)+*$0'),/ ''
$%(%.)'6%$,*5')*',.(/15%' 1.5%$')+,0'+%'5,.-'
)+%'&*$80'*&',.0'.,)2'3+,(+'*((1$',.'&%8'/%0'
51$,.-')+%' 6%$,*50'*&' 1)%$*-%0)'),*.')+%'
61%$6%$'/ 0)')%' '.5'/'()'),*.')',0'.*3'
&,$%E1%.)')*' &,.5')+%')%$8'0611%$6%$'/ $%;
0)$,()%5')*')+%' 5%$'.-%8%.)0'3+,(+'(*8%*.'
')')+%',8%'*&' 5%/,7%$2'*$' 3,)+,.''' 0+*$)'
6%$,*5')+%$%'&)%$' +')%7%$' .'8%0'3%'
'5*6)',)',0',86*00,4/%')*' (*.0,5%$')+%',.;
0'.,)2'*((1$$,.-' ')')+%0%' 5,&&%$%.)'6%$,*50'
E1,)%',.5%6%.5%./)/2' +%'(*.5,),*.'*&')+%'
3*8'.'51$,.-')+%' 3+*/%' 6$*(%00'&$*8')+%'
),8%'*&'(*+(%6),*.'),//)+%'(+,/5',0'3%'.%5'
$%6$%0%.)0'*.%'*&')+*0%'6+20,*/*-,('/ ($,0%0'
51$,.-'3+,(+'(*.-%.,)'/ *$'(E1,$%5'3%'9;
.%00'*&'(*.0),)1),*.')%.50')*'0+*3',)0%/&
+%' '' '*'`6$ 23'],(2'-%.%$'//2')'9%0'
)+%' 8%/'.(+*+(')+*1-+' 0*8%),8%0')+%
8'.,'('/ &*$8''.5'0%%80')*' 4%'51%)*'''.
,.('6'(,)2',.'3*8%.'*&'.%1$*),(')%.5%.(2')*'
4%'$')+%' 06%(,'/ 0)$','*&')+%' $%6$*51(),7%
6$*(%00' +%'5%/10,*.0'3+,(+'(+'$'()%$,0%'
)+%'5,0*$5%$'$%'-%.%$'//2'%B'--%$'),*.0'*&'
)+%'.B,%),%0'.5'3+,80'0*'&$%E1%.),'.'6$%-;
.'.(2' +%'&'8,/2''&&%(),*.0''$%'3%'9%.%5'
$'6%$7%$)%5' .')+%' 0%7%$%$' &$80')+%'
01,(,5'/ ,861/0%' ,0' 0)$*.-/2' 5%7%/*6%5'
%.)'/ 5,0*$5%$' 0%/5*8' (*88%.(%0'4%&*$%
)+%')+,$5'8*.)*'&'6$%-.'.(2''.5'8*0)'&$%;
E1%.)/2'4*1)'+%'0,B)+'8*.)+' B(%6)',.'
)+%'0%7%$%$'&*$80')+%'6$*-.*0,0',0'-%.%$'//2'
&%7*1$'4/%f 41)'$%(*7%$2'0%/5*8','((1$0'),//
)+%')%$8,.'),*.''*&')+%' -%0)'),*.' 02/18'
)$%')8%.)'0+*1/5'4%' '7*,5%5'3+%.')+%(,$;
(180)'.(%0'(&')+%'6'),.)'6%$8,)*&'01,)'4/%
.1$0%0'*$' (*86'.,*.0'4%,.-'%86/*2%5''')
+*8%
6 ' " ' ,.' ,)0' 8*$%' $%0)$,()%5'
8%'.,.-',0'&$%E1%.)/2'1.5%$0)**5'),.(/15%
''/'5%$'.-%8%.)0'*((1$$,.-''')'6'$)1$,),*.'*$
3,)+,.'0,B'*$%,-+)'3%%90''&)%$',)' 1)',)',0'
4%))%$')*' /,8,)')+%')%$8')*' 3+')'*((1$0'
51$,.-')+%'&,$0)')+$%%'3%%90''0')+%'&*$8'*&
5,0*$5%$'3+,(+'(*88%.(%0''&)%$')+')'6%$,*5
,0'-%.%$'//2'5,&&%$%.)',.'(+'$'()%$
&&,B,*.* G $*8,.%.)'*8*.-')+%'('10%0'
&'61%$6%$'/ 8'.,''$%' ''/ 0)')%0'&'5%4,/,)2'
%,)+%$',.51(%5'4%&*$% 6'$)1$,),*.'42'3'.)'
,.)%86%$'.(%'5,0*$5%$0'*&'.1)$,),*.'*$'6,5
01((%00,*.'*&'6$%-.'.(,(%0'$%'(''$$,%5'*.'0,81/;
)'.%*10/2'H *$',)'8'2'4%')+%'$%01/)'*&'3%'9;
.%00',.51(%5'51$,.-'6'$)1$,),*.'42'+0%8*$

$+' -%ʻ *$ %B+' 10),*. ʻ)ʻ ,0ʻ /,' 4/%ʻ)*ʻ *((1$ʻ . ʻ 6$,8 ,6' $0%ʻ 3+%. ʻ)+%ʻ 014>%()0ʻ '$% %,)+%$ʻ %B; (%6),*. ' //2ʻ 2*1. -ʻ *$ʻ %B(%6),*. ʻ //2ʻ '57' . (%5ʻ , . ʻ +&%ʻ ,$,) '),*. ʻ '$,0,. -ʻ , ʻ)+%ʻ 6%/7,(ʻ *$-' .0ʻ ,.)%0),. %0ʻ *$ʻ 8 ' 8 8 0%ʻ '/0*ʻ)%. 50ʻ)*ʻ 6$*51(%ʻ ,) ʻ .2ʻ , . *$5,. ')%ʻ 8 %.)'/ʻ %B(,)%; 8 %.)ʻ *$ʻ 5%6$%00,*. ʻ ,0ʻ '6)ʻ)*ʻ 4$,. -',)ʻ * . ʻ .ʻ ''/'$-%ʻ . 18 4%$ʻ *&ʻ ('0%0ʻ ,)ʻ 3+/ 4%ʻ &*1.5')+')ʻ)+%$%ʻ ,0ʻ ''+%$%5,)ʻ $2ʻ . %1$*),(') %. 5%. (2 ! (G))' (90ʻ *&ʻ 1,' . ,' (',ʻ %B(,)%; 8 %.)ʻ 0* 8 %), 8 %0ʻ *((1$ʻ 51$,. -ʻ ' ()1'/6 '$)1$,;),*. ʻ +%2ʻ '$% 101 '//2ʻ *&ʻ 7%$2ʻ 0+*$)ʻ 51$ʻ ';),*. ' . 5ʻ 0%8 ')*ʻ 4%ʻ 5,$%()/2ʻ 5%6%. 5%.)ʻ *. ʻ)+%ʻ ,.)%. 0%ʻ 01&%$,. -ʻ 3+,(+ʻ 8 ' 2ʻ ''((* 8 6 ' . 2ʻ)+%ʻ 6 ', . 0ʻ +%ʻ 8 *0)ʻ &$%E1%+)ʻ 6%$,*5ʻ *&ʻ)+%,$ʻ *((1$$%. (%ʻ ,0ʻ 3+%. ʻ)+%ʻ +%ʻ 5ʻ *&ʻ)+%ʻ (+,/5ʻ ,0ʻ 6 '00,. -ʻ %,)+%$ʻ)+%ʻ ʻ ʻ *$ʻ)+%ʻ ʻ (7 " ʻ +%ʻ 8 *$%ʻ 0%$,*10ʻ 6+ '0%ʻ *&ʻ)+%ʻ 5,0; *$5%$ʻ ,0ʻ ,. ʻ ,)0ʻ '(1)%ʻ 0)'-%ʻ '' 7 ʻ$,%)2ʻ *&ʻ '(.)%ʻ 8 '. ,'('/ 5%/,$,1 8 ʻ)ʻ 101 '//2ʻ (* 8 8 %. (%ʻ 3,)+,. ʻ ''ʻ 3 %%9ʻ *$ʻ)%. ʻ 5 '20ʻ '&)%$ʻ 5%/,7%$2ʻ $%. %$'//2ʻ ,)ʻ ,0ʻ 6$%(%5%5ʻ 42ʻ 0/%%6/%00. %00ʻ ' . 5ʻ)+%ʻ 6 '),%.)' 8 '$,&%0)0ʻ 8 *$%ʻ *$ʻ /%00ʻ '666%%+%. ; 0,*. ʻ *&ʻ (* 8 , . -ʻ %7,/ ʻ *8 %),8 %0ʻ +*3%7%$ʻ 0+%ʻ ' 3 '9%0ʻ 5%/,$,*10ʻ &$* 8ʻ 3+')ʻ +'5ʻ 4%%. ʻ $%-'$5%5ʻ '0ʻ ''+%'/)+2ʻ 0/18 4%$ʻ /, +%. ʻ)+%ʻ '))'(9ʻ +'0ʻ (* 8 8%. (%5'0/%%6ʻ ,0ʻ '/3'20ʻ%,)+%$ʻ 7%$2ʻ , 8 6%$&%()/2ʻ *4)',. %5ʻ *$ʻ ,0ʻ '/)*-%)+%$ʻ '40%.)ʻ +%ʻ 61/0%ʻ ,0ʻ)+$%'52ʻ . ʻ5ʻE1,(9ℍ)+%ʻ 09,. ʻ *&)%. ʻ)ʻ . *)ʻ '/3'20ʻ 5$2ʻ ' . 5ʻ +*)ℍʻ ' . 5ʻ)+%ʻ +%ʻ 5ʻ)+$644,. -ʻ +%ʻ %2%0ʻ ''$%ʻ 4$,-+)ʻ ' . 5ʻ)+%ʻ &'(%ʻ -%. %$'//2ʻ 6'/%ʻ 3,)+ʻ *((' 0,*. ʻ /&/10+,. -ʻ +%ʻ %B6$%00,*. ʻ ,0ʻ 101; ' //2ʻ ,. 5,('),7%ʻ *&ʻ)ʻ$8ʻ *$ 106,(,*. ʻ *. ʻ)+%ʻ 6 '$)ʻ *&ʻ)+%ʻ 6 '),%.)ʻ +%ʻ)*. -1%ʻ ,0ʻ 5$2ʻ . 5ʻ &1$$%5ʻ ' . 5ʻ)+%ʻ 0%($%),*. 0ʻ *&ʻ 8 ,/9ʻ ' . 5ʻ /*(+,''$%ʻ %,)+%$ʻ 0166$%00%5ʻ *$ʻ 5,8,. ,0+%5ʻ +%ʻ 4*3%/0ʻ '$%ʻ 0* 8 %), 8 %0ʻ /**0%ʻ 41)ʻ (* .0),6'),*. ʻ ,0ʻ)+%ʻ 101'/ (* .5,),*. ʻ +%ʻ '66%),)%ʻ ,0ʻ 1. ; (%$)',. ℍ 0* 8 %), 8 %0ʻ ,)ʻ ,0ʻ '4. *$ 8 '//2ʻ /'$-%ʻ *)ʻ ,. &$%E1%.)/2ʻ)+%ʻ 0%. 0%ʻ *&ʻ)'0)%ʻ ,0ʻ 6%$; 7%$)%5ʻ ' . 5ʻ)+%ʻ 6 '),%.)ʻ 0106%()0ʻ)+%ʻ 6$%0%. (%ʻ *&ʻ 6*,0*. ʻ , . ʻ +%$ʻ &**5ʻ ' . 5ʻ 6%$0,0)%.)/2ʻ $%&10%0ʻ ,)ʻ +%ʻ 4$%')+' ,0ʻ *&)%. ʻ *&&%. 0,7%ʻ , . ʻ *5*1$ʻ * 8 %), 8 %0ʻ)+%ʻ 8 %.)'/ %B(,)%8 %.)ʻ 5*%0ʻ . *)ʻ $%7%'/ ,)0%/&ʻ , . ʻ/' . -1ʻ -%ʻ ' . 5ʻ)+%ʻ 6 '),%.)ʻ 8 '2ʻ 4%ʻ *40),. ')%/2ʻ)' (,)1$. ʻ &$*8ʻ)+%ʻ (* 8 8%. (%; 8 %.)ʻ 1)ʻ)+%$%ʻ ,0ʻ 101'//2ʻ ''-$%')ʻ ,. ($%'0%ʻ *&ʻ /*E1'(,)2ʻ -$ʻ 51'//2ʻ 6$*-$%00,. -ʻ &$*8ʻ)+%ʻ 4%-,. . . ,. -ʻ ' . 5ʻ 6 '00,=ʻ ,.)*ʻ , . (*+%$%.)ʻ $'7; ,. -ʻ 155%. ʻ ,8 61/0,7%ʻ '()0ʻ *&ʻ 7,*/%. (%ʻ &$%; E1%.)/2ʻ 8 ' . ,&%0)ʻ)+%8 0%/7%0ʻ , . ʻ)+,0ʻ =0*$5%$ʻ ' . 5ʻ , . ʻ)+%0%ʻ)+%ʻ 6 '),%.)ʻ *&)%. ʻ '))%8 6)0ʻ)*ʻ 5%0)$*2ʻ +%$0%/&ʻ +%$ʻ (+,/5ʻ *$ʻ 6%$0*. 0ʻ &*$ 3+*8 '0+%ʻ +'0ʻ 101'//2ʻ)+%ʻ 8 *0)ʻ '&&%(),*. ')%$%-'$5ʻ +%$ʻ -%. %$'//2ʻ '66%'$0ʻ)*ʻ 4%ʻ 5,0; 0'),0&,%5ʻ 3,)+ʻ)+*0%ʻ , ʻ '))%. 5'. (%ʻ *. ʻ +%$ʻ ' . 5ʻ *&)%. ʻ %.)%$)', . 0ʻ 5%/10,*. 0ʻ '0ʻ)*ʻ)+%&$ʻ ,5%+),)2ʻ . ʻ 8 ' . 2ʻ *'0%0ʻ)+%ʻ 8 %.)'/ (*. 5,;),*. ʻ 4%'$0ʻ '' 0)$*. -ʻ $%0%8 4/'. (%ʻ)*ʻ)+')ʻ *&ʻ 5%/,$,1 8 ')$%. 0'%06%(,'//2ʻ 3+%.)+%ʻ 6'),%.)ʻ +'0ʻ 1. 5%$-*. %ʻ 6$,7'),*. 0ʻ *$ʻ +'0ʻ 4%%. ʻ , .)%8 ; 6%$')%ʻ 51$,. -ʻ 6$%-. ' . (2 & G +%ʻ *. /2ʻ (*. 5,),*. 0ʻ &*$ʻ 3+,(+ʻ 61%$6%$'/ , . 0ʻ . ,)2ʻ 8 ' 2ʻ 4%ʻ 8 ,0)'9%. ʻ '$%')+%ʻ)26+*,5ʻ 5%/,$,1 8 ʻ *&ʻ 61%$6%$'/ &%7%$ʻ *$ʻ 62;

'%8,''ℍ ' . 5ʻ)+%ʻ 7,*/%.)ʻ %B(,)%8 %.)ʻ &$%E1%.)/2ʻ 02 8 6)* 8 '),('*&ʻ 8 %. , . -,),0ʻ . ʻ)+%0%ʻ ('0%0ʻ)+%ʻ &%4$,/%ʻ (*. 5,),*. ʻ 6$%(%5%0ʻ)+%ʻ 5%7%/*6; 8 %.)ʻ *&ʻ)+%ʻ 5%/,$,1 8 ʻ 3+,/%ʻ , . ʻ 61%$6%$'/ 8 ' . ,''ʻ)+%ʻ 8 %.)'/ 02 8 6)* 8 0ʻ 0+*3ʻ)+%8 ; 0%/7%0ʻ &$*8ʻ)+%ʻ &,$0)ʻ . ʻ 8 %. , . -,),0ʻ)+%ʻ 616,/0ʻ '$% -%. %$'//2ʻ (*.)$'()%5ʻ ' . 5ʻ)+%ʻ +%'5'(+%ʻ ,0ʻ 6%(1/,'$/2ʻ , .)%. 0%ℍʻ 3+,/%ʻ , . ʻ 61%$6%$'/ 8 ' . ,''ʻ)+%ʻ 616,/0ʻ '$% 101'//2ʻ 5,/')%5ʻ ' . 5ʻ)+%ʻ +%'5'(+%ʻ ,0ʻ . *)ʻ ''7%$2ʻ 6$*8 , . %.)ʻ 02 8 6)* 8 G= ((*$5,. -ʻ)*ʻ)+%ʻ 614/,0+%5ʻ 0)'),0),(0ʻ *&ʻ)+,0ʻ 5,0%'0%ʻ $%(*7%$2ʻ 8 ' 2ʻ 4%ʻ %B6%()0%5ʻ , . ʻ '4*1)ʻ M!ʻ 6%$ʻ (%.)ʻ *&ʻ)+%ʻ ('0%0ʻ ' . 5ʻ ''&')'/)%$8 , . '),*. ʻ . %%5ʻ . *)ʻ 4%ʻ ' .),(,; 6 ')%5ʻ , . ʻ 8 *$%')+' . ʻ F 6%$ʻ (%.)ʻ 1)ʻ '0ʻ)+%0%ʻ &,-1$%0ʻ '$%ʻ , . ʻ ''-$%')ʻ 8 %'01$%ʻ *4)',. %5ʻ &$*8ʻ '02/18 '0)',0),(0ʻ ' . 5ʻ *)+%$ʻ 0*1$(%0ʻ , . ʻ 3+,(+ʻ *. /2ʻ)+%ʻ 0%7%$%$ʻ ' . 5ʻ 8 *$%ʻ 6%$0,0)%.)ʻ &*$80ʻ +'7%ʻ 4%%. ʻ)'9%. ʻ , .)*ʻ '((*1.)ʻ ,)ʻ 8 '2ʻ 4%ʻ &',$/2ʻ '00 18%5ʻ)+')ʻ)+%ʻ)$1%ʻ %0),8 ')%ʻ 3*1/5ʻ 4%ʻ 8 1(+ʻ 8 *$%ʻ &'7*1$'4/%ʻ +%ʻ 51$ʻ),*. ʻ *&ʻ)+%ʻ , . 0ʻ . ,)2ʻ 8 '2ʻ 7$2ʻ &$*8ʻ ''&%3ʻ 5ʻ 20ʻ)*ʻ ''2%'$ʻ '&)%$ʻ 3+,(+ʻ),8 %ʻ)+%ʻ 6$*6*$),*. ʻ *&ʻ $%; (*7%$,%0ʻ 4%(*8 %0ʻ %B)$%8 %/2ʻ 0 8 ''/ ʻ +%ʻ -$%')ʻ 6$*6*$),*. ʻ *&ʻ $%(*7%$,%0ʻ)'9%0ʻ 6/'(%ʻ 51$,. -ʻ)+%ʻ &,$0)ʻ 0,B ʻ 8*.)+0ʻ +%ʻ 8*0)ʻ &%7*8 '4/%ʻ 02 8 6)*8 0ʻ , . ʻ '55,),*. ʻ)*ʻ '8%+*$'),*. ʻ *&ʻ)+%ʻ 8 %.)'/ 02 8 6)*8 0ʻ '$%ʻ , . ($%'0%ʻ *&ʻ 4*5,/2ʻ 3%,-+)ʻ ' . 5ʻ $%0)*$'

+26.*),(' +/*$'/ +25$')%' *$ 6%$+'60 0./' 6+*.'/'3,// 4% 10%&5/' 6,18'*1-+)'>*' 4% '7*,5%5' .5' +2*0(2'8 10 '.5' 4%//'5*..'' (' . .*)' 4% $%/,%5'*. ' *)+',.')+%' &,$0)'0)'-%' .5' 3+%.')+%' 5,0%'0%' ,0 8*$%' '57'.(%5' %7%$2)+,.-' 8 10)' 4% 5*.%')*' 6$*8*)%')$'.; E1,//,)2' +% $*8'0+*1/5'4% 5'$9%.%5''.5' 0),//.%00 8 ',.)',.%5''0 &'$''0 6*00,4/%'&*$')+% '))%.),*.'*&')+%'6'),%.)',0'7%$2'%'0,/2'%B(,)%5' '.5'4*)+'7,0,*.''.5'+%'$,.-''$% 6$%)%8')1$' '//2''(1)%' *.0)'.)'016%$7,0,*.',0'.%(%00'$2' +*3%7%$' *.'((*1.)' *&')+%').5%.(2')*' 0155%.',8 61/0,7%'7,*/%.(%H'.5')+%'6'),%.)' 0+*1/5'0%%'+%$',.&'.)' '0'0%/5*8' '0'6*00,4/%' &)%$')+%' 8'.,'('/ (*.5.),*.'+'0'&',$/2'5%; (/'$%5',)0%/&')+%' (+,/5'0+*1/5'4% $%8*7%5' ')-%)+%$' '0',)0'6$%0%.(%',0'0*8%),8 0'6$*; 51(),7%'*&'-$%'')'%B(,)%8%.)',')+%'6'),%.)' '.5'8 10)'/3'20'4% $%-'$5%5''0''))%.5%5' 3,)+'$,09' .'('0%0'3+%$%')+%'%B(,)%8%.)',0' 0*8%3+')'*&''+20)%$,('/(+'$')(%$'4$*8,5% *&'6*)'00,18'-,7%.''.')3%.)2-5*0%0')',.)%$7'/0'*&*&*1$'+*1$0'8'2'6$*51(%-**5' $%01/)0' **/,.-''66/,(',*.0')*')+%'+%'5' 0*8%),8%0'0**)+%',$$,)',*.''.5',.51(%'0/%%6' ,-,)'/,0',.'08''//5*0%0''.5'3'$8'4')+0'+'7% 6$*7%5'10%&1/' /(*+*/,(' 0),81/'.)0' 8*1/5' -%.%$'//2'4%'-,7%.'3,)+')+%'&**5H)+%,$'%&&%()0' 4%,.-' ('$%&1//2' 3')(+%5''.5')+%' E1'.),)2' 7'$,%5''((*$5,.-/2' /%%5,.-''.5'%7%$2'9,.5' *&'5%6/%),*.'0+*1/5'4%'7*,5%5' +%'.1$0,.-' '.5''))%.5'.(%'0+*1/5',&'6*00,4/%'4%'%.),$%/2' %.)$10)%5')*'0)$'.-%$0''.5')+%'6')'0+*1/5' .*)'4% 6%$8,))%5')*'0%%'.2'8%8/#0$0'*&'+%$' &'8,/2')'3,// 0*8%),8%0' 4% .%(%00'$2' %06%(,'//2',.')+%' ('0%'*&'6**$' 6%$0*.0')*' $%0*$)'*'02/18')$%')8%.)H 41)'+),0'*1-+)' .*)'4%' 5*.%',&',)' (''4% '7*,5%5''.5' 3,)+'6'),%.)0',.'-**5'(,$(180)'.(%',)'*1-+)' .%7%$')*'4%'.%(%00'$2',.')+%' '(1)%'0)'-%'*&')+%' 5,0%'0%' +%.')+%' 5,0%'0%' 4%(*8%0' (+$*.,(')*.,(0'01(+'0'E1,.,.%''.5',$*.' *1-+)'*'4%'.7%.H'.5''6/%.),&1/0166/2'*& >15,%,*10'.*1$,0+8%.)'0+*1/5')+%.''0''//)+$*1-+')+%',// .%00'4%'('$%&1//2'58,.,0)%$%5' '),%.)0'/,'4/%')*')+,0'5,0*$5%$'0+*1/5'.*)'4% '//*3%5'3,)+*1)'(*.0,5%$'),*.')*'.1$0%')+%,$' (+,/5$%.

+%' " " ' ' "',0'02 8 6)*8'),(' *&'('10%0'3+,(+' (*8%' ,.)*' 6/'2' '&)%$')+% 61%$6%$'/6%$,*5''.5',)'*1-+)'6%$+'60')*' 4% /**9%5'*.'0'02 8 6)*8'),(' 8 %$%/2'*&'6$*; /*.-%5'.'%8,'' (1)%' 8'..'(/02 8 6)*8 0' *&'0+*$)'51$'),*.'8'2'*((1$H 41)'+%'(+'; $'()%$,0),('(*.5.),*.',0' 8%/'.(+*/,''10+%$%5' ,.'42'+%'5'(+%')...,)10'1$,18'&/'0+%0'*& /,-+)'4%&*$%')+%' %2%0''.5'*)+%$'0,-.0'*& 5%4,/,)2' '01,(,5'/')%.5%.(2'0*8%),8%0' '66%'$0' +%')$%')8%.)'$%E1,$%5',0')*'3%'.')+%',+,/5''.5'-%.%$'//2')*'0'7%'.5',.($%'0%)+%'0)$%.-)+'*&')+%'6'),%.)' +%'6$*-.*0,0' ,0'&'7*1$'4/%',.')+%'8'>*$,)2'*&'('0%0

= ' $

' 26+,/,),('.0'.,)2 G 8*.-')+%'&')$%')8%.)'3+,(+'(*.0,0)0')*'%B6*0,.-')+%' $%01/)0'*&'(*.0),)1),*.'/'026+,/,0''&,%(),*.0'*& 6'),%.)')*')+%'$'20'*&')+%'01.

)+%'.%$7*10'020)%/.''$%'.*)'1.(*8 8*.H'.5' 3+%.')+%'5,0%'0%''&&%()0')+%'4$',.')+%'8%.)'/ 02 8 6)*8 0')+')''$,0%''$%&*1.5',.')+%'8'>*$,)2' *&'('0%0')*'6$%0%.)''8'$9%5'0,8,/'$,)2',.')+%,$'(+'$'()%$' .'01(+'('0%0')+%' 8%.)'/ 5,0*$5%$',0'-%.%$'//2'6$%(%5%5''0',.'0*'8'.2' &*$8 0'*&',.0'.,)2'42'5,0)$%00,.-'0/%%6/%00.%00' +,0',0'&*//*3%5'-$'51'//2'42',.($%'0,.-' 5%6$%00,*.''*&'8,.5' %+-,*10''.B,%)2'*&'' 6%(1/,'$/2'+*6%/%0'(+'$'()%$'&$%E1%.)/20+*30' ,)0%/&' B'--%$')%5'0%/& '%*10,.-0''$%'%';. %0)/2'1))%$%5'42')+*0%'3+*'+'7%'6$%7,*10/2' 4%%.'1.101'//2'('//*10''0')*'+)+%'$%01/)0'*&)+%,$''(),*.0' 26*(+*.5$,'('/'5%/10,*.0''$% .*)'1.(*8 8*.''.5''$%&$%E1%.)/2'00*(,')%5' ,.')+%'8,.5'*&')+%'6'),%.)'3,)+')+%'&'()'*&)+%'026+,/,),(',.&%(),*.' +%'&%%/,.-'*&'/'$8' 3+,(+' '((*86'.,%0'02 8 6)*8 0'0*8%;),8%0'5%7%/*60',.)*' '' 7,*/%.)' %B(,)%8%.)' 3+,(+'8'2'4% ('//%5'8'.,'('/' &')+%'02 8 6;)*8 0'4% '00*(,')%5'3,)+''.2'*&')+%'*$5,.'$2' 0,-.0'*&'026+,+),(' 6*,0'*.,.-G)+%'5$2'0('/2' 09,.'0*2%)+$*')''.5')+%'0'//*3'/%'.'&'(%H '.5'%06%(,'//2',&''.2'*&')+%'(+'$'()%$,0),(' %$16),*.0''$%' 6$%0%.)')+%' 8%.)'/ 5,0%'0% 8'2'4% %B6%()%5')*'2,%/5')*')$%')8%.)'42' 8%$(1$,'/0''.5',*5,5%*'&'6*)'00,18' +% 8%.)'/0J8 6)*8 0'3+,(+'+'7%'4%%.'+%$%'5%; 0($,4%5'0%%8')*'*((1$'3,)+*1)')+%'%B,0)%.(% *&''.2',86*$)'.)'0)$1()1$'/ /%0,*.0',.')+% .(%6+05*.' +% 5%7%/*68%.)' *&' -18 82' 6$*51()0'3,)+,.')+%'($'.,18',0'&$%E1%.)/2' %7,.(%5'42'02 8 6)*8 0'0,8,/'$')*')+*0%'&* -%.%$'/6'$'/20,0' %'5'(+%'*&'7%$2'6%$; 0,0)%.)'(+'$'()%$'-,55,.%00'7%$),-*''.5'%6,' /%6)*,5'&,)0'*((1$''((*86'.,%5''')'&,$0)'3,)+' 8%.)'/5%6$%00,*.' 1$,.-')+%'6$*-$%00'*&)+%'5,0%'0%')'(90'*&''(1)%'5%/,$,18''$%'.*)' 1.101'/' *8%),8%0'%B)$'7'-'.)'5%/10,*.0' 01(+''0''$%'&$%E1%.)',.'-%.%$'/6'$'/20,0''$%' %B+,4,)%5H 41)'-%.%$'//2')+%'6$*-$%00'*&)+%' 5,0%'0%',0'(+'$'()%$,0%5'42''-$'51'/&'//,.-' ,.)*'5%8%.),''+%'6$*-.*0,0'))*'01(+'('0%0' 8 10)'4%'$%-'$5%5''0'1.&'7*1$'4/%'41)'(*.; 0,5%$'4/%',86$*7%8%.)'&$%E1%.)/2'&*//*30')+%' '58,.,0)$'),*.''*&'.),0J]6+,/,),*'$%8%5,%0

($ ' +

' G .0%()'6'$'; 0,)%0''$%'*&')3*'9,.50''%B)%$.'/''.5',.)%$.'/' +%'&*$8%$' '$%' 5%0($,4%5'1.5%$' 0%7%$'/ '&&%(),*.0'*&')+%'09,.'AO%%' '%$% 3H)+%/')')%$' 8'2'4% (/'00%5'3,)+')+%'%.)*C*''' %%'* + 'H 'H'.5'* %

'A)*'.*)H'.5'0%.),*.' '6%$(%,7%R G +,0'3*$5'0,-.&,%0'%,)+%$'/*00' *&'(*.0(,*10.%00''*$ 8%$%/2'/*00'*&'0%.0'),*.' ,.''' 6')$),(1/'$'6')$'/*&')+%' 4*52' ' 2 ' % ' ,0*$5%$0'*& ,0*$5%$0'*&H'.5' ,0*$5%$0'*&

' "',.H'.5' ')+%'01.R' 02.*.28'&*$'01.0)$*9%' ' % 5 3' .0*/'),*.',0'/0*'10%5')*'5%0,-.')%''8%)+*5' 6'),%.)')*')+%'$'20'*&')+%'01.

@ < B [ ) ' , " ' . *)% '.5' " ' 0/%%GR G= '.)*&0/%%6'*$'0/%%6/%00.%00' ' .0 ' ,0*$5%$0'*&

/, ' , " ' '/**9'16*.R' +%')%(+.,('/' .'8%' &*$')+%' %B'8,.'),*.' *&''6'),%.)'42')+%'0%.0%'*&'0,-+)H '/0*'&*$ %B'8,.'),*.'*&''4*52' ' ' $ ' (# 'H'.5' 0 '

b'A3',.)*H'.'.5'0&, *0' ''5$*6R G= +% 8%)+*5'*&''66/2,.-'$%8%5,%0')*''6')$',.')+%'&*$8'*&'5$*60' .0),//'),*.' ,0' (+,%&/2'%86/*2%5',.'(*..%B,*.'3,)+')+%' %2%

' , " ' .*)H' .5' ' '8' 01&/ ,(,%.)R G ' 02.*.28'&*$' ,.(*86%)%.(%' '5 #o

' , " ' ,.)*H ' H' 4/*3R G +,0')%$8',0' 10%5',.')+%'0'8%' 0%.0%' '0',.&/'),*.' ' 5 . /')',0' '/0*'' .'8%'-]7%.')*' '8%)+*5'*&''66/2,.-' $%8%5,%0',.')+%'&*$8'*&'6*35%$')*')+%')+$*')' .5' $%06+')*$2'6'00'-%0'42'4/*3,.-')+%8')+$*1-+' ')14%',.)*')+%0%' 6'$)0' ' I ' +%$'6%1),(' 0%0'*&

/ ' ,0%'0%0'*& G %% * ' ,0%'0%0'

8 >' /, G '

/ ' &&%()0'*& G %%) #'H ' - ' '10%0'

' G

.2'*&')+%'5*$0'/'.%$7%0' 8'2'4%')+%'0%')'*& .%1$'/-,'' .*)' 5,&&%$,.-' 8')%$,'//2',.',)0' 0286)*80'&$*8'.%1$'/-,'' '&&%(),.-'*)+%$' 8,B%5'.%$7%0'41)'%06%(,'//2',86*$)'.)'&$*8' '' 5,'-.*0),(' 6*,.)'*&'7,%3' +%' 6',.0'$% 6'$*B2088'/H101'//2''&&%()')+%'$%-,*.'*&'5,0;)$,41),*.'*&')+%' .)%$,*$'5,7,0,*.'*&'*.%'*$)3*'*&')+%'5*$0'/.%$7%0H''.5''$%(*.&,.%5')*' *.%'0,5%'8*0')/2')+%/%&) = ' G +%'&%8'/%'0%B'.%1$*),(*+%$,;)'-%''.5'3%'9'-%.%$'/+%')/)+'6$%5,06*0%')' ,.)%$(*0)'/.%1$'/-,'' 0'5%)%$8,.,.-'('10%0' 8'2'4%'8%.),*.%5'4/*30H)+%'(),*.'*&(*/5H /**8',.>1$2')*')+%'.%$7%0'&$*8')+%'-$*3)+'*&)+*$'(,('.'%1308'*$')18*1$H''.5'5,0%'0%'*&)+%'7%$)%4$'%' B+'10),*.'&$*8'*7%$01(9/,.-' 8%.*$$+'-,''*$'/%1(*$$+*%'H',$$,)'),*.'&$*8' ($'(9%5'.,66/%0H''.5'6$%-.'.(2''$%''//*((':; 0,*.'/41)',86*$)'.)'('10%0'*&')+,0'&*$8'*& .%1$'/-,'' +%'6',.'8%)',)+',.')+%'(+%0)' ..'%'$/2'('0%0'*&'6+)+,0,0',0'.*)',.&$%E1%.)/2' 51%')*',.)%$(*0)'/.%1$'/-,'')',0'6$*4'4/%)+')',.'' /'$-%'6$*6*$),*.'*&'('0%0')+% .%1$'/-,('6',.',0'51%')*'.%1$,),0'*&'.%'*$ 8*$%',.)%$(*0)'/.%$7%0

*'#o # G ',.',0'(*86/',.%5'*&')'0*8% 6'$)'*&'*.%'0,5%'*&')+%')+*$'B'*$'45'*8%.' 8*0)'*&)%.',.')+%'$%-,*.',..%$7')%5'42')+% 0,B)+' 0%7%.)+' %,-+)+' *$' ,.)+',.)%$(*0)'/

.%$7%0' '.5' 81(+'8*$%'&$%E1%.)/2',.')+% &$*.)'*$',5%)+'.'4%+,.5')',0'*((0,*.'//2' &*1.5',.')+%'B,//'' '.5',..%$'0,5%'*&')+%'$8' +%'6',.'8'2'4%',.)%$8,))%.)'*((1$$,.-',.' 6'$*B2080'7'$2,.-',.'.184%'&$*8''$%(1$; $%.(%'%7%$2'&%3'8,.1)%0')*'*./2')3*'*$')+$%% 01(+'51$,.-')+%')3%.)2&*1$'+*8$0H *$')+%$% 8'2'4%6%$0,0)%.)'6',.'*&''51/'(+'$'()%$' ,.)%$$16)%5''}'7'$2,.-',.)%$7'/0'42'5'$)0'*&'' 7%$2'0+'$6'9,.5'3 (+'8'2'0*8%),8%0'4% $%&%$$%5'3,)+'6$%(,0,*.')*')+%'(*1$0%'*&')+% .%,-+4*1$,.-'.%$7% +%'6',.',0'5%0($,4%5' '0'0)%'$,.-<*$%0%84/,.-'01(+',.>1$,%0'0''' 00)'4'*&''9.,&%<*$04*$,.-'3,)+''$%5+*) ,$*.<+%''()0'*&'(*1-+,.-'*$0.%%C,.-''0' 3%/'0''.2'$'6,5'8*7%8%.)0'*&')+%'4*52''$% '6)')*',.($%'0%')+%'5,0)$%00'41)')+%'6',.',0' '/0*',.5%6%.5%.)'*&')+%0%'5,0)1$4'.(%0''.5' W3,'')''(9'3,)+*1)'.2'01(+'6$*7*(''),*.' +%'6',.',0'0*8%),8%0'8*$%''&'' 3%'$,.-')+'.''(1)%'(+'$'()%$''.5')+%'$%0)'3,/'*&)%.' 4%'5%0)$*2%5'42',)' ',.&1/6*.,0'$%0'0*8%;),8%0')*' 4% 5,0(*7%$%5',.')+%'&*//*3,.-' 0,)1'),*.0'' 7%$''06,.*10'6$*(%00'(*$$%; 06*.5,.-')*')+%'%8%$-%.(%'*&')+%''&&%()%5' 5*$0'/.%$7%&$*8')+%',.)%$7%$)%4$'/&*$'8%. @'')'+%0,5%*&')+%'(+%0)'*$'45*8%.'3+%$%)+%'/')%$'/4$'.(+'4%(*8%0'014(1)'.%*10 ''' %'$')+%'0)%$.18'*$')')+%'8'$-,.'*&')+% $%()10'45*8,.'/,0'810(%'')''.2'6')$'5*3.')*')+%'614%0'3+%$%')+%')%$8,.'),*.''*&')+% .%$7%'0166+%0')+%'09,.'+%'09,.',.')+% .%,-+4*1$+**5'*&')+%')%.5%$'6*,.)0',0'0*8%;),8%0'0*'+26%$'00)+%),(')+')')+%'6$%001$%'*&)+%'(/*)+%0',0'6',.&1/'.'%6,/%6),(0''.5' *)+%$'+,-+/2'.%1$*),('6'),%.)0',.)%$(*0)'/ .%1$'/-,''),0'*&)%.''00*(,')%5'3,)+'6'/6,)',.' *&')+%'+%'$)''.5')+%'6',.','0'101'//2'$%&%$$%5' ,.''''7'-1%'8'..%$')*')+')'*$-'.'/*0% %B'8,.'),*.'3,'0+*3')+')',)',0',.')+%'(+%0)' 3'//''.5')%.5%$'6*,.)0'8'2'-%.%$'//2'4%'5,0; (*7%$%5'+%'&&%(),*.',0'.*)''((*86'.,%5' 42'&%7%$'+%'6'$*B2080'*&'6',.'8'2'6$*; 51(%'&',.),.-''.5'*8,),.-'+%2'*&)%.' ('10%'5206.*%''3,)+''.''.B,*10'%B6$%00,*.' *&'&'(%'&$*8')+%',.'4,/,2')*'5$'3''&1// 4$%')+'3,)+*1)'0)'$),.-')+%'6',. % #o G=.)%$(*0)'/.%1$'/-,'',0' 0*8%),8%0''((*86'.,%5'42'+%$6%0'C*0)%$' +%'6',.'101'//2'6$%(%5%0')+%'66%'$'.(%'*&)+%'%$16),*.'41)',)',0'*((0',*.'//2'(*.(,5%.)' *./2''.5'0*8%),8%0'(*8%0'&)%$',)H'8*$% *&)%.')+'.'.*)',)'*1)/'0)0')+%'%$16),*.'6*00,4/2 &*$''/*.-'6%$,*5'.'(%$)',.'%'0%0''(0)1'/ 6',.'/'0)0'41)''&%3'5'20'41)',0'01((%%5%5' 42'.',..)*/%$'4/%',)(+,.-'3+,(+',0'5%0($,4%5' '0'4%,.-',85%$'.*)',.')+%'09,.' +,0'0%.0',;),*.',0'0',5')*'4%&%/)'/%00',.'3'/9,.-')+'.' 3+%.''}'$%0)

)',.&$%E1%.)/2'.%1$'/-,''&'0*8%'*)+%$.%$7%0'%,)+%$'')''5,0)'.(%''0')+%'&,&)+'*$ '.')*8,('//2'.%'$''0')+%'4$'(+,'/6/%B10' *((1$0''0''(*86/,(',.*.'*&',.)%$(*0)'/.%1$; '/-,''' +,0',0'%06%(,'//2'/,9%/2',.'('0%0'+'6; 6%.,.-',.')+%'6%$,*5'*&'4*5 2'5%('2')',0')+%.'.)**')+')')+%''&&%(),*.'8'2'*((0,*.

'//2' 4%' '((*86'.,%5' 42' '))'(90' *&' '.-,.''
6%()*$,0
- G 40%.(%'*&'62$%B,''' '0'0+*,2.'
42')+%' 10%' *&')+%')+%$8*8%)%$H')+%',.)%$'
8,))%.(%'*&'6',.' '.5',)0K'*((1$$%.(%',$$%;
06%(),7%'*&'$%06,$')'*$2'8*7%8%.)0''/)+*1-+'
/,'4/%')*' 4%'6$%(,6,)')%5'42')+%8H'.5')+%'
$%01/)0'*&'6+20,('/'%B'8,.'),*.'0%$7%')*'5,0;
),.-1,0+',.)%$(*0)'/'.%1$'/-,''&$*8'6/%1$,02'
''(*.5,),*.'3,)+'3+,(+',)',0'7%$2''6)')*'4%
(*.&*1.5%5'*.'''((*1.)'*&'$%0%84/'.(%,.')+%'
0)'44,..-'(+'$')(%$'*&')+%'6',.')'0+*1/5'
4%'$%8%84%$%5'+*3%7%$')+')'%B(%6),*.''/2'
.*'$,0%',.')%86%$')1$%'8'2'((*86'.2')+%'
6',.&1/0)'-%'*&'6/%1$,02
$*8' 810(1/'$' $+%18'),08',)' 8'2'4%'
5,0($,8,.')%5'42')+%'6$%0%.(%'*&')+%'08'//'
'.5'(+'$')(%$,0),(')%.5%$'6*,.)0H42')%.5%$;
.%00'*&')+%'06,.*10'6$*(%00%0'*.'6$%001$%H'.5'
42')+%'6',.'4%,.-'&*1.5')L'4%'.*)'5%6%.5%.)'
16*.'8*7%8%.)0' +%'0'8%'&%')1$%0'0%$7%
)*'5,0),.-1,0+',)'&$*8'82',=''%06%(,'//2')+')'
&*$8'3+,(+'*&)%.'(*8%0'&$*8'/*.-(*.),.),%5'
10%' ,.''.'1.'((10)*8%5'8'..%$'*&'0*8%
810(/%'))'(+%5')*')+%'$,40''0'3+%.''6%$0*.'
1.10%5')*' (',$6%.)%$,.-' +'.5/%0')+%' 0'3'
%.%$-%),('//2'&*$''/*.-'),8%
+20,('/'%B'8,.'),*.''.5')+%'6$%0%.(%'*&'
62$%B,''3,U'6$%0%$7%'&$*8')+%'%$$*$*&'(*.;
&*1.5,.-')+%'51'6'.,'*&)%.'.*)%5',.'6.%1'
8*.,''3,)+')'*&',.)%$(*0)'/'.%1$'/-,'
',.0'*&''0)'44,.-'6/1.-,.-'$)'%/()$,('
0+*(9/,9%'(+'$')(%$'B%'*&)%.'%B6%$,%.(%5',.'
)+%',.)%$(*0)'/'06'(%0',.')+%'(*1$0%'*&')'4%0'
'.5',)',0',86*$)'.)'.*)')*'(*.&*1.5')+,0'5,0;
%'0%'3,)+''0,86/%'))'(9'*&',.)%$(*0)'/'.%1$;
'/-,''+%'5,0),.-1,0+,.-'6*,.)0'$%')+%'
((1$$%.(%'*&'0,8,/'$'6',.0'(,.(,5%.)/2'*$'
'/)%$.')%/2',.'*)+%$'6')0'*&')+%'4*52'%06%;
(,'//2',.')+%'/*3%$'%B)$%8,),%0H')+%''40%.(%'
&'6')%'$')%.5.'$%&/%BH'.5')+%'(+'$'()%$;
,0),(''-',)'A,&'6$%0%.)RG'//'3+,(+'8'$9')'4%0'
$ G 0',')+%'('0%'*&'*)+%$'&*$80'
*&'.%1$'/-,''')+')'*&')+%',.)%$(*0)'/'.%$7%'('.'
+'$5/2'4%'0','5')*'4%''))%.5%5'3,)+'5'.-%$'
)+*1-+',)'810)'4%'//*3%5')+')',.'0*8%'7%$2'
$'$%',.0)'.(%0')+%0%7%$,)2'*&')+%'6','.''66%'$0'
)*'+'7%'(')(1'//2'5%0)$*2%5'&%'),0'6)'
+*3%7%$')*'4%'*&')$*14/%0*8%'51$'),*.'5%;
6%.5%.)'*.')+%'('10%'/'0),.-'&*$'6%$,*50'*&'
3%%90'*$'8*.)+0'.5'/,'4/%')*'$%(1$$%.(%
G %'$(+'0+*1/5'4%'8'5%',.'
)+%$'4$'.(+%0'&')+%'0'8%'.%$7%''.5',.')+%'
5,0)$,41),*.'*&'.%,-+4*1$,.-'.%$7%0'&*$'.2'
0*1$(%'*&',$$,)'),*.'3+,(+',)',0'6*00,4/%')*'
$%8*7%'*.0),6'),*.'*&')+%4*3%/0'0+*1/5'4%
)$%')%5'42')+$%%'-$',.0'*&'4/1%'6/'&*//*3%5'
42'0*8%'$,%5$,(+0+'/'*$'1.2'5,'/.*0'
3')%$'$%6%')%5'*.')3*'*$')+$%%'*(('0,*.0'
X1,..%'0+*1/5'4%'-,7%.',.'5*0%0'*&'&$*8'&,7%(
)*')%.'-$'.0')3,(%''5'2H'.5',&')+%$%'0+*1/5'
4%''0)')%'*&'.(%8,''',$*.'0+*1/5'4%'55%5'
+%.'C*.%',.'5*0%0'*&'&$*8')%.')*')3%.)2'
-$',.0'8'2'4%'-,7%.')3*'*$')+$%%'),8%0''
5'2',&'.%(%00'$2' B6*01$%')*'(*/5'.5
5'86'810)'4%''7*,5%5H3+,/0)')+%'01$$*1.5;
,.-0'-%.%$'//2'0+*1/5'4%&'7*1$'4/%')*',8;
6$*7,.-')+%'.1)$,),*.'.''.5')*.%'&')+%'6',.'
4%'7%$2'(1)%''.5'0/%%'6'6$%7%.)%5'8*$6+,.%
8'2'4%',.>%()%5'+26*5%$8,('//2',.')+%'
.%,-+4*1$+**5'*&')+%''&&%()%5'.%$7%'(*8;
8%.(,.-'3,)+'5*0%'*&''')3%/&)+'*&''-$',.'
'.5',.($%'0,.-')+,0',&'.%(%00'$2')*''E1'$)%$'
*&''-$',.',.')+%')3%.)2&*1$'+*1$0'+,0'
5*0%'0+*1/5'.*)'4%'$%6%')%5'+*3%7%$H'.5',)'
,0'4%))%$')*'4%'0'),0&,%5'3,)+''$%6%),),*.'*&')+%'
08'//%$'5*0%',&'$%E1,$%5' 8'//4+0)%$0'A0,C%'
*&'+'/& '($*3.H'8'2'4%''66/,%5')*')+%'.%,-+;
4*1$+**5'*&')+%' 6,.'/'(*/18.'.%'$')+%'6*,.)'
&'%8%$-%.(%'&')+%'&&%()%5'.%$7%'*+%'01(;
(%%5,.-'.*)+%$'0',)'+%'/0' +%'(*.),.1*10'
7*/)',('1$%.)'&$*8'4*1)')%.')*')3%.)2'(%//0'
%(/'.(+='*$')4+$%$'+>'2'4%''66/,%5'*.%
06*.-%*.')+%'=,.%''.5')+%'*)+%$'16*.')+%
6',.&1/6*,.)0',.')1$.' +%$%',0'.*'4%))%$'
'66+%'),*.')+'./&/%B,4/%'*$'.*52.%(*5,*.'
&*$)+%'+%$6%0'C*0)%$'3/>,%+'0*8%),8%0'(*8;
6/,(')%0',.)%$(*0)'/'.%1$'/='' 7
' KK
' 9(R 4',"' 4%)3%%.H
'.5' ''/,))/%'/*4%R G ,)1')%5',.')+%'
),001%'4%)3%%.')+%'/*41/%0'*&''.2'*$-'.'
-**5',//10)$'),*.',0'/" # / ' #
,.'3+,(+' $*((16,%0')+%'),001%0'4%)3%%.')+%'
/*41/%0'*&')+%'/1.-0
N ' ', ''/%'7%'
&&'&$''),8%R G ')%86*$'$2'(%00'),*.'*$'
0106%.0,*.'%,)+%$'*&''&,8*),*.'&*$'%B'86/%'
&')+%''(),.'*&')+%'+%'$)'3+%.')+%'61/0%',0'
0',5')*',.)%$8,)H'*$'*&''5,0%'0%'01(+''0'
.%1$'/-,''*$'-1%'3+%.')+%'02886)*80'(%'0%'
&*$''(%$)',.'),8%' 'H'.5'5 7
#
5 ' ' ' M*' 'Z
-1%H$'.) '5" / " H %$'F '
. #
- G '&%7%$'*&'8'/'$,'/'*$,-,.'
(+'$')(%$,0%5'42')+%'0155%.'$,0%'*&')%86%$';
)1$%'51$,.-')+%'6'$*B208H'42')+%'%E1'//2'
0155%.'&'//'')',)0')%$8,.'),*.H''.5'42')+%
$%-1/'$,)2'*&')+%',8%0'*&''((%00,*.''.5'
'62$%B,'
)* 1+G .)%$8,))%.)'&%7%$'4%/*.-0')*'
)+%'(/'00'*&'8'/'$,'/'*$'6'$*B208'/'&%7%$0'
)',0')+%'8*0')26,('/''.5')+%'8*0)'(*88*.'
&')+%'(/'00' +%'+18.'020)%8'.(%014;
>%()%5')*')+%'6+%.*8%.''*&''$%-1/'$'))'(9'*&'
'-1%',.''.2'*&',)0'&*$80'8'2'4%&*$')+%'$%;
8',.5%$*&')+%'/,&%'*&')+%'6%$0*.'0*'&&%()%5'
/,'4/%')*''$%6%),),*.'*&')+%'))'(9'3,)+*1)'
+,0'.%(%00'$/2'+'7,.-'4%.'%B6*0%5'&$%0+'
)*')+%''(),*.'*&',)0'('10%' +,0')%.5%.(2',0'
7%$2'(*88*./2'0+*3.',.')+*0%'3+*'!&)%$/*.-'
$%0,5%.(%',.'+*)'.'5'8'/'$,'/'(/,8')%0''$%
%B6*0%5')*')+%',.&/1%.(%'*&'(*/5''.5'%06%(,'//2'
%')%$/2'3,.50'*.')+%,$'$%)1$.')*')%86$*')%
(/,8')%0',.')+%'06$,.-),8%'*&')+%'2%'$'+%'
8*$%')+%'6%$0*.'+'0'01&&%$%5'&$*8')+%'4/**5'
(+'.-%0'.5'7,0(%$'/'5%-%.%$'),*.0'5%0($,4%5'
,.')+%'$),(/% ')+%'8*$%'6$*.%',0'+%

)*' 01(+' $%(1$$,.-' '))'(90' '/'$,'/ &%7%$0' 5,&&%$' &$*8' 8*0)'*')+%$0',.' '.',8 6*$)'.)'6'$;
),(1/'$')+%2' '$%' .*)' (*8 8 1.,('4/%' &$*8'
6%$0*.')6'6%$0*.

) # ' % 2 .')+%' '$),(/%'
')+%' 6')+*/*-2'*&',.)%$8,))%.)' &%7%$'
,0' &1//2'5,0(100%5',.(/15,.-')+%' E1%0),*.' *&'
,)0' 6'$'0,),(*$,-,.' +%' 06/%%.',0'%./'$-%5H
'.5',.' 6%$.,(,*10' '-1%0' 6$*7,.-' $'6,5/2'
&')'/',)',0' &*1.5' -$%')/2' 0*&)%.%5G*&)%.'$%;
51(%5')*' '' 0)')%*&' 5%%6/2' 6,-8%.)%5' 61/6'
%')+',0' (*8 8*.',.' 8'/'$,*10' (*1.)$,%0'
&$*8' $16)1$%' *&')4%' 06/%%.')+%' $%01/)' *&'
4/*30' *$' 9,(90' *&)%.' *&'.*' -$%')' 0%7%$),)2'
+%'/,7%$',0'101'//2'0*8%3+')'(*.-%0)%5''.5'
6,-8%.)%5''.5',.'('0%0' *&'/*.-'0)'.5,.-',)'
%./'$-%0' /,9%')+%' 06/%%.'3,)+'%'0'8%',.;
($%'0%',.')+%'(*..%(),7%'),001%' .')+%''/-,5%'
('0%0' +%$%'&)%$' 5%0($,4%5'3+%.' 4/**5',0'
5$,7%.',.'/'$-%'E1'.),)2',.)*')+%' '45*8,.'/
7,0(%$'')+%' 8-%0),7%' 81(*10' 8%84$'.%'*&'
)+6'0)*8'(+'.5'51*5%.18',0'(*.-%0)%5'.5'
0*&)%.%5' +%'+%')$',0',.7'$,'4/2'0*&)'.5'
&/'((,5'6'/%'0*8%),8%0' *&''5,$)2'2%//*3,0+'
(*/*1$G5%-%.%$'),7%'(+'.-%0',.51(%5'42')+%'
(*84,.%5''(),*.'*&'5,0%'0%5'4/**5'.5'+,-+'
)%86%$')1$%

$ # "0 G /**5(+'.-%0'*&''' $%;
8'$9'4/%'9,.5''$%',.7'$,'4/2'6$%0%.)',.'''
8'/'$,'/ &%7%$0' ' /'.5'*&)%.'
((1$'3),)+'0).,0+,.-'$'6,5,)2' $82'8%5,;
('/ *&&,(%$0'0%$7,.-',.')+%' '1$),10'51$,.-'
)+%'%6,5%8,(0'*&'8'/'$,'/ &%7%$'3+,(+'6$%''
7',/%5')+%$%'0*8%'2%'$0''-*'.*)%5')+')'(+%'
01&&%$%$0'3%$%'*&)%.'$%51(%5')*''' 0)')%'*&'0
(*86/%)%'.-%8,'',.''&%3'+*1$0H)+%'0'8%'
,0')+%'('0%',.'/-%$,'' .'01(+'('0%0'5$*6'
0,('/'&&%(),*.0'016%$7%.%'*&)%.'$'6,5/2''.5'
8,/,)'$2'8%5,('/ *&&,(%$0')+%$%'$%('*5$'('0%0'
6$*7,.-'0155%./2'&')'/ &$*8' *%5%8''*&')+%'
-/*)),0 +%'4/**5',0'(+'.-%5'4%&*$%''.2'*&'
)+%'101'/02 8 6)*80'*&''.'))'(9'$%'6$%0%.)'
G,)'4%(*8%0'5'$9',.'(*/*1$H)+%'0%$18'3+,(+'
0%6'$')%0'+'0'''5'$9 4$*3.'(*/*1$H'.5'
3+%.'%B6*0%5')*')+%',$')+%'(*'-1/18'3+,(+'
,0'/'$-%''.5'/**0%'5*%0'.*)'001 8%',)0'101'/
4$=+)$%5'(*/*1$' +%'3+,)%'(*$610(/%0''$%'
-$%')/2',.($%'0%5',.'.184%$H'.5')+%'$%5'
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5%.(2')*'$1.')*-%)+%$',.'$*1/%'1B

' #') " G +%'1$,.%'(*.)',.0'*'
/'$-%''8*1.)'*&'&$%%''(,5''.5'$%)',.0''+,-+/2'
1*,5'$%'(),*.'&*$' 80.2'5'20',.')+%'+*))%0)'
3%')+%$' .')+%',.)%$7'/0',)',0'*&)%.'/'9'/,.%'
+%.')+%'6'$*B2080'(%'0%')+%'3')%$2'6'$)'
&')+%'1$,.%'5,8,.,0+%0H'.5',)'001 8%0''
5%%6$*$'.-%'(*/*1$'5%6*0,),.-''/0*'.'.'41.;
5'.)'0%5,8%.)'*&'1$')%*&''8 8*.,18' +,0'
(+'.-%' ,0'*&)%.'*40%$7%5'42',.)%//,-%.)'
6'),%.)0'3+*'/%'$.')*''66$%(,')%'&'7*1$;
'4/%'0,-.,&,('.(%' +%'/')%' $'9%0'+'0'
0+*3.')+')')')+%'&,$0)%/%7'),*.'*&)%86%$';
)1$%')+%'1$%'',.($%'0%0H)+,0'/'0)0'51$,.-')+%'
(*/5'.5'+*)'0)'-%0H)+%.',)'5%($%'0%0'&'//,.-'
4%/*3')+%'+%'/)+2'7%$'-%' */,.'.5'*)+%$'
$%.(+'1)+*$0'.*)%)+%'%.*$8*10'%B($%),*.

&'1$%'',.'8'/'$,'/ &%7%$0'4)+',.')'/2''.5'
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&''-1%+'7%/.-'4%%.'$%(*-.,0%5G=.'8%/2'
)+%'-))*),583.'3+,(+'$%(1$0',.')3%.)2&*1$'
+*80H)+%')%$),'.',&*$)2%,-+)'+*1$0H''.5'
)+%'T / "',.'0%7%.)2'+*1$0' +%')%$8'
' 3 ',0'10%5' +%.')+%'6'$*B2080'
$%(1$0'$%-1/'$/2'*.''/)%$.')%'5'20')+%'))'(90'
4%,.-''/,9%',.'0%7%$,)2''.5'58'),*.')+%$'
8*$%'$'$%'&*$80'*&',,%'&$$%-1/'$')26%'+'7%'
4%%.'5%0($,4%5''0')+%' "'3,)+')3*'
6'$*B2080',.'*.%'5'2''.5'*.%')+%'.%B)H)+%'
'T / 3,)+''$%-1/'$'&,)'*.%'5'2''
0/,-+)'*.%')+%'.%B)''.5''(*86%)%',.)%$8,0;
0,*.'*.')+%')+,$5'5'2' +%'E1*),5,'.',0')+%'
8*0)'(*88*.H)+%'E1'$)'.')+%'$'$%0)'*&''//G'
''$1/%'3+,(+'0%%80')*'+*/5'-**5'3+%$%7%$'
8'/'$,'/ &%7%$0'6$%7','/ +%'E1'$)'.')26%'
+'0'4%%.'.*)%5'&$*8'%'$/2'),8%0'&*$')+%'1
(,)2'3,)+'3+,(+',)'(/,.-0')*',)0'7,(),80
6 " ?)6C '$%'81(+'
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6',.',.')+%'4'(9''.5'/*3%$'%B)$%8,),%0'
/'.-1*$'/'00,)15%''-'0)$,(',$$,)'),*.'/*00'*&'
'66%),)%'.'10%''.5'0*8%),8%0'7*8,),.-H
((0',.'//2'3,)+'&$%E1%.)'('//0')*'8,(0)1$')%'
)+%'1$,.%'4%,.-'6'/%''.5'+,-+/2'(,5' +%.'
&*//*3',.'01((%00,*.')+%')+$%%'0)'-%0')+%'
')+%'#''.5')+%'2 "0H01((%%5%5'
42'3+')',0')%(+.,('//2'9.*3.'('0')+%'
*$'62$%B,'/ 6%,*5'3+,(+'/'0)0'&*$''.184%$
*&'+*1$0'7'$2,.-''((*$5,.-')*')26%'*&')+%'
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' 0 G +%'6'),%.)' %B6%$,%.(%0''
0%.0%'*&'(*/5.%00',.')+%'4'(9H)+%.',$,-*$0'
0%)',.''')&,$0)&'.),.)/2'4%(*8,.-'E1,(9/2',.*$%'
5,0),.()'1.),/)+%')%%)+'(+'))%$'.5')+%'
6'),%.)'&%%/0'(*/5''//*7%$'.5'5%8'.50')*'
+'7%(/*)+%0'+%'6%5'*.'+,8H)+%'09,.'0+$,7%/0'
)+%'.','/0'4%(*8%4/1%''.5'+%'%B6%$,%.(%0''
0%.0'),*.'*&,.)%.0%'5,0(*8&*$)' +,0'&%%/,.-
&'(/5',0'+*3%7%$' ./2''0014>%(),7%'02 8 6;
)*8 &*$',&''(/,.,('/)+%8*8%)%$'4%'6/'(%5'
,.')+%'8*1)+'*$'$%*)8.'%7%.'4%&*$%'5,0),.()'
$,-*$0'0%)'.'')'3,//.5,()%''$,0%'.')+%
)%86%$')1$%'*&'&$*8')3*')+$%%'5%-$%%0'
+%'09,.'&$*8'(*.)$')(),*.'*&')+%'016%$&,(,'/
7%00%/0',0',.5%%5'(*/5%$')+'.'.')1$'/'41)'
&$*8')+%'&,$0)')+%')%86%$')1$%'*&')+%'4/**5',0'
'4*7%')+%'.*$8'/'+%'6+%.*8%.''*&')+%'
(*/5'0)'-%''$%'-'0)$,(',$$,)'),*.''*1/)*.-1%'
''$'6,5'61/0%''.5'E1,(9%.%5'$%06,$'),*.'3,)+'
''&%8,.-'*&'(*/5.%00'.*)'(*.&,$8%5'42')+%)+%$;
8*8%)%$' 0+'$6'6',.','.')+%' $%()18',0'
0*8%),8%0'(*86/',.%5''&>10)'0')+%'(*/5'0)'-%'
0%)0',1H'))$,41)%5'42' $' '15%$' $1.)*.'
)*'*40)$1()',.')*')+%'&*3'*&'4/**5')+$*1-+'
)+%'+0%8*$$+*,5'/'7%,.0

P 0 G=0)+,0'0%)0',.')+%'6'),%.)'
-$*30'3'$8''// *7%$')+%'&'(%'&/10+%0')/%'
61/0%'$,0%0',.'&$%E1%.(2''.5'7*/18%')+%'09,.'
-$*30'+*)''.5')+%'6'),%.)'4%(*8%0'$%0)/%00'
0%%9,.-'%'0%')*'+,0''(+,.-'+%'5'4'(9''.5'
/,840',.'&$%E1%.)'(+'.-%'*&'6*0)1$%'+%'
)*.-1%',.')+,0'0)'-%',0'101'//2'5$2'*&)%.'4,/%

),.)%5ℍ ‘.5’)+%‘ 4*3%/0‘ ‘$%‘ (*.0),6‘)%5’ +%‘)%86%$‘)1$%‘ $,0%0‘)*’ !Fg‘ !Dg‘ ‘‘.5‘0*8%;),8%0’+,-+%$

2 "0‘ 0 G)‘&,$0)‘4%‘50‘*&‘6%$06,$‘;),*.’‘66%‘$‘*.’)+%‘ 4$*3‘‘.5‘&‘(%‘‘.5’)+%‘ +‘.50‘4%(*8%‘ 8*,0)ℍ‘.5‘ 0**.’)*’)+%‘,8; 8%.0%‘ $%/,%&‘ *&‘)+%‘ 6‘),%.)’+,0‘3+*/%‘ 4*52‘ 03%‘)0‘ &$%%/2’)+%‘)%86%$‘)1$%‘ 4%-,.0‘)*’ 5%(/,.%‘‘.5’)+%‘6‘$*B208‘,0‘‘)‘.‘%.5’ +%‘ ‘7%$‘-% 58$‘),*.’*&‘)+%‘ 6‘$*B208‘,0‘&(*8‘ &,7%‘)*’ 0,B’+*1$0‘41)‘,.’0%7%$%‘ (‘0%0‘,)‘8‘2’ /‘0)‘&*$‘)3%/7%‘+*1$0‘ +%.‘01&&%$%$0‘+‘7%‘ 4%%.‘%B6*0%5’)*’ 8‘/‘$,‘‘.‘01(+’6/‘(%0‘0‘)+%‘ 8‘.-$*7%03‘86 0‘*&‘ ^,(‘‘0)+%2‘3,/f 4%‘$%8,.5%5’*&‘3+‘)‘)+%,$‘020)%80‘+‘7%‘,8; 4,4%5’,.’)+%‘ 3‘2’*&‘01$$*1.5,.-0‘42’)+%‘ 0,(9/2‘0(%.)’*&’)+%‘03‘860‘)+$*3.’*&&‘,.’)+%‘ 0%($%),*.’)+$*1-+’)+%‘ 09 8‘< = ‘//%$R’ *)+’ *&&,(%$0‘.5‘0*/5,%$0‘3+*’(% 8%1.5%$‘)+%‘(‘$%*&‘)+%‘/‘0)’%B; 6%5,),*.’)*’)+%‘ */5’ *‘0)’*40%$7%5’)+%‘0‘8%&‘(‘)‘,.’)+%,$‘ 3.‘6%$0*.0’0*8%‘3%$%0%7%$%/2’.‘10%‘)%5’42’)+%‘1.6/%‘0‘.)’98%//‘$%(‘//,.-’)+%‘0)%.(+’*&‘)+%‘6/‘(%0‘3+%$%‘)+%‘6*,0*.’3‘0‘)‘9%.’,.)*’)+%,$‘020)%80

G +%‘$‘6,5,)2‘3,)+’3+,(+’)+%‘)%86%$‘)1$%‘,.’‘-1%‘$,0%0‘)*’ !Fg‘ !Dg‘ ‘.5’0*8%),8%0’%7%.’ !Mg‘ ‘‘.5’)+%‘%E1‘//2‘ 0155%.’8‘,8%$‘,.’3+,(+’,)‘&‘//0‘3+%.’)+%‘ 03%‘),.-’0)‘-%‘4%-,.0‘,0‘‘‘7%$2‘.*)‘4/%‘‘.5’ (+‘$‘()%$,0),(‘&‘()‘*&‘-$%‘)‘5,‘-.*0),(‘7‘/1%‘ ((*$5,.-’)*’ 1.5%$+(+’.*)+,.-’/,9%‘)+,0‘ ,0’)*’4%0%%.’,.’‘.2’*)+%$‘5,0%‘0%‘3,)+’)+% %B(%6),*.’*&‘(‘0%0‘*&‘$%/‘60%‘,.’)36+*,5‘*$‘)+% &%4$,/%‘6‘$*B208‘,.’‘(1)%‘)14%$(1/*0,0‘.5‘ 62‘%8,‘‘ 0‘0**.’‘0‘)+%‘03%‘),.-’0)‘-%‘4%; -,.0’)+%‘)%86%$‘)1$%‘5%(/,.%0‘‘)‘&,$0)‘0/*3/2’)+%.‘0‘$‘6,5/2’‘0‘,)‘$*0%ℍ3+%.’)+%‘5%&%$; 7%0(%.(%‘,0‘(*86%)%’,)‘3,/f4%&*1.5’*.%‘*$)3*’6*,.)0‘*&‘‘5%-$%%‘4%/*3’)+%‘.*$8‘/’ 3+%$%‘,)‘$%8‘,.0‘51$,.-’)+%‘6%$,*5’*& ‘62$%B,‘‘ &’)+%‘6‘$*B2080‘4%‘(1)‘0+*$)‘42’ E1,..%‘3%‘8‘2‘0),‘5%)%()‘‘)+%‘+*1$*& %B6%()%5‘‘))‘(9‘‘‘5,0),.()‘$,0%‘,.’)+%‘)%8; 6%$‘)1$%‘‘/)+*1-+’.*.%‘*&‘)+%‘*)+%$‘0286;)*80‘*&‘‘6‘$*B208‘8‘2’*((1$‘‘.5’)+%‘ 6‘),%.)’8‘2’4%‘+‘$5/2’0%.0,4/%‘*&‘,)

6 " ‘0 G +,0‘)%8‘,0‘81(+’10%5‘ 4*)+’42’ $%.(+’‘.5’)‘+’.‘‘1)+*$0‘3+*‘ ‘66/2’,)‘)*’(‘0%0‘4*)+’*&‘,.)%8,))%.)’‘.5’$%; 8,))%.)’&%7%$0‘,.’3+,(+’(%$)‘,.‘0286)*80‘ ‘$%‘ 5%7%/*6%5‘01(+’‘0‘5%/,$,18‘(*8‘‘‘.‘ ‘/-,5%‘(*.5),*.G=,‘‘3*$5‘‘.2’0%$,*10‘ (*86/,(‘),*.’6/‘(,..’)+%‘/,&%*&‘)+%‘6‘),%.)’ ,.‘6%$,/‘Z*’&‘$‘)‘/%‘0)‘‘0‘,.)%$8,))%.)’&%7%$‘ ,0‘(*.(%$.%5‘)+,0‘6%$.,(,*10‘&*$8‘‘66%‘$0‘)*’ 4%‘8*$%‘(*88*.’,.’)+%‘,.)%.0%/2’8‘/‘$,*10‘ $%-,.*.0‘*&‘)‘/2’)+‘.’,.‘.5,‘‘1(+’3‘0‘)+%‘%B6%$,%.(%‘*&‘)+%‘3$,)%$‘,.‘3+*0%/‘$-% 06+%$%‘*&‘*40%$7‘),*.’01(+’-$‘7%‘(*86/,(‘;),*.0‘3%$%‘‘/8*0)‘%.),$%/2‘(*.&,.%5‘)*’)+% 3*$0)‘&*$80‘*&‘$%8,))%.)’&%7%$‘(*.)$‘()%5’,.’ 6/‘(%0‘.*)*$,*10/2‘5‘.-%$*10‘ +%‘3$,)%$‘,0 0)$*.-/2‘,86$%00%5‘3,)+’)+%‘4%/,%&‘)+‘)’)+% 06%$.,(,*10‘02 86)*80‘)+%‘ 8%.)’/f ,.(*; +%$%.(%‘‘.5’5%/,$,18‘)+%‘ (*8‘‘‘.5’)+%

0‘/-,5%‘(*.5,),*.‘0*‘81(+’53%/)‘*.’42’0*8%‘)‘+‘.’6+20,(,‘.0‘*&‘)+%‘*/50(+**/‘3%$%‘*&)%.’)+%‘$%01/)‘.*)‘0*‘81(+’*&‘)+%‘5,0%‘0%0‘=’*&‘)+%‘ /*3%$,.-’)$%‘)8%.)’)*’3+,(+’)+%2’014>%()%5’)+%,$‘6‘),%.)0

+%‘‘/-,5%‘&*$8’*&‘06%$.,(,*10‘‘,.)%$8,);)%.)’,0‘0*8%),8%0’5%0($,4%5’42’3$,)%$0’*.’)+% 5,0%‘0%0‘*&‘.5,‘’‘0‘0‘-1%‘*&‘52.‘8,(’)26%‘ ‘.5’,)‘3‘0‘&$%E1%.)/2‘0%%.’‘.5’3%/f5%0($,4%5’ 42’)+%‘ $%.(+’8,/,)‘$2‘01$-%*.0‘4*)+,.‘ /-%$,’‘ ‘.5’,.‘ *8%‘51$,.-’)+%‘/*.-’*((16‘),*.’*&’)+‘)’(,)2’42’)+%‘ $%.(+’$82’ +%‘01$&‘(% ,0‘ (*/5‘41)‘1./,9%’)+%‘ (*/5’0)‘.‘ *$5,.‘$2’-1%’)+%‘6‘),%.)’,0‘1.(*.0(,*10‘*&’)+%‘ /*3’)%86%$‘)1$%‘*&‘)+%‘01$&‘(% +% ,.)%$.’/f)%86%$‘)1$%‘,0‘+,-+‘‘.5’*&‘)+,0‘+% ,0‘3‘$%‘ +%$%‘,0‘‘.‘,88%.0%‘((181/‘;),*.’*&‘4/**5’,.’)+%‘ ‘45*8,.’/f7,0(%$‘‘3,)+’ -$%‘)‘)+,$0)‘ +%‘ %B6$%00,*.’*&’)+%‘6‘),%.)’ ,]‘)$‘.E1,/‘‘.5’+,0‘,.)%//,-%.(%‘,0‘,.)‘()‘ 0 ‘ 0%‘0%.)’8*71,$<0‘20‘ ‘,//*)‘0%)‘ <‘4‘))%‘ 8%.)’%0)‘)%/E1<,/‘0%‘ (*86/‘,)‘5‘.0‘(%)‘%)‘)‘ 5%‘$%6*0ℍ0‘‘6+20,*.*8,%0)‘0‘.0‘8*4,/,)2ℍ ,86‘00,4,/,)%/‘/‘‘6/10‘-$‘.5%‘%0)‘6%,.)%‘01$ /%‘7,0‘-%‘<A ‘,//*)‘ *+.R

% #o ‘G‘.)%88,))%.)0‘8‘2‘4%‘ (*86+(‘)%5‘42‘‘))‘(90‘*&‘7‘$,*10‘5,0%‘0%0‘ *&‘-$%‘)%$‘*$‘/%00‘0%7%$,)2G‘))‘(90‘*&)%.’ -*7%$.%5‘42’(/,8‘),(‘(‘10%0‘42’)+%‘+‘4,)0‘*&)+%‘,.5,7,51‘/f6‘),%.)’*$‘42’)+%‘&‘()‘)+‘)’+% +‘0‘01&&%$%5‘&$*8‘*.%‘*$*)+%$‘*&‘01(+’5,0%‘0%0‘ *.’6$%7,*10‘*((‘0,*.0‘01(+’‘0‘6.%18*.,’‘ 4$*.(+,),0‘0‘)+8‘‘520%.)%,2‘5,‘$%+%’‘*$ %6,/%602‘)‘,0‘‘.‘*/5’*40%$7‘),*.’)+’)+%‘ /‘0).‘8%5’5,0%‘0%’%7%.’,.’0*(‘//%5’0(*.; &,$8%5‘%6,/%6),(0<0*8%),8‘0’5,0‘66%‘$0‘3+%.’)+%‘7,(),8’4%(*8‘0’)+%‘014>%()’*&‘.’))‘(9‘ *&‘-1%‘.%7%$2’0)$,9,.-’%B‘86/%‘*&’)+,0‘ 9,.5’)+%‘3$,)%$‘+‘0‘0%%.

.%18*.,’‘,0‘(%$)‘,./2’)+%‘8*0)‘&*$8.5‘4/%‘ (*86/,(‘),*.‘8%)‘3,)+’,.’,)%$8,))%.)’&%7%$‘ .7‘/,50‘$%)1$.,.-’&$*8‘.5,‘‘*$&$*8’*)+%$‘ +*)‘.‘5’8‘/‘$,‘/(/,8‘)%0’)*’+,-+’/),)15%0‘ 1./%00’)+%2’‘$%‘(‘$%&1//2‘6$*%)%$‘42’01,); ‘4/%‘%/*)+8-’‘$%‘6$*.%’)*’01&&%$‘&$*8’)+,0‘ 5,0%‘0%‘+%‘$‘6,5,)2‘3,)+’3+,(+’(*.0*/,5‘;),*.’*&‘)+%‘+8-0‘)‘9%0’6/‘(%‘,.’01(+’(‘0%0‘,0‘ 7%$2’$%8‘$9‘4/%’)‘,0‘.*)’.‘1.(*88*.’)+,..-’)*’0%%‘&,7%‘*$‘0,B’(‘0%0’*&’)+,0‘9,.5’*1)‘ *&‘*.%‘6‘$)2’*&‘..7‘/,50’/‘.5%5’‘)’ %)/%2’ &$*8’.5,‘’,&’)+%2’+‘7%‘ 4%%.’%B6*0%5’)*’ (*/5‘3%‘)+%$‘*.’%.)%$,.-’)+%‘ +‘..%/’ &‘ 6.%18*.,’‘,0’5*14/%’$%(*7%$2’,0’$‘%’)+% 6‘),%.)0‘%,)+%$‘0,.9,.-’‘)’*.(%’*$‘52,.-’‘&)%$ ‘’/*.-%$‘*$‘0+*$)%$‘,//.%00’&$*8’6.%18*.,(‘ 6+)+,0,0‘ .%18*.,’‘*&’)+,0‘)26%‘,0’‘‘(*8; 8*.’‘.5’&‘)‘/‘5,0%‘0%‘‘8*.-’)+%‘8/‘)$,’‘ 6*,0*.%5’(,75‘6*61%/),*.’*&‘ *8%‘51$,..-’)+% 3,.)%$‘8*.)+0ℍ‘.5’)+%‘ $%.(+’8,/,)‘$2’ 01$-%*.0‘$%(*$5’,)0‘6$%7‘/%.(%‘,.’)+%‘ $%.(+’-‘$$,0*.’)+%$%‘ ‘)’)+%‘0‘8%‘0%‘0*.‘‘.5’‘/0*‘ ‘8*.-‘8‘/‘$,‘/‘,.7‘/,50‘0%.)’4‘(9‘)*’ $’.(% 4*)+’&$*8’ /-%$,’‘‘.5’ *8%’,$ ‘ ‘ ‘ ‘ ‘)’,, ‘@[‘0%$,%‘6‘@D?R‘

+%.’6.%8.*.,’‘*((1$0‘‘0‘‘’(*86/,(‘),*.’ *&‘‘.2’&*$8’*&‘8‘/‘$,‘/f&%7%$‘,)‘,0‘*.%’*&’)+%

-$'7%0)' ,8 6*$)G '' &' (')' 6*, .), . -') *') +%' . %(%0; 0,)2' *&' ('$%&1/ %B6/*$'), *. ' *&')+%' (+%0) ' (*$41)10' ,0' '' &*$8 ,5 '4/%' (*8 6/, ('), *. ')' ,0' (*8 8 *. ' ' /) +*1 -+' *&)%. '*7%$/**9%5 '' 8 *. -' 1$*6%' . ' ' . 5' . '), 7%' 0*/5, %$0' , ' .5, ' / ,0 = .' *$5, . '$2', .)%$8 ,))%.)' 6$%; 0%.)0' . *' 5, &&, (1/), %0' +%' 3%// 8 '$9%5' . ')1$%' *&')+%' 6 '$*B20 8 0Ⱨ)+%' 0155%. ' $, 0%' *&')%8 ; 6%$')1$%' . 5',)0' %E1' //2' 0155%. ' 5%(/, . %Ⱨ)+%' 06/%., (' %. /' $-%8 %.)Ⱨ)+%' 5, 0(*/*$'), *. ' *&')+%' 09, . Ⱨ)+%' 1$, . '$2' (+' . -%0' 5%0($, 4%5' '4*7%Ⱨ')*-%)+%$' 3,)+' (*. 0, 5%$'), *. 0' $%/''), . -')*')+%' 6/' (%' 3+%$%')+%$' 5, 0%' 0%' 3 '0' (*. ;)$' ()%5' Ⱨ ' . 5' '4*7%' //')+%')+%$' 6%1), (')%0) GW)+')' , 0')+%' 6*3%$' *&E1, . . %' , . ' 6$%7%.), . -')+%' $%(1$$%. (%' *&')+%' 09, . Ⱨ)+%' 1$, . '$2' (+' . -%0' 5%0(0' 0*' &' 5%0%' ,0' 7%$2' -$%') ' .' (*86/, (') , *. ' *&' *)+%$' 5, 0%' 0%0' ,0' 7%$2' -$%') ' .' (*86+*')%5' *$' 0*('//%5' 6%$. , (, *10' '-1%0')+%' 6$*-. *0, 0' 3, //' 5%6%. 5' *. ') +%' %B)%.)')*' 3+, (+', 86*$)' .)' *$-. ' 0' '$%' , . 7*/7%5G (%$%4$'/' 61/8*. '$2' *$' -'0)$, (Ⱨ 8 1(+' *. ')+%' 0)' -%')+%' 5, 0%'0%' +'0' $%' (+%5' 4%&*$%')+%' 6'), %.)' (*8%0' 1. 5%$')$%') 8%.)Ⱨ '. 5' 8 1(+' 7%$2' 8 1(+' *. ')+%' . ')1$%' *&')+')')$%') 8%.)

! G %%6, . -', . ' 7, %3')+%' &' ()')+')' %7%$2' 6' $*B20 8' *&', .)%$8,))%.)' &%7%$' 6' $), (1/' $/2', . ' '' +*)' (/, 8 ')%', 0' '' 0)%6' +*3; %7%$' 0+*$)' *. ') +%' $*' 5')*')+%' (' (+%(), (' (*. ; 5,), *. ' 5%0($, 4%5', . ') +%' $), (/%' *. ')+%', 86*$)' . (%' *&' 4$%' 9, . -') +%' $%(1$$%. (%' *&')+%' 6' $*B20 8 0' 3, '4%' 66' $%.)' +, 0')+%. ' , 0')+%' &, $0)' , . 5, (', *. ' *&')$%') 8%.)Ⱨ)+%' 0%(*. 5', 0' +'5/2' /%0' , 86*$)' .)' . '8%/2')*' , 86$*7%')+%' (*. 5,), *. ' *&')+%' 4/**5' '. 5' 42' >15, (, *10')$%') 8%.)G)+%$' 6%1), (' 5, %), (' '. 5' (/, 8 '), (G)*' 6$%7%.)' &, . $)+%$' 5%-%. %$';), *. ' *&' *$-'. 0' '. 5' 0*' &' $' 0' 8 '2' 4%')*' $%0)*$%')+*0%' '&&%()%5')*')+%, $' .*$8 'Ⅎ (*. ; 5,), *.

&' '0')+%' 3$,)%$' &, $8/2' 4%/, %7%0')+%$%' 4%' 01(+' '')+, . -' '0' '' 06%(, &, (' 5, 0%'0%', .)%$8,);)%.)' &%7%$', 0' 06%(, &, (' , 9%' '//' 01(+',)' +' 0' '' (%$)' . .' 5%&, .)%' 0%$, %0' *&' 6+%. *8%. '')*' 6' 00')+$*1-+' 3+, (+' 3%' (' . .*)' '$$%0)' +%$%' , 0' . *' 5$1-9. *, .')*' 0(, %. (%' ('6'4/%' *&' '$$%0), . -')+%' 0)' -%0' *&' ')$1%' 8 '/' $, ' Ⅎ &%7%$' *. (%',)' +'0' %.)%$%5' *. ')+%' &, $0)' *$' (*/5' 0)' -%' +, 0' 5*()$, . %' '0' , $' , //, ' 8' %. . %$' +'0' '58, $; '4/2' 0)')%5',)' , ' +, 0' & ' "' # ' O I ' 0 ' ' & ' C ' +'0' 4%%.)' 1-+)' 42')+%' 3$,)%$' '0' $%-'$5 0' 8 '/' $, ' Ⅎ &%7%$0' . 5' (+*/%$' ', . ' +, 0' /%()1$%0' ')' %)/%2' &*$)+%' /'0')3%.)2' 2%'$0' +%$%' , 0' /,))/%')+%$%&*$%')*' 4%' 0', 5' '0')*')+%')$%')8%.)' *&')+%' 0)' -%0' *&' '-1%')+%2' 8 10)')'9%')+%, $' (*1$0%')+%' *. /2', .)%$&%$%. (%' 4%, . -')*' 0166/2')+%' 6'), %.)' 3,)+')+%' 3'$8' (*7%$, . -'0*' 8 1(+

5%0, $%5' 51$, . -')+%' (*/5' 0)' -%Ⱨ, &')+, 0' 4%' 6$*;)$' ()%5' 1. 51/2')*' -, 7%', +, 8' 5$' 1-+)0' *&' 3' $8')%' Ⅎ ' . 5' 0+*1/5' 02 8 6)*8 0' *&' (*// ' 60%' '66%' $', . ' ' . 2' *&')+%' 8 *$%' 06%8, (, *. 0' ⁄ &*$8 0' ')+%' %. 5' *&')+%' +*)' 0)' -%')*' '58, . , 0)%$' 01(+' $%0)*$')' 7%0' . 5' 0), 8 1/' .)0' '0')+%' ('0%' 8 '2' 5%8' . 5' B(%6), . -', . ' %' 0%0' 3+%$%')+%' 0)*8 ' (+', 0' *66$%00%5' 42' '' $%(%.)/2')' 9%. ' 8%'/')+%'), 8%+*. *1$%5' 6$' (), (%' &' 58, . , 0;)%$, . -' ' . ' %8%), (' 8 '2' 4%' 0'&%/2' *8,))%5' +%' /' 8%.)%5')$' 7%//%$' , 7, . -0)*. %' 3+*0%' %B6%$, %. (%' *&' 8 '/' $, ' ⁄ &%7%$0' 3 '0', 8 8%. 0%' 4%-. ' . ')+%')8%.)' *&' . %' $/2' '/' (' 0%0' 3,)+')+%' &*//*3, . -' (*84, . '), *. ' &$%0>. ' *&>' /' 6' ' . 5' *&' $+14' $4' &$*8' L')*' 9' -$', . 0' 3,)+' -$', . 0' *&' ('/*8%/' . 5' '' /, 9%' E1' .),)2' <' E1, . , . %' ((*$5, . -')*')+%' -$%')')$' 7%//%$' . 5' +, 0' +' $5/2' /%00' %B6%$, %. (%5' (*86', . *. ')+%' U%7' *$' (%' //%$')+, 0' (*84, . '), *. ' 3 '0' &*1. 5' 7%$2' %&&, ((', (*, 10' '0')+%' (*8 8%. (%; 8%.)' *&')$%')8%.)' 4*)+' . ' .) %$8,))%.)' ' . 5' $%8,))%.)' &%7%$' . ' , 7, . -0)*. %<0' ('86' +, 0' 6, //0' 3%$%' ')' *. (%' 58, . , 0)%$%5')*' 8%. ' 3+*' 0&$*8' 6$%8*. ,)*$2' 0286)*80' 4%(' 8%' , 5/%' . 5' /%)+' $-, (' '4*1)' &, 7%' +*1$0' (*6, *10' 5' $9 (*/*1$%5' 8*), *. 0' &*//*3%5Ⱨ, &')+%0%' 3%$%' 5%/' 2%5' $%(*1$0%' 3 '0' +'5')*' '' 4$, 09' 61$-'), 7%' %. %8' ' X1, . , . %' 3 '0')+%. ' -, 7%. ' . ' -$', . ' 5*0%0' %7%$2' &*1$+*1$0' 1.), ⁄) 3%/7%' -$', . 0' %$%' 58, . , 0)%$%5', . ')+%') 3%/7%' +*1$0' 01((%%5, . -')+%' 61$-'), 7%' 8%5, (, . %' , 7, . -; 0)*. %' . 5' +, 0' &*//*3%$0' 5%%8%5' . 2' *)+%$' 8*5%' *&' 5%' /, . -' 3,)+')+%' &%7%$0' *&' $, ('')*' 4%' 0 8%$%')$, &/, . -' *8 8*. ' 0%. 0%' 6*, .)0')*')+%' . %(%00,)2' *&' ('1), *. ', . ')+%' 10%' *&' 01(+' '(), 7%' 61$-, . -', . ' 8%. ' 5%4, /,)')%5' 42' 5, 0%' 0%' *$' (/, 8 ')%' *$' 4*)+' *$' 3+%. ')+%' 6')%.)0' '$%' 5%/, (')%' 3*8%. ' *$' 0, '), (0' *&)%. ' (''/, . -' &*$' 0' 5%/, (')%' +' . 5/, . -')' , 0' 7%$2' . %(%00' $2')*' '55')+')')+, 0' 0+'$6')$%')8%.)' , 0' . *)' 66/, ('4/%')*')+*0%' 3+*' '$%' /'4*1$, . -' *$' +'7%' 6$%7, *10/2' /'4*1$%5' 1. 5%$' 520%.)%$2' *$' . 2' *)+%$' &*$8' *&' 4*3%/ (*86/', .)

. ')+%' 0, .)%$7' /' ⁄ %. %$-%), (' %&&*$)0' 8 10)' 4%' 8 '5%)*' 4$, . -')+%' 6'), %.)' 1. 5%$')+%', . &/1%. (%' *&' E1, . . %')' *. (%')+%' 8*0)' %(*. *8, (' /' 6/' . ' , 0')*' '58, . , 0)%$' E1, . . %', . '0*/1), *. ', . ' '' 8Ⱨ -$', . '5*0%' ')')+%' %. 5' *&')+%' 03%'), . -'0)' -%' '. 5')*' $%6%')', ', . ' &$*8' &*1$')*' 0, B' +*1$0')' /%'0)' '' 0($16/%' *&')+%' $%8%52' 0+*1/5' 4%' -, 7%. ' 51$, . -')+%', .)%$7' /' &' *40), . ')%' 7*8,). -', .)0)$&%$%0' 3,)+')+%' $%)%.), *. ' *&')+%' E1, . , . %' 3+, (+' 3, //$' $%/2' +'66%. ', &')+%' 4*3%/0' +'7%' 4%%. ' 3%//$%+%7%5')+%' E1, . , . %' 8 10)' 4%' 58, . , 0)%$%5' %,)+%$' 42' %. %8 '' *$' 42')+%' +26*5%$8, (' 8%)+*5' +%' &, $0)' 6/' . ' , 0' 7%$2' %&&, (', (*10' '. 5', 0' 0' &%' Ⅎ)+%' /'))%$' , 0' 8*$%' %&&%(), 7%' 41)' , 0' . *)' 3,)+*1)' $, 09' *&' , . (*. 7%. , %. (%' &$*8')$*14/%0*8%' 1/(%$'), *. ' $*1. 5')+%' 0,)%' *&' , . >%(), *. ' , &' '' 8, . %$' f' (, 5' +' 0' 4%%. ' 10%5')*' 5, 00*/7%')+%' E1, . , . %Ⅎ)+, 0' , . ' 1$-%.)' (, $(18; 0)' . (%0' 01(+' '0' , . ' 6%$. , (. *10' '-1%0' 5' . -%$; *10')*' /, &%' *$' , . ' $%8,))%.)0' A' 0' 3, // 4%' %B; 6/' , . %5' 1. 5%$')+%' +%' 5' *&')+')')26%' *&' &%7%$R

8 ,-+)' 4%' 5,0$%-'$5%5'3%$%',)'.*)')+')')%)'.10' &*//*3%5')+%* *6%$')*.'.'&,7%*('0%0',.'*.%* 2%'$*,.')+%* %.-'/* $%0,5%.(2'*//* *&')+%8' 6$*7,.-'&')'/' .')+%*&'(%* *&01(+'*'&()')+,0*6%$'),*.')$,7,'/*'0',)'0%%8 0'0+*1/5'+*)' 4%6%$&*$8%5'*./,-+)'-$*1.50' +%*.%1)$'/ 01/6+')%**&E1,.,.%'3+,(+'5,00*/7%0'&$%%/2',))' 3')%$'')'''))%8 6%$')1$%'*&'PPg' '5*%0'.*)' 0*'&'$'0')+%'3$,)%$<0'%B6%$,%.(%'-*%0'('10%* 1/(%$'),*.' +%'02$,.-%'10%5'&*)')+,0'61$; 6*0%'0+*1/5'4%''',))/%'/'$-%$')+'.')+')'&*$,.>%(),*.0'*&'8*$6+,.%'.5'0+*1/5'+'7%''' 6/'),.18'+*//*3' .%%5/%'4%.%&,)'&*//*30')+%' 10%'*&'&1/'5*0%0'*&'4$*8,5%'*&'6*)'00,18 3,)+')+%'E1,.,.% X1,.,.%',.'*.%'*$'*)+%$'*&')+%' 8%)+*50' '57,0%5'0+*1/5'4%'10%5')8),/')+%'6'$*>Z 2080' '$%'4$*9%.' +%$%8%52'0+*1/5'4%'(*.),.1%5' 5',/2'0*'/*+-'`0)+%'(/,.,(''/')+%$8*8%)%$' ,.5,(')%0''',$,0%,.')%8 6%$')1$%')'.)+%'),8%' *&'%B6%()%5'))'(9'%7%.',&')+%$%'4%'.*'0,-.' *&''$%-1/'$'(*/5'0)'-%H'.5'3,)+,.''/1.'$' 8*.)+'&,$*8')+%',8%'*&'&,$0)'))'(9')+%' 6'),%.)'0+*1/5'4%''-',.'4$*1-+)'1.5%$')+%' ,.&/1%,>(%*&'E1,.,.%'&*$'0*8%'5'20' .'6%$I' .,(,*10'-1%0'*$,.'%'0%0'3+%$%'(*86/,(','*.0' '$,0%',)'',0',.''',+-+5%-$%%'5'.-%$*10')*' 6'10%',.')+%'58,.,0)$')',*.'*&'E1,.,.%')*'10%' $%8%5,%0'*&''5%6$%00,.-'9,.5'&*$')+,0'*$')+')' 0%)'*&'0286)*80' +*0%'3+*'0*''()' ,// +'7%'/,))/%'01((%00',.'6$'(),(%1.),/')'1-+)' 42'4,))%$'%B6%$,%.(%')+%'5'.-%$'*&'5%6),$)8-' &$*8')+%'-*/5%.'$1/%'*&')$10),.-')*'E1,.,.%' .')+,0'3'2'%6,/%602'6.%8.*.,'''0)+8''' 4$*.(+,),0'8'2'+'7%')*'4%'8%)''5%5'42' 0),81/'),*.'*&')+%'09,.'0166*$)'&,$*8'6$*6%$' &**5''.5'0),81/'.)0'3+%.'('//%5'&*$' *$' ./'.2'2%*$0')+%'3$,)%$'+'0'1$-%5')+,0'5*(;)$,.%*.')+%'))%.),*.'*&'2*1.-'6$'(),),*.%$0' '.5'+%',0'-/'5')*'0%%')+')',)'0'%7%.'8*$%' 0)$*.-/2',.0,0)%5'*.'42'$*100%'1',.'+,0' 3%// 9.*3.'/%()1$%0)',0'*.'01(+'*'0%0'.5',.'-$'7%$%8,);)%.)0')+')')+%'"2'R/0'+'0'4%%.' &*1.5'0*'0%&1/'0')*'3'$$'.)''0)$*.-'$%(*8; 8%.5'),*.'+%''(),7%',.-$%5,%.)',.')+,0' &%4$,&1-%',0'E1,.,.%',.'(*84,.'),*.'3,)+''' 7'$,%)2'*&'$*8'),(' 5$1-0'3+,(+'%,)+%$'*$%' .*3'*$'3%$%'&*$8%$/2'*&&,(,'/')',0''6*3%$; &1/'015*$,&,(' .5'+'0'4%%.'&*1.5',.')+%' 3$,)%$0'+'.50''.5',.')+%'6$'(),(%*&'8'.2' 8%5,('/*&&,(%$0',.'*1)+%$.'.5,''''$%8%52' *&'-$%')'6*3%$*'8')'//'8'/'$,'/&%7%$0' &)%$' *6%.,.-')+%'4*3%/0'+'/&'.'*1.(%*&'),.(;)1$%',0'58,.,0)%$%5'1.5,/1)%5''//'5$,.9' 4%,.-'3,)++%/5H''0%(*.5'5*0%',0'-,7%.',.')+$%%'+*1$0')'0**.'6$*51(%0'&,%%'(),*.' *&')+%'09,.')+%'6%$06,$'),*.'*&)%.'+'7,.-' .''$*8'),(' *5*1$')',0'$'$%')*'0%%'.*)+%$' 6'$*B2028'&*//*3')+%'10%'*&')+%'),.()1$%' .' '52.'8,(''(0%0',)'0+*1/5'4%'10%5',.'08''//%$ Q5*0%0''.5'3,)+'0*8%'('1),*.'/%0)',)0'%B(%0; 0,7%'015*$,&,(''(),*.'0+*1/5'4%')**'5%6$%00; ,.-K

'T""G +%'*&&,(%$0',.' (+'$-%'*&')+%' *7%$.8%.)'(,.(+*.''6/'.)'';),*.0',.' .5,''.*3'6$%6'$%'&,*8')+%'$%5' (,.(+*.''4'$9'42'''7%$2'0,86/%''.5'%(*.*; 8,('/'6$*(%00''''6$%6'$'),*.'9.*3.'0'0(,.; (+*.''/9'/*,5<3+,(+',.'0*8%3+')'/'$-%$' 5*0%0')+'.'E1,.,.%',0'&*1.5')*'4%%&&%()1'/' ,.'(+%%9,.-'8'/'$,'/&%7%$'41)')+,0'6$%6'$';),*.'')+*1-+'7%$2'(+%'6'+'0'&'//%.',.)*' 5,0$%61)%'&$*8')+%'5,0)$%00,.-'.'10%''''.5' %7%.'7*8,),.-',)*&)%.'(10%0 '/,(2/,('(,5',0'.*3'/'$-%/2'10%5''0''.' '.),62$%),('.'('0%0'*&'-1% $0%.,('+'0'4%%.'10%5'&*$'-%0'6'$),(1/'$/2' ,.')+%'0)',.')+%')$%')8%.)'*&'-1%0' +%$%' ,0'.*'5*14)')+')',)'6*00%00%0'(*.0,5%$'4/% 6*3%$'0''0*('//%5''.),6%$,*5,(' +%' $%.(+' 8,/,)'$2'01$-%*.0'3+*''$%'*4+-%5')*'0)152' %(*.*82'10%',)'/'$-%/2''.5',.'5*0%0'81(+' /'$-%$')+'.''$%'(*88*./2'-,7%.'42'$,),0+' 6$'(),),*.%$0'+%2'0%%9''0'*15,.'%B6$%00%0' ,)')*'*66*0%'.''.'$0%.,('/')*''8'/'$,'/5,';)+%0,0'.')+%4$*3'('+%0''.5*)+%$'.%1$'/-,(' 0%E1%/0'*&'8'/'$,'/&%7%$',)',0''.'%&&%(),7% $%8%52'%,)+%$'/*.%'*$',.'0*84,.'),*.,'/'$-%$' E1,.,.%'+%'6*3%$'*&'$0%.,('0''6$*:; 6+2/'(),(',0'81(+',.0,0)%5'*.'42'$*&%00*$ 85%/,'+%''/9'/,.%'01/6+,)%0'0*'81(+' /'15%5'42'$*&%00*$*//,'+'7%'+,)+%$)*'5,0; '66*,.)%5')+%'%B6%()',.0*&'$,)0+'8%5,('/ *&&,(%$0'3+*+'7%')$,%5')+%8'.')+%'-$%')' %6,5%8,('1*)4$%'9'*&'8'/'$,'/&%7%$',.')+% '1$,),10')+%2'3%$%'&*,85'10%/%00'+% 01/6+')%'*&'(,.(+*.,.%',.'0($16/%'5*0%0',0' 81(+'6$',0%5'42'$'1/1$.%$',4%$,.% 3'0'+1-%/2')$,%5'42')+%'3$,)%$',.'.5,''.5' &*,85')*'4%',.%$)'&'/')%'7'$,*10'6$%6'$';),*.0'*&'0')+%'4/1%-18')$%%'*&'10)$'/,''+'7%'4%%.'81(+'6$',0%5',.')+%'(1$%'*&'-1%''.5'8*$%'6$),(1/'$/2',.')+%')$%')8%.)'*&',)0'0%E1%/'%'+%'3$,)%$',0' ,.(/,.%5')*'&%'$')+')',)+,0'$%8%52'/,9%'8'.2' *)+%$0'+'0'4%%.',851/2'7'1.)%5')'(%$)',./2' ,0'*&)%.'10%&1/',.')+%'8'/'$,'/'('(+%B,''3,)+' *((0,*.'/')''(90'*&'-1%'41)',.')+%'(1)% &*$80'*&')+%'5,0%'0%',)',0',.')+%'%B6%$,%.(% *&')+%'3$,)%$'*&'.*'7'/1%'+%'4%0)'&*$8',0')+%'),.()1$%'*)+',.'$'.(%''.5'%$; 8'.2',)',0'81(+'10%5'&*$')+%'$%51(),*.'*& %./'$-%5'06/%%.0 C G +,0'0+*1/5'4%'.1)$,),*10'.5'%'02 4'6 ,'%'0 0) '*6 ,1''')'0 4 '&' I D! 3 '&,' -*B '0 #' '4 ') A ' 0 A $' ' ') ' ,) 1'7) ' ' # 0 $0* ' 2 ' 0 # 2 $' 6 $ ' '0 $ N # ' ,$0 ' ' !

&' 5,-%0),. ' $ ' *$. ,0/,' +'0' 6*, .)%5' *1)' +*3' 81(+')+%' 8 *$)'/,)2'&$* 8' 8 '/'$, 'ƒ &%7%$0' ,0' ,. ($%'0%5' ' 8 *. -0)')+%' . '),7%0' *&' .5, ''42' 0 0)'$7'),*. .')$%') 8 %.) <

" ' ' ' # (G .')+%' &,$0)' 0,-. 0' *&')+,0' (*. 5,),*. ' '66%'$,. - ')+%' Q01&&%$%$' 0+*1/5' 4%' 0%.)')*' ' ' . *. 8 = '$, 'ƒ (/, 8 ')%' &' 42' 0%' 7*2'-%' ('$%' 8 10)' 4%')'9%. '0*')*' $%-1/')%')+%' 5,%)' '0')*' '7*,5')+%' $,09'*&', . -$' &), . -')+%'0(*$41),(*. .')+%' 8 '/'$, 'ƒ (' (+%B, ' ' % 8 % 8 4%$,. .-' '/0*')+%' 5' . -%$'*&' %B6*01$%')*' (*/5' '/$%'52' , .0,0)%5' *. ' 0($161; /*10' '))%.),*. ')*'(/*)+,. -',0' '6*,.)'*&' ('$5, . 'ƒ ,8 6*$)' . (%' ((*$5, . -')*')+%' W3$,)%$<0' %B; 6%$,%. (%' *. %' *&')+%' 8 *0)' %&&%(),7%' 8 %' . 0' *&' $%7, $,. -')+%' '(),*. '*&')+%' 09,. ' ,86$* 7,. -')+%' (*. 5,),*. ' *&')+%' 4/**5' '. 5' $%0)*$, . -')+%' 06/%%. ' '. 5' /,7%$')*' '' 8 *$%' +%' /)+2' (*. 5,),*. ' (' (+%B, ' ' % 8 % 8 4%$,. -

)*')+%' ,.>1$2' ,8 8 %5,')%/2' ,.&/,()%5' *.')+%' 0%$*10' .5' 8 1(*10' (*')0' '.5',0' 7%$2'06%%5,/2' ,.($%'0%5' '.5' 8 ',.)',.%5' 42')+%' && %%)0' *&')+%' (*.-%0),*.' *&')+%' 4/**5 7%00%/0' *.')+%' .%$7%0' +,0' 6',.' 3,/' *47,*10/2' 4%' 8*$%' 0%7%$%' 3+%.')+%' 0 8 '/' ,.)%0),.%' 3,)+' ,)0' 8*$%' ,.),8 ')%' '00*(,'),*.' 3,)+')+%' .%$7%' (%.)$%0' '.5' ,)0' /'$-%$' 7'0(1/'$ 0166/2' ,0' '&&%()%5' 1)',)' 8 10)' '/3'20' 4%' $%8%8 4%$%5')+')')+%' 0%7%$,)2' *&')+%' 6',.'5%6%.50' *.')+%' '4$16).%00' '.5' (*86/%)%.%00' *&')+%' *40)$1(;),*.' '.5')+%' %B)%.)')*' 3+,(+')+%' ,.)%0),.%' ,0' ,.7*/7%5' $')+%$')+'.' 16*.')+%' 7'$,%)2' '.5' ('10%' *&')+%' *40)$1(),*.' *8%3+')' /')%$' (*8%0')+%' 6',.' '00*(,')%5' 3,)+' 5,0)%.0,*.' *&')+%' 4*3%/,)0%/&H')+,0' ,0',.($%'0%5' ')',.)%$7'/0' 42' 6'$*B20 8 '/ %B'(%$4'),*.0' *&' (1)%' 01&&%$;,.-' 3+,(+' ('(*86'.2')+%' &1),/%' 6%$,0)'/),('%&&*$)0' *&')+%' ,.)%0),.%' .0)' .(%0' *&')+,0' 6',.' '$%' *.(2')*' 3% ' 0%%.,.' 6'),%.)0' 3,)+')+,.' '45*8%.0',.' 3+*8' '))'(90' *&' 6%$,;0)'/0,0' %06%(,'(//2' 3+%.')+%' 8 10(1/'$' (*')' +'0' 4%(*8%' +26%$)$*6+,%5' $%(1$' '&)%$')+%')'9,.-' *&' &**5' %B'8,.'),*.' *&')+%' '45*8%.')+%' '58,.,0)$')',*.' *&' '.' %.%8 '' ^(')+%$' ('10%0' *&' 6',.' '$%')$')(),*.' 16*.',.&/' 8%5' 6'$)0' %06%(,'//2' 3+%.',&/(%$'),*.',0' 4%-,.;.,.-')*' 0%)',.H' '.5' ')' '/')%$' 0)'-%' %.)%$),0' '.5'6%$,)*.,),0

,)+'$%-'$5')*')+%' (*.0)' .)' *$' 06'08*5,(' .')1$%' *&')+%' 6',.=G 3+%.')+%' *40)$1(),*.',0' Q(*86/%)%' 6',.',0' (*.0)' .)' 3,)+' 6%$,*5,(' %B'(%$4'),*.OH' 41)' 3,)+' ' .' ,.(*86/%)%' *4;0)$1(),*.',)' ,0' /,9%/2')*' 4%' ,.)%$8,))%.)' ,0' 8 6*$)' .)' 6*.,)')*' (*.0,5%$' ,0' +*3' &'$')+%' 6',.' '&&*$50' '.2' -1,5%' '0')*')+%' 0,)1'),*.' *&')+%' *40)$1(),*.' ' .')+%' -$%')' 8 '>*$,)2' *&' ('0%0' *&' (1)%',.)%0),.'/*40)$1(),*.' 3+%$%7%$' 8 '2' 4%')+%' 0%')' *&')+%' 8,0(+,%&')+%' 6',.',0' $%&%$$%5')*')+%' .%,-+4*1$+***5' *&')+%' 184,/,'(10' 6$*4'4/2' 4%('10%' .%'$')+,0' 06*)' /,%0')+%' 0*/' $' 6/%B10' +10',.' '' /'$-%.184%$' *&' ('0%0')+%' 0,)%' *&')+%' 6',.',0' *&' /,))/%' 7'/1%' '0' '' -1,5%' 1)')+%$%' '$%' (%$)',./2' 0*8%' ('0%0' %06%(,'//2')+*0%*&' (1)%' *40)$1(),*.'42'4' .50' *$' 0155%.'0)$'.-1/'),*.',.' '0+)',.'3+,(+')+%' 6',.',0' $%&%$$%5')*' '' $%-,.*.*)+%$')+'.')+%' 184,/,('/' +%$%')+%' 6',.',0' ((*86'.,%5' 42')+%' *((0,*.'/' 16$,0,.-' *&' '' (*,/' *&' ,.)%0;),.%' +%$%')+,0' 06*)' 3,/' 7%$2' 9%/2' 4%' '-1,5%')*')+%' 0%')' *&')+%' 8,0(+,%&' +%' $%'5,.%00' 3,)+' 3+,(+' 6',.' 8'2' 4%' 8'09%5' 42'6$%6'$')',*.0' *&' *6,18'' .5')+%'5'.-%$*10/2' &'//'(,*10' '66%'$'.(%' *&' ,86$*7%8%.)' 3+,(+' 8'2' &' //*3 H)+%' 3'2',.' 3+,(+')+%' 5,0),.()' /*('/,0%5' 01&&%$,.-' *&' *40)$1(),*.' 8'2' 4%' 8%$-%5' '.5' /*0)',.')+%' 8*$%' -%.%$'/' '.5' 5,&&10%5'6',.' *&' 6%$,)*.,),0H' '.5'&,.''//2')+%' (%00')',*.' *&'6',.'3+,(+'8'2'*((1$'')+%' (/*0%' 3+%.')+%' .%$7*10' 020)%8',0' 51//%5' 42',8;6%.5,.-'5%')+G.%%5' *./2' 4%' //15%5')*' +%$%

A@R' " " G *)+',.' (1)%'.5'(+$*.,(' *40)$1(),*.')%.5%$.%00',0' 101'//2' '40%.)' 1.),/'6%$,)*.,),0'+'0' 016%$7%.%5' '),%.)0',.')+%' %'$/2' 0)'-%0' *&' (1)%' '.5' 0),/' 8*$%',.' (+$*.,(' *40)$1(),*.' 0*8%),8%0' 0)')%')+')

)+%2' &,.5' $%+%&' &$*8' &,$8' (*86$%00,*.' *&')+%' '45*8%.

A"R' 8 ") "0 G +,0' ,0' '' 7%$2' (*.0)'.)' 0286)*8' *&' ,.)%0),.'/' *40)$1(),*.')' 8 '2' (*88%.(%' '/8*0)' 0,81/)'.%*10/2' 3,)+')+%' *((1$$%.(%' *&')+%' *40)$1(),*.',.' 3+,(+' ('0%' ,)',0' 51%')*')+%' 0+*(9' *&')+%',.>1$2',.&/,())%5' *)+')+%' 7*8,),.-' 3+,(+' *((1$0' '' /,))/%' /')%$' ,.' '(1)%' *40)$1(),*.' ' .5')+')',.' (+$*.,(' ('0%0' 81(+' 8*$%')'$5,/2'$%(1$' 3,)+' -$%')%$' *$' /%00' 0%7%$,)2' '/)+*1-+' 3,)+' 0*8%),8%0' (*86'$';),7%/2' /*.-' ,.)%$8,00,*.0' +,0' 7*8,),.-' '.5',)0' (+'$')()%$,0),(' &%')1$%' *&' 4%.-' +'4/%')*' 4%(*8%' &0%(1/%.)' +'7%' 4%%.' 5,&&%$%./)2' %B6/',.%5')',0' 1.5%(,5%5' +*3'&'$')+%' *4;0)$1(),*.' ('10%0')+%' 101'/' 6%$,0)'/0,0')*' 4%$%7%$0%5'A'.),6%$,0)'/0,0R' *$' +*3' &'$' ',5%5'42')+%' 5,0)%.0,*.' *&')+%' 4*3%/' 4*7%' .5')+%-/'.51/'$' 0%($%),*.' 6*1$%5' *1)',)' (*.7%$)0')+%' 101'/' 6'00'-%' *&' ,.)%0),.'/' (*.)%.)0',.)*')3*' (1$$%.)0G*.%'6%$,6+%$'/',.')+%' .')1$'/' 5,$%(),*.'16')*')+%$' 6*.,)' *&' *40)$1(),*.''.5')+%' *)+%$' (%.)$'/' *$' 'B,'/'3+,(+' 6*1$0')+%',.)%0),.'/' (*.)%.)0',.)*')+%' 0)*8'(+' 0' *' -%.%$'/$1/%')+%' +,-+%$')+%' 0%')' *&' *40)$1(;),*.''.5')+%' 8*$%' '(1)%')+%' ('10%')+%' 8*$%0%7%$%',0')+%' 0,(9.%00' '.5')+%' 8*$%' &,<%'E1%.)/2'5*%0',)' $%(1$' +%.')+%' *40)$1(),*.',0' +,-+' 16',.')+%' 08'/' ,.)%0),.%')+%' 7*8,)',0' 101'//2' 4,/,*10' '.5' *&&%.0,7%/2' 0*,$$' 41)' W3,)+*1)')+%' &*%)*$' *&' &'%(%0' +%.' 7*8,)'+'0' 4%%.' $%)'.'%5' &*$' .2'),8%' '0' 3+%.')' (*6'),%.)' ,0' K1.5%$')+%' ,.&/1%.(%' *&' *6,')%0',)' 8'2' +'7%' +'5'),8%')*' 5%(*86*0%' '.5')*' '(E1,$%' '' &'%(1/%.)' *5*1$' A $%7%0R' -',.')$1%' 0)%$(*$'(%*10' 7*8,)' 8'2' (*8%' &$*8')+%' /*3%$' ,/%18' '0' 3%/' '0' &$*8')+%' (*/*.' &*$)+%' (*.)%.)0' *&')+%' /*3%$' ,/%18' 8'2',.')+%' .')1$'/0)')%'+'7%' '/')+%' (+','$'(%$0' *&' &'%(%0' *$%*7%$'-$%')' 5,0)%.0,*.' *&')+%' ,.;)%0),.%' 8'2' $%.5%$')+%' ,/%*('%('/' 7'/7%',.' %&/,(,%.)')*' 6$%7%.)' $%-1$-,)','),*.' &$*8')+%' /'$-%' ,.)*')+%' 08'//' ,.)%0),.%

A R' " " G +,0' 8'2' 4%' '40*/1)%' &$*8')+%' &,$0)'%7%.')*')+%' 6'00'-%' *&' &/')10',.' '(1)%' (*86/%)%' ,.)%0),.'/' *40)$1(),*.' '/10',.')+')' 51%')*' 4'.50' '6%$)1$%0' 7*/%7./10' *$' -'// 0)*.%

.')*)+%$' ('0%0' 3+%$%')+%' 0)$'.-1/'),*.',0' /%00' '4$16)' '.5' 0%7%$%''*$ 3+%$%')+%' ,.)%0),.%' 42' 0*8%' 6%$,0)'/),(' 8*7%8%.)0' &$%%0',)0%/&'&*$'')',8%'&0%*'/' %7'(1'),*.0' 8'2' 4%' 6'00%5' &*$'' 3+,/%H' '.5' '' ('$%&,5',.06%(),*.' *&')+%0%'%06%(,'//2' 0')*' 6$%0%.(%' *&' ,/%' (*.0,0)%.(2'&'%(1/%.)' *5*1$' ^(' 8'2'-,7%' 7'/1'4/%',.&*$;8')',*.' 0')*')+%' 5%-$%%' .5' 0%')' *&')+%' *4;0)$1(),*.' .' ,.)10010(%6),*.0' %06%(,'//2',.')+%' 8*$%' (+$*.,(' ('0%0')+%' 4*3%/' 0' $'$%/2''/)*-%)+%$',86$%8%'4/%')' &,$0)')+*1-+'/')%$',' 4%(*8%0'0*' &$*8')+%' %&&%()' *&' ,.&/'88')*$20 3%//,.-' .'01(+' .'0%')+%' ,0'' 6%$,*5',.' 3+,(+' 08'//' E1'.),),%0' *&' &'%('/' 8'))%$' 8,B%5' 3,)+' 4/**5' '.5' 81(10' '$%' 6'00%5' &$%E1%./2' W3,)+' 81(+')%.%0810H' /')%$' *.' 4/**5' '.5' 81(10' *./2' '$%' 6'00%5' .' 0)$,()1$%0' *&')+%' 4*3%/'(*.0),6'),*.' (*8%0

'4*1)' (*86'$'),7%/2' 0/*3/2' 4%,.-' +%$%' $%;
6/'(%5' 42' ,$$%-./'$' '(),*.0' '')%.5%.(2')*'
5,'$$+*%'' ')%).-' 3,)+' *.%')*3'$50'(*.;
0),6'),*.')+%' 8*),*.0'4%,.-' '/)%$%5',.'0+'6%'
'.5'0,C%' 3,)+'6'00'-%' *&'4/**5' ^(' ')%$'
.'(.0),6'),*.' 8'2'4%' $%.5%$%5' '40*/1)%'
42',86'(),*.' *&'0*8%'1.5,-%0)%5' '$),((%' *&'
5,%)' *$'42' '')3,0)' *$'9,.9*&')+%'4*3%/'4*7%'
)+%'*40)$1(),*.
,$0)' '8*.-')+%' ('10%0' *&'(*.0),6'),*.'
(*8%0'*(((/10,*.'*&')+%'4*3%/' .*)+%$'7%$2'
,86*$)' *.%' ,0' $%&/%B' .%$7%' '(),*.' +10'
,.' ('0%0' *&'(1)%'0)$'.-1/'),*.')+%' (*.0),;
6'),*.',0'*&)%.' '40*/1)%' &$*8')+%' 7%$2'(*8;
8%.(%8%.)' '/)+*1-+')+%' *40)$1(),*.' 8'2'
4%',.')+%'08'//',.)%0),.%' '.5'81(+' &0%($&
8'))%$' 8'2'0), '4%'/*5-%5'4%/*3')+%'6*,.)'*&
((/10,.' -',.'(*.0),6'),*.',0'7%)2'101'/
,.')+*0%' ('0%0' *&'6'$),'/*40)$1(),*.'*&')+%
4*3%/'3+%$%' '' 0%-8%.)' ,0' 0155%./2' .5'
0%7%$%/2'.,66%5' +,0',0'3%/'*40%$7%5''0' ''
$1/%',.' ,))$%<0'+%$.,'3+%$%' *./2''6'$)'*&
)+%'*,$)1.&%$%.(%'*&')+%'4*3%/,0',.7*/7%5',.'
)+%'0)$'.-1/'),*.' .*)+%$' ('10%'*&'(*.0),;
6'),*.'3+,(+' 8),0)' 4%' $%8%84%$%5',0'6'$';
/20,0'.5'%B+'10),*.'*&')+%',.)%0),.'/3'//
+%'&*//*3,.-'&'//'(,%0' 810)' 4%'4*$.%',.'
8,.5' 7%.'=%$'(*86/%)%'*((/10,*.'+'0'
*((,$$$%5')+%$%' 8'2'$%8',.',.')+%'4*3%/'
4%/*3')+%'0%')' *&'*40)$1(),*.'0*8%'6*$),*.'
&',)0'(.)%.)0H'.5')+%'0%($%),*.0'*&')+%'81;
(*10'8%84$',*4%,.-'55%5')+%'%7'(1'),*.'
*&')+%0%'42'.')B&$'/'%&&*$)''.,5%5'42'%.%8')''
8'2',-7%'$,0%')*')+%'&'/0%',5%'')+')')+%'*((/1;
0,*.',0'.*)'(*86/%)%'*$')+')'$%/,%&'+'0'4%%.'
4)',.%5'-',.')+%'4144/,.-''3'2'&''.'
%.%8''810)'.*)'4%'8,0)'9%.'&*$')+%'6'00'-%'
*&'&/')10' ,.'//2'&'/0%'+*6%0'$%'0*8%),8%0'
$',0%5'42')+%'6'00'-%'*&''0)**/0+*$)/2'4%&*$%
5%')+' &')+,0'+'0'(*8%'&$*8''4*7%')+%'*4;
0)$1(),*.',)'8'2'4%'51%')*'0*8%'0/*1-+,.-'
3+,(+'+'0')'9%.'6/'(%'*$%/'B'),*.'*&'06'08
AFR' & ' " ' " "' ' #'
C " "' 2 "0' G +%' 5%;
-$%%*&' / " "*'.5',)0'$')%'*&'*.0%)'7'$2'
3,)+')+%' ('10%'.5'0,)%'*&')+%'*40)$1(),*.'
)+%'8*1.)'*&'7*8,),.-')+%'&**5')'9%.'^(
+10',.''(1)%'*40)$1(),*.'*&')+%'/*3%$'6'$)'
&')+%',/%8.'5,0)%.0,.'(*8%0'*.'$'6,5/2'
'.5'0%7%$%/2H 41)'.'%7%.'8*$%$'6,5'.5''
0%7%$%$'5,0)%.0,*.',0'0%%.')*'*//*3'*.'*.%'
&*$8'*&'*40)$1%),*.'*&')+%'/'$-%',.)%0),.%'
.'8%/2'7*/71/10' .'*40)$1(),*.'+,-+'16',.'
)+%'/%18'*$>%>1.8.')+%'%6,-'0)$,('.5'166%$
$%-,*.0'66%'$'5,0)%.5%5''.5')+%'/*3%$'*.%0'
01.9' 1)' ,.')$2,.-')*'5,'-.*0%')+%'0,)%'
*&')+%'*40)$1(),*.'&$*8')+%'5,0)%.0,*.')+%'
-$%')0)'('1),*.'8 10)'4%'8',.)',.%5'0 +%$%
,0''5,&&%$%.(%',.')+%'0+'6%'*&')+%'45*8%.'
3+%.'5,0)%.5%5''((*$5,.-''0')+%'$(+'*&')+%
(*/*.',0'4%/*3'*$'4*7%')+%'0%')'*&'*40)$1(;
),*.' .')+%'&*$8%$'(0%')+%'4%//2',0'$*1.5%5'
6$*>%(),.-'3%//'&*$3'$50'41)'3,)+'(*86'$';
),7%/2'/,))/%'&1/.%00'*&')+%'/')%$'/'.'5/184'$'
$%-,*.' .')+%'/'))%$'('0%',)',0'8*$%'4$*'5'
'.5',&')+%'+'.5'4%'6/'(%5'*.')+%'6'),%.)<0

/*,.0''0'+%'/,%0',.'4%5''''&%%/,.-'*&'$%0,0)'.(%'
,0'%B6%$,%.(%5'3+,(+',0'3'.),.-'3+%'.')+%'
08'//',.)%0),.%',.0'/*.%'5,0)%.5%5<A'--%R'
1)')+%'0'8%'3$,)%$'-,7%0'10')+%'&*//*3,.-'
('1),*.0',.',.)%6%),.-'0,-.0' 40%.(%'*&'
&1/.%00',.')+%'(*1$0%'*&')+%'(*/*.',0'.*'
'40*/1)%'6$**&')+')'+%'5,0%'0%',0',+,-+'16',.'
)+%',.)%0),.%' -',.')+%'6$%0%.(%'*&'&1/.%00'
.'.')+%'(*1$0%'*&')+%'(*/*.',0'.*'6$**&')+')'
)+%'0%')'*&')+%'*40)$1(),*.',0',.')+%'/'$-%'
,.)%0),.%' *$',.'8*$%')+'.'*.%',.0)'.('
'6$*8,.%.(%'*&')+%'%6,-'0)$,18$'.'5')+%'
'66%'$'.(%'*&''/'$-%'+*$,C*.)'/(*,/+'7%'
4%%.'51%'.*)'*')+'$'.07%$0%'(*/*.'41)'
*')+%'/%18'5,/')%5'1.),/',)'$,7'//%5')+%'
(*/*.',)0%/&' +%'6$%0%.(%'*&'8%)%*$,08',0'
3+%.'$'6,5'.5'0%7%$%'8*0)'5'.-%$*10''.5'
5,0)$%00,.-
6')$'&$*8')+%'4*7%'5,0)%.0,*.'&$*8''(;
(181/'),*.'*&',.)%0),.'/(*.)%.)0'(%$)','.
/*('/,0%5'03%//,.-0',.')+%'45*8%.'8'2'4%
(('0,.'//2'$%(*-.,0%5'+10',.)10010(%6;
),*.'(*88*./2'-,7%'$,0%')*''.'%/*.-')%5'
%'10'-% +'6%5'03%).-/2,.-',.')+%(*1$0%*&
)+%'/'$-%',.)%0),.%')$,()1$%'*&')+%'0,-8*,5'
8'2'0*8%),8%0'4%'&%/)',.''6'),%.)'3,)+''
)+,.'$%/'B%5''45*.',.'/3'//''0'.',.5,0),.()'
/*('/,0%5',)+,(9%.,.-')+%$',.0)'.(%0'*&'
)18*1$''$%'7%$2'$'$%/2'8%)'3,)+' +%'&')'
/*'5%5''45*8,.'/3'//0'101'//2'8%)'3,)+'.'
''01&&%$%$'&$*8',86'()%5'-'&/0)*.%'6$%7%.)0'
)+,0'('10%'*&')+%0)$1(),*.'4%,.-'&%/)'42'6'/6';
),*.' ' /*('/,0%5'03%//,.-'7=5'4%'*&'8*$%'
7'/1%'0''-1,5%',&'6',.'+'0'/0*'4%%.'$%&%%$%5'
5%&,.,)%/2')*')+,0'0'8%'6'$),(,&/'$'06*)'
.184%$'*&'(*,/0'*&'08'//',.)%0),.%'8')%5'
)*-%)+%$'42'5+%0,*.'8'2'&*$8''9,.5'*&'
)18*1$''.5'/*('/,0%5'51/.%00'*.'6%$(100,*.'
+'0'4%%.'('10%5'42'(*//'60%5'(*0'&'08'//'
,.)%0),.%'-$*16%5')*-%)+%$'4%/*3''.'*40)$1(;
),*.'A $%7%OR
ADR' 6 G=+%&'()'+')'+%'8*7%;
'8'%.)0'*&')+%',.)%0),.%'('.'4%'(/%'$/2'$%(*-;
..,0%5',.'0*8%'('0%0'8'2'4%'*&'81(+'+%/6',.'
)+%'5,'-.*0,0' .%'(*,/'8'2'4%'0%%.'$,0,.-'
16'.5'4%(*8,.-'6$*8,.%.)''.5')+%.'0,.9;
,.-'5*3.'.5'-,7,.-'6/'(%')*''.*)+%$''.5'
0*8%),8%0'3'7%0'*&''(),*.''0',)'3%$%'0%%8'
)*'6'00''/*.-''*(*.0,5%$'4/%'/%.-)+'*&'4*3%/'
1(+'8*7%8%.)0'$%(1$'')',$$%-1/'$',.)%$7'/0'
'.5''$%''((*86'.,%5'42'-1$-/,.-'.*,0%0'A4*$'
4*$2-8,'.5'0%.0'),*.0''.5'42'%B'(%$4';
),*.'*&'01&&%$,.-' +,0'6%$,0)'/0,0''0' $'
'--%'6*,.)%5'*1)',0'(+'$'()%$,0),('*&')+%'
(+$*.,('7'$,%),%0'*&'*40)$1(),*.',.',.'3+,(+')+%'
(*')0'*&')+%'4*3%/'+'7%'1.5%$-*.%'+26%$;
)$*6+2')'/0*',.5,()%0'.'40%.(%'*&'6%$,;
)*.,),0' K +,/%'6%$,0)'/),('8*7%8%.)0''$%
81(+'8*$%'*&)%.'0%%.',.')+%'08'//')+'.',.'
)+%'/'$-%',.)%0),.%')+%2'8'2'0*8%),8%0'4%
40%$7%5',.')+%'/'))%$' $' '--%'/0'6*,.)%5'
1)''0'3$)+2'*&%06%(,'/.*)%')+'/'+%'/'$-%
,.)%0),.%'3+%.'5,0)%.5%5'5*%0'.*'(*.),.1%
)*'/,%'+*$,C*.)'//2''($*00')+%'166%$'6'$)'*&'
)+%'45*8%.'41)'4%.50'5*3.3'$50''.5'8'2'
&*$8''4$*'5'/**6'/2,.-'7%$),('//2''.5'A3,)+

)40' 5,/')%5' '0(%.5,.-' '.5'5%0(%.5,.-'(*/*.R' &,//,.-')+%' 3+*/%' &$*.)' *&')+%' '45*8%.' .')+%' *)+%$' +'.5')+%' (*,/0' *&')+%',/%18' '$%' 1.5%$' 0,8,/'$' (,$(180)'.(%0' -%.%$'//2' '$; $'.-%5')$'.07%$0%/2H '.5' '0')+%0%' (*,/0' '$%*&)%.' E1,)%' '0'4$*'5' '0')+%')$'.07%$0%' (*/*.')+%' 166%$8*0)' *.%' /2,.-' +*$,C*.)'//2' >10)' 4%/*3')+%' $,40' 8 '2' %'0,/2' 4%' 8,0)'9%.' &*$)+')' 6')$)' *&')+%'/'$-%',.)%0),.%

AMR' C " "' ' / " G=.' '(1)%' *4; 0)$1(),*.')+%' 1$,.%',0'5,8,.,0+%5',.'E1'.),)2' +,0'&')(')+'0'4%%.'5,&&%$%.)/2'%B6/',.%5' +%' /')%' $' '$/*3'(*.0,5%$%5')+')' '6*,.)%5')*' '0,)%' *&' *40)$1(),*.'+,-+'16',.')+%'>%>7818')+%''$%''&*$')+%' '40*$6),*.'*&'&/1,5'4%,.-')+10' 81(+'5,8,.,0+%5' ')%$'*.' $' '4%$0+*.' '))$,41)%5',)')*')+%'1$-%.(2'*&')+%'7*8,),.-' 3+,(+'*((1$0',.' '(1)%' *40)$1(),*.'+,-+'16' $' '--%'&*//*3,.-' $' %5-3,(9''$-1%5')+')')+,0'0J8,6)*8',0' 8%$%/2'*.%' *&')+%' 6+%.*8%.''*&'(*//'60%'' .5'3,/'*((1$',.''//&*$).0'*&',.)%0),.'/*40)$1(),*.'3+')%7%$')+%,$' 0%')',.'3+,(+'(*//'60%',0'6$%0%.)' 1)'0',)' ,0'*40)$1(),*.'*&')+%'08'//',.)%0),.%',.'3+,(+' (*//'60%',0'*&)%.'6$%0%.)'3+,/%',6')+')'*&')+%' /'$-%'4*3%/',)'0%/5*8'*((1$0' 166$%00,*.'*$ 5,8,.1),*.'&'1$,.%',0'(*88*.',.')+%'&*$8%$' $'$%',.')+%' /'))%$')(*.5,),*.' +%.')+%'*4; 0)$1(),*.',0'/*3'5*3.')+%$%',0'.*'8'$9%5' 5,8,.1),*.',.')+%'E1'.),)2G)+%$%'8'2'%7%.' 4%' '.'%B(%00G*&'/,86,5'1$,.%'3,)+'0*8%;),8%0''''5,&&,(1/)2',.'7*,5,.-',)

A?R' B " ' ' " ' G .' ('0%0' *&' '(1)%' *40)$1(),*.'*&)%.'&$*8')+%' &,$0)' '.5',.')+%'/')%$'0)'-%0'*&'4*)+' '(1)%' '.5'(+$*.,(' *40)$1(),*.')+%'-%.%$'/' '06%()' *&')+%'6'),%.)',0'8*$%'*$/%00'(+'$')%$,0),(' (*.5,),*.'*&'(*//'60%'&$%E1%.)/2'*((1$0H '.5'3+%.')+,0''66%'$0' / ',)',0'51%')*')+% 0+*(9'*&')+%',.>1$2''.5',0' 01'//2'6$*6*$;),*.')%')*')+%'.%$7%0''.5')+%' '8*1.)'*&',.;)%0),.%',.7*/7%5'4%,.-'8*$%$'8'9%5',.')+% ('0%'*&')+%'08'/')+'.'*&')+%'/'$-%',.)%0),.%H' .5''4*7%'//')*')+%''4$16).%00'.5'0%7%$,)2' *&')+%*40)$1(),*.' +%'(*1.)%.'.(%',0'%B; 6$%00,7%'*&'.B,%)2'.5'5,0)$%00H)+%'%2%0''$% 01.9'*&)%.'3,)+'5'$9'(,$(/%0'$*1.5')+%8')+% '*0%'6,.(+%5')+%'(+%%90'+*//* ')+%',60'6'/%' *$'61$6/,0+''.5')+%'(*86%B,*.'&',.)/2/,7,5H)+%'-%.%$'/01$&'(%',0'(**/*$(*/5'A)+%'%'$0' &*$%+%'5'.*0%''.5'&%%)'&,$0)'4%(*8,.-'(*/5R' '.5'*&)%.'(*7%$%5'3,)+''(/'8 8 2'6%$06,$';),*.' /)+*1-+')+%'8%.)'/'&'(1/),%0''$%''0' ''$1/%'1.5,0)1$4%5')+%$%'',0''5,06*0,),*.')*)*$6*$'&$*8'3+,(+')+%'01&&%$%$',0'&$*8'),8%)*'),8%''$*10%5'42'%B'(%$4'),*.0'*&'6',.''*$ $%(1$$%.(%'*&'7*8,),.-' +%'61/0%',0'&$%; E1%.)'.5'08''//''.5')*3'$5 0')+%%.5'4%; (*8%0')+$%'52' +%')%86%$')1$%',0'$'$%/2' '4*7%'.*$8'/1./%00'6%$,)*.,),0'0%)0',.H 101; ''//2',)',0'.*$8'/'*$'014.*$8')'0*8%),8%0' &'/,,.-')*''')*$9%5'%B)%.)' *8%),8%0')+%$%',0'8*$%'*$'/%00'5206.*%''3+,(+'8'2'4%'%B; 6/',.%5',.'6')$)'42'6$%001$%'163'$50'*&')+% 8'6+$'-8'42')+%'5,0)%.5%5'4*3%/'4%/*3''.5')+%/')%$'('10%'*&)%.'-,7%0'$,0%')4'5,0)$%00,.-

+,((*1-+' +%7*,(%'7'$,%'4%,.-'&%%4/%'*$ 3+,06%$,.-'*$ 0)$*.-''.5'&(5/E1,)%' 16')*')+%'.5' +%)*.-1%'4%(*8%0'$%5''.5'/')%$' 5$2'.5'4$*3.' *3'$50')+%'(/*0%')+%$%',0' *&)%.'''(*84,.%5'*5*1$*&'*&%.0,7%03%%).%00' '.5'5%(*86*0,),*.',.')+%'4$%')+' +%'6';),%.)'01&&%$0'&$*8'0%7%$%''.5'(*.0)'.)')+,$0)' 3+,(+'*&)%.'+%'&%'$0')*''001'-%/%0)'7*8,),.-' 0+*$55'4%'6$*7*9%5

.'8*0)'*'0%0')+%'(*1$0%',0'*.%'*&'6$*; -$%00,7%'%8'(,'),'*.'3%'9.%00''.5'%B+'10;),*.')+%'%.5'4%,.-'*&)%.'6$%(%5%5'42'6%$,;)*.,),0'.'0*8%'%B(%6),*.'/'('0%0'5%')+'+'0' 4%%.'6$%(%5%5'42'8,/5'5%/,$,18''.5'(*8'H '.5',.')+%$0'0),&&'8*$%'%B(%6),*.'/'42' 7,*/%.)'5%/,$,18''.5'(*.71/0,*.0')+%'/')%$' 4%,.-'%06%(,'//2'/,9%/2')*'4%'8%)'3,)+',.'/,)))/%K (+,/5$%.'01&&%$8-'&$*8',.)10010(%6),*.

%)' !($')' ' ! 2

G.')+%''(1)%'&*$80'*&',.)%0),.'/'*4; 0)$1(),*.')+%'6$*06%()'*&'$%(*7%$2',0'%B)$%8%/2' 0/,-+)H6%$+'60',.')+%/'$-%'8'>*$,)2'*&'*'0%0' ,)'3*,&&5'4%'>10)')*'0'2')+')'6$'(),('//2')+%$%' ,0'.*.%'')'//' .5'+%$%''3*$5'810)'4%' 0',5''0')*')+*0%'%B)$%8%/2'$'$%',.0)'.(%0'*& 06*.)'.%*10'$%(*7%$2'3+,(+'+'7%'*((1$$%5' &$*8'),8%')*',8*1.5%$'%7%$2'&*$8'*&')(1)% *40)$1(),*.'7*/71/10'*./2'%B(%6)%5' %$2' 81(+'*&')+%'7'/1%'*&')+%0%'('0%0'+'0'4%%.' /*0)'42'+%,$'&)%$+,0)*$,%0'.*)'4%,.-'614; /,0+%5'(+'.(%0')+10'4%,.-'/*0)'*&'*1$9.*3; ,.-',.'3+')'('0%0'*&'(%$)',./2'8%(+'.,(/' *40)$1(),*.'06*.)'.%*10'$%(*7%$2',0'$%'//2' 6*00,4/%'.')+%'0%(*.5'6/'(%')+%$%',0'0)$*.-' $%'0*.')*'4%/,%7%')+')',.'0%7%$'/'*&')+%0%' ('0%0')+%'5,'-.*0,0'+'0'4%%.''')&'1/)')+%'$%'/' ('10%'*&'8,0(+,%&'4%,.-'6%$,)*.,)0'%-' 0)'$),.-'&$*8')+%'('(18'*$',)0''66%.5,B'*$' *.%'*$,-,.'),.-',.')14%$(1/'$'8,0(+,%&''''%.)%$,),0''.5'.*)'*.%'*&'8%(+'.,('/'*4; 0)$1(),*.

.')+%'8*$%'(+$*.,('&*$80'*&'*40)$1(),*.' 3,)+')+%'%B(%6),*.'*&')+*0%'5%6%.5,.-'16*.' ,86'(),*.'*&'&%(%0''.5'0*8%')+%$0'6%$+'60' A'0'(+$*.,(',.)10010(%6),*.R'5%')+')+*1-+' (*.0,5%$'4/2'/*.-%$'5%/'2%5'.%.01%0'0'%.*$' *$'/')%$',.'06,)%'*&')%86*$'$2'$%/,%&''&&*$5%5' 42'*6%$'),7%'8%'01$%0'*$',.')+%$'3'20

.'('0%0'*&'(1)%'0)$'.-1/'),*.',.'3+,(+')+%'*((/10,*.'+'0'4%%.'0155%.''.5'(*86/%)% &$*8')+%'&,$0)''.5',.'3+,(+'),8%/2'$%/,%&'+'0' .*)'4%%.'*4)',.%5')+%''7%$'-%'51$'),*.'+'0' 4%%.'&*1.5')*'4%'&$*8')+$%%'*$'&*1$')*'&,7%' *$0,B'5'20' .')+%'('0%0'$%6*$)%5''0'&')$& 3,)+,.''&%3'+*1$0',)',0'6*00,4/%)+')')+%'('0%' +'0'4%%.'*.%'*&'6%$&*$'),*.'*&')+%,.)%0),.%' *$'0)*8'(+'$')+%$')+'.'*.%'*&*40)$1(),*.'*&)+%'4*3%/0'A '--%R' +%$%')+%'('0%',0'*.%' *&',('$(%$'),*.'')'&,$0)'&*//*3%5'42''()1'/ 0)$'.-1/'),*.'5%')+'8'2'.*)'*((1$1.),/ '&)%$')+%'/'60%'*&'%,-+)'*$')%.'5'20' .' ('0%0'*&'(*.0)$,(),*.'*$'(*86$%00,*.',.'3+,(+ (*86%)%*((/10,*.'+'0'(*8%'4*1)'-$'51'//2' *$'%7%.'+'0'.*)'4%%.'&,.''//2'%0)'4+04%5')+%' 51$'),*.'*&'/,&%'7'$,%0'-$%')/2''((*$5,.-')*')+%'(*86/,(',*.0'3+,(+'$,0%''.5',)'8'2

),* .' 8 '2 4%' ('10%5 42 '' 6'),%.) 3+*0%' '-%' 01--%0)0 8 '/,-. ' .') 0)$,()1$%' *&')+%' /'$-%',. ')%0,,. %' ' .5',. '3+* 8 ' '40*1)%' (* .0),6'),*. ' '' -$%')/2 5,0)%.5%5 4%//2 ' .5 %7,5%.) 6%$,; 0)'/0,0 ('//* /*15/2 &*$ $%/,%& 5%&,. ,)%/2 5%; (/'$,.-')+')')+%' (* .0),6'),*. ' ,0 8 %$%/2 '' >. '))%$' *&' '' &%3 5'20 ' '. 5 5%.2,.-' '40*/1)%/2 ' .2 6$%7,*10 '))' (90 *&' (*.0),6'),*.' *$ *4; 0)$1(),* . ,. '//2 ')+%$%' ,0 '')+,$5' (/'00' ,' 3+,(+' .' '))' (9 *&' (1)%' *40)$1(),*.' 016%$; 7%. %0 16*.' 02 8 6)*8 0 ,.5,('),.-' '' (+$*.,(' *40)$1(),*. ' 1(+' (*.5,),*.' 8 *0)' &$%E1%.)/2 *((1$0 ,.' 6'),%.)0 3,)+' 8 '/,-. ' .') 0)$,(1)$%' *$ 3,)+' (*,/0 8 '))%5')*-%)+%$ 42 '5+%0,*.0 3,)+' (+$*.,(' ,.)10010(%6),*. ' *$ -$'51'/ *((/10,*.' *&')+%' /18%.' *&')+%' 4*3%/ 42 '' -$*3)+' 3,)+,.' *$ *1)0,5%',)0 3 '//0')+%' '()1'/ *40)$1(),*.' 4%,. -' 4$*1-+)' 4*1) 42 0*8 % 0155%.' 4/*(9,.-' '0 42 '' &%(' / 8 '00' *$ 42 9,.9,.-' *$ 4%.d.-' *&')+%'4*3%/ '4*7%' +%' (+,%&+%/6',.')+%' 5,'-.*0,0 ,0 -,7%.' 42 %B' 8 ,; .'),*.' *&')+%' 6'),%.)<0 +,0)*$2' +%$%' 3,// 101'//2 4%' .' '((*1.)' *&' 02 8 6)*8 0 6*,.) ,.-')*' (+$*.,(' *40)$1(),*. ' 3,)+' 6$%7,*10 /%00 0%7%$%' '))' (90

 R # ' ' # ' # ' 3 "' ']G')' 8 '2 4%' 0',5' ')' *.(%')+')' ('0%' *&' (+$*.,(' *40)$1(),*.',0 101'//2*.%'*&')+%'&*//*3,.-' ')$,()1$%' ,.' $%()18 '0,-8*,5' &/%B1$%' 06/%.,(' W*$+%6'),(' &/%B1$%' H '0)$,()1$%' *&')+%' 0 8 '// ,.)%0),.%'&,$*8' 8 ,0(+,%&' 3,)+,.' ,)0' /18%.' *$ &$*8' 8');.-' 9,.9,.-' *$ 5$'--,.-' *.' ,)' 42 '5+%0,*.0' ^(' *1)0,5%H A(F (+$*.,(' ,)10010; (%6),*.'H ' &%(' /' ,8 6'(),*.' &')+%' '4*7%' *40)$1(),*.' *&' 0*8 %' 6*,.)' ,.')+%' /%&)' 0,5%' *&')+%' '$(+' *&')+%' /'$-%',.)%0),.%',0' 42' &'$')+%' 8 *0)' &,=%E1%.)

 ,)+'$%-'$5')*' '(1)%' *40)$1(),*.' 101'//2' ,.')+%' 0 8 '//' ,.)%0),.%',)' 8 10)' 4%' (*.&%00%5')+')',)',0' 7%$2' &$%E1%.)/2' E1,)%' ,8 6*00,4/%')*' -*' 4%2*.5' /*('/,0,.-',)',.')+%' 0 8 '//' ,.)%0),.%',)' +'0' 4%%.' 0+*3.')+')+%' 1$-%.(2' *&')+%' (+,%&' 02 8 6)*8 0' ,0' .*)' $%/')%5')*')+%' 0%')' *&')+%' *40)$1(),*.' 41)')*',)0' 0%7%$,)2' *' 5*14)' *40)$1(),*.' +,-+' 16' ,.')+%' 0 8 '//' ,.)%0),.%' 3 &/',.' 8 '.2' (' 0%0' 4%' '((*8 6'.,%5' 42' %'$/,%$' 7*8,),.-' 41)' /%00' /,9%/2')*' 4%(*8 %' &%(1/%.)' ,0)%.0,*.' *&')+%' '45*8%.' 3,// 4%' /%00' ,.' '' ('0%' /,9%')+%' '4*7%')+'.' ,.' *.%' 3+%$%')+%' *40)$1(),*.',0' /*3'5*3.' ,.')+%' ,/%18' +%' .18%$*10' &'//' (,%0' 3+,(+' 8 '2' 4%0%)' 10' 5%; 6%.5,.-' *.')+%' '8*,8)' *&' &**5')'9%.')+%' ,.&/1%.(%' *&' 5$1-0')+%' %$$')(' 8 '..%$',.' 3+,(+' *.%' *$')3*' (*,/0' 8 '2' ('10%' 5,0)%.0,*.' *&' '.' $%'')' 0*8 %' 5,0)' .(%&$*8')+%,$'6$*6%$' +'4,)')' 8 10)' 4%' 4*$.%',.' 8,.5')' 3,// 4%' 3,0%$')*' 4%' (*.)%.)',.' ')(1)%' *40)$1(),*.' 3,)+' 5%)%$8,,.-' 3+%)+%$',)',0',.')+%' 0 8 '//' ,.)%0);,.%' '0' 42' '' 4' .5H ,.')+%' /'$-%' '0',.' 7*/; 71/10H' *$',.' 4*)+' '0' .' '(1)%',.)10010(%6),*.' G' .5')*' $%8%8 4%$')+')' '// 4%2*.5' 8 '2' 4%' 4/,.5'-1%003*$9

 R # ' ' # ' ' # ' ' ") 7 0 "' G '(*$%()'5,'-.*0,0'('.'*&)%.'*./2' 4%' '$$,7%5' ')' 42' 8 *0)' ('$%&1/' '))%.),*.')*')+%' &*//*3,.-' 6*,.)0' $,7,'/ '0' 0*8 %' 8 '2 0%%8 ' '//*$ ' .2' 8 '2' 4%' *&')+%' 1)8 *0)' ,8 ; 6*$)'.(%H ' .5' '0' ('0%0' *&' '(1)%' *40)$1(),*.' 8 '2' 7'$2' %7%$2' +*1$' ('$%&1//2' $%6%')%5' %B; ' 8 ,.'),*.0' 8 '2' 4%' .%%5&1/')*')+$*3',-+)' *.' '' (*.5,),*.' 3+,(+' 3 '0' E1,)%' *40(1$%' '' &%3' +*$.0' 4%&*$%

 ^ ' # ' P G +%' 7'/1%' *&')+,0' ,0' *&)%.' . '41)')+%' 0 8 '//%0)' 6*,.)' 8 '2' 0*8 %;),8 %0' 4%' *&')+%' -$%')%0)' ,8 6*$)'.(%' +10' A,F) ' " ' 8 '2' /%'5')*' '' 010; 6,(,*.' *&' 0)$'.-1/'),*.' 42' '' 4'.5' *$' 42' 8 1),6/%' '5+%0,*.0' A,,F 5"< '01(+' '0' '' 9,(9' &$*8' '' +*$0%' 8 '2' +'7%' /%5')*' '' $16;)1$%' .5' 0140%E1%.)' +*/%',.')+%' *8%.)18 ')+10' ('10,.-'/')%$' *.' '' 0%')' *&' 0)$'.-1/'),*.H *$')*' *40)$1(),*.' &$*8' (,(')$,0'),*.' *&' 0*8 % 4$1,0%5'/**6' *&',.)%0),.%' ,,,F &"' " ' '*&' +%'72' .5',.5,-%0),4/%' &**5' 8 '2' 5%;)%$8,.%')+%' *((1$$%.(%' *&' *40)$1(),*.' 42')+% 0155%.' &*$8'),*.' *&' -'0' .5')1$41/%.)' 6%$,; 0)'/0,0',.' ('0%0' *&' 6%$,)*.%'/ '5+%0,*.0' *$ 0)$,()1$%' 42' (''10.,')3,0),.-' *$' 9,.9,.-' A,7F ' " "0'# " ' 5+%0,*.0'&*$8%5' '4*1)')+%' .%(9' *&' '.' ,.-1,.' / +%$.,'' 8 '2' 0)$'.-/%' '' /**6' *&' 0 8 '// ,.)%0),.%' E1,)%' ,.; 5%6%.5%.)' *&')+%' +%$.,'

 Ap F # ' G +%0%' $%' .%B)')*' 4% ,.7%0),-')%5' +%' 02 8 6)*8 0'(+'$')%$,0),(' *&' (1)%' .5' (+$*.,(' *40)$1(),*.' $%06%(),7%/2' '.5')+%,$&'//'(,%0'+'7%' 4%%.' '+%' 52' -,7%.

 A(F 6 # ' I (" "' G' +%' 8 *0)' ('$%&1/'.5')+*$*1-+' %B' 8,.'),*.' *&')+%' '4; 5*8%.' 42' 6'/6'),*.' ' .5' 6%$(100,*.' ' .5' 42' %B6/*$'),*.' *&')+%' $,.-0')+%' $%()18 ' '.5',&' .%%5' 4%')+%' 7'-,.' '0+*1/5' 4%' ,.0),)1)%5' ')+%' %'$/,%0)' 6$'(),('4/%' 6%$,*5' 4%&*$%' -%.%$'/ '45*8,.'/ 5,0)%.0,*.' *$')+%' 016%$7%.),*.' *&' (*86+(')',*.0' +'0' *40(1$%5')+%' ,.5,(')',*.0' &,$0)' 6$%0%.)%5' +%' &*$8' *&')+%' '45*8%.' ,0')*' 4%' &,$0)' 0)15,%5' +%.' ' .2' &,/.%00' 3+,(+' $%8',.0' /*('/,0%5' %06%(,'//2',&' '((*86'.,%5' 42' '4,5,.-' 6',.' ,.')+%' 0' 8 %' 6/'(%' '.2' /,8,)%5' 51/.%00' ' .2' $%6%')%5' 1606$,.-,.-' *&' *.%' *$ 8 *$%' (*,/0' ')')+%' 0' 8 %' 6/'(%' A%06%; (,'//2',&',)',0' .*),(%5')+')' 4*$4*$2-8,' '$%' '$$%0)%5' +%$%R' 8 '2' '//' 4%' *&' 7'/1%',.' +%/6; ,.-')*' /*('/,0%')+%' 0%')' *&' *40)$1(),*.' .' 0*8 %' ('0%0',)' 8 '2' 4%' 5%0,$'4/%')*' '58,.,0)%$' .' .' .0%0)+%),(')*' &' (,/,')')%')+%' %B' 8,.'),*.' 42' $%/'B,.-')+%' '45*8,.'/ 8 10(/%0' '.5')*' 0'7%' '55),*.' / 01&&%$,.-' 1)')+,0' 0)%6' 8 '2' 4% 5'.-%$*10',&'7*8,),.-',0' %'0,/2' %B(,)%5' ,)+' $%-'$5')*')+%' $,.-0')+%' $%-,*.0' *&' 18 4,/,('/' ,.-1,.'/' &%8*$'/' '.5' %7%.' *4)1$')*$ +%$.,'' 0+*1/5' 4%' ('$%&,,//2' 0($1),.,0%5' *)' *./2' 8 '2')+%' 8 *5%0)2' *&' ' 6'),%.)' +'7%' /%5')*')+%' (*.(%'/8%.)' *&' *.'*$5,.'$2' +%$.,'' 41) 6*00,4/2' '' 08 '//' 9.1(9/%' 8 '2' 4%'),-+)/2' 0)$'.-/%5',.')+%' .%,-+4*1$+**5' *&')+%' ,.;)%$.'/ $,.-' *$',.')+%' (' .'/' *$')+%' /18%.' *&' '' 6,%(%' *&',.)%0),.%' 8 '24%'6'$),'//2'('/*0%5',.' '),.2' &%8*$'/ +%$.,'' 0')*')+%' .%%5' *&' '' $%()'/ %B' 8,.'),*.',)',0'*./2')*** (%$)',.')+')' %7%.' .*3'5'20')+,0' 8 %)+*5' *&' %B' 8,.'),*.' ,0' 0),/')*** 81(+' .%-/%%=%5'' .5')+10',.)10; 010(%6),*.0' '$%' 0*8 %^,1%0' *7%$/**9%5' 1.),/

6'),%.)0' *&)%.' 0+*3'$%8 '$9'4/%' 010(%6),4,/,)2')*' 4%//'5*..'H' .5') +%' %B(,)%8%.)' 3+,(+' 8 '2' &* *3' '.'*7%$ 10%*&') +,0' 5$1-',.')+%0%' ('0%0' 8 '2' 4%' 8 *0)' +'$8&1/') *')+%' 6'),%.) AFR' .' '58,..,0)%$,..-'*6,18' '.5' 4%//'5*..'' 3%' 8 10)' +%' (*.)%.)' 3,)+')+%' 08 ''//%0)' 6*0; 0,4/%' 5*0%0'%06%(,''//2'*&')+%'&*$8%$' .'*)+%$' 3*$50')+%' 6'),%.)' 8 10)' 4%' >15,(,*10/2'6$%; 0($,4%5'&*$'' .5'.*)'5$'--%5' ')%$'*.'3+%.' *6%$'),*.',0' 5%(/,.%5'*$' 0%)' '0,5%',)' 8 '2' 4%' .%%5&1/')*' -,7%'*6,8.',.'/'$-%$' 5*0%0'%06%; (,'//2',&'6%$,)*.),0' 4%' 6$%0%.)' ADR' +%$%' ,0''(%$)',.' (/'00'*&' 51/)' ('0%0'*&',.)%0),.'/'*4; 0)$1(),*.',.'3+,(+'4%//'5*..''5',.'81(+'/'$-%$' 5*0%0')+'.'' $%' 101'//2')$,%5'+'0' 4%%.' 8*0)' 01((%00&1/' +10',.'8*$% (+$*.,(' ('0%0'*.%' *$')3*'-$',.0' *&' %B)$'()' -,7%.'%7%$2' +*1$'), '&$*8' &,7%')*' &*1$)%%.' -$',.0' +'7%' 4%%.')'9%.' +'7%' 4%%.' &*//*3%5'42' $%/,%&' A %$$' $ 'O " ' ,,' ?M?'6'?!MR

6,18'.5'4% '5*,8'' 0+*1/5'4%' 58,.,0;)%$%5'42')+%' 8*1)+',.')+%' '40%.(%'*&'(*.)$',.5,(',*.H' 41)',&'7*8,),..',0' 0%7%$%' '.5'&$%; E1%.)'42'014(1)'.%*10',.>%(),*.'*&'8*$6+,.%' '.5'')$*6,.%' +%,$' '58,.,0)$'),*.'42'016; 6*0,)*$2',0')+%'/%'0)'0'),0&'()*$2'*&''//'8%)+*50' ,.'('0%0'*&')(1)%'*40)$1(),*.' .''&%3'6'),%.)'$%6/'(%8%.)' 0 +%' &,$0)'6*,.)',0''0%0'*&')+%'(1)%'.5'6',.&1/'('0%0')+%' ,.+'/'),*.''*&'.' '.0%0)+%),*'8'2'4%'09%5'&*$H,)'8 10)'/3'20' +%'$%8%84%$%5')+')'),+,0'(*1$0%'3+,/%')%8; 6*$'$,/2'$%/,%7,.-'01&&%$,.-'.5'6%$+'60' %.'4/,.-')+%'('0%')*'4%'&,$)+%$'(/%'$%5'16' +'0'(%$)',.,.+%$%.)'5'.-%$0'*&',)0'*3. "'C G 1&,4(,%.)'('$%',0'0), '41)'0%/5*8';)'9%.',.')+,0'0,86/%'8'))%$''.5')+%'6'),%.)' ,0''//*3%5')*' '55'.%%5/%00/2')*'+,0'8,0%$2' '.5'5'.-%$' .'(1)%'*40)$1(),*.'3+%.; %7%$')+%'5,'-.*0,0',0'0106%()%5'*$%0)'4/,0+%5' ,)',0'81(+'4%0)')*'(%'0%&%%5,.-'/)*-%)+%$' 42')+%'8*1)+''.5')*')$10)')*'.1)$,%.)'%.%' 8')''+%'08'/',.)%0),.%'.5')+%'0)*8'(+' ,)0%/&' '$%'/,'4/%')*'4%'-$'51''//2'&,//%5'16' 42''.'0(%.5,.-'(*/18.'*&'&/1,5''.5'7*8,); ,.-',0')+10'(*.0)'.)/2',86%.5,.-H''.5'3+%.'.)' +'0''/$%'52'0%)',.',)',0'*./2'8'5%'3*$0%'42' -,7,.-'&**5'42')+%'8*1)+' 0''$1/%'.*)+,.-' 3+')%7%$'0+*1/5'4%'-,7%.'42')+%'8*1)+'0'7%' '/,))/%',(%,.'08'/'($'(9%5'6,%(%0' 1)$,%.)' %.%8')'' 8'2'4%'8'5%'*.'0*8%'01(+'6/''0G8,/9',>'4$'.52'*$'6*$)'3,.%'F00'2*/9' *&'*.%'%--'3,)+'/,E1*$'6'.(%'),*10'A %.' -%$R'F>>'*$''&%3'5$*60'*&'5,/.)%5+25$*(+/*$,(' '(,5''.5''/,))/%'6%60,.G)+%'3+*/%'4%,..' -%.)/2'3'$8%5'41)'.*)'(**9%5' ,86/% .%8')'' *&'0)$*.-'4%%&)%''*./2'>10)'/,E1,5' 8'2'4%'-,7%.'%7%$2')3*')+$%%'*$&*1$+*1$0' &)%$'*$',.'6/'(%'*&'%,)+%$''.1)$,%.)'C28, .,0%5'0166*0,)*$2'8'2'4%',.0%$)%5' %&*$%' '.'%.%8'',0'-,7%.',)'8 10)'4%'0(%$)',.%5')+')'+%'$%()18',0'%86)2' +,$0)',0'4%0)' 8%)'4%2')+%'10%'*&',(%''.5')+%'&$%E1%.)' 8*,0)%.,.-'*&')+%'6'),%.)<0',60' '$-%'/,E1,5' %.%8')''0*8%),8%0'$%/,%7%')+,$0)'8'$9%5/2' 41)'+%'*4>%(),*.0')*'+%0%'+'7%''/$%'52'4%%.' -,7%.' +%.',)',0'(/%'$'&$*8')+%'&',/,.-' 61/0%')+%'&'//,.-')%86%$')1$%')+%'(*/5'%B;)$%8,),%0')+%'5$2')*.-1%''.5'8*0)'&*%),5' 4$%')+')+')')$10),.-')*'.1)$,%.)'%.%8')'',0' .*)'01&&,(,%.)'/,8,)%5'E1'.),),%0'*&'(+'8' 6'-.%'4$'.52'.'5'0*5'3')%$'*$'0*8%'9,.5' *&'8%')'>1,(%'810)'4%-,7%.'42')+%'8*1)+ 'I" G .',.)10010(%6),*.''.5'&%('/' ,86'(),*.''.5',.'('0%0'*&'0)$,()1$%'3,)+'' &%('/'4/*(9'4*7%'/'$-%'%.8')'' '$%',.7'/1; '4/%H 41)'3,)+')+%0%'%B(%6),*.0''.5'%06%; (,'//2',.''''(1)%'*'0%0'*&'*40)$1(),*.')+%2' '$%'7%$2'$'$%/2'10%&1/''.5''$%'*./2')*'4% %86/*2%5'3,)+')+%'7%$2'-$%')%0)'('1),*. F'S ' " G ')%$,'/'$%/,%&',0' *&)%.'-,7%.'42')+%''00,51*10'10%*&'E1,)%'+*)' '66/,(','*.0'$%-1/'$/2'$%.%3%5'*.'/,.)'*$' &/'..%/'3$1.-'*1)'*&'7%$2'+*)'3')%$')*' 3+,(+'6$%6'$'),*.0'*&'%B,8,.')+%'09,.')+10'$%.5%$,.-',)')%.5%$'&*$'%B'8,.'),*.'.5'6%$+'60',.)%$; &%$,.-'/')%$'3,)+')+%',.(,0,*.'*&'.'*6%$')*.' .''&%3'('0%0')+%'6')%.)'%B6%$,%.(%0'-$%')%$ $%/,%&'&$*8'/*('/'(*/5''0'42'($'(9%5',(''6; 6/,%5')'&$%E1%.)',.)%$7'/0'4%)3%*'/'2%$0' *&/'..%/')'(9%5')*-%)+%$3,)+''&%3'0),)(+%0 D'I G +,0',0'*((0,*.'//2'*&'0%$; 7,(%',.&%('/',86'(),*. M'& " ' (G +,0'8%)+*5'+'0' 4%%.'0)$*.-/2''57*(')%5'42' $' 1)(+.0'* %' 4%/,%7%0',)'*' 4%' '' &'(')+')+%' (*.; %' 4%/,%7%0',)'*' 4%' '' &'(')+')+%' (*.; 8'),*.0',.')+%' %'$/2'0)'-%0' $%' 01(+' 0')*' '58,)'*&')+%'7%$2'%'0,%0)'$%6/'(%8%.)' 0 +%' &,$0)'6*,.)',0')*'&1//10%*&'.''.'%0)+%),('0*' '0')*'*4/,)%$')%' //'810(1/'$'$%,0,0)'.(% %B)'A)+%'4*3%/0'.5'4/'55%$'4%,..-'0166*0%5')*'4%'%86)2R')+%'01$-%*.'3,//&*$(,4/2'.5' $%6%')%5/2'9.%'5')+%'45*8%.'6$%00,..-',)0' (*.)%.)0'7,-*$*10/2'163'$5'5*3.3'$5''.5' &$*8'0,5%)*'0,5%'+%'6'),%.)',0'.*3')*'4%)1$.%5'*.')*'+,0'45*8%.''.5',.')+,0'6*0,;),*.')*'4%'+%/5'16'42'&*1$'0)$*.-'8%.''.5' 0+'9%.'4'(93'$50''.5'&*$3'$50' +,0'5*.%')+%')$1.9',0')*'4%'+%/5'&%)'166%$8*0)''.5' 0+'9,.-''-',.'6$'(),0%5'5,$%()/2'163'$50' '.5'5*3.3'$50' +,/0)',.')+,0',.7%$)%5' 6*0,),*.'(*6,*10'%.%8')'' '$%')*'4%'-,7%.' +%'3+*/%'6$*(%%5,.-',0')*'4%('$$,%5'*1)',.' '' ".'5'%.%$-%),(' 8'..%$< 45*8,.'/')'B,0')*')+%'%B)%.)'>10)'5%0($,4%5' +'0'.*)'+,)+%$)*'$%(*88%.5%5',)0%/&)*')+% 8'>*$,)2'*&.-/,0+'01$-%*.0'*'8'.2' 8,.50'(*.5,),*.0'3,//*((8',.'3+,(+')+,0' 6$*(%51$%'6$'(),0%5''0'810)'*%')+%'('0%'3,)+' '(%$)',.'8*1.)'*&'7,*/%.(%')+*1-+'('$%; &1//2'.5'09,/&1//2'3/5*'+'$8'.5'.*)'-**5' +10',&',)'5*%0'.*)'$%/%'0%''/**6',)'8'2' E1,)%'6*00,4/2'5$,7%*.%&'$)+%$*.''*'$%0%.5' 8*$%')+'.'*.%4%.%')+')+%'40)$1(),*.' +*0%' 3+*'/,9%')+%'3$,)%$0'4%/,%7%')+')',.'8'.2'*&')+%''(1)%$'('0%0'0*&)%...-'.5''(*88%.(..-' 0/*1-+,.-'+'7%'7%$2'%'$/2'0%)',.')+%0%')' *&'0)$'.-1/'),*.'8'2'3%//+%0,)')%)*'$%(*8; 8%.5')+,0'8%)+*5' ,.'//2',)'810)'4%8*0)

166%$'6'$)' *&')+%' 3*1.5' '.5'6'00%5',.''-',.'
'&)%$' %B'8,.'),*.',.)*')+%' /*3%$' '.-/%',.'
01(+'''3'2')+')'.*'),8%''$%8*$%')+'.'&,7%'
*$ 0,B',.(+%0' *&',.)%0),.%' %B6*0%5' &)%$
5$'3,.-'*1)' '.5'$%6/'(,.-'0*8%'&%%)'*&',.;
)%0),.%',.')+,0'3'2',)',0'6$*4'4/%)+')'*3,.-'
)*')+%',.%$%&)0,.-'(*.-%0),*.'*$'$%0,0)'.(%'
)+%'01$-%*.'.' ,//'$%'(+')+%'*40)$1(),*.'.'
'00,0)'.)'0+*1/5'+*/5')+%'(*''+*)'06*.-%')*'6$%7%.)'
)+%'0'8%'-$*1.5'4%,.-')$'7%$0%5''0%(*.5'
),8%'&'&)%$&,7%')*')%.'8,.1)%0<0%'$(+')+%'
8,0(+,%&',0'.*)'&*,85')+%'01$-%*.'8 10)'5%;
(,5%'4%)3%%.'8'9,.-''.')$),&,(,'/'.10'.5'
5*0,.-')+%'3*1.5'*$'//*3,.-''//)+%'(*,/0')*'
6$*/'60%',85%$'+*)'0%6),(')*3%/0'&,$%E1%.)/2'
$%.%3%5' +%'5%(,0,*.'8 10)')1$.'*.')+%'
(*.5,),*.'*&')+%'6'),%.)''.5')+%'*8*1.)'*&
5,0)%.0,*.',)'4%,.-'%B(%%5,.-/2'5,&&,(1/)')*'
-%)'5,0)%.5%5'(*,/0'4'(9',.)*')+%,$'+*8%'
'.5')+%'.%%5&(5'8'.,61/'),*.0'.%(%00'$,/2'
6$*51(,.-81(+'0+*(9''.5'6%$+'60',.&/,(),..'
0%$,*10'5'8'-%'+%.')+%'*40)$1(),*.'.'
&*1.5',)'8 10)'4%'5%'/)'3,)+'((*$5,.-')*',)0'
.')1$%H)+10'.'*6%0*,.-'A'0',.')+%'8%0%.)%$2R
8 10)'4%'0)$%)(+%5'3,)+')+%'&,.-%$.','.5'
)+%'4*3%'3,)+5$'3.H*8%.)'/$4.50',&'.*)'
)*8')+$*1-+'5,7,5%5'4%)3%%.')3*(+$*8,(
-1)'/,-')1$%0H'.2'5,7%$),(1/'$'4'.5'4$*1-+)'
16',.)*'7,%3''.5'5,7,5%5'3,)+'0,8,/'$'6$%;
('1),*.0'*$',&')+%'6'),%.)<0'(*.5,),*.'58,)0'
*&',)'$%0%()%5''.5')+%'(1)'%.50'(/%'.0%5''.5'
(/*0%5'.)%0),.'/'.'0)*8*0,0'42'%..<0'
6/')%0'*$'1/0'8*5,&,(','),*.'35/'4%'$%;
0*$)%5')*'3+%$%')+%'(+*,(%'/,%0'4%)3%%.'$%;
0%(),*.''.5'8'9,.-''.')$),&,(,'/'.10'+%'
4%0)'8*5%'*&'5%'/,.-'3,)+'7*/71/10',.)10010;
(%6),*.''.5'-'//0)*.%''$%'-,7%'1.5%$')+%,$'
$%06%(),7%'+%'5,.-0'+%'6%$,)*.%'/'('7,)2'
8 10)'.%B)'4%'(/%'.0%5',&'.%%5&1/'%,)+%$'42'
06*.-%0'*$'42'&/10+,..-'3,)+''*')*'0*/1),*.'*&'
4*$,('(,5'*$'0'/,(2/,('(,5'6%$'(%.)R'*$'
4*,/%5'3')%$',.)$*51(%5'42''.',$$,-'),.-'
)14%'.')+%0%'('0%0'''%,)+<0'))14%'0+*1/5'
4%',.)$*51(%5
/'' "' ' '& '&" g' I "'
G +,0',0'5*.%'1.5%$')3*'(+,%&'(*.;
5,),*.0H', ' +%.')+%'*6%$')*$('..*)'5%)%()'
)+%'0,)%'*&'*40)$1(),*.''*$&,.50')+')'+%'('.'
.%,)+%$'5%'/'3,)+'),+,0'.6$'6%$&*$8'$%0%(),*.'
+%')+%.'8'9%0'.''$),&,(,'/'.10',.')+%'8,55/%'
/,.%'ALR +%.',)',0'5%(,5%5''*3,.-')*')+%'
6')),%.)<0'(*.5,),*.''.*)'*'6%$&*$8''.'*$5,;
.'$2''45*8,.'/'0%(),*.'41)')*'$%/,%7%')+%'
5,0)%.0,*.''^('42'*6%.,.-')+%'4*3%/'4*7%'
)+%'*40)$1(),*.''=/')*.0'*6%$'),*.',0'101;
''//2''5*6)%5' %,)+%$',0'8*%')+'.'6'//,';
),7%'H''.5'.%,)+%$'0+*1/5'4%'$%0*$)%5')*'0'7%'
3+%.')*)+%$'0)%60'&',/'*$''$%',86$'(),('4/%'
'.5'3+%.',)',0'(%$)',.')+')')+%'*40)$1(),*.',0'
/*3'5*3.',.')+%'08'//',.)%),.%'+%'(+,%&'
5$'34'(9')*')+,0'8%)+*5'/,%0',.')+%'%B)$%8%'
'..*2'.(%')+%'6'),%.)'01&/%$0''&)%$3'$50'&/'*8'
)+%'(*.),.1'/'%0('6%'*&'/,E1,5'&'(%0' &'3+%.'
6$*6*0,.-')*'8'9%''.''$),&,(,'/'.10',)',0'4;
0*/1)%/2'+%%5&1/')*'*6%.')+%'4*3%/''))*.(%
)+,0'8'2'4%'%&&%()%5'42''08'//0+'$6')$*('$'
)+%'(''..1/''4%,.-'/%&)',.''.5'6/1--%5'*$'42'
8'9,.-''08'//',.(,0,*.',.')+%'-1)')1$.,.-'
)+%'6'),%.)'*.'*.%0,5%''.5'3'0+,.-''3'2'
)+%'%0('6,>='&'%(%0'3,)+'4*,/%5'3')%$
@'6 "' 'C " ' ' ' '
" ' ' G +,0'8%)+*5',0'0),/'8*$%'
8%$%/2'6'//,',7%H',)',0'5*.%'0),/'8*$%'.'
)+' 5'$9H'.5')+*1-+',)'+'0'-,7%.'8'$9%5'
$%/,%&'.'0*8%'('0%0',)'.0'.*)'3,)+*1)'0%$,*10'
$,090' +,/%'.''''7%$2'&%3'('0%0'61.()1$%'
+'0''66'$%.)/2'6$*7%5'(1$'),7%')+%$%'.0'.*'
5*14)'3+')%7%$')+')'+%'.184%$'*&'%'0%0'.'
3+,(+')+,0'8%)+*5'+'0'4%%.'&,$1,)/%00/2'%8;
6/*2%5''.5'3+,(+'+'7%'.%7%$'4%%.'614;
/,0+%5',0',.&,.,)%/2'-$%')%$')0+*1/5'*./2'
4%'%86/*2%5'3+%$%')+%'5,0)%.0,*.''.5'6',.'
'$%'7%$2'-$%')'*$'3+%$%'45*8,.'/'0%(),*.',0'
$%&10%5'*$'1.'57,0'4/%H'.5')+%'6$'(),),*.%$*
'.5'&$,%.50'0+*1/5'4%'8'5%'3%/'3'$%*&')+%'
$,090' +%'(+,%&''8*.-0$')+%0%'$%'' *)'
+,)),.-')+%'$,-+)'(*H)+10'*.%A)+*1-+'5,0;
)%.5%5R'8'2'4%'+,)'0*'&'$&*8')+%'*40)$1(;
),*.''.'0')*'-,7%'.*'$%'/'$%>,%&'.'.*)''&%3'
)+%'4*3%/'4%/*3')+%'*40)$1(),*.'8'2'4%'
61.()1$%5'A $%7%OR' AFR +%'61.()1$%'8'2'
-,7%'$,0%')*'.*'$%'/'$%/,%&'41)'(,.(%$'0%5'
5,0)$%00'A(R +%'61.()1$%'8'2'4%'&*//*3%5'
42'&')'/'%'9'-%',.)*')+%'6%$,)*.%'/'('7,)2
O # 'G')$'.-1/'),*.' 42'
'.50'*$',.' 6%$)1$%0G 0'0*8%'')'
/%'0)'*&')+%0%' 5%6%.5'16*.')+%'$%01/)0'*&'
6$%7,*10',.&/'88'),*.',)',0',867*$)'.)*'
,.E1,$%'8,.1)%/2',.)*')+%'%'$/2',0)*$2
' 3$ # # 'G' +%'4'.50'
('10,.-'0)$'.-1/'),*.'8'2'4%'5+%0,*.0'$%;
01/),.-'&$*8'6%$,)*.,),0'*8%.)'/''' 6%$0,0;
)%.)' %(9%/<0'5,7%$),(1/18'*$'0*8%'.*$8'/'
0)$1()1$%'4.*$8'//2''))'(+%5' .'.'2'('0%'
,',0')+%'08'//',.)%0),.%''.5'101'//2')+%'%.5'
&')+% %18'3+,(+',0'%06%(,'//2'/,'4/%)'
4%(*8%)+10'0)$'.-1/')%5' '4'.5'*$4'.50'
0*8%),8%0' $*1.5%5'0*8%),8%0'&/'))%.%5'
8'2'0)$%)(+'&$*8'*.%'6'$,'*&')+%'8%0%.)%$2'
$'*8%.)18'*'.')+%$'$'*&)%.%$'8'2'4%'
'))'(+%5'42'*.%'%.5')*')+%'*8%.)18'*$
8%0%.)%$2''.5'42')+%')+%$')*')+%'4*3%/
A*./2'%B(%6),*.''//2')*')+%'/'$-%',.)%0),.%R'
$')')+%'45*8,.'/'3'//*$6%/7,0'1(+'
8*$%'$'$%/2'$%')+%2'&*1.5'6'00,.-'&,$*8'*.%
6'$)'&')+%'4*3%/')*'.')+%$'4$*'5%$
'5+%0,*.0'0*8%),8%0'6$%0%.)'0/),0'.'3+,(+'
6*$),*.0'*&'4*3%/8'2'4%'('1-+'',8,/'$/2'
$16)1$%0'*$0/,)0'8'2'*((1$',.')+%'*8%.)18'
*$'8%0%.)%$2''*$%7%.',.'7%$2'$'$%',.0)'.(%0'
,.')+%'0106%.0*$2'/,-'8%.)'*&')+%'/,7%$'$
4$*'5'/,-'8%.)'*&')+%'1)%$10'+%'/*3%$'
'))'(+8%.)0'*&')+%'*8%.)'/'4.50''$%'101;
''//2')*')+%'6'$,%)%0'*$'7,0(%$'')*')+%'4$,8'
&')+%'6%/7,0'$')*'.%'$,.-%$'*$,&,(%'*&'
.%'&')+%$,.-0'&')+%'5,7%$),(1/'$4'.50'
)+%'8*0)'.86*$)'.)'0)+%'*.%'('//%'0)$1%<
3+,(+',0'51%')*''6%$0,0)%.)'*$'6')$),''//2'*4;
/,)%$')%5'7,)%//,.%'51()' +,0'4'.5',0'0,.-/%'
'.5',0'))'(+%5''*.%%.5')*')+%'/,%18'&,=*8'
.%')')+$%%'&%%)'&)%*8',)0')%$8,.'),*.,)0

*)+%$' %.5' 8 '2' 4%' &$%%' *$' '))'(+%5' ,.'),,%' 7,(,.,)2' *&')+%' 184,/,(10')0' 0)$1()1$%' 8 '2' 4%' /,9%')+%' ,.)%0),.%' 8 '2' 4%' 0)$'.-/%5' 4%.%')+' ,)' 3+%.')+%' 4'.5',0' '5+%$%.)')' 4*)+' %B)$%8,),%0' *$' 0.'$%5' .5'9.*))%5'16'42',)' ,.' '' 81(+'./*$%' (*86/,('))%5' 3'2' 3+%.',)0' 5,0)'/ %.5',0'&$%%')+%$ (*.-%.,)'/ 4'.50' 8'2' '$,0%' &$*8')+%' *86+'/* 8%0%.)%$,(' 7%00%/0')$'.-1/'),*.' 8'2' 81(+' 8*$%'$'$%/2')'9%'6/'(%',.'7'$,*10' &*$80'*&',.)%$.'/'+%$.,''A+%$.,'',.)*')+%'&*$';8%.'*&' ,.0/*3'*$',.)*' 6%$,)*.%'/6*1(+%0'8%0*(*/,(' 51*5%.* >%>1./' *$' $%)$* 6%$,)*;.%'/R

.6 G)$'.-1/'),*.' *&')+%' 08'//',.)%0),.%' 42')+%' '4*7% 8%.),*.%5'4'.50' *$'6%$)1$%0',0' 8*0)' (*88*,52' 8%)' 3,)+',.' %'$/2' '51/)' /,&%')+%' '7%$'-%' '-%' 4%,.-'&$*8'3%.)2')*' &*$)2' .%'0%B' 5*%0'.*)' '66%'$ 8*$%' /,'4/%')+'.')+%' 4)+%$' %B(%6)' ,.')+%' ('0%' *&'0)$'.-1/'),*.' 42' 5,7%$),(1/''' +,(+' +'0' 4%%.' *40%$7%5' '4*1)')3,(%' '0' *&)%.',.')+%' 8'/%' '0',.)+' 014>%()0' *&' +%8,0%' '.5'*8%.)'/4'150

6 7 G +%0%' '$%'0,8,/'$')*')+%'02 8 6;)*80' '/$%'52'5%0($,4%5'1.5%$' (1)%' 40)&1('),(.

& & G &')+%' *$5,.'$2' 8%'01$%0' &',/')+%' 01$-%*.' 8'2' $%0*$)')*' '45*8,.'/0%(),*.' 3,)+' 81(+' +*6%G%06%(,''//2' ,&'),,%' '-%' *$' '.2)+,.-' ,.')+%' +,0)*$2' 6*,.),.-')*' 6$%7,*10' 6%$,)*.,),0' 8'9%' ,)' 6$*4'4/%')+')' '' 0,.-/%' 4'.5',0'6$%0%.)' 0')*')+%' 5')%' *&,.;)%$&%$%.(%')+%' %'$/,%$')+%' 4%))%$' 4%&*$%')+%' 6'),%.)<0' 0)$%.-)+',0' /*3%$%5' 42' 7*8,),.-' '.5')+%' *6%$'),*.'$%.5%$%5' '55,),*.''//2'5,&&,;(1/)'42'5,0)%.0,*.

' */71/10 G 2')+,0',0'8%'.)' '' &*/5%5'*$')3,0)%5'(*.5,),*.' *&')+%',.)%0),.%'3+,(+'(/*0%0',)0' ('.'/' .' *.%' &*$8')+%' *./2'(*88*.'*.%')+%'0,-8*,5',0')3,0)%5'16*.',)0'8%0%.)%$,(' 'B,0' .' *)+%$' &*$80')+%',.)%0;),.%' -',.'101''//2')+%'0,-8*,5',0',.)%$8,B%5'3,)+' 0*8%' '5>'(%.)' (*,/*&'08'//',.)%0),.%' %$2'$'$%/2')+%')3,0)')'9%0'6/'(%'.*)'*.')+%' 'B,0'*&')+%' 8%0%.)%$2' 41)' *.')+')' *&')+%',.)%0),.%',)0%/&' '&%3'('0%0''$%'*.'$%(*5$',.'3+,(+')+%'08'//',.)%0),.%G)+%/*3%$'6'$)'*&')+%',/%18G+'0'4%%.')+%'0%')'*&')+%'7*/71/10 6 7 G .''55,),*.')*')+%'101'/02 8 6;)*80'*&' (1)%' 40)$1(),*.')+%$%' '$%' (%$;)',.'06%(,'/ 6*,.)0'3+,(+' 8'2' ',5',.')+%'5,'-.*0,0' '(1)%' *40)$1(),*.R'.'5' 8'2' %.5'$'6,5/2',.'5%')+' 1)')+%' 6*,.)' 3+,(+',0'/,9%/2')*' 4%' 5,0),.(),7%' *&' 7*/71/10',0')+%'1$-%.)'5,0)%.0,*.'*&')+%' '45*8%.'*&)%.'51%')*'*.%'*$ 8*$%'+1-%' (*,/0'*&'/'$-%'.)%0),.% +%'5,'-.*0,0'8'2'6%$+'60' 4%'&'(,/,)')%5'42')+%' 10%'*&'%.%8')' $' $%7%0'+'0'01-;-%0)%5')+')')+%'6'00'-%' &)+%'.'5'1.5%$'.'.0%0)+%),(',.)*')+%' $%()18',-+)'(/%'$'16')+%'('0%H 41)')+%' '))'(+8%.)'*&')+%' 8%0*'$%()18',0'*&)%.'0*'0+*$)'0')*'6$%7%.)')+%'+'.5'4%,.-' 0+&%/2'6'00%5'01&&,(,%.)/2' +,-+H '.5'3,)+'$%-'$5')*')+%'0'8%'01$-%*.'0'01--%0),*.'+')'10(1/)'),*.'4%'6$'(),0%5''/*.-')+%'(*/*.'3+,/%'%.%8')'' '$%' -,7%.'+*3%7%$'('$%&1//2')+,0'4%''))%86)%5''.5'+*3%7%$'3%'4*$.%'42')+%'6'),%.)')+%'0*,85'*&')+%'%.)$'.(%'*&&/1,5',0'0*' 5,&/&&,0%5')+')',)',0'.*)''/3'20'%'02')*'8'9%'01$%'*&',)0'6$%0%.(%'*$'4%0.(%',.')+%'(*/*.

& G +,/%')+%'101'/6'//,'),7%')$%')8%.)'0+*1/5'4%'%.&*$(%5''')'*.(%',)'810)'4%'$%8%84%$%5')+')''//')$%')8%.)',0',.''(1)%'('0%0'*&')+,0'9,.5'8*0)'$80'),0',&'()*$2'*3,.-')*')+%'$'6,5'*.0%)')+%'+1-%'0,C%'*&')+%'(*,/0''.5')+%'%'$/2'0)'-%''))'3+,(+'.,&/'88')*$2'(+'.-%0'0%)',.''//')%86)0')*'$%51(%')+%'7*/71/10'42'*45*8,.'/0%(),*.'%B(%6)',.')+%'7%$2'%'$/,%0)'0)'-%0''$%/,9%/2')*'4%'&1),/%''.5'6%$+'60'5,0'0)$*10'+%'5,0)%.5%5'0,-8*,5'0+*1/5'4%'%B6*0%5''.5',)0'(*.)%.)0'%7'(1')%5',&'-'0%*10'42''')$*('$',&'&(%1/ ,)'42'3'0+,.-')+%'8'3'2'0')+%2'%0('6%'42''')0)$%'8'*&'4*,/%5'3')%$'&')+%'7*/71/10'('.'.*3'4%')+*$*1-+/2'$%51(%5')+%'*6%.,.-'8'2'4%'(/*0%5H ,&'.*)',)'0+*1/5'4%(*.7%$)%5',.)*''.')$),&,(,'/'.10'.5',&')+%6$')(),),*.%$',.)*''.')$),&,(,'/'.10'.5',&')+%6$')(),),*.%$',.)*''.')+%'5,0)%.0,*.',0'01&&,(,%.)/2'$%/,%7%5'+%'+'5'4%))%$'6%$;&*$8'''/184'$'(*/*)*82')+%'$,-+)'0,5%'4%,.-'(+*0%.',&')+%'(0%%18'.%%50'$%/,%&' +,0'+'0'4%%.'5*.%'0'''6$,8'$2'*6%$'),*.'3,)+'(*8;6/%)%'01((%00',.')+$%%'('0%0' .)10010(%6),*.' *$' .7'-,.';),*. G +,0'&*$8'*&*40)$1(),*.',0'8*0)',8;6*$)'.)'*3,.-')*',)0'&$%E1%.(2',.'%'$/2'/,&%',)0'$'6,5'&')'/,)2',.'8'.2'%'0%0'.'5')+%'.184%$'*&'4$,//,.')'01((%00%0'3+'+'7%'&*//*3%5',.01&&/'),*.'.'5'45*8,.'/0%(),*.

.6 G .)10010(%6),*.' ,0')+%' 8*0)'(*88*.'7'$,%)2'*&'*40)$1(),*.')*'3+,(+',(+/;5$%.'$%/,'4/%''4*1)'*.%&*1$)+'*&')+%'('0%0'*.'$%(*$5'+'7,.-'*((1$$%5'51$,.-')+%'&,$0)2%'$'.'5'8*$%')+'.'*.%+'/&'51$,.-')+%'&,$0)0%7%.'2%'$0'*&'/,&%' .'%'$/2'/,&%''.5'(+,/5;+**5',)',0'8*$%'&$%E1%.)',.'8'/%0' .)10;010(%6),*.'3*1/5'66%'$)*'4%'4$*1-+)'*4*1)'42'0*8%',$$%-1/'$'6%$,0)'/),(''(),*.'*&'*.%'6*$)'*&')+%',.)%0),.%'6%$+'60'(*.>*,.%5'3,)+',.'(),*.'*&''.*)+%$'6')$',.-'0*8%),8%0',)'&*/;/*30'0%7%$%'61$-,.-'5,'$$+''*$'7,*/%.)0)$',.,.-'0*8%),8%0')+%'6$%0%.(%'*&'3*$80'*$'')6*/26*,5'-$*3)+'%06%(,''//2',.')+%'/*3%$,/%18'.'')*&%3'('0%0',)'+'0'&*//*3%5'8*7%;8%.)0'*$'0)$',.'%06%(,''//2'51$,.-')+%'5'.5;/,.-''.5'5'.(,.-'*&'.',.&'.)'163'$50''.5'5*3.3'$50',.')+'3$ G .'*$5,.'$2'('0%0''')$'.07%$0%'0%()*.'3,/'0+*3')+$%%$,.-0'*&'4*3%/''.5''')*/*.-,)15,.'/*.%)+$%%/'2%$0'*&'4*3%/'*.'%'(+'0,5%'+%'%B)%$.'/

$' (*/*. ')' ,0' , .')+,0' /'))%$' 3 '2')+')' - '//: 0). %0' /' $-% %. *1-+')*' 4/*(9' ,)0' ('. '/ -%)' , .)*')+% 4*3%/H '. 5' +%. (%' , .' 01(+' ('0%0')+*1-+')+%$%',0' 101' //2' '' 6$%7,*10' +,0)*$2' *& 8*$%' *$' /%00' 01&&%$, . -' , .' &),% +26*(+*. 5$,' ($%-,*.' A3+,(+' 8 '2' '00,0)' , .')+%' 5,' - . *0,0R')+*0%' 6'$*B2080' *&' 6', +' '. 5')+%' >'1. 5,(% 3+,(+' '((*86'. 2')+%' 6'00' -%' *&' - '// 0)*. %0' 5*3. ')+%' 51()' 8 '2' . *)' +'7% 4%%.' %B6%; $,%. (%5' '// 0)*. %0' 8 '2' %,)+%$' %0('6% 42')+%' '. 10' *$' 4%(*8%' &,$8/2' ,86'()%5' . 5' (*86/%)%/2' *40)$1()')+%' , .)%0), . %' 40)$1(;),*. ' &$*8')+,0' ('10%' ,0' +*3%7%$' (*86'$';),7%/2' $'$%')' ,0' 8%)' 3,)+' &%,$ 8*$%' &$%; E1%.)/2' , .')+%' &%8 '/%')+' . ' , .')+%' 8 '/%' ' . 5' 3,)+' 7%$2' &%3' %B(%6),*. 0' '&)%$' /')%' 8 .55/%' /,&%' +%'6'),%.)0' '$%' *&)%. '7%$2' *4%0%' 0' *' $1/%')+%'*40)$1(),. -' -'// 0)*. %' ,0' 0, . -/%' +%' 8 *0)' (*88*. '0%')' *&' ,86'(),*. ' ,0')+%' /*3%$' %68 ' . 5' . %B)')*')+,0')+%' >%&1. 18' *$' 51*; 5%. 18

  6 7 G +%0%' '$%'. 01' 2' 0155%. ' . 5' '(1)%H 5%')+' &$*8' %.)%$,),0' (*. >*. %5' 3,)+')+*0%' *&' '(1)%' *40)$1(),*. ' *((1$$, . -' '0' ' $1/%' , .' '4*1)' &,7%' 5'20' 6%$+'60' %'$/,%$' '0')+%' $%01/)' *&' 0+*(9' %**7%$2' $' $52' &'9%0' 6/'(%' . ' 0*8%' &%3' %B(%6),*. '/' ('0%0' $%/,%&' +'0' (*8%' '4*1)' %7%. ' '&)%$' 6%$,*50' *&' 0%7%$%0)' 01&&%$, . -' 42')+%' $%/%'0%' ' . 5' *. 3'$5' 6'00' -%' *&')+%' 0)*. %' H , . '0*8%')+%' 4*3%/' +'0' 4%(*8%' 0)$%)(+%5' , . &*' '' 9, . 5' *&' 5,7%$),(1/18' , . ' 3+,(+')+%' 0)*. %' +'0' $%8 ', . %5' /*5-%5H' , . ' 0*8%' '&)%$' '5+%0, *. ' . 5' 1/(%$'), *. ' ' . ' *6%. ; , . -' +'0' 4%%. ' &*$8%5' 4%)3%%. ')+%' 08 '//', . ;)%0), . %' . 5')+%' . %,-+4*1$, . -' 6')*' *&')+%' (*/*. ' *$' 42' 0,8,/'$' 6$*(%00%0')+%' 0)*. %' +'0' %0('6=' %B)%$. '//2

  ! +,0' ,0' ',5%5' 42')+%' 0%B' '-%' ' . 5'6$%7,*10' +,0)*$2' *&')+%'6'), %.)H)+%' '(1)%; . %00' *&')+%' 0286)*80H '. 5' 6%$+'60' 42')+%' $%(*-. ,)*. ' *&' '' 8*$%' *$' /%00' 5,0),. ()' +'$5' /1866' (*$$%06*. 5, . -')*')+%' *40)$1(), . -' -'//: 0)*. %

  G &' '7%$2' 0+*$)')$, '/' *&' 6'//, ; '),7%')$%')8%.)' ,0' &1),/%' '45*8, . '/ 0%(),*. ' ,0' +%$%')+%' 6'), %.)<0' *. /2' (+' . (%H)+*1-+' 3, . -')*')+%'101'/' -%'+'4,)0' '. 5' (*. 5,), *. ' *&')+%'),001%0')+%' 0)%6' 810)' '/3'20' 4%' ' 7%$2' . B,*10' *. %' +%' 0)*. %' +'7, . -' 4%%. ' &*1. 5' ,)' 8 '2' 4%' 5%'/)' 3,)+GA R' 2')$2, . -')*' 6'00' ,)' *. ' , .)*')+%' /'$-%'4*3%/' A@R' 2' , .)$' , .)%0), . '/ ($10+, . -' %,)+%$' 4%)3%%. ')+%' &, . -%$0' *$'42' &/' & 4/'5%5' &*$(%60' -1'$5%5'3,)+' , .5, ' 844%$')14%' A9R' +,0' 8 '2' 4%' &' (,/,)')%5' 42' $' '),<0' 01--%0), *. ' *&' 61. ()1$, . -')+%' 0)*. %' 3,)+' ' ' . %%5/%' 6'00%5' *4/,E1%/2' AFR' +%'/**6'4%, . -' 5$'3. ' *1)0,5%')+%' 0)*. %' 8 '2' 4%' %B)$')()5' ' . 5')+%' *6%. , . -' 8 *0)' ('$%&1//2' (/*0%5

  *.)$' (), *. 0 G . ')+,0' (/'00' 8 '2' 4%(*3%/0' ' . 5' -%. %$' /5,0(*8&*$)'3,)+, .)%$7'/0' *&' (*86'$'), 7%' ('0%' (*. 0),)1)%')+%' %'$/,%0)' , . 5, (', *. 0' &')+,0'), 8%' *3, . -')*')+%' &*$; -%)), . -' *$' 5%&%$$, . -' *&' . ' %B' 8, . '), *. ')+%' ('0%0' '$%' &'$')**' &$%E1%.)/2')$%')%5' '0' , . ; 0)' . (%0' *&'&/')1/%. (%', . 5, -%0), *. ' ' . 5' (*. 0),; 6'), *. ' ')%$'*. ')+%02 86)*80' *&'*40)$1(), *.

4%(*8%' 8*$%'6$*.*..*%5' .' 8*0)'('0%0'
'45*8,.'/'5,0)%.0,*.''%*Aa^6' ,%5'42'&*%),5'
%$1()'),*.0' .5'6',.' (*8%0' 6.'7'$2,.-'
,.'5%-$%%'&$*8'),8%')*'),8%' +%'6',.',0'
101''//2'5,0),.-1,0+%5'42',)0'6'$*B208'/'(+';
$'()%$'.'.5',)0'$%/'),*.')*'1.3,0%'&%%5,.-'
*8,),.-'101''//2''66%'$0'/')%'1.),/')+%.'
4%,.-'$%6/'(%5'42'.'10%''.5'101''//2'*./2'
4%(*8%0'&0%(1/%.)',.')+%'&,.'/'))'(9'*&'
*40)$1(),*.' +%'8*),*.0'$%'/3'20'1.I'
0'),0&'()*$2')+%'4*3%/0'.*)'.(),.-'3,)+*1)'
'6%$,%.)0'/**0%'0)**//0'*&)%.''/)%$.'),.-'3,)+'
0(24'/''*$*9%.'16'4,)0'3,)+'0/,8%'.'5'
81(10'(*8,.-''3'2' $*14/%0*8%')%'0,.-'
)%.'..10''(10,.-')+%'6'),%.)')*'$%6%')%5/2'
0%%9'$%/,%&'&$*8')+%'0%.0'),*.0'*&'.',8;
6%$&%()/2'%86),%5'4*3%/',0'*&)%.'6$%0%.)'3+%.'
)+%'0)$,()1$%',0'/*3'5*3.' %$,=''/),('8*%'.'
8%.)0'*&')+%' ,.)%0),.%0' '((*86'.,%5'42'
(*/,692'6',.''.5'$184/,.-'4*$4*$2-8,'4%;
(*8%',.($%'0,.-/2'&$%E1%.)''.5'8',&%0)'0'
)+%'8 10(1/'$'&,4$%'+26%$)$*6+,%0' 0')+%'
('0%'6$*-$%00%0'),,%'-%.%$'/'(*.5,),*.'*&')+%'
6'),%.)'3,)+')+%',.($%'0,.-'%8'(,'),*.''.5'
('(+%B,''.5')+%'&',/1$%'*&')$%')8%.)''//'
6*,.)')*')+%'8'/,-..')'06%()'*&')+%'('0%
3 /# ' /+' # G +%'(*1$0%'
*&''01(+'('0%0')+*1-+'7%$2'7'$,'4/%',.'
5,1'),*.',0'6$*-$%00,7%/2'1.&'7*1$'4/%''.5'
0**.%$'*$'/')%$'5%')+'016%$7%.%0'101''//2'
&$*8'6%$,)*.,),0'3,)+'*$3,)+*1)'6%$&*$'),*.'
*$'&$*8'%B+'10),*.'42'6$*/*.-%5'01&&%$,.-'
.5'6*00,4/2'01661$'),*.' 40*/1)%*((/10,*.'
'0''$1/%'(*8%0''4*1)'0/*3/2'.'0*8%'('0%0'
,)',0'.%7%$'(*86/%)%/2'%0)'4/,0+%5H,.')+%$0'
,)'*((1$0'0155%./2'&$*8',86'(),*.'*&'+'$5;
%.%5'&0%*%0'*$',85,-%0)%5'&**5')',0'3*$)+2'
&'.)%')+')'%7%.',.'('0%0',.'3+,(+')+%'0%')'
&'(.0)$,(),*.',0',.')+%'0,-8*,5'&/%B1$%'*$
$%()18')+%'-$%')%0)'%7,5%.(%'*&'0)$%00'*&')+%
&'%('/''((181/'),*.'5,0)%.0,*.'1/(%$'),*.'
'.5'6%$&*$'),*.',0'*&)%.',.')+%'(0 (18
G $*8')+%'7%$2'&,$0)''0'0**.'
'0')+%$%',0'$%'0*.')*'0106%()')+%'6$%0%.(%'*&'
''0)$,()1$%')+%'8*0)'('$%&1/'))%.),*.')*'5,%)'
.'5')+%'$%-1/'$'58,..0)$'),*.'*&01(+'8%5,;
(,.%0'0'3,//'&'7*1$'0*&)'0%8,0*/,5'8*),*.0'
0+*1/5'4%',.0,0)%5'*.' &')+%0%'6*,.0)0'$%'
'))%.5%5')*')+%'6'),%.)0'8'2'4%'9%6)'&*$')+%'
2%'$'*$')3*'3+,(+')+%'5,0%'0%')'9%0')*'$1.'
,)0'(*1$0%',.'(*86'$'),7%'%'0%H41)',)',0'
%B)$'*$5,.'$2'+*3'&$%E1%.)/2''.5''))'3+')'
(*0)')+%0%'8*0)'*47,*10'6$%('1),*.0'0'$%'0),/f
.%-/%()%5' '),%.)0')+%'014>%()0'*&0)$,()1$%'
0+*1/5'4%'3'$.%5')+')')+%2'$%/,7,.-''*.')+%'
4$,.9'*&''6$%(,6,(%' 0''$1/%'('$%/%00.%00'
,.'5,%)'4$,.-0',)0'*3.'6%.')/2''.5'8*0)'
6'),%.)0'3,//,.-/2''(9.*3/%5-%')+%' $%/,%&'
3+,(+'01(+''5,%)'0')+%'&*//*3,.-'-,7%0'
160H8,/9'4$%'5'.5'8&/9'8,/9''.5'');
8%'/''$$*3$**)H6*'(+%5'*$3+,66%5 16'%--0'
''&%3'*20)%$0''/,)))/%'7%-%)'4/%'A%06%(,'//2'
)+*0%'3+,(+'/%'7%''08'/'$%0,51%R'3,)+'
6/%.)2'*&'-$'72'*$'3%/'61$%%5'3,)+'8,/9H''
/,))/%'1.5%$5*.%'8%')'3%/'6*1.5%5'*$
0+$%55%5' .')+%'%'$/2'0)'-%0''.5'/')%$'*.

,.')+%',.)%$7'/0'*&'$%/,%&'&$*8')+$%')%.,.-'
*40)$1(),*.'/'B'),7%0'0+*1/5'4%'-,7%./'$%-1;
/'$/2'+10'*'0%'$'0'a'5'')'4/%)0'(*86*1.5'
/,E1*$,(%'6*35%$'''6,//(*.)',..-''/*%0'(*8;
6*1.5'%B)$'()'*&'%*/*%2.)+'.5'*,/'*&'>1.,6%$'
G*.%'*&')+%0%'8'2'4%'58,..0)%$%5'*7%$;
.,-+)'3+,/%' 1.2'5,')**0'*$''0,8,/'$'
3')%$',0'-,7%.',.')+%'*&8*.,.-' .'*)+%$'
('0%0'('0)*$'*,/',0'6$%&%$'4/%'*$0)$2(+...%'
4%//'5*..''.5''/*%0'8'2'4%'8=%.',.')+%'
&*$8'*&'6,//')3,(%'*$')+$%%')8%0''5'2'
+%$%'*40)$1(),*.',0''()1''//2')+$%')%.,.-'
''/'B'),7%'01(+''0'(0)*$'*,/'*$'01/6+')%'*&
8'-.%0,18'8'2'0),//'-,7%'-$%')'$%/,%&',&'(*8;
4,.%5'3,)+''')/%'),.()1$%'*&'*6,18''.5'
',5%5'42'%.%8')''*&'('0)*$'*,/' 1)'3+%$%'
*40)$1(),*.',0''()1''//2'6$%0%.)')+%'('0%'810)
4%')$%')%5'*.')+%'101'/',.%0''0%5'),7%'+%$%'
$%6/'(,.-'/'B'),7%')$%')8%.)
+%.')+%''4*7%')$%')8%.)'+'0'&$,/%5'
/184'$'(*/*)*82'A*.')+%'$,-+)'*$'/%&)'0,5%'
'((*$5,.-')*')+%',.5,('),*.0'&&*$5%5R0+*1/5'
.*)'4%')**/*.-'5%&.$%5' +%'8%$,)0'*&')+,0'
6%$'),*.',.'$%/,%7,.-'01&&%$,.-''.5'6$/*.-;
,.-'&%',.'%1(+'('0%0'('.'0('$(%/2'4%'%0)%%8%5'
)**+,-+/2
//' 40)$1(),*.'&$*8' *86$%00,*.'
&$*8'3,,=*.) = '$,*10'7,0(%$''%./'$-%5'
'.5'5,06/'(%5'%06%(,'//2')+% 1)%$10'.5'
*7'$,%0''.5',.'$'$%$',.0)'.(%0')+%'06/%%.')+%'
9,5.%2'*$%7%.''5,0)%.5%5'4/'55%$H)14%$(1;
/*10'*$'('.(%$*10'-/'.50')18*1$0'*&')+%'
*8%.)18'='*3)+0'&$*8'*.%'6')'*$*)+%$'*&'
)+%'45*8,.'/'*$'6%/7,('6'$,%)%0'+25'),5'
(20)0'^('8'2'0*'(*86$%00''.%,-+4*1$,.-'
6*$),*.'*&'4*3%/'0')*'/%'5')*'*40)$1(),*.
. G '$%&1/'%B'8,.'),*.'.'),.(/15;
,.-')+')'6%$')0" ''.5'6%$'"2 'A0*8%;
),8%0')+%',.)$*51(),*.'*&')+%'+'.5',.)*')+%'
$%()18'8'2'4%'10%&1/R')*-%)+%$'3,)+')+%'
+,0)*$2'*&')+%'('0%'(*.0,5%$'),*.'*&')+%'(*/;
/')%$'/0,-.0'.5'0286)*80''.5',.'0*8%'('0%0'
'0'3+%$%')+%'03%//,.-',0'(20),('''.'%B6/*$';
)*$2')'66,.-'*$'06,$'),*.'3,//-%.%$'//2'
01&&,(%)*')%0)%.(%'*&'),0+'66$*B,8')%/2')'.2'
$')%')+%'%B,0)%.(%'*&'),0'&*$8'*&'40)$1(),*.
G +,0'(*.0,0)0'&,$0)'.')+%'
$%8*7'/'*&')+%'('10%',&'6$'(),('4/%H0%(*.5/2'
3+%$%')+,0',0',86*00,4/%',.'$% %7,.-')+%'
*40)$1(),*.' 2'/)%$,..-')+%'6*0,),*.'*&')+%'
4*52')+%'5,06/'(%5'7,0(%$''8'2'0*8%),8%0'
4%'8*7%5'0*'0'.*'/*.-%$')*'(*86$%00')+%'
4*3%/H)18*1$0G*7'$,'.')1)%$,.%'$%.'/'*$
+25'),5G8'2'4%'5%'/)'3,)+'42'*6%$'),*.'
+%$%')+,0',0',86*00,4/%',.'$% %7,.-')+%'
(*6,*10'%.%8')''8'2'4%'%86/*2%5'*$'0%5';
),7%0'8'2'4%')$,%5',.')+%'+*6%')+')')+%'4*3%/
8'2'1.5%$')+%,$',.&/1%.(%'$%/%'0%'),)0%/&'
1)',&'.*.%'*&')+%0%'8%'01$%0'0+*1/5'4%
'66/,('4/%'*$01((%00&1/''.5',&')+%'0286)*80'
*&'*40)$1(),*.'4%'0%7%$%'$%0*$)')*'(*/)*82'
*$')+%'8'9,.-''*&'.')'$),&,(,'/'.10'42'4;
5*8,.'/'0%(),*.'8'2'4%(*8%.%%5&1/'.
0*8%'0%0'*&'),0'(/'00'8*$%%06%(,'//2'$%/,%&
+'0'4%%.''&&*$5%5'42'61.(0)1$%'3,)+''',&.%'
)*'('$%''.5'('.1/'

(*/*.'3+%$%')+%2'%B)%.5',.)*')+%''66%.5,(%0'%6,6/*,(0%''.5'*((1$'/%00'*&)%.',.')+%'08*'//',.)%0),.%''/*.-')+%'8%0%.)0$,(' 4*55%$'.'5'888'),*.'&$*8')+%',$$,)',*.'*&'&0%('/'*$&*$%,-.'8')0)%$',0'/,'4/%')*'4%0%)'16',.')+%8'/%'5,.-')*'6%$&*$'),*.',.)*')+%'6%$,)*.%188'*$7%$2'$'$%/2')*'(*8881.,('),*.' ,)+')+%'4/'55%$

+%'%B,0)%.(%'*&'.2'%B)$%8%'5,/')'),*.'8'2'4%'$%(*-.,0%5'42',.06%(),*.'*$'8'.,61;/'),*.'*&')+%''45*8%.'%06%(,'//2',&')+%'6'$,%)%0'4%')+,.'.5'3'0)%5''0')+%2'&$%;E1%.)/2'$%',.'01(+'('0%0'286'.,)%0',0'6$%0%.)')*''7'$,'4/%5%-$%%'1.,&*$8/2'5,0;)%.5,.-')+%'45*8%.'*$('10,.-'02888%)$,('/03%//,.-'%('/7*8,),.-'8'2'*((1$',*(*..%B,*.'3,)+')+%B,0)%.(%'*&''5,/')%5',.)%0),.%'41)')+,0',0'$')+%$')*'4%'')$,41)%5'))*')+%'6$,8'$2'*40)$1(),.-'(10%',.')+%'0286)*80'*&'3+,(+')+%'&%3',.5,(),*.0'6%(1+'$')*')+,0'(*.5,),*.'$%'8%$-%5'.'%B)$%8%'('0%0')+%'8*7%8%.)0'*&')+%'5,';6+$'-8'8'2'4%',.)%$&%$%5'3,)+'.5')+%'+%')$'(0%0'*&')+%'5,';8'2'4%',.)%$&%$%5'3,)+'.5')+%'+%')<0'(),*.',86',$%5'%7%.'&')'//2

'$'/20,0'*$')*.2'&$*8'3'0),.-'*$5%-%.%$'),*.'*&')+%'810(1/'$('')0'42'5,8,..0+,.-')+%'$%0,0)'.(%'*&')+%'4*3%/''//*30'*&',)0'5,0)%.0,*.'+,0',0'3%/'%B%8'56+5%5',.')+%'%B)$%8%'5,/')'),*.'&$*8'&/')10'3+,(+'0*'&$%E1%.)/2''((*86'.,%0''(1)%'6%$,;)*.,),0H''.5',0'(*86'$'4/%')*'(%$)',.'('0%0'*&'-'0)$*%()'0,0'*&''')%86*$'$2'(+'$'()%$

:'2'

,*.*%B G&+%',888%5,')%'('10%'*&')+%'40*/1)%'5%')+'*&''6*$),*.'*&')+%',.)%0),.%',0')+%'(*86/%)%''$$%0)'*&')+%'&/*3'*&'4/**5')+$*1-+')+%'6'$)''&&%()%5'+,0'*40)$1(),*.'8'2'4%'6$*51(%5'42G

A,R'84*/10'*&')+E'016%$,*$'8%0%.)%$,('$)%$2'%7%$'/'('0%0'*&')+,0'(*.5,),*.'+'7%'4%%.'$%(*$5%5

A,,R'+$*8410'*&')+%'8%0%.)%$,('7%,.0'+%'6%$&%()'0)'0,0',.51(%5'42')+,0'('10%',0'*&'7%$2'$'$%'*((1$$%.(%'41)',)'+'0'4%%.'0%%.')*'&*//*3',.7'0,*.'*&')+%'6*$)'/7%,.'42'8'/,-;.'.)'5,0%'0%'.'5''00*(,')%5'',)+')+$*84*0,0'*&')+%'&%8*$'/7%,.',.')+%'61%$6%$'/0)')%

A,5R'%)'(+8%.)'*&')+%'8%0%.)%$2'(/*0%')*')+%',.)%0),.%'3,//'4%'&*//*3%5'42'-'.-$%.%'*&')+%'6')'3+,(+',0')+10'5%6$,7%5'*&',)0'4/**5

A,7R'/,*('/(*.0)$,(),*.0'*&')+%'4*3%/'+,0',0'42'&'$')+%'(*88*1%0)'(/'00'*&'('10%0'*&'-'.-$%.%''.5',0')+%'6$*4'4/%'0%E1%.(%'*&'.'1.$%51(%5'0)$'.-1/')%5'+%$.,''.',.7'-,.';),*.'*$',/%10'.')+%%'0)')%0')+%'7%00%/0'$%'6$%00%5'16*.'*3,.-')*')+%'/)%$%5'6*0,),*.'*&')+%'-1)'3+,(+'3,)+')+%'(*.),..1*10/2',.;($%'0,.-'6$%001$%'*&')+%'*%5%8''')+')'&*//*30')+%'7%.*10'*40)$1(),*.'/%'50')*'(*86/%)%'0)'0,0

A7R'+%'8*$%'-$'51'/*40)$1(),*.')*')+%'4/**5&/*3'&$*8'(*.0)$,(),*.'*&')+%'7%00%/0'42'5,0%'0%0'*&')+%,$'3'//0'/%'50')*'0/*1-+,.-''.5')%.50')*'*((1$',.'/'$5'(%*10'5,0%''0%'*&')+%',.)%0),.%0

A7,R'/*1-+,.-''/0*'*((1$0''0''0%E1%.(%'*&')+%'/*.-*.),.1%5'6$%001$%'*&'+'$5'&%%(%0'*$'*&')+%',.&/'88')*$2'0)'%'3+%.')+%'66*;(%00',0'*&'01(+',.)%.0,)2')+'(*86/%)%'(%00';),*.'*&')+%'(,$(1/'),*.')'9%0'6/'(%',.'/*('0%5'06*)0'101''//2''&&%(),.-')+%'81(*10'8%84$'.%'*./2')+*1-+'*((0,*.''//2'6%.%)$'),.-'5%%6%$'1/(%$0'$%8',.,.-''&)%$'0%6'$')*.''*&')+%'0/*1-+0

'3$#'G'$*8')+%'.')1$%'*&')+%'(*.0),1(),7%'),001%0'*&')+%',.;)%0),.%')+%-'.-$%.%'3+,(+',0'8%)'3,)+',0'*&')+%'8*,0)'7'$,%)2'+%'6*$),*.'*&'4*3%/3+,(+',0''&&()%5',0'')'&,$0)'*&''.',.)%.0%'$%5'(*/*1$'-$'51''//2',.($%'0,.-')*'61$6/%''.5'%7%.')*'4/'(9'+%'%B)$%8%'(*.-%0),*.'*&')+%'7%00%/0'/%'50')*'%&&10,*.'*&'4/**5',.)*')+%',001%0'3+,(+''$%'1.,&*$8/2'(*/*1$%5ℍ5%(*86*0,),*.'$'6,5/2')'9%0'6/'(%,.')+%'0)'-.')'4/**5''.5')+%'6$*51()0'()%5'*.'42')+%'01/6+1$%))%5'+25$*-%.'*&')+%',.)%0;),.%0'4%(*8%'4/'(9''')$'(%0'*&'$%5'(*/*1$'4%,.-'0**.'/*0)'%'.3+,/%')+%'81(*108%84$'.%''.5'8 10(1/'$('*')0''$%'03*//%.''.5'0*55%.'42')+%'0%$18''.5'4/**5'3,)+'3+,(+')+%2''$%',.&,/)$')%5''.5''5'$9'4/'(9')*'0+-$=*0*&)'61/62'8'0',0'&,.'//2')+$*3.'*&&$*8')+%'+%')/)+2',001%'+%'%B)%).)'*&0140)'.(%'3+,(+'8'2'1.5%$-*')+,0'.%($*0,0''.5'4%'0%6'$')%5',0'%B)$%8%/2'7'$,'4/%'&$*8''8%$%'0/*1-4'*&'+'/&'.',1%+',.'5,'8%)%$'*$'08'//%$')*'6*$),*.0'4*3%/0%7%$'/'('10%'3+%)+%$')+')'4%''6/1-=.-''*&')+%'8%0%.)%$,('7%00%/0'*'$''/*('+0%5'%.)%$,),0'B)$%8%&*%)*$'*&')+%0)**/0'8'2'01--%0)',)0'6$%0%.(%'41)'('.''&&*$5'.*',.5,('),*.'*&')+%'%B)%.)'*$5%6)+'*&'4*3%/,.7*/7%5'3+,(+'%'',86*$)'.)'5')''&*$6$*-.*0,0''.5')**'0*8%'5%-$%%'&*$')%');8%.)'),0'.*)'1.),/')+%'06+'(%/10'+'0'4%%.'6'00%5'6%$'/2'*$')+')'0,-.0'*&'1/(%$'),*.''$%'8'.,&%0)')+')'+%'6*0,),7%'%B,0)%.(%'*&'-'.-$%.%'('.'4%'0(%$)',.%5'7%$2'&%3'+*))$0'01&&,(%')*'6$*51(%')+,0'(*.5,),*.'3+%.'*.(%)+%'('10%',0'%0)'4+0+%5ℍ'.5'0,.(%',)'('..*)'4%'%,)+%$'$%0)%5'*$(1$%5')+%'0%6'$'),*.'*&')+%'0/*1-+',0')*'4%'5%0,$%5''/)+*1-+'&')'/+'%8*$$+'-%*$'6%$&*$'),*.'8'2'4%''00*(,')%5'3,)+')+,0'6$*(%00'0''1/%'6$%(/15%''.2')$%')8%.)'4%,.-'06%(,'//2'5,$%()%5')*3'$50',)'&')+%$%'4%'$%'0*.')*'4%/,%7%')+')'+%.),$%')+,(9.%00'*&)+%',.)%0),.%',0'-'.-$%.*10I'*6%$'),7%'6$*(%%5,.-0'0+*1/5'4%'='*.(%

+%' '(),7%')$%')8%.)' ,0')*' 4%' 5,$%()%5')*' 3,)+5$'3,.-')+%' 4/**5' '0' 81(+' '0' 6*00,4/%' 4*8')+%' '&&%()%5' $%-,*.'42' 8%'.0' *&' +%')' 0,.'6,080'5$2 (166,..' ^(Ĥ''.5')*')+%' '6' 6 (')*.'*&'0)26),(0')*')+%' 4/%%5,..-'01$&'(%' *$')+%' '58,.,0)$')',*.' *&' 01(+' $%8%5,%0' '0' '$$%0)' 4/%%5,..-' '&)%$')+%,$' '40*$6),*.' ,.)*')+%' 4/**5' +%' 8*0)' %&&%(),7%' '-%.)0'-,7%.' 42')+%' 8*1)+' '$%')1$6%.),.%' ,.'' &1/' 5*0%' *&' !')*' D!' 5$*60' &*//*3%5' 42' +'/& 5$'(+8' 5*0%0'%7%$2')+$%%'+*1$0Ĥ'.5')+%'651/''6/184,' (18'*6,*' A Ŕ-$'7'%7%$2'&*1$'*$0,B'+*1$0' '...,(''(,5'.5')+%' 7%-%)'4/%' 0),.-%.)0' '$%'101''//2')**' 0/*3' ,.')+%,$' '(),*.')*' 4%' *& 81(+''7',/' ,)'$)$')%'*&'6*)'00,18',.')3*' 5$'(+8'5*0%0',0'*&' 81(+'4%.%&,)',.''$$%0),..-')+%' 4/%%5,..-'*&'6,/%0Ĥ&*$'3+,(+'61$6*0%'/0'*' '0'3%/'0'&*$'7,('$,*10'+0%8*$$+'-%'*$')+%' &/1B'*&' 6'00,7%' (*..-%0),*.'&$*8'+%'/*3%$' 4*3%/')+%' 3$,)%$'+'0'&*1.5'&$%E1%.)/2'$%; 6%')%5'5*0%0'A ,4 ')*' '7,,,Ŕ*&'),.()1$%' *&' +'8'8%/,0'8*0)'%&/&/('(,*10' +%'+E1,5'%B;)$'()'*&' (*('',.'5*0%0'*&'*.%' .5''+'/& 5$'(+80')',.)%$7'/0'*&''&%3'+*1$0'&*$')+$%%' *$&*1$'5*0%0'+'0'4%%.'$%(*88%.5%5'&*$')+%' 0'8%'61$6*0%'$*4'4/2')+%'8*0)'$%/,'4/%' $%852',0'%$-*),.',.')3*-$',.'5*0%0''58,.' ,0)%$%5'014(1)''.%*10/2''.5'$%6%')%5',&'.%%5; &1/'+*1/5')+%'0*1$(%'*&')+%'+0%8*$$+'-% 4%'3,)+,.')+%'$'.-%'*&/*('/''66/,(''),*.'42' $%()'/',.>%(),*.0')+%'8*0)'10%&1/'-%.)0'&*$')+,0'61$6*0%'$%')1$6%.),.%'*.%')*')+$%%' 5$'(+80'3,)+'&*1$')*'%,-+)'*1.(%0'*&'81(,; /'-%'*&'0)'$(+Ĥ%E1'/'6'$)0'*&'),.()1$%'*& 6%$(+/*$,5%'*&',$*.''.5'3')%$Ĥ*$')),.()1$%' *&'+'8'8%/,0''' 5$'(+8')*')+$%%'*1.(%0' '0''.'%.%8''1(+''0)$,.-%.)0''0')''.,(' '(,5'*6,18'*$'+'8'8%/,.'8'2'4%'(*.; 7%.,%.)/2''58,.,0)%$%5',.')+%'&*$8'*&016; 6*0,)*$,%0

+%.')+%' +0%8*$$+'-%,0'5,0),.()/2')+% $%01/'*&'%.-*$-%5'7%00%/0',)0'*((1$$%.(% 0+*1/5.*)'4%' (+%%9%5'6$*7,5%5',)'4%'.*)' %B(%00,7%' 1/6+')%'*&'8'-.%0,18',.'&1 5*0%0'3,)+''&%3'8,.,8 0'*&5,/1)%5'01/6+1$,(' '(,5',0')+%.'*&'-$%')'0%$7,(%

+%'-,7,.-'*&'0),81/'.)0',0''' 6$*(%51$%')+')',.7*/7%0'('$%&,,/>15-8%.)' K =/0)'1.; 5*14)%5/2')+%')%.5%.(2'*&'/*00'*&'4/**5',0')*'6$*51(%'5%')+'42'02.(*6%',)'0'/0*')$1%')+')'&'.)%00'(,)0%/&'&%7*1$0')+%'(%00'),*.''*&')+%'4/%%5,..-''.5'0*'&'$'0''''-%.%$'/'5,$%(;),*.'('.'4%'-,7%.'0),81/'.)0'0+*1/5'4%' '7*,5%5'1./%00')+%$%'4%'$%'0*.')*'&%'$'&$*8')+%'(*.5,),*.''*&')+%'6'),%.)'(+'$')(%$'*&')+% 61/0%'^('/')+')'+%'02.(*6%',0'-$'7%' +*$)' *&')+')'/(*+*/'42')%86*$',/2',.($%'0,.-')+%'+%'$)<0'6*3%$',.($%'0%0')+%'4/%%5,.-

$'.0&10,*.'*&'4/**5'3+%.'6$'(),('4/%' 0+*1/5'4%'$%0*$)%5')*',.'%B)$%8%'('0%0' '

88' .)%0),.%0' 26%$0%8,''.5'*.; -%0),*.''*&G +%'&*$8%$')%$8',0'+%$%'66+%5')*')+*0%'(*.5,),*.0'*&'7'0(1/'$%.-*$-%8%.)' 3+%$%')+%' %B(%00'*&'4/%%5',0'6$,8'$,/2''))/%'0)'4.'+%' '$)%$,'/0,5%'*&')+%' ('6,//'$,%0

A'(),7%'(*.-%0),*.''&/1B,*.''5%)%$8,.'),*.''*&' 4/**5RĤ3+,/0)')+%'/')))%$')%$8',0'$%0)$,()%5')*' ('0%0'3+%$%')+%'&1/.%00',0'('10%5'42'0*8%' *40)$1(),*.')*')+%'7%.*10'&/*3'A6'00,7%'(*.; -%0),*.R' *14)/%00'%,)+%$'*&')+%0%'(*.5,;),*.0'8'2'/%''5')*')+%')'0)'4+0+8%.)'*&')+%' *)+%$'41)',)',0'5%0,$'4/%')*'(*.0,5%$')+%8' 0%6'$')%/2''.*)'0*'81(+'&*$')+%'5,&&%$%.(%',.')+%'('10%0'6$*51(,.-')+%8''10Ĥ&*$')+%'-$%')' 5,&&%$%.(%',.')+%,$'$%01/)0

)'0+*1/5'4%'$%8%84%$%5')+')'%7%.'3,)+,.')+%'/,8,)0'*&'+%'/)+''(*.0,5%$'4/%'7'$,'),*.' ,0'8%)'3,)+',.')+%'5%-$%%'*&'7'0(1/'$,)2'*&')+%''/,8%.)'$2'('./'+%'&/1(1)'),.-'6%$,*50' *&'(),7,)2'.5'$%0)'1.5%$-*.%'42')+%')14%' '$%'00*(,')%5'*&.%(%00,)2'3,)+'/)%$.'),*.0' *&'(*86'$'),7%'+26%$a8,''.5''.'%8,''' '0' 51$,.-')+%'5,-%0),*.''*&''8%'/*$'51$,..-' &'0),.-')',0',86*00,4/%')+%$%&*$%')*'5$'3' '.2',.%'4%2*.5'3+,(+')+%'7'0(1/'$&),/.%00' ('.'4%'0',5')*'4%'4.*$8'/Ĥ'0',)',0'%E1''//2' ,86*00,4/%')*'0'2'%B'()/2'3+%$%'+26%$'%8,'' '.5'.*$8'/-/'.5(+'.-%'%.5''.5'('))$$+' 4%-,.0' +%0%0)')%0'*.')+%'4*$5%$/,.% 4)3%%.'+%'/)+'.5'5,0%'0%'0)*6'0+*$)'*& 6$*51(,.-'$%(*.,0'4/%'),001%(+'.-'$%'.5'$%' (*&')$'.0,%.)'51$'),*.'.'#. ,0%'0%0'*&Ĥ' &&%(),*.0'*&')+%' '0(1/'$')')%

' 3$ # # G +%''66%'$;' .(%0'0%%.'' '$%'&'$&=*$'4%,.-''/3'20',.5,(''),7%'*&'3+')'%B,0)%5'51$,.-'/,&%' *$'.'%B)$%8%')%$,'/&1/.%00'8'2'(*8; 6/%)%/2'5,0'66%'$'&)%$'5%')+'&$*$'(*.)$')(,*.' *&')+%'7%00%/0Ĥ3+,/0)'7%.*10'%.-*$-%8%.)' 8*$%'*$'/%00'(*86/%)%/2'$%8',.0

.6! +%'('10%0'*&',.)%0),.'/# $''$%'0'&*//*30'A'Ŕ%(+',('/' .5'(+%8,('/',$$,)'.)0'&*$%,-.'4*5,%0''.5' 6*,0*.*10'5$1-0'6,(%0''.5'+,-+/2'0%'0*.%5' &**5'.5''/(*+*/Ĥ'.2'0140)'.(%',.'&')' 3+,(+'8'2'4%'03'//*3%5''.5')'/Ĥ%B(%%50')+%'4/'.5%0)'.')1$%'8'2'4$,.-'4*1)''.' '4.*$8'/Ĥ5%-$%%'*&'+26%$'%8,''*&')+%'3+*/%' *$'6')$'*&')+%'('./'+%0%'('10%0''()'/*('//2' .5'5,$%()/2'16*.')+%'7%00%/0

'0*8*)*$'6'$'/20,0'*&')+%'06/'.(+.,(' '$%''&'&$*8''.2'('10%')+%'.*$8'/')*.%'*&')+%'8%0%.)%$,(''7%00%/0',0'5,8,.,0+%5'42',.; +,4,),*.'*$'%8*7'/Ĥ*&')+%')*.,(',.&/1%.(% %B(,)%5'42')+%'J$86')+%),%')+%'7%00%/0',5,/')% '.5'+26%$'%8,''%.01%0')',0',.')+,0'3'2')+')'5,'$$+*%''&*//*3,.-'(%$)',.'%8*),*.'/' 0)')%0'8'2'4%'%B6/',.%5'+%',.),8')%'$%; /'),*.'3+,(+'+'0'4%%.'0+*3.'%B6%$,8%.)'//2')*'%B,0)'4%)3%%.')+%'06/'.(+.,(''.%$7%0'.5')+%'7'0*8*)*$'020)%8'-%.%$'//2'41)'%06%(,; ''//2'3,)+')+%'('$5,'('..%$7'),*.'42'8%'.0' *&')+%'05%6$%00*$'.%$7%<3+%$%42''.2'(*.; 0,5%$'4/%'6%$,6+%$'/$%0,0)'.(%',.')+%'020)%8,(' ('6,//'$2''$%''3+,(+',86%0')+%''(),*.''*&')+%'+%'$)',0'(*86%.0')%5'&*$'42''5,/')',.' *&')+%'8%0%.)%$,('7%00%/0'$%.5%$0',)'6$*4'4/%')+')''.'1.51%'+26%$'%8,''*&')+%',.)%0),.%0',0' *&'7%$2'&$%E1%.)*((1$$%.(%

AWZĤ*//')%$'/Ĥ+26%$'%8,''*$)+%'&1/.%00'=

)+%' 7%00%/0' *&' *.%' $%-,*.' ('10%5' 42' (*.)$'(;
),*.' *&')+%' 7%00%/0' *&' *.*)+%$' '0' ,.')+%'
0+$,.9,.-' *&')+%' (1)'.%*10' 7%00%/0' &$* 8' (*/5'
%B)%.0,7%' 41$.0' ^(' .'01(+' ('0%0')+%' 4/**5'
$%8',..,.-' (*.0)'.)',.' '8*1.)' 8 10)' 5,0)%.5'
*)+%$' 7%00%/0H' .5')+*0%' *&')+%' '45*8,.'/'
7,0(%$' ',.(/15,.-')+%' ,.)%0),.%0' '$%' 6%(1;
/,'$/2'/,'4/%')*'4%(*8%'%.-*$-%5'0' %B6/',.%5'
42' 3+')' 8'2' 4% ('//%5')+%,$' (*86%.0'),.-'
6'$'/20,0

AFR 8*.-'/%00'&$%E1%.)'('10%0'*&',.)%0),.')+%'*40)$1(),*.')*')+%' &/*3')+%' -$%')%$' 3,//
6/%)+*$'' '$%')+%' 0166$%00,*.'*&'+'4,)1'/'5,0;
(+'$-%0G8%.0)$1'/' ^(H)+%' $%8*7'/' *&
6$%001$%''0'*&'0(,),('&/1,5H' .5'0155%.'(+,//0'
8'+*)'(/,8')%0

+%' ('10%0' *&' 2' "0 "' '$%')+%'
&*//*3,.-' ' -%.%$'/' (*.-%0),*.'*&')+%'
%.),$%',.)%0),.'/')$'()' 3,//' 4%' 6$*51(%5' 42'
'.2'*&')+*0%' ('10%0'3+,(+'/%'5')*' 1.,7%$0'/'
(*.-%0),*.'*&')+%'),001%0''0'5,/')'),*.'*&')+%'
$,-+)' +%'$)' &$*8'/1.-5,0%'0%' $%001$%'42'
)18*1$0'*$' *)+%$' (*.5,),*.0' *.')+%',.&%$,*$
7%.'' ('7'' '4*7%')+%' /,7%$' *$' *.')+%' 6*$)'/
7%,.'3,//' 4$,.-' '4*1')+%' 0'8%' $%01/)' *'
'/0*'3,//' .2'*40)$1(),*.')*')+%' 6*$)'/'(,$(1;
/'),*.',.')+%'/,7%$' +,]',0'42'&'$')+%' (*8;
8*.%0)' ('10%'*&',.)%0),.'/' (*.-%0),*.'0,.(%'
(,$$+*0,0' *&')+%' /,7%$' +*3%7%$' 6$*51(%5'
5,$%()/2')%.50')*',)

AFR ' (*.-%0),*.'*&''6*$),*.'*&')+%')14%'$1/%')+%' ('10%',0'01(+''0')*'5%)%$8,.%''
*((1$0'3+%.''.2'*40)$1(),*.'%B,0)0')*')+%'
7%.*10'&/*3'*&')+')'6'$)''0',0'8'$9%5',.'
('0%0'*&',.7'-,.'),*.''.5'0)$',==1/'),*.'*&'
)+%'4*3%/

+%' $'$%$' (*.5,),*.0' *&' %84*/,08' *&'
4$'.(+%0' *&')+%' 8%0%.)%$,(' '$)%$,%0' *$
)+$*84*0,0'*&')+%' 7%,.0'3 ,.51(%',.)%'
(*.-%0),*.'*&')+%' $%-,*.'0166/,%5'42')+%'
((/15%5'7%00%/0' +%'$%01/),.-',.&'$(),.',0'
0*8%3+')'08''//%$')+'.')+%''()1'/'%B)%.)'&%5'
42')+%'7%00%/0'*3,.-')*')+%'&$%%'.'0)*8*0,0'
')')+%'6%$,6+%$2'*&')+%''$%''/*1-+,.-''.5'
1/(%$')*.'*&')+%'81(*10'8%84$'.%'*$'%B;
)%.0,7%'-'.-$%.%'*&''//')+%'(*')0',0'7%$2'
/,'4/%')*'&*//*3'*.')+,0'(*.5,),*.

*)+''(),7%'+26%$0%8,'' '.5'(*.-%0),*.''$%'
%00%.),'/&%')1$%0'*&')+%'7'0(1/'$'(+'.-%0'
(*86$,0%5',.',.&/'88'),*.

6 7 ' +' 22 G +%0%'(*.5,;
),*.0'8'2'*&')+%80%/7%0'-,7%'.*'%7,5%.(%'
*&')+%,$'%B,0)%.(%''/)+*1-+''.'%B(%00,7%''.5'
0155%.'+26%$0%8,'' *&')+%' 06/'.(+.,(' '$%''
3,.'('10%'''&'/',.')+%'-%.%$'/4/**5 6$%001$%'
3,)+'02 86)*80'*&'&',.),.-' 7%$&./.%00'>10)'
'0'.'%8,''*&')+%',.)%0),.-'/7%00%/0'/%'50')*'
,.($%'0%5' 6%$,0)'/0,0' 6$*4'4/2' 51%')*')+%'
5%&,(,%.(2'*&'*B2-%.'.5'%B(%00'*&'('$4*.,('
'(,5'3+,(+'')%.5'%'(+'*&')+0%'(*.5,),*.0

$*8' +26%$0%8,'')+%$%' ,0' '.',.($%'0%5'
0%($%),*.'*&'81(10'.5'*)+%$',.)%0),.'/&/1,50'
&)%.'8$%'3')%$2')+'.'.*$8'/'3+,(+'3,)+'
'.',.($%'0%5'6%$,0)'/0,0',.51(%5'42')+%'0'8%'
+$,)'.')+')'/%5')*'+26%$0%8,'' 6$*51(%0''
5,'$$+*%''' $*7,5%5')+10'*7%$&,8*),*.'/'(;
),7,)2' 4%'/,8,)%5')*')+%' 6$*51(),*.'*&')+%'
&*$8'/0%($%),*.0'*&')+%' 6'$)''.5',.($%'0%5
+%'/)+2''(),*.'*./2')+%'(*.5,),*.'*&'+>6%$'
0%8,'',0'.*)'%B(%%5%5H' 41)')+%'6'00'-%',.)*
(')'$$+',0'%'02''.5'1.8'$9%5'42'.'2'4%16)'
/,.%0

+%',.($%'0%5'4/**5 6$%001$%'8'2'4%01&&;
(,%.)')*',.51(%'5,'6%5%0,0'*&')+%'$%5'(*$610;
(/%0'*$' $16)1$%'*&')+%'('6,//'$,%0'/%'='-'
)*'('6,//'$2' +0%8*$$+'-%' .5'01481(*10'
6%)%(+,0%

0'$%-'$50'(*.-%0),*.')+%'8*$%'(*86/%)%
)+%'*40)$1(),*.')*')+%'&/*3')+%'-$%')%$'3,//
4%')+%'6$%001$%',.')+%'7%,.0'3+*0%')+,.'
3'//0'&%7*1$')+.')$'.015'),*.'*&')+%'$*10'
6')$'*&')+%'4/**5'.5'0*'6$*51(%'&,$0)'.'
%5%8''&')+%'81(*10'8%84$'.%'.5'%.),$%
)+,(9.%00'*&')+%'4*3%/''.5'/')%$'.'%0('6%
&'&/1,5',.)')+%'(.'/',)0%/&'.5',.)*')+%'6%$,;
)*.%'/(7,2')+%/')%$'4%,.-'8*$%'8'$9%5'
+%'%&&,/0,*.',.')+,0'('0%',0'5%6%.5%.')%.;
),$%/2'*.'8%(+'..%05'(*.5,),*.0'3,)+'6*00,4/2'
0*8%'5%)%$,*$'),*.'*&')+%'7%00%/'3'//0H'3+,/0)'
)+%'&/*3',.'+26%$88,'',0'8',./2')+%'$%01/)'
&',.($%'0%5'0%($%),.-''(),7,)2' 0%8$$+'-%'
&$*8'$16)1$%'*&')+%'08''//%$'7%00%/0',0'*&'
&$%E1%.)'*((1$$%.(%''.5'8'2'4%'7%$2'(*.;
0,5%$'4/%' $*&10%'4/%%5,.-'*&)%.''((*8;
6'.,%5'42'0%7%$%' '45*8,.5'6',.'101''//2'
&*//*30'6/1--,.-'*&')+%'8%0%.)%$,(' 7%00%/0

'6$*/*.-%5'0)')%'*&'(*.-%0),*.G'.5'0'
6%$8'.%.)'0)')%G/%'50')*'(%$)',.'0)$1()1$'/
'/)%$')*.0',.')+%'),001%0'*&')+%'4*3%/'&$*8'
)+%',86%$&%()'.1)$,),.'),.'')'(+$*.,(7%.*10'
&1/.%00'4$,.-0'4*1')' +%'.')1$%'*&')+%
(+'.-%',0'(+,%&/2')+%',.&,/)$'),.*'*&)+%'81(*10'
'.5'0 481(*10'(*')0'3,)+''.',86%$&%()/2'
&*$8%5' *..%(),7%',001%'*&)%.'6,-8%.)%5'
3+,(+'('10%0''')+,(9%,.-'.'.5')*1-+.%00'*&'
)+%'4*3%/0''/8*0)',5%.),('/'3,)+')+%'$%01/)0'
&'(+$.,(',.&/'88'),*.

! G)',0'0%/5*8')+')')+%0%'(*.;
5,),*.0'$%01(+''0'('//&*$')$%')8%.)' +%'
+26%$0%8,'',0'101''//2'*&''')$'.0,%.)'.')1$%H
'.5')+%'('10%'*&'(*.-,%),*.',0'-%.%$'//2',$$%;
8*7'4/%' 6%$,%.)0'01(+''0>'/'6'.5'-'8;
4*-%''$%'0*8%),8%0'4%.%&,(,8'42',.51(,.-'
3')%$2'%7'(1'),*.0'.5'0*'$%+%7,.-')+%'7%0;
0%/0'41)')+%2'5%8'.5'(*.0)'.)'$%6%),),*.

+%')$%')8%.)'*&'+0%8*$$+'-%'+'0'4%%.'
(*.0,5%$%5H' 41)')+,0'.5'5,'$$+*%''3+%.'51%')*'
(*.-%0),*.'$%'1./%00'%B(%00,7%''*&)%.'
4%.%&,(,'/'085'$%'.*)')*'4%'(+%(9%5
8<' .)%0),.%0'26%$)$*6+2'*&G +,0'
,0'/3'20'*&/*('/'(1$$%.(%''-%.%$'/+26%$;
)$*6+2',.7*/7,.-')+%'%.),$%'/%.-)+'*&')+%
4*3%/'4%,.-'6$'(),('//2'1.9.*3.

.'(+$*.,('%.)%$,),0').%'81(*10'01481(*10'
'.5'%7%.'810(1/'$'(*')0'$%'6)'+%'4%(*8%
81(+'),(9%.%5''.5')+*1-+'),0',0'6'$)/2'
51%')*''.'%B(%00,7%'&*$8'),*.'*&'(*..%(),7%
),001%')+%$%',0'/0*'0 8%'()1'/'+26%$6/'0,''
&')+%'.$8'/')%B)1$%0

.'6*$),*.0'*&')+%' ..)%0),.%0''4*7%''.'
40)$1(),.''')$1%'+26%$)$*6+2'*&')+%-1)'
6'$),(1/'$/2'*&')+%'810(1/'$'/'2%$0',0')*'4%'
&*,85H'.5''0''/$%'52'0',5')+,0',0'101''//2

0)'6)/2'6$%0%.)G4%,.-'%06%(,'//2'41.5'.)',.'
'&&%(),*.0'*&')+%'/'$-%',.)%0),.%'.5'$%%)1.,'
3+%.' ,)' ,0' *&)%.' 5,0(+'$-%5' '0' (*86/%)%'
)141/'$' ('0)0' *&')+%' 4*3%/' .' (')'$$+'/
'&&%(),*.0'*&')+%' 08'//' ..)%0),.%')+%' 81L10'
8'2'*./2'*((1$',.'8,($*0(*6,(' 6'$),(/%0'.'a5'
3+%.'(*.0,5%$'4/%',.''8*$8)'.'.5',.),8 %/2'
8,B%5'3,)+'')+%' &0%(%0'-%.%$''//2'(*8%0' &$*8'
)+%'&,$0)'6'$)' *&')+%' (*/*.'.'0'8*),*.0'(*.;
0,0),.-'*&' '/8*0)' 61$%' 81(10' (*8%' &$*8'
4%/*3')+%'06/%.,(' &/%B1$%
/**5',0'.*)'101'/'%B(%6)',.'6$*(),),0'.'*$*
1./%00')+%$0' 4%' 1/(%$'),*.'*$'+'%8*$$+*,50H
''.5'610',0'0%/5*8'.*),(%5'1./%00')+%' $%()18'
4%',.&/'8%5' X1'.),),%0' *&',.)%0),..'/'%6,;
)+%/,18''.5'8,($* *$-'.,08 0'8'24%'5%)%()%5'
42')+%' 8,($*0(*6%
3,.-')*')+%',86%$&%()' 6%$&*$8'.(%'*&'
5,-%0),*.'*$' '40*$6),*.')+%'8*),*.0'$%/,'4/%'
)*' (*.)','.'8'.2'4.*$8'/'(*.0),)1%.)0G'0'
&')'3+%.')+%' 51*5%.18'.'.5'166%$'6')'*&'
)+%'>%>1.18'$%' ,.7*/7%5'*$'%7%.' 8'00%0'
*&'&**5'0(' $(%/2' (+'.-%5H'.5')+%' '/)%$%5'
(+'$'()%$0'*&')+%',.)%0),.'/'(*.)%')0'3,)+')+%'
6$*51()0'*&'5%(*86*0,)',*.''$%',.')+%80%/7%0'
8*0)'%&&%(),7%',.'8'..)',..-''5,'$$+(+''
0'''$1/%')+%'5,0(+'$-%0'' $%'6'/%$')+'.'
.*$8'/'*$'8'2'4%'%7%.'(*/*1$/%00H')+%'
-$%%..0+'),.)'0*'*&)%.'0%%.',')+%'%.)%$,),0'*&'
(+,/5$%.',0'51%'%,)+%$')*''6,-8%.)'&*$8%5'
42''4'(,//10'*$')*'4&/,7%$5,.''.5',0')+%.'
(*.0,5%$%5''0',.5,(''),.-'0*8%''4.*$8'/'
'/9'/,.%'(+'.-%',.')+%',.%0),.%'3+%$%42')+%'
4,+7%$5,.'+'0'4%(*8%''/)%$%5')+*1-+')+%'
0)**/',)0%/&''0'6'00%5',0''(,5',.'$%'(),*.'
.'/)%$%5'4,/%'6,-8%.)',')+%&)%(%0',0''4;
.*$8'/''.5',)0'6$%0%.(%',.5,(')%0'('))'$$+'
+,-+'16',.')+%'08'//',.)%0),.%''.5',0''/3'20'
'00*(,')%5'3,)+'&/1,5'%7'(1'),*.0'&$*8',.;
($%'0%5'6%$,0)'/0,0'*&')+%',/%18''.5'(*/*.'
+%'*5*1$',0'101'//2'%B)$%8%/2'*&&%.0,7%'*$
%7%.'61)$,5'%06%(,'//2')+%'3+,)%'*$-$%2,0+'
61))2/,9%'8'00%0'6'00%5'42'(+,/5$%.H)+*1-+'
0*8%),8%0'3+%.')+%'%7'(1'),*.0'$%'7%$2'
/,E1,5''.5'(*/*1$/%00'08%/'8'24%'/)*-%)+%$'
'40%.)' $
3,.-'')*''/'$-%'6$*51(),*.'*&'-'0%0'
5,0(+'$-%0'*&'&/')10''$%'*&'7%$2'&$%E1%.)'
*((1$$%.(%'41)'1./%00')+%$%'4%''(1'/'*4;
0)$1(),*.')2 8 6'.,),(' 5,0)%.0,*.'*&')+%''45*;
8%.',0'.*)'101'/
8 "0'%B(%6)',.')+%'0%7%$%'&*$80',0'
.*)'''(*88*.'02 8 6)*8'*&'%.)%$,),0'1./%00'
)+%'0)*8'(+'4%',.7*/7%5'.'6+/%-8*.*10'
%.)%$,),0'+*3%7%$'7*8,),.-'8'2'4%'6%$;
0,0)%.)''.5'%7%.')0)%$(*$'(%*10H'.5',)',0'
$%/'),7%/2'8*$%'&$%E1%.)',.'(+,/5$%.')+'.',.'
'51/0)'+*$)'*&''()1'/7*8,),..'.'10%''',0'
&$%E1%.)/2'(*86/'.%5'*&
8/"'"''"'"G',.',.',)0%/&',0'
''8*0)'1.(%$)',.'02 8 6)*8'6%$+'60'4%,.-'
0('$(%/2'.*),(%'4/%',.')+%'8,/5%$'&*$80'*&'
(')'$$+H3+,/0)',.'(*/,),0')+%'(*/,(92'-$,6,.-'
6',.0'3+,(+'8'2'*$'8'2'.*)'4%'$%/,%7%5'42'
6$%001$%''$%'(+'$'()%$,0),('),//8*$%'',0'
)+,0')+%' '0%' 3+%.')+%'$%()18',0''&&%()%5
3+%.')+%'0)$',.,.-''.5')%.%0810'(*.0),)1)%'
.%'&')+%'8*0)'5,0)$%00,.-'02 8 6)*8 0'*&')+%
8'/'52'K +%.')+%'6%$,)*.%18',0',.7*/7%5'
)+%'6',.''.5')%.5%$.%00''$%'8'$9%5''.5'
(+'$'()%$,0),(' *)+'8'2'4%'-%.%$'//2'5,&;
&10%5'*7%$')+%'*45*8%.'*$'8'2'4%'/*('/',.'
(+'$')(%$''0'*7%$')+%'()%(18H,.''/'$-%'
.184%$'*&'%'0%0')+%'6',.',0'$%&%$%5')*')+%'
184,/,('/$%-,*.
B "'G 8*.-')+%'8*$%'
-%.%$'/02 8 6)*80'*$')+*0%'00*(,')%5'3,)+'
,.&/'88'),*.'*&'06%(,'/'$%-,*.0''$%')+%'
6+%.*8%.''*&')+%'&%4$,/%0)'%')+%'8 6%$';
)1$%'8'2'$%'(+' ! g' '*$'%7%.'+,-+%$H*$
,.'0*8%('0%0',)'8'2'4%'0('$(%/2'%/%7')%5'
+%'66%),)%'8'2'4%'1.'&&%()%5'%06%(,'//2'
,&')+%'166%$'6'$)' *&')+%')$'()'4%'&$%%6
&$*8')+%'5,0%'0%H3+,/0)')+%$%'8'2'4%
(*86/%)%''.*$6B,'' 3+%.')+%'$%7%$0%',0'
)+%'('0%' +,$0)',0'*&'101'/'*(*,..$$%.(%'
'.5',)'4%(*8%0'7%$2'8'$9%5'3+%.')+%
%7'(1'),*.0''$%''41.5'.)'.5'&/1,5' +%'
)*.-1%'.5,(')%0'$')+%$')+%'-%.%$'/0)')%'*&'
)+%'6'),%.)''.5',0''/%00'$%/,'4/%'.5%B'*&')+%'
'()1'/0)')%'*&')+%',.)%0),.'/'81(*0'8%8;
4$'.%'%7%.')+'.',.'(*$%%06*.5,..-''&&%(),*.0'
*&')+%'0)*8'(+')'8'2'4%5$2'$%5',$$,)'4/%'
'.5'-/'C%5H*$'(*')%$'3,)+'')+,(9'&1$'3,)+'
)+%'%5-%0''.5'6,//0%4$,-+)''.5'6$*8,.%.)H
,.'8,/5%$'('0%0',)',0'*&)%.'1.'&&%()%5' +%'
1$,.%'8'2'(*.)','.''/'$-%''8*1.)'*&',.5,('.'
,.5,(''),7%'*&'/418,.*10'61)$%&'(),*.',.')+%'
,.)%0),.%0' +%'(+'$')()%$'*&')+%'61/0%'7'$,%0'
3,)+')+%'-%.%$'/'0)')%' $*7,5%5')+')'+%'
62$%B,''4%'%B)$%8%'>)+%$%',0')+%' 01'/'5$2'
0,,.''.5'(*.(%.)$')%5'1$,.%'3,)+''')%.5%.(2'
)*3'$50')+%'6$*51(),*.'*&')4%')26+*,5'0)')%'
3+,(+'101'//2',0'$%'(+%5',.'^)=''(')%0' .'
8'.2'('0%0')+%' 6$*0$')',*.',0'%B(%00,7%'
)+*1-+')+%'8,.5',0'101'//2'1.'&&%()%5')*')+%'
%.5''.5'7%$2'*&)%.')+%$%',0''' 8'$9%5',$$,;
)'4,/,)2'*&')%86%$' *)3,)+0)'.5,.-')+%'
,.),8')%'02 8 6)+2'4%)3%%.')+%''/,8%.)'$2'
)$'()'.5')+%' 4$',.'+%'5'(+%',0'*&' $'$%
*((1$$%.(%',.'%.)%$,),0' '6%$0,0)%.)'+,((*1-+'
,0'8%)' 3,)+'0*8%),8%0' .'(+,/5$%1')4%'
5,0%'0%' $'6,5/2'/%'50')*''(*.5,),*.'*&'(*/;
/'60%' +%'(+,/5','/%0',.''''/'.-1,5'*/8*0)'
)*$6,5'0)')%H3,)+')+%'09,.'*&')+%'45*8%.'
,.)%.0%/2'+*)'.5'5$2H3+,/0)')+%'%B)$%8,),%0'
'$%'(*/5'.5'4/1%')+%'&'(%',0'6,.(+%5''.5'
)+%'4*52'-%.%$''//2''66%'$0'0+$1.9%' $%;
E1%.)/2',0')')%',0'..)%$$16)%5'42' '))'(90'
&'(.71/0,*.0'%06%(,'//2',&'5%.),),*.'4%'.'
6$*-$%00' $')+%'(+,/5',0'%B)$%8%/2'&$%)&./'
'.5'8',.)'.0''.''/8*0)'(*.0)'.)'0+*$)'
&%%4/%'($2'%7,5%.)/2''((*86'.,%5'3,)+'6',.
W +%.')+%'5,0%'0%''&&%()0')+%'51*5%.18'
>'1.5,(%'51%')*'(/*01$%'*&')+%'4,/%51()'7%$2'
&)%.''((1$0' +%',.),8')%'.%$7*10'$%/'),*.'
4%)3%%.')+%'$%()18''.5'4'0%'*&')+%'4/'55%$'
%B6/',.0')+%' &$%E1%.(2'*&' 8,()1$,),*.'0*'
(*88*./2''00*(,')%5'3,)+'6$*(.),)0
& G +%'7'$,'4,/,)2''.5'*&)%.),8%0'
7'-1%.%00'*&')+%'02 8 6)*80'&$%E1%.)/2'58,)'
*&''5,'-.*0,0'*&'%.)%$,),0'4%,.-'8'5%'*./2'42

42 '' & ',$/2 5%&, .,)% -$*16 *& 02 8 6)* 8 0 ' . 5 ,0 ')+% 3$,)%$ 4%/,%7%0 '*& &'$ 8 *$% (* 8 8 *. ' *((1$$%. (%)+' .' ,0 -%. %$ '//2 0166*0%5 ' +% 6'),%.)0 '$% 8 *0) &$%E1%.)/2 3 * 8 %. ' %06%(,; ''//2')+*0% *& '' .%$7*10)% 8 6%$' 8 %.)' 4*)+ 0, .-/% ' .5 8 '$$,%5 +% 8 '/' 52 ,0 7%$2 6%$0,0)%.)' 41) ,0 6 '$),(1/'$/2 (+'$' ()%$,0%5 42 8 ' .,&%0),. -' ,)0%/& ,.' 6%$,*5,(' '))'(90 3,)+ ,.)%$7'/0 *& 8 *5%$')%/2 -**5 +%'/)+ +% '))'(90 /'0),. -' '' &%3 5'20)*' '' &%%)7 8 *.)+0 8 '2 &*//*3' '. ,. 5,0%$%),* .' ,. ' 5,%) %B6*01$%' *$ 8 %.)'/ 5,0)1$4'. (% '41) . *)'1 .; 101''//2 *((1$0 3,)+*1) ' .2 *47,*10 ('10%1 +% 02 8 6)* 8 0 '$% '45* 8 ,. '/ 6', .' . 5')% .; 5%$. %00 '/*. -')+% (*1$0%* &)+% (*/*. '7* 8 ,) ,. - 3 +,(+ ,0 *&)%. (* .0,5%$'4/%' . 5 '' 0%. 0%* &0%7%$% ,// .%00')*-%)+%$ 3,)+ -$%') ,$$%-1; /'$,)2 *& 4*3%/0)+% 8 *),*. 0 (*.)', ., .- 8 1(+ 8 1(10 '0+5 0+$%50 *&7'$,*10 0,C% 3,)+ 7%$2 *&)%. 0* 8 %4/**5

& G +% -$*1.50 *. 3+,(+ '5,'; -. *0,0 ('. 4%). '5% '$% 01&&,(,%.)/2 *47,*10 &$* 8 '' (* .0,5%$'),*. ' *&)+% &*$%-*, . -' $%; 8 '$90

/ < (&< ; !)$ #) * $ > .) + "' 7 ' $5)7 ' 8)* $!$43!' ! ' * "'+ ' $ 3 7 " 7 0) 7"' 7 ' 74 ' ! '#$ $ ' ! ' #! - "' ! ' $-' ! ' * 7"' 5!) ' .)"'$- $# 7 5 !' 4 #) $ ' $+ > "') 3 ') * ' 5! #!' ' + # '$ "'+ '/ . ! ' 3) ' 4) $ ' + #$* ' *$) ' 7 * $) ' 7) 3 7 7 ! -)$ * ' $ ' - "')! ' = # ' $-' /)$ $ 3 7 4--) 3 7 7 > #$ * -$) '

! G 3,. -')*')+% .&'7*1$'4/%)%. 5%. (2 *&)+,0 5,0%'0% ')+%)$% ')8 %.)' ('. ' 4% $'$%/2 8 *$%)+' .' 6'//,),7% +% 5%4,/,;)'),. -' . 5 3% '$2,. -' (+'$' ()%$ *&')+% 8 '/'52 %86+'),('//2 ('//0 &*$ -**5 &%%5,. - +% 5,%)0+*1/5 4% '41.5'.)' .*/%00)+'. 1)$,;),*10 1$,. -')+% B'(%$4'),*. 0 *& 8 %8; 4$'. *10 %.)%$,),0 '4*7% 5%0($,4%5)+% -,7,. - *&'&**5 ,0 *&)%. '5,&&,(1/)*3,. -')*')+%7*8 ,),. - '. 5 6',.' 6$*51(%5H "'01(+'('0%0 9*18 ,00 ,0 *& -$%')7'/1% +%. ')+% 5,0%'0% '&&%()0)+% /')-%',.)%0),. %')+%*$5,. '$2'5,-%0),7%('+' . -%0 ,. ')+% &**5 +'7%)'9%.' 6/'(%' . 5)+% (* . ;)%.)0 *&)+% ('. '/ $%'(+')+% (*/*. ' ,. ')+% .*$8 '/ 0%8, &/1,5 (*. 5,),*. H ,. ')+,0 0)')%)+%2 8 '2 4% 6 '00%5H 41) *3, -')*')+% ,8; 6 ,$%5 8 *7%8%.)0 *&)+% '&&%()%5 4*3%/)+% &'%(%0 '$% '6)*' ((1 8 1/')% ' . 5'(*. 0),6'),*. ' $%01/)0 +,0 0+*1/5 4% -1'$5%5 ' -', 0) 42 0,8 6/% %. %8 ')' ' . 5)+% 0**)+,. -' %&&%()* *& ,. >%(),*. 0 *& 3 ',8 3 ')%$* . /2 ,0 *&)%. 7%$2 8 '$9%5 ,0),. ()'4%. %&,)'+'0 4%. '9. *3. ')*' &*//*3 +25$*)+%$ '6%1),%')%')8,.)%06%(,'//2 ,&' ((*86 '. ,%5 42 &$%% $%()' /,. >%(),*. ' 9. *3. ' '0)+*0% ('0%0 3+%$%')+% %.)%$,),0 ,0 '' 0%E1%. (% *& '' (*. -%0),*. ' *&')+% ,.)%0),. %')+%')$%')8%.) 8 10) 4% 5,$%()%5')*' $%/,%7% ,& 6*00,4/%')+% ('10% *&)+')' (*. -%0),*. ' ,. (%)+,0 ,0 101''//2 0* 8 % 01(+',.)$'()'4/% (*. 5,),*. ' '0 $,-+)<0 5,0%'0%' ('$5,'(' 5,/')'),*. ' *$ (,; $+*0,0 *&)+% /,7%$' '))%.),*. ' 0+*1/5 4% 5,; $%()%5')*')+% $%/,%& *&)+%0%' '&&%(),*. 0

. ,(0 G 01(+' '0 E1,. . . % ',. ' 4 '$9' 3,)+ 0%'' ',$G '$% *& 1. 5*14)%5 4%. %&,)H ' . 5' 0* &'$ '0 6*00,4/%'('10%0 *& 8 %.)'/ 3*$$2 0+*1/5 +% $%8*7%5 '00'-% *&)+% '45*8%. ' . 5 -%.)/% 8* %,&,%.)0 06%(,'//2 5,$%()%5')*')+% %B%$(,0% *&)+% '45*8,. '/ 8 10(/%0 '$% 8 *0) 4%. %&,(,'/

.)%0), . %0 ') &*$ 8 '), *. 0 A +%0% 8 '2 4%, '0 " H *$ ' T

'0 " G +*1-+ 0%/5*8'*& 81(+ (/, . ,('/, 8 6*$)' . (% (*. -%. ,)'/ 8 '/&*$ 8 '). 0 *&)+% , .)%0), . %0 '$% *&)%. '*& -$%')' , .)%$%0) &$*8' '' 5%7%/*68%.)'/ 6*, .)' *& 7,%3 ' +% 8 '/&*$ 8 '), *. ' 8 '2 4% *&)+% . ')1$% *& ' . (+10 (%$)', . ' 6')0 &)+% (' . '/' 51*5%. 18 '/(*. ' . 5' '66%. 5, B 78$ 8 ,&*$ 8 ,0 G =+'7% 7%$2 ' $%/2 4%%. '&*1. 5' 5*14/% +% (*88*. %0)' *& '/')+%0% 8 '/&*$ 8 '),*. 0 ,0 '' 5,7%$),(1/18 '*&')+% %18 ' 3+,(+ 8 '2 '$,0% &$*8')+% &$%% 8 '$-, . ' *&)+% ,/%18 ' &$*8' *. %')*')+$%% &%%)' '4*7%0 ')+% ,/%* (0%('/7'/7% +% (%%('/ %B)$% 8 ,)2 *&)+% 6$*(%00 A3+,(+ ,0 *(('0,*. '//2 +'88%$' 0+'6%5 8 '2 4% (*. .%()%5 3, ^)+% 184,/,(10 42 '')+, . &,4$*10 (*$5 0+*3, . -',)*')*' 4% '. ' 1. *4/,)%; $')%5 6*$),*. ' *&)+% 8 *), 7,)%//, .)' 51() ' . 5 ,0 (*88*. /2 9. *3. ' '0 %(9%/<0 5,7%$),(1/18)'7'$,%0 , . '/%. -)+ &$*8' + '/&' . ', . (+)*' 0, B , . (+%0 ' *$ %7%. ' 8 *$%H , . ' 0)$1()1$% ,)' ,0 %B'()/2)+')' *&)+% ,/%18 H ' . 5',)' + '0 4%%. ' &*1. 5')+% 0%')' *&)26+*,5 /(%$'),*. ' *$ *& 6%$&*$'), *. ' &$*8')+% ,$$,)', *. ' *& &*$%,-. 4*5,%0)+')' + '7% 4%(*8%/*5-%5')+%$%, . ' %$2 %B(%6), *. '/ ('0%0 5,7%$),(1/'' *& 0,8,/'$ 0)$1()1$% + '7% 4%%. ' &*1. 5' 6$*)$15, . -' &$*8')+% >%>1. 18 ' . 5' %7%. ' 81/),6/% 41))+%2 '$% . *)' (*. . %()%5 3,)+ 184,/,(10 +% 7%$8 ,&*$8' '66%. 5, B 2 '7' $2 &$*8' + '/&')*')3,(%)+%. ')8 B5 0,C%

C " '*& 5%7%/*68%.) 8 '2 '&&%()+% 3+*/%' '/,8%.)' $2 (' . '/'*$*. /2 (%$)', . '6')0 . 5$'/$%(*$50 '' ('0% 3+%$%*. /2 '' 0)$', -+))14%>*, . %5)+%$%()18 ' . 5'*%0*6+'-10 +% ,/%18 8 '2 *6%. ' 16*. ' . ' %()*6,(4/'55%$ +% $%()18 8 '2 %. 5', . ' (/*('(* 8 8*.)*')+% 1$,. - %. ,)'/ *$-' 0 *$,. ' %,)+%$)+% 4/'55%$'1$%)+$' '*$ 7'-, . ' +% 4*3%/ 8 '2)%$8, . ')% . ' (/*0%5 %B)$% 8 ,)2 ' . 2; 3+%$% 4%)3%%. ')+% 4$,8 *&)+% 6%/7,0 A)+% $%()18 4%, . - -%. %$'//2 $%6$%0%.)%5 42 &,4$*10 (*$5)+*1-+'%7%. ')+,0 8 '2 4% 3 ' .); , . -H ' . 5', 8 %5, ')%/2 4%. %')+)+%'09, . H)+% ' 85 6*1(+ 3+,(+ 5%7%/*60 &$*8' 3,)+*1) , . ; 3 '$50 ,0 , . ')+%'/'))%$ ('0% '40*/1)%/2 3 '.); , . - H ' . 5' ' 5%-$%%0 4%)3%%. ')+,0 ' . 5' 6*1(+)+')' + '0 >10)' &', /%5)*' %0)'4/,0+ '>, 8 (),*. ' 3,)+')+% $%()18 8 '2 4% 8*)' 3,)+ 6$*51(, . -')+% /%0,*. ' 9. *3. ' '0 ' +% 7'/71/0% (*. . ,7%6)%0 '$% 0*8%;), 8 0 3 '.), . -' *$ 7%$2 , 8 6%$&%()' *7%$ 7 = , . -' '$% '0 *&)+% 0 8 '/', .)%0), . %0 *. -%. ,)'/ (*. 0)$, (), *. 0 *& 5, &&%$%.)' 6')0 *&)+% (' . '/ '$%*((' 0, *. ''//2 8 %)' 3,)+ G =. ')+% 51*5%. 18 %,)+%$ (/*0%)*')+% *6%. , . -' *&)+% (*88*.

% 51()'*$''/')+%'>1. (),*.'3,)+')+%'>%>1.18ℍ ,.')+%' /*3%$' %.5'*&')+%' %18'3+%$%' 0*8%' '4.*$8'/,)2',.')+%'(/*01$%'*&')+%'7,)%//,.%' ₭51()'66%'$0')*'4%')+%'('10%ℍ*$',.')+%'0,-; 8*,5'&/%B1$%' 1(+'(*.0)$,(),*.0'8'2'4%' 81/),6/%'.5'*&'7%$2'0+*$)'%B)%.)')+%'('.'/ 4%,..-' 81(+'5,/')%5'*4*7%'.'.5'%B)$%8%/2' .'$$*3%5'.5 0+$1.9%.'4%/*3' +%',/%*' ('%('/*$,&,(%'+'0'4%%.'0%%.'(*.)$')()%5')*')+%' 5,'8%)%$'*&''08'//(%5'$ 6%.(,/' +%'('10%' *&')+%0%'/%0,*.0',0'7%$2'*40(B1$%')+*1-+')+%2' 8'2'+%'*(('0,*.'//2''((*1.)%5'&*$ 42')+%' %B,0)%.(%'*&6$*8,.%.)'7/7% /,9%&*/50'*&')+%' 81(*10'8%84$'.%

%$.,'/6$*)$10,*.0'*&')+%'81(*10'8%8; 4$'.%')+$*1-+')+%')*)+%$'(*')0'*&)%.'7%$2' .18%$*10''.5'7'$2,..-',.'0,C%'&$*8''6,.')*' @'3'/.1)'+'7%'4%%.'0%%.',.')+%'(*/*.''.5' /%00'*&)%.',.')+%'08'//(..)%0),.%'0*8%),8%0' %B)%.5,.-',.)*'+%'66%.5,(%0'%6,6/*,(0%' +%2'$%/,'4/%')*'4%(*8%'5%7%/*6%5',.'('0%0' *&'/*.-0)'.5,.-'(*.0),6'),*.

A^ℜ &T)//G+%''(E1,$%5'8'/&*$8';),*.0',.(/15%')+%'5,/')'),*.0'.5'(*.)$'(),*.0')+')'$%'00*(,'%5'3,)+'0)%.*0,0ℍ''.5')+%.'-$*51; '5+%0,*.0''.5''4.*$8'/'(*881.,('),*.0' %0)'4/,0+%5'42'1/(%$'),*.''.5'6%$,)*.,),0' %/0%3+%$%'$%&%$%5')*

+%.'''.2'0286)*80'$%'6$*51(%5'42' 8'/&*$8'),*.'*&')+%',.)%0),.%0''/,-..')'0%2'$%' 101''//2')+*0%'*&'*40)$1(),*.ℍ''.5')+%'*./2' (*.5,),*.')+')'8'2'4%'8%.'4/%')*')$%');

8%.)',0',86%$&*$')%''.10' $'

%' 'ℍ'.5' % ,0%'0%0'*&

H '.)%0),.%0' '/,-..')' ,0%'0%1.5%$-*'5%-%.%$'),*.''.5'1/(%$'),*.')+10' *&G+%'.%3-$*3)+0'3+,(+'$%'8%)'3,)+' ,.'(*..%B,*.'3,)+')+%',.)%0),.%'8'2'&*$')+%'6$%0%.)'61$6*0%'8*0)'(*.7%.,%.)/2'4%' 5,7,5%5',.)*' 0" "'.5'" " 30" /"' G'" (/,.,('/5,0),.(),*.',$$%06%(),7%'*&')+%,$' 8,.1)%'0)$1()1$%

= , G '/,-.'.)'-$*3)+0'*&')+%',.;)%0),.%'0',.'*)+%$'0,)1'),*.0'3+,/0)'.*)' 3+*//2'1.9.*3.',.')+%'%'$/,%$'6%$,*50'*&' /,&%''$%'$'$%/2'8%)'3,)+'4%&*$%')+%''-%'*&' &*$)2''.5'*&)%.%$'!&)%$'&,&)2')')0),)(0'0+*3' ''0/,-+)'6$%6*.5%$'.(%'*&*((1$$%.(%$'8'8'/%0' $*8'.'%B.*8,.'),*.'*&'P!!!'&')'/'('0%0'*&' (',(%$')+%'$%/'),7%'&$%E1%.(2'*&',.)%0),.'/ ('.(%$')*')+')'*&''//*)+%$'*$-.0'3'0'&*1.5')*'4%'0')*'@F'A'.(+*1R

'.(%$'*&')+%',.)%0),.%',0'.%'$/2''/3'20' 6$,8'$2''.5'7%$2'&$%E1%.)/2'$1.0',)0'(*1$0%' 3,)+*1)'.2'0%(*.5'$2'&*$8'),*.0'%/0%3+%$%' ((')0,*.'//2')+%'4*3%/0'$%'&&%()%5'42'%B;)%.0,*.'&$*8'.%,-+4*1$,.-'6')$0''.5')+,0',0' %06%(,'//2'/,'4/%')*'4%')+%'('0%',.')+%'$%(),1.' 3+%.')+%'1)%$10'*$'7'-,.''',0')+%'0%')'*&)+%'5,0%'0%'.5',.')+%'51*5%.18'3+,(+' 8'2'4%(*8%',.7*/7%5',.'.'%B)%.0,*.'&$*8')+%'6'.($%'0'/,7%$'-'// 4/'55%$'*$'0)*8'(+' %$2'$'$%/2'08'//.*51/%0''$%'&*1.5',.')+% 0*/,)'$2''.5'-8,.')%5'-/'.50'0%(*.5'$2')*' ('$(,.*8''%B,0),.-'%/0%3+%$%

! ' $' ' 5 G '/,-.'.)'5,0; %'0%' 8'2'*((1$')' '.2'06*)')+$*1-+*1)+%'%.),$%'/%.-)+'*&'4*)+'08'//''.5'/'$-%' ,.)%0),.%'41)',0',.&,.,)%/2'8*$%'*&)%.')*'4% 8%)'3,)+''')'(%$)',.'06%(,('/6'$)0'.*)'4/2')+%'$%()18'0,-8*,5'&/%B1$%'(0%(18'(*/*.' -%.%$'//2''.5'51*5%.18'.%'$')+%'*6%.,.-' *&')+%4 %51()ℍ')+%'>%>1.18''.5'5%18'4%,.-' $'$%/2''&&%()%5')'+'0'4%%.'%0),8')%5')+')' ,.'?!'6%$'(%.)'*&')+%'('0%0'*&',.)%0),.'/ ('.(%$')+%'$%()18',0'&&%()%5ℍ,.' ₭F')+%' (*/*.ℍ,.'₭@')+%'('0(18'66%.5,B''.5' ,/%*(0%%'/7'/7%ℍ''.5',.'<"')+%'08'//,.)%0;),.%'+%$%',0'1.5*14)%5/2''6$%5,/%(),*.' &*$)+*0%06*)0'3+%$%''.2'5%'/2'8'2'*((1$,.')+%'6'00'-%'*&')+%',.)%0),.'/(*.)%.)0' 01(+'0')+%'&/%B1$%0'*&')+%'/'$-%',.)%0),.%' %06%(,'//2')+%'0,-8*,5

+%'-$%')%$'.184%$'*&',.)%0),.'/-$*3)+0' ,.(/15%5',.')+%'(')%-*$2'*&'8'/,-.'.)'$% *&')+%'%6,)+%/,*8')*10')26%'%06%(,'//2')+% (2/,.5$,('/'.5'-/'.51/'$'7'$,%),%ℍ0*8%; 3+')'/%00'&$%E1%.)',0')+%'(*//*,5'&*$8ℍ3+,/0)')+%'0(,$$+*10'.5'%.(%6+'/*,5''$%'81(+'$%$' 0''$1/%'8'/,-..')'-$*3)+0'(*88%.(%',.')+%'81(*0''.5'0148 1(*0''.5')+%.'-$*51; ''//2',.7*/7%')+%')+%$',001%0'+%'8.($*: 0(*6,('(+'$'()%$0'*&')+%0%'.%3-$*3)+0'6$%; 0%.)'.*'06%(,('/&%')1$%0''

+%'8%0%.)%$,('-/'.50'$%'-%.%$'//2''&; &%()%5')+*1-+'*&)%.'41)'0/,-+)/2' %(*.5'$2' ,.&%(),*.',0'81(+'/%00'(*88*.')+'.',.'(.; (%$'*&*)+%$'*$-.0ℍ3+%.'6$%0%.)')+%'/,7%$' '.5'6%$,)*.%18''$%')+%'101''/0%')0

*//*3,.-')+%'-%.%$'/'(*1$0%'*&')+%0%'.%*; 6/'080'3+%.'&*1.5'%/0%3+%$%')+%2'8'2' 0%1.5%$-*'5%-%.%$'),*.''.5'1/(%$'),*.')+10' 01&&%$,.-'''5,8,.1),*.',.'41/9''')'*.%'06*)' 3+,/0)'+%2'%B)%.5',.')+%$'5,$%(),*.0' .')+%'(*1$0%'*&')+%,$'5%7%/*68%.)')+%2'8'2' 0%)'16'5+%0,*.0'4%)3%%.')+%'4*3%/'.5' *)+%$'6')$0ℍ''.5')3*'*$'8*$%'(*,/0'*&',.)%0;),.%'8'2'4%')+10',.7*/7%5''.5'&,0)1/*10' (*881.,('),*.0'%0)'4/,0+%5'4%)3%%.')+%8' +%'(*//*,5'&*$8',0')+%'8*$%/,'4/%')*',.7'5%%)+%'6%$,)*.%18 3+%$%/'$-%'-%/')',.*10'8'00%0' 8'2'4%'5%7%/*6%5

+%'.%3&*$8%5'),001%'8'2'(*.0),)1)%''.' ,$$%-1/'$'8'00'*&'7%$2'7'$,'4/%'0,C%''.5' %B)%.)''*&''.*51/')%5'*$'*&''7,//*10'66%'$; '.(%'6%$+'60'6'$),'//2'1/(%$')%5''.5'%B)%.5; ,.-',.)*')+%'6'00'-%'*&')+%'(.'/'6$*51(,.-' '.'*40)$1(),*.'$')+%'.%3-$*3)+'8'2' 5%7%/*6',.₭'.'.1/'$'8',8%$',.7*/7,.-')+%'3+*/%'(,$(18&%$%.(%'*&')+%'4*3%/ℍ)+% *40)$1(),*.'6$*51(%5',.'01(+'(,$(180)'.(%0' 8'2'4%'%B)$%8%'%7%.')*'.'$$*3,.-')+% /18%.'*&')+%')14%')*'4'$%/2')+%'0,C%''*&'' 6$*4%'+%'%B)%.)'*&'*40)$1(),*.'8'2'4% '/)%$%5'42'6'$),'/'5%0)$1(),*.''*&')+%'.%3' -$*3)+'42'0/*1-+,.-')+*1-+')+%'0140%E1%.)' (,()$,(%0')+')'8'2'$%01/)'3,/'-',.'(*.0)$,()')+%'-1)

!(! G *$''7'$2,.-'),8%'4%&*$%)+,0' 5,0%'0%'5%&,.,)%/2''00%$)0',)0%/&')+%'6'),%.)' 8'2'(*86/'.''&'7'-1%'5206%6),('0286)*80ℍ '' 0%.0%'*&'1.%'0,.%00',.')+%'*45*8%.''.*)' '8*1.),.-')*'6',.''.'5'101''//2',.($%'0%5'&)%$

"1@

8%'/0H''.5'8'$9%5',$$%-1/'$,)2',.')+%''(),*.'*&')+%'4*3%/0'3,)+'*$3,)+*1)'&/')1/%.)'(/,0I'%.0,*.''.5'.',.($%'0,.-')%.5%.(2')*'(*.0),I'6'),*.'&*$3+,(+')+%'6'),%.)'+'0'*&)%.')'9%.'%.*$8*10'E1'.),),%0'*&''6%$,%.)0'*&''5$'0),('.5'('+'$')(),('+'$'()%$'3+,(+'*.%'42'*.%'/*0%')+%,$'%&&%()'+%'6%$0,0)%.(%''.5'-$'51'/,.($%'0%'*&')+%0%'0286)*80'%06%(,'//2',&')+%$%'4%''.2'/*00'*&'&/%0+','0'7%$2'0,-.,&,('.)''.5'0+*1/5'%B(,)%'0106,(,*.'**.$'*$/')%$''((*$5,.-')*'+%'51$'),*.'*&')+%'('0%')+%'101'/'('(+%B,'',0'%0)'4/,0+%5H''.5'..')+%'-$%')%$.18 4%$'*&'('0%0')+%'6'),%.)'$'6,5/2'%8'(,')%0'%06%(,'//2')*3'$50')+%'%.5')+*1-+',.'('0%0'*&'7%$2'0+*$)'51$'),*.')+%'3'0),.-'8'2'.*)'4%'0'%B(%00,7%'+%'%8'(,'),*.'5%6%.50'.*)'*./2'*.')+%'-%.%$'/'6%$7%$0,*.'*&'.1)$,),*.'('10%5'42')+%'5%7%/*68%.)'*&')+%'('.(%$'41)'/0*'*.')+%'5,$%()',.&/1%.(%,)'%B%$)0'*.'*$-'.0'(*.(%$.%5',.')+%'5,-%0I'),*.''.5'140*$6),*.'*&'.1)$,8%.)H+%.(%')+%'+,-+%$'16',.')+%'4*3%/')+%'-$*3)+',0'0,)1')%5')+%'0**.%$',0')+%'/*00'*&'&/%^'5%)%$8,.%5

+%'/*('/'0,-.0'.5'0286)*80'$%&%$'4/%')*')+%'.%3-$*3)+',)0%/&'$%'7%$2'7'$,'4/%',.')+%,$'*((1$%.(%''.5'*&)%.'$%'0,.-1/'$/2'0/,-+)',.'(*86'$,0*.'3,)+')+%'-$'7,)2'*&')+%'('10%'+10'6',.'8'2'4%'(*86/%)%/2'3'.);,.-''.5'6%$+'60')+%$%',0'41)'/,)%').%5$.%00'*.'6$%001$%'H3+%.'6$%0%.)')+%'6',.',0'101'//2'*&''51//'(+'$')()%$''.5'=1,)%/*('/,0%5

+%',.5,(')',*.0'*&')+%',)1.*1$'6$*51(%5'42')+%'.%3-$*3)+'$%'7%$2'1.(%$)'..'4%,.-'*&)%./')))/%'8*$%')+'.''.',// 5%&,1%5'&1/.%00',.'*.%'$%-,*.'0('$(%/2'%7%.''8*1.),.-')*')+')',.')+%''..1/'$'&*$8'*&'('.(%$*10'0)$,(;)1$%'H')'*)+%$'),8%0'6$%0%.),.-''5,0),.()'+'$5',$$%-1/'$'8'00'*&'7'$,'4/%'0,C%'+,0'/'0)'E1'/,)2'4%,..-'6'$)/2'5%6%.5%.)'*.'&'%(%0'',0'7%$2'(+'$'()%$,0),('+*1/5')+%'-$*3)+'+'66%.')*'4%'0,)1')%5'*7%$')+%''*$)''*$',/,'('$)%$,%0''.',.5,0),.()'6$50'),*.'8'2'4%'(*8;81.,('%5')*',)'+%'6%$(100,*.*)%'*7%$')+%')18*1$',0'101'//2',86%$&%()/2')286'.),('&$*8')+%'%B,0)%.(%'*&'(*,/0'*&',.)%),.%0'4%;)3%%.',)'.5')+%'45*8,.'/3'//')+%')+,(9;.%00'*&'3+,(+'3,.'*&'.%(%00,)2'(*.0,5%$'4/28*5,&2')+%'0,-.0'*&')+%'%B,0)%.(%'*&')+%'-$*3)+'+%'8'00'8'2'6$%0%.)''//'5%-$%%0'&$*8'&$%%'8*4,/,)2')*'(*86/%)%'&,B,)2'5%6%.;5%.)'*.')+%'.')1$%'*&',)0'0%')''.5'/0*'*.'))+%'%B,0)%.(%'*&'5+%0,*.0')*'.%,-+4*1$,.-'6')0

286)*80'*&'8)%0),.''/'*40)$1(),*.''$%$'$%/2'3'.),.-''.5'8'2'4%')+%'&,$0)'&*$'3+,(+')+%'6'),%.)'0%%90'$%/,%&'*8,),..-'(*.0),6'),*.'*&',.($%'0,.-'0%7%$,)2'3,)+'0,-.0'*&',.)%0),.*.''4*7%')+%'/%0,*.''5')+%''()1'/5%-$%%'8*.-')+%'8*0)'(*.0)''.)'+%'(+'$'()%$'*&')+%'7*8,)',/'/'$-%/2'5%6%.5'*.')+%'51$';),*.''.5'0,)1')',*.'*&')+%'/%0,*.''.5')+%''()1'/5%-$%%'*&'*40)$1(),*.'+%.')+%'>%>1.18'*$'/*3%$'6'$)'*&')+%'51*5%.18',0')+%'0%')'*&')+%'-$*3)+')+%'7*8,),.-',0'8*$%'(*6,*10''.5'(*.0)''.)/2'4,/%0)'',.%5S)+%'4*3%/''.5'0)*8'('4*7%')+%'0)$,()1$%'0+'$,.-',')+%'5,0)%.0,*.

+%.')+%'*40)$1(),*.',0'/*3%$'5*3.',.')+1'/'$-%'(,.)%0),.%')+%'7*8,),..-'8'2'4%'0/,-+)''.5'(*.0,0)'*&'/,))/%'8*$%')+'.')+%'-0)$,('0%($%),*+0'3,)+'01(+'&**5''0',0')'9%.'*./2'4%(*8,.-'0)%$(*$'(%*10'3+%.')+%'*40)$1(),*.'4%(*8%0'(*86/%)%''((0,*./'5,'$$+*%''5%)%$8,.%5'42')+%'(+$*.,('%.)%$,),0'3+,(+'%B,0)0'8'2'/)%$.')%'3,)+')+%'(*.0&,6'),*.H'.5'$16)1$%'*&')+%',.)%0),.%0'%06%(,'//2')+%'(0%()1.'+'0'4%%.'8%)'3,)+''0''$%01/)'*&')+%')$*6+2'.5'1/(%$'),*.'*&')+%'*7%$5,0)%.5%5'(+$*.,('//2',.&/'8%5'4*3%/'0',.')*)+%$*&*88'0'&',.)%0),.'/'*40)$1(),*.')+%'8*1.)'*&'1$,.%'7*,5%5',0'/,9%/2')*'4%'7%$2'81(+'5,8,.,0+%5'3+%.')+%')0),()1$%',0'+,-+'16''.5')+%'7*8,),..-',0'%B(%00,7%''$,$,,,.%'

+%0)**/0''$%'101'//2'(+'$')(%$,0),(''*&')+%'*40)$1(),*.''(*.0,0),.-'*&'08'//'0%6'$')%'8'00%0'&$%E1%.)/2'+'$5''.5'$*1.5'*$&/');)%.%5'*$'06,6%0)%8'f9%''.5'*&)%.'8,B%5'3,)+'0/*-+%5*&/&6*$),*.0'*&')+%.%3-$*3)+'*$'3,)+'4/**5'/)8)'+'0'%0('6%5'&$*8')+%'1/(%$')%5'01$&'(%'+%'.%'$%$')*')+%'.10'')+%'-$*3),+',0'0,)1')%5')+%'/%00'(+'.-%3,//')+%$%'4%',.')+%'4/**5'3+,(+'0*8%),8%0'8'2'4%'(*.0,5%$'4/%',.''8*1.)

&')+%'6%$,)*.',)2*7/*7%5'6%$,)*.',0*7/%5'6%$,)*.',)1.*1$'6$*51(%5'42')+%'.%3-$*3)+'$%'7%$2'1.(%$)'..'4%,.-'*&)%./')))/%'8*$%')+'.''.',// 5%&,1%5'&1/.%00',.'*.%'$%-,*.'0('$(%/2'%7%.''8*1.),.-')*')+')',.')+%''..1/'$'&*$8'*&'('.(%$*10'0)$,(;)1$%'H')'*)+%$'),8%0'6$%0%.),.-''5,0),.()'+'$5',$$%-1/'$'8'00'*&'7'$,'4/%'0,C%'+,0'/'0)'E1'/,)2'4%,..-'6'$)/2'5%6%.5%.)'*.'&'%(%0'',0'7%$2'(+'$'()%$,0),('+*1/5')+%'-$*3)+'+'66%.')*'4%'0,)1')%5'*7%$')+%''*$)''*$',/,'('$)%$,%0''.',.5,0),.()'6$50'),*.'8'2'4%'(*8;81.,('%5')*',)'+%'6%$(100,*.*)%'*7%$')+%')18*1$',0'101'//2',86%$&%()/2')286'.),('&$*8')+%'%B,0)%.(%'*&'(*,/0'*&',.)%),.%0'4%;)3%%.',)'.5')+%'45*8,.'/3'//')+%')+,(9;.%00'*&'3+,(+'3,.'*&'.%(%00,)2'(*.0,5%$'4/28*5,&2')+%'0,-.0'*&')+%'%B,0)%.(%'*&')+%'-$*3)+'+%'8'00'8'2'6$%0%.)''//'5%-$%%0'&$*8'&$%%'8*4,/,)2')*'(*86/%)%'&,B,)2'5%6%.;5%.)'*.')+%'.')1$%'*&',)0'0%')''.5'/0*'*.'))+%'%B,0)%.(%'*&'5+%0,*.0')*'.%,-+4*1$,.-'6')0

286)*80'*&'8)%0),.''/'*40)$1(),*.''$%$'$%/2'3'.),.-''.5'8'2'4%')+%'&,$0)'&*$'3+,(+')+%'6'),%.)'0%%90'$%/,%&'*8,),..-'(*.0),6'),*.'*&',.($%'0,.-'0%7%$,)2'3,)+'0,-.0'*&',.)%0),.*.''4*7%')+%''()1'/5%-$%%'*&'*40)$1(),*.''+%.')+%'>%>1.18'*$'/*3%$'6'$)'*&')+%'51*5%.18',0')+%'0%')'*&')+%'-$*3)+')+%'7*8,),.-',0'8*$%'(*6,*10''.5'(*.0)''.)/2'4,/%0)'',.%5S)+%'4*3%/''.5'0)*8'('4*7%')+%'0)$,()1$%'0+'$,.-',')+%'5,0)%.0,*.

+%.')+%'*40)$1(),*.',0'/*3%$'5*3.',.')+1'/'$-%'(,.)%0),.%')+%'7*8,),..-'8'2'4%'0/,-+)''.5'(*.0,0)'*&'/,))/%'8*$%')+'.')+%'-0)$,('0%($%),*+0'3,)+'01(+'&**5''0',0')'9%.'*./2'4%(*8,.-'0)%$(*$'(%*10'3+%.')+%'*40)$1(),*.'4%(*8%0'(*86/%)%''((0,*./'5,'$$+*%''5%)%$8,.%5'42')+%'(+$*.,('%.)%$,),0'3+,(+'%B,0)0'8'2'/)%$.')%'3,)+')+%'(*.0&,6'),*.H'.5'$16)1$%'*&')+%',.)%0),.%0'%06%(,'//2')+%'(0%()1.'+'0'4%%.'8%)'3,)+''0''$%01/)'*&')+%')$*6+2'.5'1/(%$'),*.'*&')+%'*7%$5,0)%.5%5'(+$*.,('//2',.&/'8%5'4*3%/'0',.')*)+%$*&*88'0'&',.)%0),.'/'*40)$1(),*.')+%'8*1.)'*&'1$,.%'7*,5%5',0'/,9%/2')*'4%'7%$2'81(+'5,8,.,0+%5'3+%.')+%')0),()1$%',0'+,-+'16''.5')+%'7*8,),..-',0'%B(%00,7%''$,$,,,.%'

+%0)**/0''$%'101'//2'(+'$')(%$,0),(''*&')+%'*40)$1(),*.''(*.0,0),.-'*&'08'//'0%6'$')%'8'00%0'&$%E1%.)/2'+'$5''.5'$*1.5'*$&/');)%.%5'*$'06,6%0)%8'f9%''.5'*&)%.'8,B%5'3,)+'0/*-+%5*&/&6*$),*.'0'*&')+%.%3-$*3)+'*$'3,)+'4/**5'/)8)'+'0'%0('6%5'&$*8')+%'1/(%$')%5'01$&'(%'+%'.%'$%$')*')+%'.10'')+%'-$*3),+',0'0,)1')%5')+%'/%00'(+'.-%3,//')+%$%'4%',.')+%'4/**5'3+,(+'0*8%),8%0'8'2'4%'(*.0,5%$'4/%',.''8*1.)

&')+%'6%$,)*.',)2*7/*7%5'6%$,)*.',0*7/%5'6%$,)*.',)1.*1$'6$*51(%5'42')+%'.%3-$*3)+'$%'7%$2'1.(%$)'..'4%,.-'*&)%./')))/%'8*$%')+'.''.',// 5%&,1%5'&1/.%00',.'*.%'$%-,*.'0('$(%/2'%7%.''8*1.),.-')*')+')',.')+%''..1/'$'&*$8'*&'('.(%$*10'0)$,(;)1$%'H')'*)+%$'),8%0'6$%0%.),.-''5,0),.()'+'$5',$$%-1/'$'8'00'*&'7'$,'4/%'0,C%'+,0'/'0)'E1'/,)2'4%,..-'6'$)/2'5%6%.5%.)'*.'&'%(%0'',0'7%$2'(+'$'()%$,0),('+*1/5')+%'-$*3)+'+'66%.')*'4%'0,)1')%5'*7%$')+%''*$)''*$',/,'('$)%$,%0''.',.5,0),.()'6$50'),*.'8'2'4%'(*8;81.,('%5')*',)'+%'6%$(100,*.*)%'*7%$')+%')18*1$',0'101'//2',86%$&%()/2')286'.),('&$*8')+%'%B,0)%.(%'*&'(*,/0'*&',.)%),.%0'4%;)3%%.',)'.5')+%'45*8,.'/3'//')+%')+,(9;.%00'*&'3+,(+'3,.'*&'.%(%00,)2'(*.0,5%$'4/28*5,&2')+%'0,-.0'*&')+%'%B,0)%.(%'*&')+%'-$*3)+'+%'8'00'8'2'6$%0%.)''//'5%-$%%0'&$*8'&$%%'8*4,/,)2')*'(*86/%)%'&,B,)2'5%6%.;5%.)'*.')+%'.')1$%'*&',)0'0%')''.5'/0*'*.'))+%'%B,0)%.(%'*&'5+%0,*.0')*'.%,-+4*1$,.-'6')0

286)*80'*&'8)%0),.''/'*40)$1(),*.''$%$'$%/2'3'.),.-''.5'8'2'4%')+%'&,$0)'&*$'3+,(+')+%'6'),%.)'0%%90'$%/,%&'*8,),..-'(*.0),6'),*.'*&',.($%'0,.-'0%7%$,)2'3,)+'0,-.0'*&',.)%0),.*.''4*7%')+%''()1'/5%-$%%'*&'*40)$1(),*.''+%.')+%'>%>1.18'*$'/*3%$'6'$)'*&')+%'51*5%.18',0')+%'0%')'*&')+%'-$*3)+')+%'7*8,),.-',0'8*$%'(*6,*10''.5'(*.0)''.)/2'4,/%0)'',.%5S)+%'4*3%/''.5'0)*8'('4*7%')+%'0)$,()1$%'0+'$,.-',')+%'5,0)%.0,*.

+%.')+%'*40)$1(),*.',0'/*3%$'5*3.',.')+1'/'$-%'(,.)%0),.%')+%'7*8,),..-'8'2'4%'0/,-+)''.5'(*.0,0)'*&'/,))/%'8*$%')+'.')+%'-0)$,('0%($%),*+0'3,)+'01(+'&**5''0',0')'9%.'*./2'4%(*8,.-'0)%$(*$'(%*10'3+%.')+%'*40)$1(),*.'4%(*8%0'(*86/%)%''((0,*./'5,'$$+*%''5%)%$8,.%5'42')+%'(+$*.,('%.)%$,),0'3+,(+'%B,0)0'8'2'/)%$.')%'3,)+')+%'(*.0&,6'),*.H'.5'$16)1$%'*&')+%',.)%0),.%0'%06%(,'//2')+%'(0%()1.'+'0'4%%.'8%)'3,)+''0''$%01/)'*&')+%')$*6+2'.5'1/(%$'),*.'*&')+%'*7%$5,0)%.5%5'(+$*.,('//2',.&/'8%5'4*3%/'0',.')*)+%$*&*88'0'&',.)%0),.'/'*40)$1(),*.')+%'8*1.)'*&'1$,.%'7*,5%5',0'/,9%/2')*'4%'7%$2'81(+'5,8,.,0+%5'3+%.')+%')0),()1$%',0'+,-+'16''.5')+%'7*8,),..-',0'%B(%00,7%''$,$,,,.%'

+%0)**/0''$%'101'//2'(+'$')(%$,0),(''*&')+%'*40)$1(),*.''(*.0,0),.-'*&'08'//'0%6'$')%'8'00%0'&$%E1%.)/2'+'$5''.5'$*1.5'*$&/');)%.%5'*$'06,6%0)%8'f9%''.5'*&)%.'8,B%5'3,)+'0/*-+%5*&/&6*$),*.'0'*&')+%.%3-$*3)+'*$'3,)+'4/**5'/)8)'+'0'%0('6%5'&$*8')+%'1/(%$')%5'01$&'(%'+%'.%'$%$')*')+%'.10'')+%'-$*3),+',0'0,)1')%5')+%'/%00'(+'.-%3,//')+%$%'4%',.')+%'4/**5'3+,(+'0*8%),8%0'8'2'4%'(*.0,5%$'4/%',.''8*1.)

&')+%'6%$,)*.',)2*7/*7%5'6%$,)*.',0*7/%5'6%$,)*.',)1.*1$'6$*51(%5'42')+%'.%3-$*3)+'$%'7%$2'1.(%$)'..'4%,.-'*&)%./')))/%'8*$%')+'.''.',// 5%&,1%5'&1/.%00',.'*.%'$%-,*.'0('$(%/2'%7%.''8*1.),.-')*')+')',.')+%''..1/'$'&*$8'*&'('.(%$*10'0)$,(;)1$%'H')'*)+%$'),8%0'6$%0%.),.-''5,0),.()'+'$5',$$%-1/'$'8'00'*&'7'$,'4/%'0,C%'+,0'/'0)'E1'/,)2'4%,..-'6'$)/2'5%6%.5%.)'*.'&'%(%0'',0'7%$2'(+'$'()%$,0),('+*1/5')+%'-$*3)+'+'66%.')*'4%'0,)1')%5'*7%$')+%''*$)''*$',/,'('$)%$,%0''.',.5,0),.()'6$50'),*.'8'2'4%'(*8;81.,('%5')*',)'+%'6%$(100,*.*)%'*7%$')+%')18*1$',0'101'//2',86%$&%()/2')286'.),('&$*8')+%'%B,0)%.(%'*&'(*,/0'*&',.)%),.%0'4%;)3%%.',)'.5')+%'45*8,.'/3'//')+%')+,(9;.%00'*&'3+,(+'3,.'*&'.%(%00,)2'(*.0,5%$'4/28*5,&2')+%'0,-.0'*&')+%'%B,0)%.(%'*&')+%'-$*3)+'+%'8'00'8'2'6$%0%.)''//'5%-$%%0'&$*8'&$%%'8*4,/,)2')*'(*86/%)%'&,B,)2'5%6%.;5%.)'*.')+%'.')1$%'*&',)0'0%')''.5'/0*'*.'))+%'%B,0)%.(%'*&'5+%0,*.0')*'.%,-+4*1$,.-'6')0

286)*80'*&'8)%0),.''/'*40)$1(),*.''$%$'$%/2'3'.),.-''.5'8'2'4%')+%'&,$0)'&*$'3+,(+')+%'6'),%.)'0%%90'$%/,%&'*8,),..-'(*.0),6'),*.'*&',.($%'0,.-'0%7%$,)2'3,)+'0,-.0'*&',.)%0),.*.''4*7%')+%''()1'/5%-$%%'*&'*40)$1(),*.''+%.')+%'>%>1.18'*$'/*3%$'6'$)'*&')+%'51*5%.18',0')+%'0%')'*&')+%'-$*3)+')+%'7*8,),.-',0'8*$%'(*6,*10''.5'(*.0)''.)/2'4,/%0)'',.%5S)+%'4*3%/''.5'0)*8'('4*7%')+%'0)$,()1$%'0+'$,.-',')+%'5,0)%.0,*.

-$*3)+' ,0' 1.$% *-.,0'4 %')*' 6'/6'),*. ' ' .5 ')')+%'0' 8%'),8%' ('10%0'/,))/%' *$' . *' *40)$1(;),*. ' (/*0%/2'0,8 1/')%',.')+%,$' (*1$0%' 5,0% '0%0' *&')+%'016$'$%. 'f ('601/%H &*$')+%' /'))0%$' '$%' .*)' ,.7'$,'4/2' '((*86'.,%5' 42' (1)'.%*10' 6,-8%.)'),*. ' ' .5')+%' $'6,5' .5'6$*-$%00,7%' %8'(,'),*. ' 3,)+' 8*$%' *$' /%00' 6%$0,0)%.)' 7*8,),.-' 8 '2' 4%' (*88*.')*' 4*)+')' ,0')$1%')+')')+%' 8 '/,-.'.)' (' (+%B,'' ,0' &$%; E1%.)/2' 6$*51(),7%' *&'' (+'$')()%$,0),(' ' 41)')+,0' 3*)55' %E1'//2' *((1$',.' (' .(%$' *&')+%' ('60$5%

166*0,.-')+')')+%' %B,0)%.(%' *&' .' '4; 5*8,.'f)18*1$' 4%' (/%'$/2' '0(%$)',.%5',),' ,0' .*)' '/3'20' %'02')*'5%)%$8,.%' ,)0' (*. .%B,*. ' 3,)+')+%' ,.)%0),.%' 0,.(%')+%' 7'$,'4,/,)2' ,.' 6*0,),*. ',.' 8*4,/,)2'' .5',.'0,C%' A51%')*')+%' '((181'),*. ' *$')+%'$%7%$0%' *&' &%(%OR'6$%; (/15%0' '.2' 5,'-.*0),(' 0,-. ' '/)+*1-+')+,0' 7%$2' 7'$,'4,/,)2' ,0' $%-'$5%5' 42' 0*8%' '0' '/8*0)' ,.5,('),7%' *&' ,.)%0),.'f (' .(%$' .' 5,0),.-1,0+,.-'4%)3%%.'.' .',.)%0),.'f)18*1$' .5' *.%' (*. .%()%5' 3,)+')+%' /,7%$'6'.($%'0' 5.%2'8%0%.)%$,(' -/'.50'1)%$10' '45*8,.'f 3'//' *$')+%' ,.&/'88')*$2' .%3 -$*3)+' &*/; /*3,.-' '' 6%$,)26+/,),0' ' .' '.%1$208' *$' ' 0,86/%' &%('f ' ((181'),*. ')+%' +,0)*$2' *&')+%' ('0%' '-%'6$*-$%00,7%'.')1$%'*&')+%'(*.5,),*. ' %B,0)%.(%' *&')18*1$' 0,-.0' *&' *40)$1(),*. ' '.5'(+'$')()%$' *&'&/4%0)**/0' '$%')+%'6*,.)0')*' 4%'(*.0,5%$%5',.' &*$8,.-' '' 5,'-.*0,0' .2' *.%' *$%7%.')3*'*&')+%0%'6*,.)0'8,-+)'%E1'//2' ,.5,(')%'*)+%$'/%0,*.0'41)')'9%.'(* %(),7%/2')+%2'3,/f 101'//2'>10),&2')+%'&*$8'),*.' *&' ' *6,.,*. ' '$%()'f (' .(%$'3+,(+',0' '((%00,4/%')*')+%')*1(+'*$'%7%.')*', .06%(),*. ' .%%5'*&&%$.*' 5,&/ (1/)2'41)',)' ,0' *)+%$3,0%' 3+%$%' ,)' (*8%0')*' 5,0),.-1,0+,.-' '' 51*5%.'f -$*3)+' &$*8'*.%'0)$,()/2'/,8,)%5')*')+%'62/*$10' +%' 7*8,),.-',.')+%'/')%$'('0%',0'8*$%'6%$0,0)%.)')+'.',.')+%'&*$8%$' .5')+%$%',0' '' -$%')%$' /,'4,/,)2')*' +%%8')%8%0,0'f41)')+%0%'$%'8*0)' 1.(%$)',.'0,-.0' '0' /0*',0')+%' %B,0)%.(%'*& >'1.5,(%'3+,(+'*&)%.%$'(*86/,(')%0')+%'51*; 5%.'f '&&%(),*.' &$*8')+%' -$%')%$'4+'.(%' *& ,.7*/7,.-' *$'6$%00,..-' *.')+%'4,/% 51()H 41)' >'1.5,(%',0' .*)' '.%(%00'$2' '((*86'.,8%.)' ' &,$8' %6,-'0)$,(')8.*1$'&%)/ (/*0%')*')+%' .''$-,.'*&')+%')+*$'B' .5' 00*(,')%5' 3,)+' 5,0),.()' 5206%6),(' 02 8 6)*8 0')),'2' /0*' 4%' 51%')*' 6$,8'$2' (' .(%$'*&')+%'+%'5'*&')+%' 6'.($%'0H ,.' 01(+' ('0%')+%' 02 8 6)*8 0' *& *40)$1(),*.' '$%' /%00' 8'$9%5')'&,$0)' 41)')+%' -$*3)+'3,.'6$*4'4/2',.7*/7%')+%'4*3%f,.',0' 6$*-$%00' '.5' ('10%' 0)%.*0,0H 3,.-')*')+%' 5%0)$1(),*.'*&')+%'-/'.5),001%')+%'6'.($%'),(' >1,(%',0' .*)'0%($%)%5' '.5'1.5,-%0)%5'&')' 8 '2' 4%'&*,85',.')+%' 0)**/0

,8,/'$' 5,&&,(1/),%0' 8 '2' 01$$61.5')+%',.' W7%0),-'),*.'*&''')18*1$' 0,)1')%5',.')+%'$,-+)' ,/,'(' &*00''8'(,'),*.' (*.0),6'),*.' '.5' 8%&%.''),-+)'%E1''//2',.5,(')%''8'/,-.'.)' 5,0%'0%'*& $%61)%5'.')1$'f (1$%'*&' 8'/,-.'.)' 5,0%'0%'*&)+%',.)%0),.%0'4$*1-+)'*4*1)'42'0/*1-+,.-'*&)+%' -$*3)+' .5'0140%E1%.)' (,(')$,0'),*.' *& ,)0' 0,)%'&&*$5'.*'+*6%' *&' *1$'4%,.-' '4/%')*' '$),&,(,'//2',8,)')%')+%'6$*(%00' '.5')+%')$%'); 8%.)'$%8',.0' ')')+%'4%0)' 02 8 6)*8'),(' ' .5' 6'//,',7%

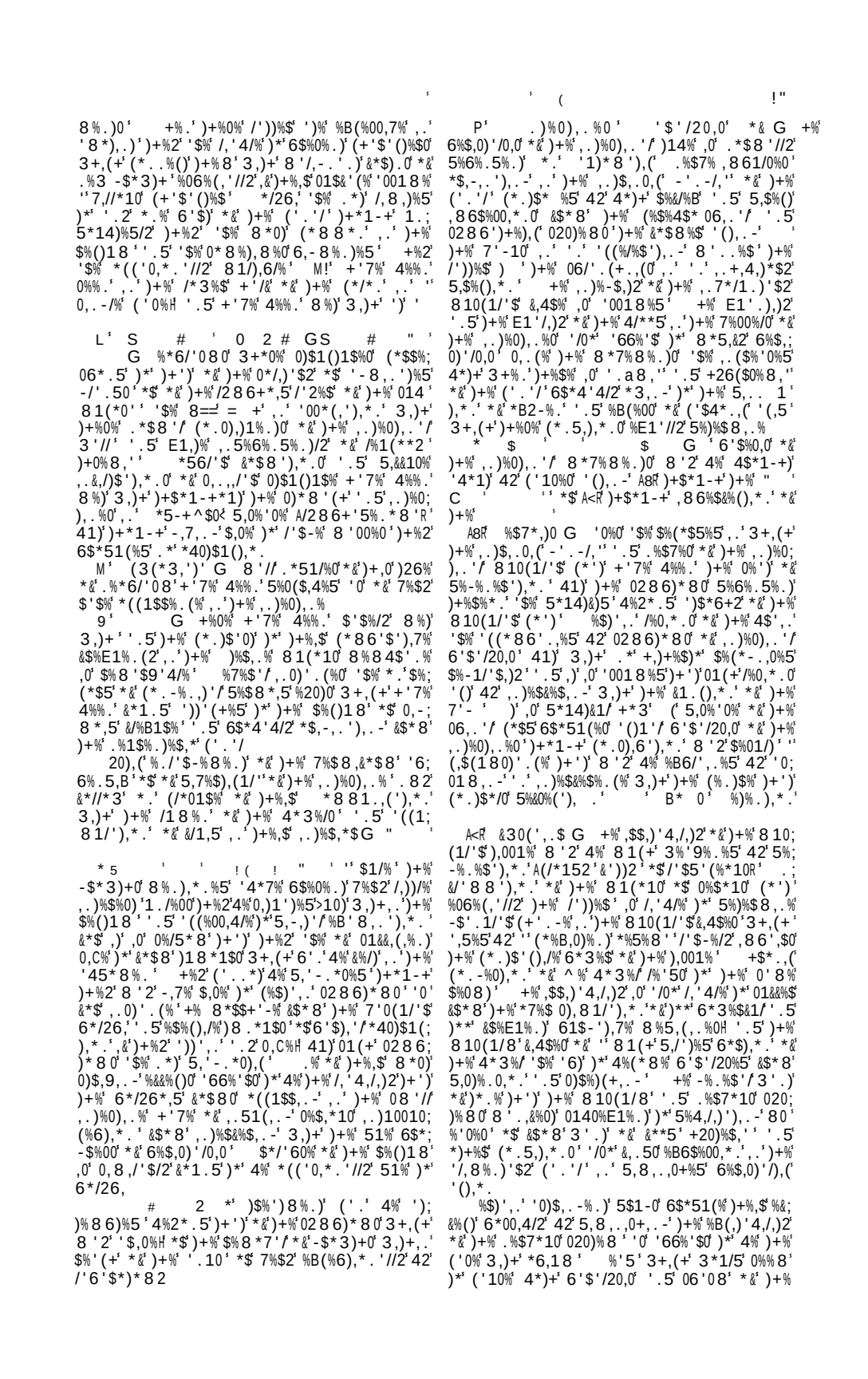
+%'5,%)'0+*1/5'4%' 0*' '$$'.-%5''0')*' (*.;)',.')+%' 8,..,818' *&',.5,-%0),4/%' $%0,51%' '.5'6%$8,)')+%' (+,%&'5,-%0),*.'' .5'*40*$6),*.' ,.')+%'0)*8'(+',&',)'4%')+%'166%$'6')' *&')+%')14%')+')',0' '&&%()%5' 1)',.')+%' 8 '>*$,)2'*& 01(+'('0%0')+%'1)8*0)'5,0,.(/,.'),*.'&$*8'*&**5' %B,0)0'%7%.:'6')'&$*8'*'.2'78,),.-'*$'6',.' ,0' ,.-%0),*.' 8'2'6$*51(%'.'.5'+%.(%'3+'); %7%$')+%' 5,$%(),*.0')+%' 6'),%.)' ,.')+%'/')%$' 0)'-%0'6$'(),('//2')'9%0'.*)+,.-' +%'.'.*$%B,'' ,0'&$%E1%.)/2'0'8'$9%5'%7%.'3+%.')+%' 8,0; (+,%&',0'0%')%5',.')+%'(*/*.' '.5')+%'$%'' &*$'5,-%0),*.' '.5''40*$6),*.',0'1.,.)0%$&%$%5' 3,)+

.')+%'%'$/,%$'0)'-%0',)' 8'2'4%''57,0'4/%')*',.0,0' 16*.' '0' 81(+'.1)$,),*10'&**5' ' 6*00,4/%'4%,.-')'9%.'%,)+%$'42')+%'8*1)+'*$,.')+%'&*$8'*&'%.%8''*$'0166*0,)*$2'0*' '0')*'*&&%$')+%'8*0)'6$*/*.-%5'$%0,0)'.(%')*')+%' ,.%7,)'4/%'%.5!'41)'')')+%'0'8%),8%')+%$%',0' .*'0/,-+)'$%'0'.'&*$')+,.9,.-')+')'0'8%' (*1$0%'&'7*1$0')+%'06%%5,%$'5%7%/*68%.)'*&)+%'.%3 -$*3)+' $%6'$'),*.0'*&',$*.'8'2' 4%'-,7%.'3,)+')+%'0'8%'7,%3

+%'02 8 6)*8 0' 5%6%.5%.)' 16*.')+%'*4; 0)$1(),*.'3%'('.'5*'7%$2'/,))/%')*' $%/,%7%' 0+*$)'*&'*6%$')',*. ' ./2')+%'8,/5%0)'6%$,; %.)0''$%'6%$8,00,4/%')*' (*84')')+%'(*.0),; 6'),*.''.5')+%0%'0+*1/5'4%'0'/,.%0'3,)+')+% *4>%()'*&'$%.5%$,.-')+%'&%(%0'0'&/1,5'0' 6*00,4/%H 3+,/%')+%'7*8,),.-',0'0''$1/%'1.; (*.)$*//'4/%''.5',.5%%5',0'*&)%.''$%/,%& '%8*$$+'-%'8'2'$%E1,$%06%(,'f '))%.),*.')+%'),.()1$%'*&'+'8'8%/,0'4%,.-''8*.-')+% 8*0)'%&&%(),7%'0)26),(0H '.5')+%'6',.'8'2' 4%'0*'0%7%$%' '0')*' .%(%00,)'%'&$%%'58,.,0;)$'),*.''*&'8*$6+,.%'014(1)'.%*10/2H,.'*)+%$' ('0%0'4%//'5*..'',0'*&'7'/1%',.''//%7,'),.-')+%'/*('/5,0(*8&*$)''.5' ()0'&'7*1$'4/2'42' '//'2,.-''.2'06'08

+%'*6%$'),7%')$%')8%.)'*&'8'/,-.'.)'5,0; %'0%'*&')+%' ,.)%0),.%' ,0' 5%0($,4%5' ,.')+%' '$),(/% } %' D' .)%0),.%0' '/6*0,),*.0'*&' G ,0; 6/'(%8%.)0'*&')+%',.)%0),.%0'/,9%'8'/&*$8';),*.0''$%'4*)+' "0 " '.5' T

8*.-')+%'&*$8%$'8'2'4%8%.),*.%5'(*8; 6/%)%')$'.06*0,),*.'*&')+%'7,0(%$''')+%'(0%(18' '.5''0(%.5,.-'(*/*.'4%,.-'*.')+%'/%&)'0,5%' '.5')+%'0,-8*,5'&,%B.$%''.5'5%0(%.5,.-'(*/*.' *.')+%'$,-+)')+%'/,7%$'06/%%.'0)*8'(+'^(' 0+'$,.-'..')+%'(+'.-%' %$)''.'6'$)0'*./2'*&)+%',.)%0),.'f (' .'f 8'2'*((162'.''4.*$8'f 0,)1'),*.' '0'0%%.',.')+%'7'$,*10'(*.-%.,)'f +%8,'%Hf *$')+%'5,06/'(%8%.)'8'2'4%'51%')*' 1.101'f /%.-)+'*&')+%'8%0%.)%$,%0')+%' ('%(18'.5'0,-8*,5'&/%B1$%'4%,.-')+%'6'$)0')+')'6$%0%.)')+%'8*0)'101'f /)%$')*.'$&*8')+,0'('10%' +10')+%'('%(18'8'2'*((162')+%'/%&)'+26*(+*.5$,18'*$/%&)',+'(' &*00''*6



01)1$,. -' *&')+%' 5,7,5%5'%.50' '.5'3'0+,. -'*1)' *&')+%' 6%$,)*.%18 ' +'0'4%%.' 6%$&*$8%5'3,)+' 01((%00' '.5' 0+*1/5'4%' '))%86)%5', .'01,)'4/%' ('0%0

<<' .)%0), .%0' 6'08'*& G +%',$%-106%(,&,(' /%0,*.0' *&' 026+,/,0' %B(%6)' ')')+%' /*3%$'%.5'*&')+%' $%()18' '.5' 8'$-,.'*&')+%' '.10' 8'// -188')'' +'7%' 4%%.' &*1.5', .')+%' 0148 1(*10'),001%' *&'7'$,*10'6')0' *&')+%' 4*3%/' '.5' 0*8%),8%0')+%' 1/(%$0')*' 3+,(+')+%0%' -$*3)+0' -,7%'$,0%'42')+%,$'5%-%.%$'),*.' '.54$%'9,.-'5*3.H' $'5,'),.-'&,4$*10')+,(9; %.,.-0' '.5'(,(')$,(%0'*&)+%' 81(*10'8%84$'.%' +'7%' '/0*' 4%%.' 0%%.' ,.' 026+,/,),*' 014>%()0' 01&&,(,%.)' %7%.')*' ('10%' *40)$1(),*.' 5*14)&1/3+%)+%$')+%$%'4%' '.2'06%(,&,('1/(%$; '),*.'*&')+%' ,.)%0),.%'3+,(+',0'.*)'6$%(%5%5' 42'-188')'' '/)+*1-+'08'// 1/(%$0'5*'*((1$' ,.'.%3 4*$.'(+,/5$%.')+%' 014>%()0'*&'(*8' -%.,)'/026+,/,0

26+ ,),(' 1/(%$'),*.' '.5'0)$,()1$%'*&')+%' $%()18''$%'.*)'*&',.&$%E1%.)'*((1$$%.(%')+%' &*$8%$'%06%(,''//2',.'3*8%.'3+%$%')+%',.; &%(),*.'+'0'06$%'5'&$*8')+%'7'-,.'!'.5'6%$,' .0 18' '0 %!)' ,0%'0%0'*& @' .)%0), .%0' 14%$(1/'$' ,0%'0%'*& G +%'06%(,&,('/%0,*.0'*&')+%')14%$(1/'$ 5,')+%0,0' .'8%/2' -$%2' -$'.1/'),*.0' *$ 8,/,'$2')14%$(/%0'' $%'*&'&$%E1%.)'*((1$$%.(%')+$*1-+*1)'+%',.)%0), .'/('.'/H')+%'%B)%.; 0,7%'5,0)$,41),*.'*&'>.86+*,5'),001%')+$*1-+; *1)'+%'0148 1(*10'(*')''.5')+%' 06%(,'/ '--$%-'),*.0'*&',)'3+,(+'&*$8')+%'0*/,)'$2' .5'-8,.')%5'-/'.50'*&&%$,.-')+%' 8*0)' &'7*1$'4/%'*66*$)1.,)2'&*$')+%,$'&*$8'),*.' +%'41.5'.)'0166/2'*&/286+'),('7%00%/0',.')+%',+,(9.%00'*&')+%'3'//0'*&')+%'('.'/''.5')+%'(/*0%'(*.%B,*.'*&')+%'0%$*10'01$&'(%' 3,)+')+%'/286+'),('020)%8''' '6$%5,06*0%)*')+%'5%7%/*688%.)'.5'06$%'5'*&''')14%$(1/'$ -$*3)+'3+,(+'8'2'+'7%'4%(*8%'%0)'4/,0+%5' ,.'''014>%()'*&')+%'5,')+%0,0

< <(D' 0'6$,8'$2'-$*3)+')14%$(/%' 7%$2'$'$%/2'')'(90')+%',.)%0),+%0',.''51/)0')+*1-+',)'0'*&'7%$2'&$%E1%.)'*((1$$%.(%',. (+,/5$%.''0'6')$'*&''-%.%$'/)14%$(1/*0,0' *$'6*00,4/2'&$*8')+%'(*.0186),*.'*&8,/9' &$*8')14%$(1/*10'(*30'.''51/)0'*.')+%' (*.)$'$2')14%$(1/'$5,0%'0%'*&')+%',.)%0),.%0' ,0'7%$2'(*888*./2'5%7%/*6%5'0%(*.5'$2')*''' 0,8,/'$'&&%(),*.'*&')+%'/,8-0'51%6$*4'4/2')*')+%'03'//*3,.-'*&')+%'061)18

!' $' " +%'0148 1(*10' /'2%$'.5')+%'6%$,)*.%'/(*')'$%')+%'0)$1(')1$%0',.'3+,(+')+%')14%$(/%'*$,-,.')%0H ,.')+%'&*$8%$'0,)1'),*.',)'%06%(,''//2'&'7*1$0')+%' ,/%8.''.5'(%%(18''/)+*1-+',)'8'2'5%7%/*6')+$*1-+*1)'+%'%.),$%'/%.-)+'*&')+%')14%' 3+,/0)')+%'6%$,)*.%'/)14%$(/%',0'4*1)'%E1''//2' 5,0)$,41)%5' +%' 8%0%.)%$,(' -/'.50' '$%' '/3'20' (*.0,5%$'4/2' ,.7*/7%5' +%' $')$,)2' 3,)+'3+,(+')+%'0)*'8'(+',0''&&%()%5'42')14%$(/%' ,0',.'8'$9%5'(*.)$'0)')*')+%'&$%E1%.(2'*&')+%' ,.)%0),.'/'/%0,*.

.'%B)$%8%'%'0%0'*&')14%$(1/*0,0',.'(+,/; 5$%.'5%')+'8'2')'9%'6/'(%'4%&*$%'.2' (+'.-%0',.')+%')14%$(1/*10'&*$8'),*.'+'7%

)'9%.'6/'(%''.5'(*1.)/%0'-$%2'-$'.1/'),*.0'&$*8')+%'0,C%'*&''6,.(0'+%'5')*'4*5,%0'E1,)%8,($*0(*6,(''$%')*'4%'&*1.5',.')+%'014;81(*0''.5',.')+%'0*/,)'$2'.5''-8,.')%5'-/'.50''')%$'*.'+*3%7%$')+%0%'.*.7'0(1;/'$'.%3a-$*3)+0'(*'/%0(%''.5'&*$8'5,0),.()'8'00%0'3+,(+'&$*8'/'(9'*&'.1)$,),*.'1.5%$-*'('0%*10'5%-%.%$'),*.''.5'4$%'9'5*3.')+10'&*$8,.-')+%'.)14%$(1/'$'1/(%$0'+%'1/(%$0'%).5')*'06$%'5''.5'$'$%/2')*'+%'/''.5'3+,/0)'+%2'8'2'4%')'&,$0)'/,8,)%5')*'+%'-/'.50''+%2',.7'5%')+%''5>'(%.)'81(*10'8%84$'.%'%06%(,'//2',.''5,$%(),*.'$*1.5')+%'4*3%/'+%,$'%B)%.0,*.'4%,.-'6$%(%5%5'42')+%'5%;7%/*68%.)'*&'&$%0+')14%$(/%0'(+,%&/2''/*.-')+%'(*1$0%'*&')+%'8'.,'4/**5 7%00%/0')*')+%'6$*;-$%00,7%'&*$8'),*.''.5'5%0)$1(),*.'*&'3+,(+'+%'06$%'5'*&')+%'1/(%$',0'$%'//2'51%''$-%'8'00%0'*&')+%'81(*10'01$&'(%'8'2'4%')+10'5%0)$*2%5'/%'7,.-''$'--%5'&/*((1/%.)'0.$&%(%'&*$8%5'*&')+%'8 10%8'$'&,4$%0'*$'%7%.'*&'5%%6%$'0)$1()1$%0'3+,(+'/%0,*.0'$'$%/2'6$*;(%%5')*'6%$&*$'),*.',.)*')+%'6%$,)*.%'/('7,=''5+%0,7%'6%$,)*.,),0'+'7,.-'%0)'4/,0+%5')'(+8%.)0')*''5>'(%.)'6')$)0'+%'),(9%.%5'(*.-%0)%5',$$%-1/'$'%5-%0'&')+%'1/(%$0'3,)+8,/8$2')14%$(/%0'(/*0%')*')+%'8'$-,.''$%'7%='5,0),.(),7%

6 7 ! B.),/'1/(%$'),*.'4%%0)'4/,0+%5')+%$%'$),/'4%'.*'02806)*.,0'*&')14%$(1/'$5,0%'0%'$%&%$'4/%')*')+%'8)%0),.'/'('.'/H'.5'%7%.'3+%.')+,0'0)'-%',0'$%'(+%5')+%$%'$%'.*'06%(,'/02806)*80

! " ,))/%'('.'4%'5*.%&*$',.;)%0),.'/')14%$(1/*0,0' +%'(*1$0%'*&')+%'5,0%'0%',0'/8*0)',.7'$,'4/2')*''&')'/%.5''.5',)','7%$2'$'$%'&*$'+%'/,.-''.5'(,('$,0'';),*.')*')'9%'6/'(%'+%'.%(00,)2'&*$'&%%5,.-')+%'6'),%.)',0'/8*0)'(*.)$',.5,(')%5'42')+%'%B,0)%.(%'*&''5%0)$*2%5'5,-%0),.-''.5'4;0*$4%.)'01$&*(%'3+%$%42')+%'&**5'4%(*8%0''6*0,),7%',$$,')'.)'1(+'.*1$,0+8%.)''0',0''9'%.'0+*1/5')+%$%&*$%'4%',.')+%'8*0)'5,-%0),4/%'.5'(*.(%.)$')%5'&*$8')+')''0'81(+''0'6*00,4/%'8'2'4%')'9%.'16'&$*8')+%'0)*8'(+')'$(+'.5'*6,18'%.%8')''8'2'5*''/,))/%')*'(+%(9')+%'5,'$$+*%''41)')+%,$'%&&,('(2',0'0**./*0)''%8*$$+'-%'0+*1/5',)'0%)',.',0'0('$(%/2'8%.'4/%')*')$%')8%.)')+*1-+''0)$,.-%.)'%.%8')''8'2'4%*&'0*8%'10%'(*84,.%5'3,)+')+%',.)%$./'58,.,0)$'$),*.'*&'(%)')%'&'/%'5'.5'*6,18'*')$%');8%.)'+'0''0'2%)'4%%.'%&&%()1'5',.''$$%0),.-')+%'06$%'5'*&')14%$(/%@F'.)%0),.%0'/(%$'),*.'*&G/(%6*$),*.'*&')+%'81(*10'8%84$'.%',0'5%0)$*2%542'5%-%.%$'),*.'01(+''0')+%'/'$5'(%*10''.5''.'1/(%$'8'$90')+%'06*)'&')+%'8*7%5'6')(+'3+,(+'101'//2'*((1$0',.')+%',/%18'*$'(*/.'*$%'&$%E1%.)/2')+%'/*('/'5%')+',0',.51(%542'('6,//'$2'+'%8*$$+'-%'*$''(%00'),*.'*&4/**5&/*3')+$*1-+''/,,8)%5''$%'H)+%'(10%'*&')+,0'0)'0,0',0'.*)'7%$2'66'$%.)')+'1-+'4%/,%7%5')*'4%'51%')*'%84*/,'.5%$1(+(,$(180($,4%5'$%'0'*&'),001%'$%'7'$,*10'*8%),8%0')+%'7,)'/,)2'*&''6(*$),*.'*&')+%'81(*10'8%84$'.%',0'5%0)$*2%542'5%-%.%$'),*.'01(+''0')+%'/'$5'(%*10''.5''.'1/(%$'8'$90')+%'06*)'&')+%'8*7%5'6')(+'3+,(+'101'//2'*((1$0',.')+%',/%18'*$'(*/.'*$%'&$%E1%.)/2')+%'/*('/'5%')+',0',.51(%542'('6,//'$2'+'%8*$$+'-%'*$''(%00'),*.'*&4/**5&/*3')+$*1-+''/,,8)%5''$%'H)+%'(10%'*&')+,0'0)'0,0',0'.*)'7%$2'66'$%.)')+'1-+'4%/,%7%5')*'4%'51%')*'%84*/,'.5%$1(+(,$(180)'.(%0')+%'0*/7%.)'6*3%$'*&')+%'5,-%0),7%'>1,(%0'8'2'4%'%B%$)%5'*.')+%.*.;/,7,.-'),001%'3+,(+''$%')+10'$%8*7%5''.5

' .' 1/(%$' ,0' /%&)' *' 01(+' 1/(%$0')+%')%$8'
'+'0'4%%.'66/,%5' '.5',5%.),(' /'/%0,*.0'
'$%' 8%)'&3,)+' ,.')+=' 0)*8'(+' +%2' '/8*0)'
,.7'$,'4/2' *((1$' ,.')+%' &,$0)' 6')' *&')+%'
51*5%.18' '4*7%')+%' 6*,.)' *&' %.)$'.(%' *&'
)+%' '/9'/,.%' 4,/%' '.5' 6'.($%'),(' >1,(%0' '/;
)+*1-+' 7%$2' $'$%/2')+%2' +'7%' 4%%.' 0%%.K,.'
)+%>%>1.18' /(%$0'*&')+,0'(+'$'()%$'66%'$'
)*' 4%*((' 0,*.'//2'(*..%()%'3,)+'/'$-%'016%$;
&,(,'/' 4180' 41)' +*3')+%' $%/'),*.0+,6',0'
%0)'4/,0+%5',0'.*)'9.*3.')' ,0'' 0,.='$'
&'()',.'$%-'$5')*')+%8')+')')+%2''$%')%.'
),8%0'8*$%'(*88*.',.'8%.')+'.',.'3*8%.'
3+,(+',0'E1,)%')+%'$%7%$0%'*&'3+')'*4)',.0',.'
)+%'0)*8'(+''/)+*1-+')+%'$%/'),7%'&$%E1%.(2'
*&'-'0)$,('.'5'51*5%.'/1/(%$0',0'%0),8')%5''0'
)+,$)2')*'*.%

A9R' O "' ' " 2 0 2 # G /8*0)'
'.2'.%*6/'08'*&')+%'.,)%0),.'/' 3'//' 8'2'
1/(%$')%')+*1-+' '0'' $1/%')+%' 8*$%' $'6,5/2'
5%7%/*6%5'&*$80'$%')+%'8*$%/,'4/%' 14%$;
(1/'$'-$*3)+0'6$,8'$,/2'(*..%()%5'3,)+')+%'
0*/,)'$2'.'5'-8,.')%5'-/'.50',.7'$,'4/2'
%.5',.')+,0'8'..%$' 26+,/,),(' -.88')''.5'
8'/,-.'.)' -$*3)+0' '$%' %06%(,'//2'6$*.%')*'
1/(%$'),*.

' " +%' '66%'$'.(%0'6$%0%.)%5'
42')+%'7'$,*10'1/(%$0'5,&&%$' ,)+' X,%'('10%'
'.5')+%'51$'),*.

+%2'8'2'4%'0,.-/%'0',0'-%.%$''//2')+%'
('0%'3,)+')+%'51*5%.'/'1/(%$0H'*$',..18%$;
'4/%'0'')+%'&*//,(1/'$'1/(%$0'*&')+%'(*/*.'
26+*,5''.5')14%$(1/'$'1/(%$0'*$%'0''1%/%'
8,,,6/%''.5'*$%'8*0)'.18%$*10')'+%'
/*3%$'%.5'*&')+%',/%18'3+%$%')+%''-8,.')%5'
-/'.50'*$%'8*0)'41.5'.)' (('0,*.'//2'
/'$-%'01&'(%0'*&')+%'81(*10'8%84$'.%'*$%
5%0)$*2%5'3,)+'+%$%'.5')+%$%'08'//',0*/')%5'
06*)0'*&')+%'8%84$'.%/%&)'51%')*')+%'06$%'5'
'.5'(*'/%0(%.(%'*&'8'.2'0%6'$')%/2'*$,0,.-'
1/(%$0'.'520%.)%$2'.5'(+$*.,(')14%$(1/'$'
75(%'),*.')+,0',0'%06%(,'//2'/,'4/%')*'+'66%.'
'.2'*&')+%'(')'$$+'/'.5'&*//,(1/'$',&&(%$0'
'$%'%B)$%8%/2'08'//'.*)'8*$%')+'.'''/,.%',.'
5,'8%)%$

+%'6%6),('1/(%$0'$%'5,0),.-1,0+%5'42')+%,$'
7%$2'5%&,.,)%'0(/%'.61.(+%5'<'66%'$'.(%'H
)+%'%=%='$%'0/,-+)/2'0/*6,.-''.5'41)'7%$2'
/,))/%',&''')''//')+,(9%.%5H'3+,/0)')+%'81(*10'
8%84$'6%',88%5,')%/2''5>'(%.)'+'0''' 6%$;
&%()/2'+%'/)+2''66%'$'.(%' .'8*0)'*&')+%'
*)+%$' 7'$,%),%0')+%' %5-%0' '$%')+,(9%.%5'
,$$%-1/'$''.5'0+'=2'&$%E1%.)/2'%B('7')%5'
'.5',85%$8,.%5H')+%' 1/(%$'),7%' 6$*(%00'%B;
)%.5,.-' 4%.%')+')+%' 81(*10'8%84$'.%'
3+,(+'-$'51'//2'5,0'.5'0/*1-+0''3'2'0'
,)0'.1)$,),*.',0'(1)'*&&' %6%.5%.)'16*.')+%'
5%6)+'.5'(*1$0%'*&')+%'1/(%$'3,//'4%')+%'
.')1$%'*&',)0'4'0%'3+,(+'8'2'4%'&*$8%5'*&'
)+%'810(1/'$'(*')'*&')+%'6%$,)*.%18'81(+'
)+,(9%.%5'*$'*&''5>'(%.)'0)$1()1$%0'3,)+'
3+,(+'5+%0,*.'+'0'4%%.'%0)'4/,0+%5'01(+'
'0')+%'/,7%$'*$'45*8,.'/'3'//' +%'&/**$'*&'
)+%'1/(%$')%5')14%$(1/'$'.5'8'/,-.'.)'.%3'
-$*3)+0'101''//2'6$%0%.)0'08'//'.*51/%0'*&')+%'
.%*6/'08'3+,(+'$%'4%,..'5%7%/*6%5'(*,.

*,5%.)/2'3,)+')+%'1/(%$'),*.'+%'41&&'*$
'0+-$%2'6=8%.)%5'0/*1-+0'6')$),'//2'0%6';
$')%5'-,7%'('+'$'()%$,0),('66%'$'.(%)*')+%'
/5 0)'.5,.-'1/(%$0'&'520%.)%$2''.5')14%$(/%'
+%')14%$(1/'$'.5')26+*,5'1/(%$0'*&'%2%$<0'
6')(+%0'6$%0%.)'('(%$)',.'5,&&%$%.(%',.')+%'
5,$%(),*.',.'3+,(+')+%2'%B)%.5'3+,/0)''')'
&,$0)'4*)+'$%/,8,)%5')*')+%'6')(+')+%&*$8%$'
)%.5')*'06$%'5',.''.'.1/'$'8'..%$'3+,/0)'
)+%/'))%$'+'7%'101'//2')+%,$'/*.-'B,0'(*$$%;
06*.5,..-')*')+%'/%.-)+'*&')+%'4*3%/' +,0'
5,&&6$%.(%5%6%.50'$')+%$'*.')+%'51$'),*.'*&'
)+%'1/(%$')+'.'*.'.2'06%(,&,(' 5,0),.()*.'
51%')*')+%')3*' 5,0%'0%0H&*$')+%'8*$%'(1)%'
%.)%$,(' /%0,*.'$'$%/2'06$%'50'81(+'4%2*.5'
)+%'$%''*&')+%'6')(+'3+,(+',0',.')+%'/*.-'
'B,0'*&')+%'4*3%/'3+,/0)')+%'(+$*.,(' %.)%0),.()14*'
(1/'$'1/(%$'&*//*3'0')+%'5,0)$,41),*.'*&')+%'
/286+*,5'),001%'*1)0,5%')+%'6')(+%0''.5'6'$;
),(1/'$/2'/*.-')+%'(*1$0%'*&')+%'4/**5'7%00%/0'
'.5'/286+'),(0

% G +%'(*1$0%'*&'.',.)%0),..'/'1/%%&'
8'2'4%'(1)%'*$'(+$*.,('/'0),.-''&%3'5'20'
*$'&*$'2%'$0' *8%'*&')+%'0,86/%'1/(%$0'*&'
.'''(1)%',.)%0),.'/'(')'$$+'48*.-')*')+%'
&*$8%$'-$*16H'3+,/0)')+%'1/(%$'),*.')+')'('(;
(*86'.,%0'(+$*.,(' %.)%$,),0'8'2'4%'*&',.;
5%&,.,)%'51$'),*.

+%'(1)%'&*$80'8'2'%,)+%$'+%'/'*$'-*'*.'
)*'6%$&*$'),*.H,.')+%'&*$8%$'('0%')+%,$'%B,0);
%.(%'('.'*./2'4%',.&%$$%5'.'5'(')'$$+'/'
&*,*1'$''.5'%.)%$,(' 1/(%$0'4%/*.-')*')+,0'
(')%-*$2'+%'6%6),(''.5')26+*,5'8(%$0''$%'
)+*0%'8*0)'/,'4/%')*'6%$&*$')%')+%'4*3%/'
((' 0,*.'//2')+%'6%$&*$'),*.'8'2'/%'5')*''
(*881.,(',*.'4%)3%%.'*.%'(*,/'*&',.)%0;
),.%'.5''*)+%$'3,)+*1)'.2'$.6),$$%',.)*'
)+%'6%$,)*.%'/'7.,)2'3+,(+',0')+%'(*8;
8*.%0)'%.5'*&''6%$&*$'),.-')26+*,5'1/(%$'
.'(+$*.,('1/(%$0'3+%$%'.*''8%0,*.'*$(*8;
81.,(',*.')'9%0'6/'(%')+%'4'0%',0')+%,(9%.%5'
42''.%3&*$8%5'(*..%(),7%',001%'3+,(+',0'
5%7%/*6%5''0'&'0)'0'*$%7%.'&'0)%$')+'.')+%'
5%0)$1(),7%'6$*(%00'6$*(%%50''.5'+%.(%')+%'
,.)%0),.'/'3'//'5>'(%.)')*'.'5',.7*/7%5',.
01(+'1/(%$0',0'101''//2'81(+')+>%9%.%5'.5'
,.51$')%5' +*$)'*&''()1'/6%$&*$'),*.'*$
'5+%0,*.')*'*)+%$'6')0')+%'0,)%'*&')+%'1/(%$;
'),*.'8*0)'&$%E1%.)/2',0'8'$9%5'*.')+%'%B;
)%$.'/01$&'(%'*&')+%'4*3%/'42''014'(1)%'
6%$,)*.,),0'3+,(+'8'2'6$*51(%''6'$),'/'8');
),.-')*-%)+%$'*&')+%',.)%0),.%0

.')+%'(*1$0%'*&')+%'+%'/,.-'*&')+%'/'$-%$'
1/(%$0'42')+%'&*$8'),*.'*&''(*.)$'(),.-'
(,('),$,(,'/'),001%'-1)'8'2'4%'(*.0,5%$;
'4/2'(*.0)$,()%5''.5''&*$8,5/4%*40)$1(;
),*.')*0)'4/,0+%5' 1)')+,0'5*%0'.*)'.%(%0;
0'$,/2'&*//*3'%7%./'$-%'1/(%$0'01(+''0')+*0%'
&')26+,5'&%7%$H'.5')+%'5%6)+'*&')+%'5%'=
0)$1*),*.'3*1/5'0%%8')*',.&/1%.(%')+,0'$%01)'
+%.')+%'016%$&,(,'/'6*$),*.')+%'81(*10'
8%84$'.%*.(/2',0'5%0)$*2%5'7%$2'/,))/%'(*.;
)$'(),*.'&*//*30'41)'3+%.')+%'5%%6$%'6')$0'*&'
)+%'3'//'$%',.7*/7%5')+%'0140%E1%.)/2'5%7%;
/*6%5'(,('),$,B')%.50')*'0+$,.9'(*.0,5%$'4/2

!(! G 4%'-$%')%0)'5,7%$0,)2',0'8%)

' - ', . 0)' , *5, . %' ,0' ,)0' 0166*0%5')%. 5%. (2')*' ('10%' ')$*6+2' *&')+%' 8 ' 8 8 '% ' . 5')%0), (/%0H' *&')+, 0 ' &*$)1. ')%/2 ')+%$%' ,0' . *' $%' /' 6$**&')+%' 5,0 ' 66%'$' . (%' *&')+%')%0), (/%' 3 +, 5)' *(; ('0, * . '//2' ' ((* 8 6 ' . ,%0')+%' ' 40*$6), *. ' &, . &/' 8 8 ')*$2' 6$*51()0' , . ' ,)0' 0140)' . (%' 4%, . -' 0* 8 %), 8 %0' 1 . >10)/2' '))$, 41)%5')*')+%')$%'); 8 %.)' 61$01%5

$ G +%' *. /2' $%' 0*. ' &*$')+%' *(; (1$$%. (%' *&' 8 ' . 2' ('0%0' *&', *5, 0 8 ' 0%% 8 0')*' 4%' ' . ' , . 5, 7, 51 ' /' 6%(1/, '$,)2' *. ')+%' 6 '$)' *&')+%' 6 '), %.) ' *$' , . ' *)+%$' 3*$50')+')', , 5, *02. ; ($' 02' 3 +, (+' 0*' &$%E1%.)/2' , .)%$&%$0' 3 ,)+' *1$' %&&*$)0' &*$')+%')$%') 8 %.)' *&' 5, 0% ' 0%' 1)' . *3' ' . 5')+%. ' '' 8 *$%' 6/' 10, 4/%' %B6/' . '), *. ' 8 ' 2' 4%' -, 7%. ' 3 +%. ' 3%' &, . 5' ('$5, '(' *$' $%. ' /' 5, 0% ' 0%' (*, . (, 5, . -' 3 ,)+')+%' 610)1/' $' $' 0+' *&', *5, 5%' *&' 6*)' 00, 1 8 ' %)' $5%5' ('6, //' $2' (, $(1/'), *. ' 3*1/5' . ')1$' //2' 5%)', . ')+%' 5$1-' 3 ,)+, . ')+%' 4/**5H 3 +, /0)', , %' 4/*(9, . -' *&',)0' 101' /' 8 %' . 0' *&' %B,)' &$*8')+%' 020)% 8 ' 8 , -+)' 4%' 0166*0%5')*')+$*3')+%' . 10' *&' %/, 8, . ')*' *. ')+%' -/' . 51/' $' 0)$1()1$%0' *&')+%' 09, . ' %. (%' +' 0' 4%%. ' 5%$, 7%5')+%' 6/' 10, 4/%')+%*$2')+')' , *5, . % ' (. %', 0' 6$*51(%5' 42' 5, $%()' /**05' 0), 8 1/'), *. ' *&')+%' 0%4' (%*10' 0)$1()1$%0H 41)' +*3%7%$')$1%'), 0' 8 ' 2' 4%' , . ')+%' 0/, -+)%$' ('0%0' $' +, . <0' ('$%&, 1' %B' 8, . '), *. ' *&')+%' 09, . ' *&' '' 6 '), %.)' 01&&%$, . -' &$*8' '' 4&, *10' $'0+' +'0' 0+*3. ')+%')$1%' 6 ')+*/*-, (' /' (*. ; 5,), *. ')*' 4%' *. %' *&' $16)1$%' *&' 4/**5 7%00%/0' ')' (%$)', . '/*(' /, 0%5' 6*, .)0' 3,)+' 4/*(9, . -' 4=' (*'-./' ' . 5' %0('6%' *&' 0*8%' *&')+%' (*. 0), ;)1%.)0' *&')+%' 4/**5', .)*')+%' 01$$*1. 5, . -'), 001%0' +%' 0%4' (%*10' %/%8%.)0' ' . 5' 03%')' -/' . 50' 3%$%' E1,)%' 1. '&&%()%5' ' . 5' +%' 4 /, %7%')+%', *5, (' 6' 68%')+%' 0* ('//%5' ('. %')+%' 41//' ' . 5')+%' 61$61$, (' 06*)' $%6$%0%.)' 5, &&%$%.)' 0)' -%0' *&' 7' 0(1/'$' , . >1$2' , $' 2(%' 1(9; 3*$)+' . 5' $' , . (%.)' '$$, 0' 3%$%' 1. '4/%' , . ')+%, $' *40%$7'), *. 0')*' 5%)%()' . 2' $16)1$%' *&' 7%00%/0' 41)' (*. &, $8' $' +, . <0' $%6*$)' , . ' '//*)+%$' %00%.), '/' $%06%()0

! " *$2C' '*$' . 2' 09, . %$1>#), *. ' 0155%. /2' *((1$$, . -', . '' 6'), %.)')' 9, . -', *5, 5%' *&' 6*)' 00, 1 8 ' *1-+)')*' 4%' /**9%5' 16*. ' 3,)+' 0106, (, *. ' . 5')$%')%5' 42')+%' , 8 8 %5, ')% 0106%. 0, *. ' *&')+%' 5$1-' +%' 0/, -+)%$' 7' $, %), %0' *&', *5, 08' '$%' 42' . *' 8 %' . 0' 1. (* 8 8 *. ' 085' 8 ' 2' '66%' $' &)%$' '' 0, . -/%' 08' //' 5*0%H 41)' '/)+*1-+' ' 8 8 *. , '' +' 0' 4%%. ' (*. &, 5%.)/2' 7' 1.)%5' ' 0' '' 06%(, &, (' '-', . 0)' 01(+' , $$%-1/' $' 8 ' . , &%0)', *. 0' *&' 6+20, *)*-, ('/' ()', 7,)2' %B; 6%$, %. (%' +' 0' 4%%. ' 1. '4/%')*' (*. &, $8')+, 0' ' . 5' 3%' 0+*1/5' 6/' (%' 8*$%' &',)+' . '. %. (*1$' -; , . -' 6$* 8 6)' %/, 8, . '), *. ' 42' 7%$2' &$%%$ 5, /1), *. ' *&')+%' $%8%52' 3+, (+' , 0' 4%0)')'9%. ' . ' ' %8 6)2' 0)*8' (+' '4*1)' +'/&' . ' +*1$' 4%&*$%' 8%'/0

*$)1. ')%/2' &*$')+%' $%61)'), *. ' *&' *. %' *&' *1$' 8 *0)' 10%&1/' 5$1-0')+%' -$' 7%$' 02 8 6)*8 0' *&', *5, 08' '$%' 5%(, 5%5/2' $' $%H ' . 5' 3%' 8 ' 2' '//)+%' 8 *$%' (*. -$')1/')%' *1$0%/7%0' *. ')+, 0' 3+%. ' 3%' $%8%8 4%$' +*3' 6*3%$/%00' 3%' '$%')*' $%(*-. , 0%')+%' , 5, *02. ($' 02' *. ' 3+, (+')+%2' 5%6%. 5' $*100%' 1' +*3%7%$' 6*, .)%5' *1)')+')

, *5, . %', 0' '/3' 20' 4' 5/2' 4*$. %', . ' %B*6+)+' /8, (' -*,)$%H' . 5' = ')%6+%. ' '(9%. C, %', 0', . ; (/, . %5')*' ($%5,)' 026+, /, 0' 3,)+' 0*8%' 0+' $%' ,,, ' 6$*51(, . -')+%' 61$61$'' 3+, (+' 6$*7%5' &')' /')*'), , 0' 6'), %.)' '4*7%' 8%.), *. %5

0 ' 4 %

' *1)+' *& ? ' <% 2

@ ' /%. -' $, &&', 0' '/0*' 5%0%$7, . -' *&'. *), (%

G . &/' 8 8 '), *. ' *&')+%', $, 0' ' 6 ' ' ' (( )' , 0%' 0%0' *&

G +, 0')%$8', 0' '66/, %5')*' ('0%0' *&' 5, 0%' 0%' 3+, (+' 5*' . *)' $1. ')+%, $' $%-1/' $' *$')26, ('/' (*1$0%' 01(+' '0' -*1)' ' < % 3H *$')*' &1. (), *. 0' 3+%. ')+%2' '$%' 5, 0;)1$4%5' 3,)+' $%06%()')*'), 8%' $+2)+8' *$' (), 7,)2G' 0')+%' 61/0%')+%' 4*3%/0' *$' 8%. ; 0)$1'), *.

' 0 ' ' 3')%$R G ' 8%)+*5' *&' '66/2, . -' (*/5' 3')%$' '0' '')+%$'; 6%1), ('/' '-%.)' 3+, (+' (*. 0, 0)0', . ' ('10, . -',)')*' &'//5$*6' 42' 5$*6' *. ' *. %' 06*)' ' $ ' +%$' 6%1), (0' *&

' / ' ' 6$*7*9%RG ' . ' 6+20, *)*-2')+, 0' 3*$5' 0, -. , &, %0')+%' 6*3%$' *&' $%06*. 5, . -')*' '' 0), 8 1/10' '0' %B%8 6/, &, %5' 42')+%' (*.)$' (), /,)2' *&' 8 10(1/'$'), 001%' . ' 8%5, (. %', $$,)' 4, /,)2' , 8 6/, %0' '. ' 1. 51%' %B; (,)' 4, /,)2' *&' '. ' *$-' . ' *$'), 001%' &$*8' 5, 0%' 0%' *$' 5, 0*$5%$' 01(+' '0' *&')+%' 4$', . ' 06, . ' /' (*$5' 0)*8' (+' %2%' *$' 4/' 55%$

' G +%' . %$7*10' 5, 0)1$4' . (%' (*. 0%E1%.)' 16*. ' &$%)), . -' *&')+%' 20)% 8' 42' 7' $, *10' 0*1$(%0' *&', $$,)'), *. ' -, 7%0' $, 0%')*' '' 62$%B, '' 3+, (+', 0' *&)%. ' ('//%5' 0 $$, ;)'), 7%' %7%$' +%' &%4$, /%' %B(,)% 8%.)' 0*' &' 8, /, '$')*')+%' 01$-%*. ' '0' '' (*. 0%E1%. (%' *&' *1. 50' '. 5', . >1$, %0' 8' 2' 4%' (/' 00%5' 1. 5%$')+, 0' +%' 5')' 8' 2' +*3%7%$' 4%' 6$*7*9%5' 42' '. 2' 9, 15' *&', $$,)'), *. ' %06%(, '//2', $$,)'), *. ' '66+%5')*')+%' 81(*10' 8%84$'. %' *&')+%' /, 8%.)' $2' ('. '/' +%' $, 0%' *&')%86%$')1$%' 3+, (+' *&)%. ' '((*86' . , %0', $$,)'), *. ' *&')+%' 4*3%/0' 42' 0(24'/''*$' ($, 5' 0%($%), *. 0' '. 5')+%' &%4$, /%' 6+%. *8%. '' '))%. 5' .)' 16*. ' 5%.),), *. ' 8 ' 2' 4%' E1*)%5' '0' ^ 8, /, '$' %B' 86/%0' *&', $$, ;)'), 7%' &%7%$' 3+, (+' 8 10)' 4%' 3,)+, . ')+%' %B6%$, ; %. (%' *&' //

+%' $%'5, . %00' 3,)+' 3+, (+' 62$%B, '' ('. ' 4%' , . 51(%5' 42')+%0%' . 5' 0, 8, /'$' ('10%0' 8 10)' 7' $2' ((*$5, . -')*')+%', .)%. 0,)2' *&')+%', $$,)' .)' . 5')+%' (*. 0),)1), *. ' /' 6%(1/, '$,), %0' *&')+%', . ; 5, 7, 51' /' 16*. ' 3+*8',)' *6%$')%0' 0' ''$1/%' 8%. ' '$%' /%00' 010(%6), 4/%')+' . ' 3*8%. ' . 5' 3*8%. ')+' . ' (+, /5$%. ' . ' (+, /5$%. ', . 5%%5' 3,)+')+%, $' %B' /)%5' . %$7*10' 0%. 0, 4, /,)2' &%7%$; , 0+. %00' &$*8')+, 0' ('10%' , 0' '' (*8 8*. ' 02 8 6;)*8' . ' 2*1. -' 014>%()0' 8%.)' /' %8*), *. ' '/*. %' 3, ' *&)%. ' 6$*51(%' '$, 0%' *&')%86%$')1$%' 3+, (+' 8 ' 2' 4%' '' 0*1$(%' *&' 6%$6/%B,)2' . ' (4, /5$%. <0' +*06,)' /0',)', 0' '' (*8 8*. ' *40%$7';), *. ')+')')+%' 4*5, /2')%86%$')*%' *. ')+%' . , -+)' *&' 58, 00, *. ', 0' +, -+' %7%. ' '/)+*1-+')+%', //. %00

,. -' '4*1)' *&')+%' 4*52' 8 '2' 4%' %. (*1.)%$%5 ' +%' '40%. (%' *&' 6 ', .' ' .5' *&' 8 '$9%5' &%4$,/%' 5,0)1$4 ' . (%') *-=+%$' 3 ,)+')+%' +,0)*$2' *&')+%' 6 '),%.)' 3 ,// ' %7%. ' , .') +%' %' 0%0' 3+%$%')+%' -%. %$' /' $%0% 8 4/ ' . (%' ,0' (/*0%0) ' 06%%5,/2' %. ; '4/%')+%' /'))%$' (*. 5,),*. ')*' 4% $%(*-. ,0%5

Y$,& G 6 -' ()%$10H' # ' $ 0 " ' H # ' & 0 ' A %/010RH $' 5 H' O / H' %$' ' # # & # G '1. 5,(%' 8 '2' 4% 5%&, .%5' '0' '' 2%//*3. %0 0' *&')+%' ,.)%-1 8%.)0' . 5' (*. >1. ('),70%' ' . 5' *&')+%'),001%0' ' . 5')+%' 0%($%),*. 0' -%. %$' //2' &$* 8' ,8 6$%-. '),*. ' 3 ,)+' 4,/% 6,-; 8%.)

$ A' ' $ G ' ('0%0' *&' >'1. 5,(%' 8 '2' 4%' $%&%$$%5')*' *. %' *&')3*' (/'00%0HG

' '0%0' ,. ' 3+,(+')+%$%' ,0' '' 8%(+' . ,('/' ,8 6%5,8%.)')*')+%' &/*3' *&' 4,/%' ,.)*')+%' 51*; 5%. 18 ' ' . 5' 3+%$%')+%' 4,/%' ,0' ,. ' (*. 0%E1%. (%' $%)', . %5' , . ')+%' 4,/,'$2' 6 '00' -%0 ' ' . 5')+%. (%' '40*$4%5' , .)*')+%' 4/**5

' '0%0' ,. ' 3+,(+')+%$%' ,0' . *' ,8 6%5,8%.)')*')+%' &/*3' *&' 4,/%' &$* 8')+% /,7%$' , .)*')+%' 4*3%/

+%0%')3*' &*$8 0' *&' >'1. 5,(%' +'7%' /* . -' 4%%. ' $%(*-. ,0%5H' 41)')+%$%' ,0' 8 1(+' 5,&,%$' %. (%' *&' *6, . ,*. ' '0')*')+%' 8 *5%' *&' 6$*51(),*. ' *&')+%' >'1. 5,(%' , . ')+%' 0%(*. 5' (/'00' *&' ('0%0' '/)+*1-+')+%0%' '$%' 6%$+'60')+%' 8 *0)' (*8 ; 8 *. ' , . '6$' (),(%

+%. ')+%$%' ,0' . 2' *40)$1(),*. ')*')+%' &/*3' *&' 4,/%')+$*1-+')+%' +%6'),(' *$' (*8 8 *. ' 51()')+%' 3 '2' , . ' 3+,(+' >'1. 5,(%' '$,0%0' ,0' 01&&, ; (,%.)/2' (/%' $' +%' 4,/% 51()0' ' . 5')+%' -'//; 4/'55%$' 4%(*8 %' 5,0)%. 5%5' 3,)+' 4,/%' 3+,(+',0' '40*$4%5' , .)*')+%' 4/**5' 42')+%' /2 8 6+'),(0' ' . 5')+%' 7%, . 0' &')+%' +%6'),(' 51()' *&' '' 5*-' 4%' /,-')1$%5' ' . 5')+%' . ,8 ' /9,//%5' '&)%$')3*' +*1$0')+%' /2 8 6+'),(0' , . ')+%' 3 '//0' *&')+%' 4,/% 51()0' '$%' 0%%. ')*' 4%' 5,0)%. 5%5' 3,)+' 2%//*3' &/1,5H')+%' &/1,5' , . ')+%')+*$' (,(' 51()' ,0' '/0*' 2%//*3' ' . 5' 0*' /,9%3,0%' '$%')+%' , .)%$; 7%. , . -' /2' 8 6+'),(' -/' .50' . ' 6'),%.)0' '/0*' 3+*' 5,%' *&' *40)$1(),*. ' *&')+%' 4,/% 51()')+%' /2 8 6+'),(0' *&')+%' /,7%$' '$%' *&)%. ' &*1. 5')*' (*.)' , . ' 4,/%' . ')+%' *)+%$' +'. 5')3*' +*1$0' '&)%$' /, - ')1$%5' ' . 5' *&')+%' (*8 8 *. '51()')+%' 0%$18' *&' 4/**5')' 9%. '&$* 8')+%' +%6'),('7%, . '(*.)' , . 0' 8 1(+' 8 *$%' 4,/% 6,-8%.)')+' . ')+')' *&' 4/**5')' 9%. '&$* 8')+%' >1-)&/'$'7%, . ' 3+,(+'0+* 30')+')' , . ' (' 0%0' *&' *40)$1(),*. ' *&')+%' 4,/% 51()' 4,/%' ,0' '/0*' 5,$%()/2' '40*$4%5' 42')+%' 7%, 0

1)' , . ' '' /' $-%' 6$*6*$),*. ' *&' ('0%0')+%$%' ,0' . *' 8%(+' . ,(' /' ,8 6%5,8%.)')*')+%' %0('6%' *&' 4,/%' &$* 8')+%' /,7%$' ' . 5')+%. ' . ' '%B6/' . ';),*. ' *&')+%' >'1. 5,(%' ,0' /%0 0' *47,*10' *%$' +' ' 7%' ' . 5' *$-' . ,'/*. -' ' -*' 01--%0)%5')+')')+%' >'1. 5,(%' , . ')+%0%' ('0%0' 3 '0')+%' $%01/)' *&' ' " ' " ' +%2')'1-+)')+')')+%' &, 8 (),*. ' *&')+%' /,7%$' 3 '0' 8 %$%/2')*' 0%6' ; $')%')+%' %/%8%.)0' *&' 4,/%' 3+,(+' 3 %$%' '/$%'52' &*$8 %5' , . ')+%' 4/**5H' . 5')+')' 3+%. ' . 2)+, . -' , .)%$&%$%5' 3 ,)+')+%' &1. (),*. ' *&')+%' /,7%$')+%' %/%8%.)0' *&' 4,/%' '((181/')%5' , . ')+%' 4/**5

' . 5')+%' $%01/)' 3 '0' >'1. 5,(%' *&')+%' 09, . ' . 5' *)+%$'),001%0' /)+*1-+'),0' 7,%3' +'0' 4%%. ' 0)$%. 1*10/2' *66*0%5' 42' 0%7%$' /' %B(%//%.)' 1)+*$,),%0' ,)' 3 '0' , . ')+,0' (*1.)$2' 1.),/' $%; (%.)/2' -%. %$' //2' '((%6)%5')' 3 '0' '57*(')%5' &*$' %B' 8 6/%' 42' $' %*$-%' 155' , . ' +,0' 7'/1'4/%')$%'),0%' *. ' 5,0%'0%0' A$&')+%' /,7%$' '/)+*1-+' ,)' ,0' 41)' $,-+)')*' '55')+')' $' 155' 8 '5%' ''06%(,'/' %B(%6),*. ' 3,)+' $%-'$5')*')+%' 4,+'$2' '(,50' 0 +%' 8 *0)' 09, */ (+%8,)0)0 <+%' 0'20' 03+*' +'7%' $%(%.)/2' . ' '/20%5')+%' 6*$)'/ 4/**5' +'7%' &'./%5')*' 5%)%()')+%' 4,/,'$2' '(,50', . ' ,)' ' . 5' +'7%' (*8 %')*')+%' (*. (/10,*. ')+')')+%0%' ')' /%'0)' '$%' &*$8 %5' , . ')+%' /,7%$ <+,0' *6, . ,*. ')+')')+%' /,7%$' 8 ' . 1&' ()1$%0')+%' 4,/%' '(,50' 3+,/%' ,)' 8 %$%/2' %B($%)%0')+%' 4,/% 6,-8%.)' 3 '0' 5*6)%5'42' $' ' '$/%2' , . ' +,0' %00' 2' *. '>' 1. 5,(%

+%$%' '$%' +*3%7%$' 3%, -+)2' *4>%(), *. 0')*')+,0' 7,%3' 0*8%' *&' 3+,(+' 8 '2' 4%' 8%. ;), *. %5

' /)+*1-+' 4,/% 6,-8%.)' '66%' $0')*' 4% 5%$,7%5' &$* 8')+%' (*/*1$, . -' 8 '))%$' *&')+%' 4/**5' ,)' +'0' . *)' 2%)' 4%%. ' 0'), 0&' ()*$,/2' 0+*3. ')+')' 4 %6,-8%.)' '0' 01(+' %B,0)0' $%' 52' &*$8%5' , . ')+%' 4/**5' *&' 6%$0*. 0' 3+*' +'7%'. *)' >' 1. 5,(%' '$,(+0' 5%. ,%0')+'),')%7%$' +'0' %B,0)%5' %+8' . . ' 3+*' +'0' , . 7%0), -')%5' 3,)+' -$%')' ('$%')+%' (+' . -%0' 3+,(+')+%' 4/**5' 1. 5%$-*%0' , . ' 6' 00, . -')+$*1-+')+%' /,7%$' +'0' . %7%$' 4%%. ' '4/%')*' 5%)%()')+%' (*/*1$, . -' 8 ');)%$' *&' 4,/%' , . ' 6*$)' /' 4/**5' ' . 5' , . &%$0')+')')+,0' '0' 3%//' 0')+%' 4,/% ' (,50' 8 10)' 4%' &*$8 %5' , . ')+%' /,7%$' ,)0%/&' +%' 4/**5' *&')+%' +%6'),(' $)%$2' +'0' 4%%. ' %B' 8 , . %5' 3,)+' '' /,9%' $%01/)')' ,0' *47,*10')+')' ,&' 4,/% 6,-8%.)' %B,0)0' , . +%' /)+2' 4/**5')' '// ' ,)0' E1' .),)2' 8 10)' 4%' 7%$2' 8 , . 1)%H' . 5' 3+%. ' 3%' (*. 0,5%$)+')')+%' E1' .),)2' *&' 4,/%' 0%($%)%5' 42')+%' +18' . ' +7%$' 5' ,/2' ,0' '4*1')3*' 6, .)0' ' . 5' 2%)')+')' >' 1. 5,(%' ,0' . *)' '' . *$8' /' (*. 5,),*. ' ,)' 0%%8 0' , 8 6*00,4/%')+')' //)+%' 4 % 6,-8%.)' 0%($%)%5' 42')+%' /,7%$' (' . ' 4% &*$8%5' , . ')+%' 4/**5' ' . 5' ,)' ,0' . *)' 6$*4'4/%')+')' 6'$)' ,0' &*$8%5' , . ')+%' 4/**5' ' . 5' 6' $)' , . ')+%' /,7%$' +%' 5,0%(*7%$2' 42' '' &%3' *40%$7%$0' *&' '' 0 8 '// E1' .),)2' *&' 4 %' 6,-8%.)' , . ' 3+')' '66%' $%5' . *$8' /' 4/**5' 5*%0' . *)' 6$*7%')+')' ,)' 3 '0' &*$8%5' , . ')+%' 4/**5')' ,0' E1,)%' (*. (%,7'4/%')+')' ,)' 8 '2' +'7%' 4%%. ' &*$8%5' , . ')+%' /,7%$' ' . 5' +'7%' 4%(*8%' 0140%; E1%.)/2' '40*$4%5

@' +%' 0%($%), . -'),001%' *&')+%' /,7%$' ,0' *&)%. ' &*$')+%' 8 *0)' 6' $)' *$' %.),$%/2' 5%0)$*2%5' 0*)+')' 4,/%' ,0' . *' /* . -%$' 0%($%)%5' . ' . 5' 2%)' . *' >' $85,(%' $%01/)0' &' 4,/%' 6,-8%.)' 4%' &*$8%5' , . ')+%' (,$(1/'), . -' 4/**5' ,)' ,0' 5,&&,(1/)' *' %B; 6/' , . ' 3+')' 4%(*8%0' *&' ,)' , . ')+%0%' ('0%0

"' &')+%' (*. 0),)1%.)0' *&' 4,/%' '$%' &*$8%5' , . ')+%' 4/**5' , .)%. 0%>' 1. 5,(%' *1-+)')' *. (%')*' &* *3')+%' %B),$6'), *. ' *&')+%' +7%$' , . ' . 2' *&')+%' /*3%$' . , 8 '/0' , . ' /,9%' 8 ' . . %$' '0' 1$%' '((181/')%0' , . ')+%' 4/**5' '&)%$' $%8*7' *&')+%' 9,5. %20' 1)' 1 %$' 1. 5%' %+8' . . ' . 5' */%0(+*))' +'7%' $%6%')%5/2' %B),$6')%5')+%' /,7%$' *&' &$*-0' ' . 5' +'7%' , . 7'$,'4/2' &' ,/%5')*' &, . 5' ')$' (%' *&')+%' 4,/,'$2' '(,50' *$' *&' 4,/%

"' Y

6,-8%.)',.')+%' **5')+%'1$,.%'*$')+%'810;(1/'$'),001%' +%)+%$')+%'0'8%'3*1/5'4*/5'-**5''0'$=&'$50'8'.',0'E1%0),*.'4/%

+%0%'.'5'*)+%$'(*.0,5%$'),*.0'8'9%',)'7%$2'5*14)',&'.2'('0%'*&'>'1.5,(%'('.'3,)+'6$*6$,%)2'4%''))$,41)%5')*''0166$%00,*.'*&')+%'+%6'),('&1.(),*.0H'.5',)',0')+%$%&*$%'.%(%00'$2')*'0%%9'&*$'0*8%'*)+%$'%B6/'.'),*.'*&')++0%'0%0'*&'>'1.5,(%',.'3+,(+')+%$%',0'.*'*40)$1(),*.',.')+%'4,/% 51()

'0*/1),*.'*&')+%'5,&^(1/)2'+'0'4%%.'6$*;6*0%5'42'$*&%00*$'$%$,(+0''*&'%$/,.'(;(*$5,.-')*',+,0'5,0),.-1,0+%5'*40%$7%$'''/'$-%'6$*6*$),*.'*&')+%'(*/*1$/%00'4,/%'(,(50'&*$8%5',.')+%'/,7%$',0'%,)+%$'5,$%()/2')'9%.'16'42')+%'4/**5',.')+%'+%6'),('7%,.'*$',0''4;0*$4%5'&$*8')+%'4*3%/'.5%$'*$5,.'$2'(,$;(180)'.(%0')+%0%'4%'('(,50'4%(*8%'*B,5,0%5''.5''00,0)',.'&*$8,.-')+%'/'$-%'E1'.),)2'*&')'1$,.'&*1.5',.')+%')/)+2'/1.-'.5'.5')+%'6,-;8%.)0'7*,5%5',.')+%'1$,.%H41)',&')+%0%'.*$;8'/'8%)'8*$6+*0%0''$%',.)%$$16)%5'42'.%$;7*10'-%.(,%0'*)'4%,.-'01&(,%.)/2'*B,5,0%5''$%(*.7%$)%5',.)*'4,/%6,-8%.)',.')+%'4/**5''.5')+%'$%01/)',0'>'1.5,(%'+,0'7,%3'0%%8%5')*'4%'0166*$)%5'42')3*'%B6%$,8%.)0',.)%.5%5')*'0+*3G&,$0)',&,(,''//2'&,$*8'=%'4&,%'.,50'42')+%''(),*.'*&'(*.(%.)$')%5'01/6+1$,('(,5H'.5'0%(*.5/2')+')'(*/*1$/%00'4,/,'$2''(,50'3+%.',.>%()%5',.)*')+%'7%,.0'*&'5*-0''$%(*.7%$)%5',.')+%'4/**5'*&')+%0%''.,8 0',.)*'45%6,-8%.)'+%$%'0'+*3%7%$'&'$'&,$*8'4%,.-'1.'.,8,)2''8*.-'5,&&%$%.)'*40%$7%$0''0')*')+%'$%01/)0'*&')+%0%'%B6%$,8%.)0H'.5',)'+'0'8*$%'$%(%.)/2'4%%.'6$*7%5')+')'4%'(,50'$%'.*)'%,)+%$',.'*$*1)0,5%')+%'4*52'(*.7%$)%5',.)*'4,/%6,-8%.)'+%'45%''%,=6$*4'4/2''()'42'+4%$'),.-')+%'+'08*-/*4,.'&,$*8')+%'$%5'(*$610(/%0''.5')+%'5,00*/7%5'+'%8*-/*4,.',0'(*.7%$)%5'42')+%'/,7%$(%//0'..)*'4,/,$14,.'5%(,0,*.'*&')+%'6*8)0'')',001%'5*%0'.*)''66%'$')*'4%'*&'8')%$,'/',8;6*$)'.(%&*$%B6/'.,.-')+*0%'('0%0'*&>'$85,*%',.'3+,(+')+%$%',0'.*'*40)$1(),*.'*&')+%'45%'51()',.'081(+'0')+%$%''$%'-**5'-$*1/,50'&*$4%/,%7,.-')+')'.*)'*./2',.'>'1.5,(%'41)',.'+%'/)+'''6*$),*.'*&')+%'45%6,-8%.)''0'3%/'('0'*&')+%'45%'('(,50'&*$8%5',.')+%'/,7%$I',0'40*$4%5',.)*')+%'4/**5/)+*1-+'+%''8*1.)'*&45%0%($%)%5'5'52'8 10)'7'$2',.'5,&&%$%.)'6%$0*.0''.5',.')+%'0'8%'6%$0*.'1.5%$'5,&&%$%.)'(,$(180)'.(%0'4%,.-'8*5,&,%5'42')+%'E1'.),)2''.5'E1'/,)2'*&')+%'&**5')+%''(),7,)2'*&'$%06,$')',*.''.5'*)+%$'(*.5,),*.0')+%$%'('.'4%'/,))/%'5*14)')+')'+1)''08*//'6*$),*.'*&')+')'3+,(+')'*$5,.'$,/2'0%($%)%5',0'5,0(+'$-%5'&,$*8'2)9%'4*3%/'40%$7'),*.0'*.')+%'/*3%$'.,8'/0''.5'*.'8'.'+,80%/&'+'7%'0+*3.')+')')+%'E1'.),)2'*&'45%'0%($%)%5'42')+%'/,7%$'*&''+%'/)+2'51/)'7%$'-%0'&*$)2'*1.(%0')',0'-%.%$'//2''58,))%5')+')'+%'&%(%0'(*.)','.41)''&,$'(),*.'*&')+%'45%'('(,50'A')/%$%5R'(*$;$%06*.5,.-')*')+,0'E1'.),)2'*&'45%''.5',)0%%80'%E1'//2'(/%'$')+')'81(+'*&')+%'45%6,-8%.)'810)'/0*'5,0'66%'$',.')+%'4*3%/'+%$%'-*1.50'&*$')%/,%7,.-')*')+%45%6,-8%.)'3+,(+'0*'5,0'66%'$0'-*%0')*'&*$81$,.'$2'6,-8%.)H3+5%')+%'&'()'&%8,'+'$')*''//(/8,('/'*40%$7%$0')+')')+%'45%'6,-8%.)'5,0(+'$-%5'&,$*8')+%'4*3%/',0'-$%')/2',.($%'0%5'42'('/*8%/''.5')+%$'61$-'),7%0'3,)+*1)''.2'(*$$%06*.5,.-',.($%'0%'*&0%($%;),*.'*&45%'42')+%',/,7%$'0%%80'')*'0+*3')+')'1.50$'*$5,.'$2'(,$(180)'.(%0'81(+(*&')+%'45%6,-8%.)'0%($%)%5'42')+%'/,7%$',0'.*)'5,0;(+'$-%'3,)+')+%'&'%(%0'')'8'2'4%'55%5')+')',.'('.,7*$*10''.,8'/0''.5',.'0.'9%0''/)+*1-+'45%6,-8%.)',0'0%($%)%5',.''41.;5'.(%'42')+%'/,7%$')+%'E1'.),)2'5,0(+'$-%53,)+')+%'&'%(%0',0'%7%.'$%/'),7%/2'/%00')+'.',.'8'.

+%'E1%0),*.'0'(*'3+')'4%(*8%0'*&')+%45%'3+,(+',0'.*)'5,0(+'$-%5'&,$*8')+%'4*3%/'+'0''.',86*$)'.)'4%'$,.-'.')+%'6')+*/*-2'*&')+%'('0%0'*&'>'1.5,(%'.*3'1.5%$'(*.0,5%$;'),*.'/'$-%'6$*6$),*.'+%$'42')+%'45,'$2'6'00'-%0'*$'42')+%'81(*10'8%84$'.%'*&')+%'4*3%/'$*8'3+')',0'.*3'9.*3.'*&')+%'5,&10,4,/,)2'*&/1,50')+$*1-+'.,8'/'8%84$'.%0',)',0',8;6*00,4/%')*'(.(%,7%'45%/*.-',.'(*.)'()'3,)+')+%/,.,.-'8%84$'.%'*&')+%'-'4/'55%$'45%'51()0''.5',.)%0),.%'3,)+*1)''/'$-%'6*$),*.'*&',)'6'00,.-',.)*')+%'($(1/'),.-'4/**5'K+%'(*.0)'.)'0%($%),*.''.5'$%'40*$6),*.'*&'45%,0',.'&'()'8%$%/2'6$)'*&')+')*08*),('($(1;/'),*.'(*.0)'.)/2')'9,.-'6/'(%4%)3%%.')+%&/1,5'(*.)%.)0'*&')+%'4*3%/'.5')+%'4/**5')+%%B,0)%.(%*&'3+,(+',0')*'/,))/%'+%%5%5',.''*1$'6')+*/*-,('/06%(1/'),*.0'.5',.')+%$'6%1),(0'+%'E1'.),)2'*&'&/1,5'3+,(+',0'4%,.-')+10'(*.0)'.)/2'6*1$%5'*1)'&$*8')+%'-'0)$,('.5',.)%0),.'/-/'.50')+%'/,7%$'6'.($%'0'^('.5')+%.'$%'40*$4%5',0'%.*$8*10H,.')3%.)2'&*1$+*1$0',)'6$*4'4/2'&'$%B(%%50')+%'3+*/%'8*1.)'*&'4/**5'.5'&/1,5',.')+%'4*52'+0;%&&%()'*&')+,0'(*.),.1'/1)6*1$,.-',0'0166*0%5')*'4%')*','5'8%)'8*$6+*0,0H)+%'0'8%'014;0)'.(%'8*$%'*$'/%00'(+'.-%5'0%%80')*'4%)+$*3.'*1)''.5'$%'40*$4%5'1.)5',)',0'5'6)%5'&*$)+%'$%6',$'*&',001%'*$'4%(*8%0'%&&%)%'*3'8'.2',8%0')+,0'(,$(1/'),*.''00,0)0'.')+%'00,8,;/'),*.''*&')+%'.1)$,),7%'8')%$,'/0'5%$,7%5'&,$*8')+%'&**5

%$%')+%.'K3%'+'7%''.'%B6/'.'),*.'*&)+*0%'('0%0'*&'>'1.5,(%'3+%$%')+%$%',0'.*',86%5,8%.)')*')+%'&/*3'*'&45%'&,$*8')+%/,7%$'.5%$'.*8'/'(*.5,),*.0')+%'3+*/%'*&'(*.)%.)0'*&')+%'45%')+')'(*.)%.)0'*&')+%'45%'('(,$(1/'),.-'4/**5'4%(*8%0'$)'.(%'4%/,))/%'5*14)')+')'+1)''08*//'6*$),*.'*&')+%'45%'('(,50'&*$8%5',.')+%'/,7%$I',0'40*$4%5',.)*')+%'4/**5/)+*1-+'%''8*1.)'*&45%0%($%)%5'5'52'8 10)'7'$2',.'5,&&%$%.)'6%$0*.0''.5',.')+%'0'8%'6%$0*.'1.5%$'5,&&%$%.)'(,$(180)'.(%0'4%,.-'8*5,&,%5'42')+%'E1'.),)2''.5'E1'/,)2'*&')+%'&**5')+%''(),7,)2'*&'$%06,$')',*.''.5'*)+%$'(*.5,),*.0')+%$%'('.'4%'/,))/%'5*14)')+')'+1)''08*//'6*$),*.'*&')+')'3+,(+')'*$5,.'$,/2'0%($%)%5',0'5,0(+'$-%5'&,$*8')9%'4*3%/'40%$7'),*.0'*.')+%'/*3%$'.,8'/0''.5'*.'8'.'+,80%/&'+'7%'0+*3.')+')')+%'E1'.),)2'*&'45%'0%($%)%5'42')+%'/,7%$'*&''+%'/)+2'51/)'7%$'-%0'&*$)2'*1.(%0')',0'-%.%$'//2''58,))%5')+')'+%'&%(%0'(*.)','.41)''&,$'(),*.'*&')+%'45%'('(,50'A')/%$%5R'(*$;$%06*.5,.-')*')+,0'E1'.),)2'*&'45%

6%$)', .' 8 *$/a5' 0) ')%0')4%' '40*$4%5' 4,/%' 5*%0' .*)' 1 .5%$-*')4%' . *$ 8 '/ 8 %) ' 8 *$6+*0%0H' ,)' (,$(1/')%0' , .')+%' 4/**5' ' .5' 0)', . 0')+%' 09, .' ' .5' *)+%$'),001%0 ' ' . 5' , .')+,0' 3 '2' 3%' +' 7%' >' 1 .5,(%' 3 ,)+*1)' ' . 2' *40)$1(),*.' *&')+%' 4,/% ' 51()' +%' 8 *$4,5' 0)')%0' 3+,(+' 0*' '0' 3%' 96*3 ' (*. 51(%' 8 ', ./2')*')+,0' $%01/)' '$%' &*$')+%' 8 *0)' 6 '$)' 6$%(,0%/2')+*0%' , .' 3+,(+' 3%' 8 ,-+)'%B6%()' '4 .*$8 'H /**5 8%)' 8 *$6+*0%0' . ' 8 %/2 G

' %$)', .' 6*,0* . 0' 01(+' 0')+*0%' *&' 2%//* 3' &%7%$' $%/' 60, . -' &%7%$' 620%.>,' ' . 5' 8 *$%' $' $%/2')+*0%' *&' $%8,))%.)' &%7%$')26+10' ' . 5' 0('$/'), . 'H '/0**0 . '9% 6*,0* . ' (+/*$*&*$8 ' ^(< ' %$7*10' , . &/1%.(%0' 01(+' 0' '' 0155%.' &$,-+) '7,*/%.)'$' -%' -$%)' *$6$*)$' ()%5' . B,%)2 ' . 5' (* . (100,* .' *&')+%' 4$', .

9' ' 5%&,(,% .)' 0166/2' *&' *B2-%. ' ' 0' + ' 66%. 0' , .' (%$)', .' ('0%0' *&' 6 . %18 * . , ' ' *$, . ' 6%$0* . 0' /,7, . -', . ' (* . &, . %5' ' . 5' ($*35%5' 53%//, . -0

' .'%B(%00,7%' 0%($%),*.' *&' 4,/%' %06%(, '//3,)+' $%-' $5')*' 8 , . %$' /' 7%-%)' 4/%' ' . 5' , . 8 ' /6*,0* . 0' &)%$')$' . 0&10,*.' *&' 4/**5' &$* 8' * . %' ' . , 8 ' /')*' ' . *)+%$' *&' 5,&&%$%.)' 06%(,%0 ' '' 5,0; 0*/1),*.' *&')+%' &*$%,-.' 4/**5 (*$610(/%0')'9%0' 6/' (%' ' . 5' +%0 8 *-/*4, . '08,'' $%01/)0' 1(+' *&')+%' 4/**5 6,-8%.)' ,0' %/,8, . ')%5' 42')+%' 9,5. %20' ('10, .-' +' %8 *-/*+, . 1$,'H 41)' 0* 8%' $%' (+%0')+%' /,7%$' ('10, .-' ' . ' . . ($%'0%' *&' 4 %' 6,-8%.)' 3+,(+',0' '40*$4%5' ' . 5' -,7%0' $,0%')*' '' 0/,-+)' 5%-$%%' *&' >' 1 .5,(%' +%' 0' 8%* +' 0' 4%%.' *40%$7%5', . ' 0* 8%' 8 '/' $,' /' &&%(),*.0', . ' 3+,(+' 4*)+' +0%8 *-/*4, . ' . 5' 4,/%' '$%' 6$%0%.)' , . ')+%' 1$, . %=8 '/' $, ' /' +%8 *-/*4, . 1$, ' ' .)+%')+%$' +' . 5', . ' */5' %B)$' 7' 0'), *.0' *&' 4/**5' '&)%$' ''), 8%' 5,0, .)%-$'), *.' *&')+%' 4/**5 (*$; 610(/%0')'9%0' 6/' (%' ' . 5' +0%8 ')*,5, . ' 3+,(+',0' $%-' $5%5' 42' 8' . 2' 8 *5%8' (+%8,0)0' '0' ,5%.),('/' 3,)+' 4,/,$14, . ' $%01/)0' +%' +' 08 '')*,5, . ' ,0' '40*$4%5' ' . 5' 0)', . 0')+%'),001%0 ' ' . 5' '66%' $0' . ')+%' 1$,. %' '0' 4,/% 6,-8 8)' +')' ,0' 6$*7%5' '0' $%-' $5 0' %B)$' 7' 0'), *.0' 8 '2' *((1$' , .' 0 8 '//%$' 4/**5 5,0, .)%-$'), *.0' ' . 5')+10')+%' 6*00,4,/,)2' *&' '')$1%' +0%8 ')* ' -, . *10' 1 .5,(%' (' . . *)' 4%' 5%. ,%5')+*1-+' $,)' +'0' . *)' 4%%.' ' ()1'//2' 6$*7%5' %B(%6)' , . ')+%' ('0%' *&' *)5' %B)$' 7' 0'), *.0' 6%' 9, . -' -%. %; $'//2'# 0 " '>' 1 .5,%%'(*$$%06*.50' 3,)+' *40)$1(),7%' ' . 5' # 0 " $' >' 1 .5,(%' 3,)+' . * . *40)$1(),7%' >' 1 .5,(%' ' (1)%' 2%//*3')$*6+2')+%$%' ,0' . *' *40)$1(),*. ' +%' >' 1 . ; 5,(%' ,0' '0($,4%5' 42' 0* 8%')*' '$$%0)' *&')+%' 4 % 6$*51(, . -' &1 . (),*.0' *&')+%' +7%$ (%//0' 42' *)+%$0')*' 4/**5 5%0)$1(),*. ' &')+%' '$$%0)' *&' 4,/% 6$*51(),*.' , . ')+%' ,7%$' 3' 0' (*86/%)*' ,)' ,0' (/%'$')+')')+%' 4,/%' 3+,(+' , . ')+,0' 5,0%' 0%' 0)' , . 0')+%'),001%0' ' . 5' '66%' $0' , . ')+%' 1$, . %' 8 10)' 4%' 6$*51(%5' %/0%3+%$%' ' . 5' 4%' +0%8 ')* ' -, . *10' *$')' /%' 0)' %B)$' +%6'), (')' ,0' 6*00,4/%)+')')+%' '40*$6), . *' *&' 4,/%' ('5,0' . ' *40)$1(),7%' >' B85,(%' %B%$(,0%0' '' 5%0)$' (),7%' , . &/1%. (%' $')+%' $%5' (*$610(/%0' ' . 5')+10' 4%(*8%0' ' . ' . ' 5)' 5,), *. ' /' 0*1$(%' *&' 4,/% 6,-8%.)' ,%8%2%$' 6' $),(1/' $/2', . 0,0)%5')+')' 0%7%$2' +%6')*-, . *10' ,()%$10')%.50')*' 4%(*8%' ' +0%8 ')*-, . *10' ,()%$10 <

,)+')+%0%' 6$%/,8, . ' $2' $%8 ' $90' *.')+%

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6')+*/*-2 *&>'1.5,(%3%8'2.*3 6$*(%%5)*%.18%$')%,)0 5,&&%$%.) ('10%0 3+,(+ 8'2 4%(/'00,&,%5''((*$5,.)*')+%&*//*3,.)'41/'$ &*$8,KG

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L *0) 6%$,)*.%'/'*$'*8%.)'/)18*1$

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A'R' %//*3'&%7%$H ALR' %8,))%.)' .5',.;

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!(! G $*8' 3+')' +'0' 4%%.' 0)')%5',.')+%'6$%(%5,.-'0%(),*.',)' ,0'*47,*10')+')'>'1.5,(%',0'.*)' '5,0%'0%'41)' ,0' '02886)*8'*&'8'.2'5,&&%$%.)'5,0%'0%0' +,0'7,%3'*&')+%'8'))%$'(',8*)'4%')**'0)$*.-/2',86$%00%5'16*.')+%'0)15%.)'.5'6$'(),),*.%$'3+*0%%&&*$)0',.'%7%$2'('0%'810)'4%'5,$%()%5')*'5,0(*7%$'+%'&1.5'8%.)'/'8'/'52' +%$%'$%'+*3;%7%$'(%$)',.'6+%.*8%.''(*..%()%5'3,)+'>'1.5,(%',.5%6%.5%.)'*&',)0'('10%'3+,(+'5%0%$7%')*'4%'8%.),*.%5

5" " ' '# '< / " G %B)')*')+%'/,7%$',)0%/&')+%'09,.',0'&+%'),001%'*&')+%'4*52'3+,(+'4%(*8%0'8*0)'5%%6/2'>'1.5,(%5H 41)'4%&*$%',)'4%(*8%0''&&%()%5''2%//*3'),.)',0'01''//2'*40%$7%5',.')+%'(*.>1.(),7%' +%$%'810)'4%''(%$)',.'(*.(%.)$')'.*'*&' 4 %'6,-8%.)')*'6$*51(%''2%//*3'(*/*1$*&')+%'09,.H ,.')+%'0/,-+)%$''.5'8*$%)%86*$'$2'('0%0')+%'(*.>1.(),7[' *./2'8'2'4%'&&%()%5'/)+*1-+'&)%$'/,-')1$%'*&')+%'(*88*.'4,/%'51()',.')+%'/*3%$''.,8'/0',)'+'0'4%%.'0*8%;),8%0')+')'%7%.')+%'(*.>1.(),7[' 5*'.*)'4%(*8%>'1.5,(%5'&*$)3*'*$')+$%%'5'20',.')+%'+18'.'014>%()'>'1.5,(%'*&'4*)+'09,.''.5'(*.>1.(),7[',0'101''//2'*40%$7%5'3,)+,.')3%.)2&*1$'+*1$0'*&'(/*01$%'*&')+%'51%)

+%'(*/*1$'*&')+%'09,.'7'$,%0'&,K*8''6'/%'01/6+1$'*$'/%8 . 2%//*3')+$*1-+'' (,)$*.'2%//*3')*''5%%6'*/,7%'*$'4$*.C%5'+1%' +%',.)'7'$,%0''((*$5,.-')*')+%'('10%''.5',)0'51$'),*. +%.')+%'('10%',0'*40)$1(),*.'*$'*&')+%'4,/%'51()',',0'/,-+)''$'&,$0)''.5',.($%'0%0',.'5%6)+')+%'/*.-%$')+%'5,0%'0%'/'0)0H '/;)+*1-+',.''57'.(%5'('0%0''0'/$%'52'0)')%5')+%'(*/*1$'0*8%),8%0'+%**8%0'6'/%'.*)'&$*8')+%'*40)$1().*.'2,%/5,.-'41)'&$*8')+%',001%'*&')+%'/,7%$'4%(*8,.-'5%0)$*2%5''.5'7%$2'/,))/%'4,/%'4%,.-'0%($%)%5' .'>'1.5,(%'&$*8'*40)$1(),*.'/0*')+%'5%6)+'*&').)'*&)%.'7'$,%0'&$*8'5'2')*'5'2'.*)'&$*8''.2'7'$,';),*.',')+%'5%-$%%'*&*40)$1(),*.'41)'((*$5;,.-')*')+%'8*1.)'*&'4,/%'0%($%)%5'42')+%'/,7%$''.5')+%'%/,8,.'),7%'(),7)2'*,')+%'9,5.%20')',0'%/')*'$%8%84%$')+')'3+')',0'('//%5'04/'(9'>'1.5,(%'8'2'$%01/'&$*8''.2'('10%'*&*40)$1(),*.G&$*8'-'// 0)*.%'0'3%/'0'&$*8'('.(%$' .')+%0%'('0%0')+%-$%%.,0+'*$'/8*0)'4/'(9'+1%',0'51%)')*')+%'40*$4%5'4,/%6,-8%.)'4%,.-'7,),')%5''.55'$9'*$')*')+%'7,0'-%'4%,,=''/0*'5'$9%.%5&$*8',86%$&%()'$)%$,'/,0').*.'*&')+%'4/**5')+%'5'$9'(*/*1$'$%01/),.-'&$*8''8,.-/,.-'*&')+%'/,7,5,)2'3,)+')+%'(*/*1$'*&'4,/%'+%.')+%'>',85,(%',0'.5%6%.5%.)'*&'*40)$1(),*.')*')+%'&/*3'*&'4,/%')+%'(*/*8',0'$'$%/2'7%$2'5%%6'.'.5'2%)'+%0%'('$%'*&)%.')+%'8*0)'0%$,*10'('0%0'+%'(*/*1$'/0*'7'$,%0'3,)+')+%'-%')+%'.')1$'/'(*86/%B,*.''.5')+%''8*1.)'*&'&')'.')+%',.5,7,51'/')',0'5%%6%$

! D

)* 8 0 ',)' ,0' 5,&&,(1/)')*' , 8 5%$0)' . 5' + * 3')+%2' (' . ' $%01/)' &$* 8')+%' $%)% .),+ . ' * &' (+*/%0)%$, . ' /* . %' . ' (' 0%0 ' &* $* , . 0)' . (% ' * &' 6%$8 ' . % .)' (/*01$%' * &')+%' +,/% 5 . () ' (+*/%0)%$, . ' ,0' . *)' 5,0,(+ ' $-%5' &$* 8 ')+%' /,7%$' , .)*')+%' 4 * 3 %/ ' . *$' 5*%0' ,)' ' ((1 8 1/ ')%' , . ')+%' 45, '$2' 6 '00' -%0 ' ' . 5' 2%) ' ,&' ,)' 4%' $%)' , . %5', . ')+%' 4/**5 ' (%$%4$' / 02 8 6)* 8 0' $ ' $%/2' *((1$

+%' (%$%4$ ' / 02 8 6)* 8 0' , . ' > ' 1 . 5,(%' '$%' *&)% . ' 8 *0)' 0%7%$%' 3+%. ')+%' > ' 1 . 5,(%', 0' 0/, -+) ' ' . 5') +%2' 8 ' 2' *((1$', . ' 5,0% ' 0%0' * &')+%' /,7%$' 3+%. ')+%$%' ,0' . *' > ')8 5,(%' +%2' N %' 4%0)' %B6/ ' , . %5' 42')+%')', *3/%5-%' 3+, (+' 3 %' . *3' 6*00%00' *&')+%' &1 . (), * . '6%&*$ 8 %5' 42' > +%' /,7%$' , . ' 5,0, .)%-$ '), . -' ' /418 , . *10' 8 '))%$' , .)*' /%00' (*86/%B' 0140)' . (%0 ' 01(+' '0' 1$%' ' . 5' 1$, (' '(,5' 3+, (+' '$%' %/, 8 , . ')%5' 42')+%' +,5 . %20 ' +%. ')+, 0' &1 . (), * . ' * &')+%' /,7%$' ,0' '$$%0)%5' *$ 0%$, *10/2' , 8 6', $%5 ' 1$%' ' . 0' . *' /* . -%$' %/, 8 , ; . ')%5' , . ' 01&&,(,%.)' E1 ' .),)2' 42')+%' 9,5 . %20H' +, +, (' '(,5' . 5' 5%/%)%$, *10' 6$*51()0' * &' 5,0, . ;)%-$ '), . -' ' /48 . %. ' %7%. ' /%00' *B,5,0%5 ' 01(+' ' 0' /%1(, . ' . 5')2$*0, . ' ' . 5' 6%$+ ' 60' *)+%$0' 3,)+' 3+, (+' 3%' '$%' ' 0' 2%)' , 8 6%$&%()/2' ' (E1 ' , .)%5 ' ' ((1 8 1/ ')%' , . ')+%' 4/**5' . 5') , 001%0H')+%' $%01)' , 0')+%' 5%7%/* 6 8 %.)' *&' J1 . 6)* 8 0' * &' 4/**5 6*, 0* . , . -' 0, 8 , /('$')*')+*0%' 3+, (+' '$, 0%' 3+%. ')+%' 9,5 . %20' '$%' 1 . '4/%')*' %/, 8 , . ')%')+%' 6$*51()0' * &' '/418 %. 5, 0, .)%-$ '), * . ' *)7, . -')*' 5, 0%' 0%' * &')+%, $' * 3 . ' 0)$1()1$%' * $')*' . ' * B(%0; 0, 7%' &* $ 8 '), * . ' * &' 1$%' ' . 5' *)+%$' 6$*51()0' 0' + ' 66%. 0', . ' 8 ' . 2' &%4$, /%' 5, 0%' 0%0' . ' ' (1)%')$*6+2' &* $' %B ' 8 6/%')+%' 0)$1()1$%' * &')+%' /,7%$' ,0' 5%0)$*2%5 ' ' . 5' ,)0' &1 . (), * . 0' '$%' '$$%0)%5H' /%1(, . ' . 5')2$*0, . ') '9%')+%' 6/ ' (%' * &' 1$%' ' , . ')+%' 1$, . %' . 5' '$%' '/0*' &* 1 . 5' , . ' /' $-%' E1 ' .),)2' , . ')+%' /,7%$' 06/%%. ' . ' . 5' 9,5 . %20H' 3+, /%' (%$%4$ ' / 02 8 6)* 8 0' ' . 5')+%')J]6+*,5' 0)')%' '$%' 6$* 8 , . %.)' &%')1$%0' * &')+%' &&, 0%' 0%'

& " +%$%', 0' $' $%/2' 8 1 (+' 5, &&, (1/)2' , . ')+%' 5, '- . *0, 0' * &' > ' 1 . 5, (%' 41)' ,)' , 0' 3%/H')*' $%8%8 4%$')+')' (%$)' , . ' (* . 5,), * . 0' . ')%' 0* 8 %;), 8 %0' 8 , 0) ' 9%' . '&*$' ,)' 1(+' '$%' (+/*$*0, 0' 6%$; . , (, *10' ' . '%8 , ' '+' %8 *-/*4, . 1$, ' ')+%' . ' %8 , , (' 06%()' $%01/), . -' &$* 8' *$-' . ', (' 7, 0(%$' / 5, 0%' 0%' A' . 5' 6' $), (1/' $/2' &$* 8' (* .)$' ()%5' 9,5 . %20R ' &$* 8' (' . (%$' &$* 8' %B6*01$%')*' 8 '/' $, ' ' &$* 8' 55, 0* . 0' 5, 0%' 0%' *$ &$* 8' /% ' 5 6*, 0* . , . -H ' . ' . 51%' ' 8 *1 .)' * &' 014 (* . >1 . (), 7 ' / * &')H *$' . ' 1 . 101 ' //2' 5 ' $9' (*/*1$' * &')+%' *$5, . ' $2' 1$, . ' $2' 6, -8 %.)' *$')+%' 6$%0%. (%', . ')+%' 1$, . %' * &' ' 4 . *$; 8 ' / 6, -8 %.)0' 01(+' '0')+*0%' * &' 0' .)* . , . ')1$; 8 %$, ('$+14 ' $4' ^(' . ' %7%$2' ('0%' 3+%$%')+%$%' , 0')+%' 0/, -+)%0)' 5*14)' ,)' 3, /' 4%' 8 * 7%5' 42' $%0*$), . -')*')+%' . ,)$, (' (, 5')%0)' &*$ 4, /%' 6, -8 %.)', . ')+%' 1$, . %' &')+, 0' -, 7%0' . *' $%01/)')+%' ('0%' , 0' . *)' . ['*&' >' 1 . 5, (% 1)',)' 0' '' 8 *$%' 5, &&, (1/)' 8 '))%$')*' 5%)%$; 8 , . %')+%' ('10%' * &')+%' > ' 1 . 5, (%' ' . 5' 2%)')+, 0' 0+*1/5', . 7 ' $, ' 4/2' 4%')+%' ', 8' * &')+%' 8 %5, (' / '))%. 5 ' .)H 4%&*$%' &*$ 8 , . -' ' 6$*- . *0, 0' *$' 6$*; (%%5, . -' >*)$%')8 %.)' +%' 0('6%' * &')+, 0' '$), (/%' 5*=0' . *)' 6%$8 ,)' ' /%. -)+%. %5' ' . '/20, 0' * &')+%' %+6$' ()%$0' 5, 0), . -1, 0+, . -')+%' 5, &&%$%.)' &*$ 8 0' * &>' 1 . 5, (%' ': (*$5, . -')*' ,)0' ('10%' 41)+%' &*//* 3, . -' $%8 ' $90' 8 ' 2' 4%' * &' 0* 8 %' 0%$; 7, (%

' . ')+%' &, $0)' 6/' (%' ,)' , 0' ' /3 ' 20' 3%/')*' 5%)%$ 8 , . %' 3+%)+%$' *$' . *)')+%' > ' 1 . 5, (%' 4%' 51%')*' *40)$1(), * . ' * &')+%' 4, /% 51()' ((*$5; , . -')*' $' ' '$/%2')+, 0' (' . ' 4%' 5* . %' 42' 5%)%$ 8 , . , . -')+%' 6$%0%. (%' *$' '40%. (%' * &' 4 %' ' (, 50' , . ')+%' 1$, . %' 5*6), . -')+%' 7, %3')+')' 4, /% ' (, 50' '$%' &*$ 8 %5' 42')+%' /, 7%$' 3+, /%' 4, /% ' 6, -8 %.)' , 0' 6$%&*$ 8 %5' , . ')+%' 4/**5 ' +%' (* . ;)% . 50')+')' , . '> ' 1 . 5, (%' &$* 8' 00166$%00, * . ' < A*$' , . 5%6% . 5%.)' * &' *40)$1(), * . R')+%' 17%$5*%0' . *)' 0%($%)%' 4, /%' ' . 5' (* . 0%E1%.)/2' . *' 4, /% ' (, 50' 4%, . -' &*$ 8 %5' . * . %' (' . ' % .)%$')+%' (, $(1/'), * . ' *$ 4%' 5%)%()%5', . ')+%' 1$, . %H 3+%$%' 0', . '> ' 1 . ; 5, (%' &$* 8' *40)$1(), * . ' 4 %' 0' %(5%)%5' . 5' '40*$4%5', .)*')+%' 4/**5 ' . 5' ' 6*$), * . ' * &')+%' 4, /% ' (, 50' . *)')$' . 0&*$ 8 %5' , . '), >%' (, $(1/'), * . ' '66%' $0' , . ')+%' 1$, . %' 1)' , . ' '55,), * . ')*')+%' 0)$* . -', 8 6$*4 ' 4, /,)2' /$%' 52' 1$-%5')+')' . 2' &*$8' *&' > ' 1 . 5, (%', 0' 51%)*' ' DD 7

"' * &' 4, /%' (/, , (' / ' %B6%$, %. (%', 0' %.), $%/2' *66*0%5')*')+%' 6$' (), (' / ' 7 ' /1%' * &')+%')%0)' , ' ' E1%0), * . ' &*$)+$*3, . -' /, -+)' * . ')+%' ('10%' * &' > ' 1 . 5, (%' ,/%' ', (, 50' + ' 7%' 4 %. ' &*1 . 5', . ')+%' 1$, . %' , . ' ('0%0' * &' ' (1)%' ')$*6+2' * &')+%' /, 7%$' 3+%$%')+%$%', 0' . *' *40)$1(), * . ' * &')&, %' 4, /% 51()' ' . 5' , . ' 7%$2' 8 ' . 2' %' 0%0' * &' 8%(+' . , (' / ' > ' 1 . ; 5, (%')+%2' '$%' (%$)' , . /2' '40%.)' +%' *$5, . ' $2' (/, . , (' / ')%0)' &*$' 4, /% ' * /50' , . ')+%' 1$, . %' A %)')%. 9 * &%$<0R', 0' ' 7%$2' 1 . (%$)' , . ' . %' *$' 8 *$%' ' ((1$')%' 8 %)+*50' ' //, 41$)*. <0' (#' ' # ' 6 # 0 ' / & 6 # 0 ' ' 8 *$%' $%/, ' 4/%', . 5, ('), * . ' * &' *40)$1(), * . ' * &')+%' (* 8 8 * . ' 4, /% 51()' , 0' &' 8 , 0+%5' 42')+%' 0)**/0' +%. ')+%$%' , 0' . *' *40)$1(), * . ')+%' 0)**/0' '/8 *0)' , . 7 ' $, ' 4/2' (* .)' , . ' 4, /%H' 41)' 3+%. ')+%' 51()' , 0' *40)$1(%5')+%2' '$%' (/' 2 %*/* . $%5' +%' $1/%' , 0' . *)' 3,)+*1)' %B(%6), * . 0' ' . 5')+%$%' '$%' 0%7%$ ' / *1$(%0' * &' &' //' (2' +%' >' 1 . 5, (%' 101 ' //2' 6%$0, 0)0' &*$ 0* 8 %'), 8 %' &)%$')+%' 51()' + ' 0' 4%(* 8 %' 6%$7, *10' ' . 5')+10' 4, /, *10' 8 *), * . 0' 8 ' 2' (* %B, 0)' 3,)+' > ' 1 . 5, (%' 3+, (+' + ' 0' $%01/)%5' &$* 8' * 40)$1(), * . H *$', &')+%' 8 *), * . 0' 4%')+, . ' ' . 5' 3 ')%$2')+%2' 8 ' 2' ' 66%' $')*' (* .)', . ' 4, /%' &$* 8')+%' ' 58, B)1$%' * &' > ' 1 . 5, (%5' 1$8 %H *$' . *)' , . &$%E1%.)/2' 3+%. ')+%' 4, /% 51()' , 0' E1,)%, 8 6%$7, *10')+%' 8 *), * . 0' '$%' * &' '' 4$*3 . , 0+'), . -%' *3, . -')*')+%' 6$%0%. (%' & '/)%$%5' 4/**5' 3+, (+' 8 ' 2' (/*0%/2' $%0%8 4 /%' 5' $9' 4, /%' $* . ' 4, 0 8 1)+' ' . 5' (+' $(*' / ' /0*' (*/*1$')+%' 8 *), * . 0' ')18 *1$' (*$$%06*. 5, . -')*')+%' $%-, *. ' * &')+%' -' 4/' 55%$' 3, /' & ' 7*1$')+%' 7>%3')+')' > ' 1 . ; 5, (%' , 0' 51%)*' *40)$1(), * . ' * &')+%' 4 % 51()' '0)/2' > ' 1 . 5, (%' 3+, (+' 6%$0, 0)0' . 5' , 0' 2%)' 0/, -+)' , 0' 8 *0)' 6$*4/2' , . 5%6%. 5%.)' * &' *4; 0)$1(), * . ' &*$>' 1 . 5, (% &$* 8 <6%$0, 0)%.)' *40)$1(;), * . ' 06%%5, /2' 4%(* 8 %0' , .)%. 0%

@')', 0' '/3 ' 20', 8 6*$)' .)')*' . *)%)+%' 8 *5%' * &' (* 8 8 %. (% 8 %.)' * &' > ' 1 . 5, (%' +')' 3+, (+' '66%' $0' 0155%. /2' , . ' ' 6%$0* . ' 3+*0%' 6$%7, *10' +%' /)+' +' 0' 4%%. ' -**5', 0' 8 *0)' 6$*4/2')+%' $%01/)' * &' *40)$1(), * . ' * &')+%' 51()' '*&*$%. -' 4*52' +$',)' +' 0' ' ' . %$7*10' *$, -, . ' +%&*$ 8 %$' ('10%' 3, /' 4%' 5, 0), . -1, 0+%5' 42' 4, /, ' $2' (*/, (' 7* 8,), . -' ' 15' (/' 2 (*/*1$%5')**/0' . ')+%

! ?

*)+%$' +'.5'>'1.5,(%' (*8,.-' *.' 0/*3/2' 41)' 1/),8 ')%/2' 4%(*8,.-' ,.)%.0%' 3,)+' (/'2 ' (*/*1$%5' 0)**/0' 6*,.)0')*' 6$%001$%' *.')+%' 51()' &$*8' 3,)+*1)' *$')*' '' -$*3)+' ,.' ,)0' ,.)%$,*$

"' ' '+,0)*$2'*&'6$%7,*10' '))'(90'*&'>'1.5,(%'*&''0,8,/'$'.'),1 %',0',.'&'7*1$'*&''(')'$$+'/ $,-,.' *$'*&'-'// 0)*.%0

' ',.' ,.' 0%7%$%' 6'$*B20 8 0' (*.(1$$,.-' ,)+'>')85,*%'6*,.)0'-%.%$'//2')*'-'// 0)*.%0'*$'(' .(%$'Ĥ 8*$%' $'$%/2')*' +25'),50'*$')*'.'.%1$200 8'*&')+%'+%6'),(' $)%$2' '.(%$' ,0'5,0),.-1,0+%5'&$*8'-'// 0)*.%0'42')+%$%'4%,.-'101''//2''+,0)*$2'*&'&*,/,.-'+%'/)+' '.5'%8';(,'),*.'4%&*$%'%,)+%$')+%'6',.'*$')+%'>'1.5,(% F' '1.5,(%'(*.(1$$,.-'3,)+' %./'$-%8%.)'*&')+%'/,7%$',0'8*0)'6$*4'4/2'51%')*'(' .(%$'*$(,$$+*0,0Ĥ 8*$%' $'$%/2')*' 620%8,(' '40(%00%0'*$')*' 3'B2'/,)%$' 3,)+' /'$-%' -/'.50' ,.')+%'6*$)'/&,001$%

D' '1.5,(%'(*.(1$$,.-'3,)+'0(,)%0'6*,.)0')*'(' .(%$'*$'(,$$+*0,0' +%'5,'-.*0,0'*&')+%'/'))%$' ,/Ĥ 101''//2'4%' '00,0)%5'42')+%'6+20,*;--*82')+%'0/,-+).%00'*&')+%'>'1.5,(%'')+%'6$%7,*10'+'4,)0''.5''+,0)*$2'*&''/(*+*/,('5206%60,'Ĥ 3+,/%',.'(' .(%$')+%$%''$%'*&)%.'5'$),.-'6',.0''.5')+%'>'1.5,(%',0'101''//2',.)%.0%

M' '1.5,(%'(*.(1$$,.-'3,)+' 62$%B,'',0'%,)+%$'0%(*.5'$2')*'0*8%''(1)%'&%4$,/%'5,0;%'0%Ĥ *$',0'51%')*'01661$'),7%'62/%6 %4),)0''0166 ,$'),.-'+25'),5')18*1$'*6%..-',.)*''4,/% 51()'*$',.&/'88'),*.'*&')+%'4,/% 51()0' %86*$'$2' 62$%B,'' 8'2' /0*' *((1$' 51$,.-')+%'6'00'-%'*&''-'// 0)*.%

?' %$%4$'/02 8 6)*8 0''00*(,')%5'3,)+'>'1.;5,(%01--%0)''(1)%')$*6+2'*&')+%'+7%$'6*,0*.;,.-'42'6+*06+*$10'0*8%'06%(,&,('&%7%$'6.%1;8*.,''*$'.%$7*10'0+*(9

P' '1.5,(%',.''2*1.-'6%$0*.'6$%(%5%5'42'02 8 6)*8 0'*&'-'0)$,('(')'$$+',0'8*0)'6$*4'4/2'(')'$$+'/

5 ! G= +%$%',0'.*'06%(,'/')$%')8%.)'&*$'>'1.5,(%Ĥ,.''//'('0%0')+%')$%')8%.)'8 10)'+'7%'$%&%$%.(%')*' 3+')',0'4%/,%7%5')*'4%'.)0'('10%' +%''66$*6$,')%')$%')8%.)'3,//')+%$%;&*$%' 4%'5,0(100%5'1.5%$')+%'+%'5'*&')+%'0%7%$'/' 5,0%'0%0'3+,(+'-,7%'$,0%')*',)' .''(*.0,5%$'4/%'6$*6*$),*.'*&'('0%0'+*3%7%$',)',0',86*00,4/%')*'5%)%$8,.%')+%'6$%(,0%'.')1$%',.')+%'&,$0)',.0)'.(%''.5'6%.5,.-''.'%B'()'5,'-.*0,0'3%''$%'*4/,-%5')*'5*6)'0*8%'6$*;7,0,*.'/')$%')8%.)' $%')8%.)'0+*1/5',.'.*'('0%'4%'.%-/%()%5'&*$'3+')'8'2''66%'$')*'4%''),7,'/'>'1.5,(%'8'2'6$*7%',.')+%'0%E1%/')*'4%''.'%'$/2'0)'-%'*&''(1)%')$*6+2'*&')+%'/,7%$'%'$%'*&')+%$%'(%)','.-%.%$'/$1/%0'*&'8'.'-%8%.)'3+,(+'8'2'4%/',5'5*3.'+%$%',0'.*'.%%5')+')'+%'6'),%.)'0+*1/5'4%'(*.&,.%5')*'4%5'1./%00*)+%$'0286)*80',.5,('))%'01(+'.%(%00,)2Ĥ 8*5%$')%'%B%$(,0%'8'2'4%'//*3%5'%7%.','.')+%'*6%.'.',$'6$*;7,5%5')+%'6'),%.)',0'01,)'4/2'(/*)+%5'+%(/*)+,.-'0+*1/5'4%'3'$8'41)'/,-+)'+%&**5'0+*1/5'4%'0,86/%''.5'.1)$,),*10'+%$%',0'.*'.%%5')*'$,-,5/2'%B(/15%'&')))2''.5'0'((+'$,.%8'))%$'41)'.*'%B(%00'0+*1/5'4%'//*3%5''.56'0)$2'0+*1/5'4%''7*,5%5'/(*+*/,('4%7%;$'-%0'%06%(,'//2'&%$8%.)%5'/,E1*$0'0+*1/54%'3,)++%/5'.'0*8%'('0%0'*&'/*.-(*.;),.1%5'>'1.5,(%'(*.0,5%$'4/%'E1'.),),%0'*&&/%0+''$%'$%E1,$%5''.5''$%'5,-%0)%5')*'0166/2')+%'&'))2'8'))%$'/*0)'+*')+%'020)%8'42')+%'40%.(%'*&'4,/%',.')+%',.)%0),.%'/9',0'101''//2'3%//'4*$.%''.5'0166/,%0'&*)',.''.'%81/0,&,%5'&*$8'+%'6'),%.)'0+*1/5'4%'%.;(*1$'-%5')*'&$%%/2'5$,$50'3'$8'&/1,50'*$')+%'.')1$'/'/9',.%)'+%'3')%$0''0')+%'+%'9,5.%20''$%')+%'(+,%&'%/,8,.)*$0'*&4,/%''$8'4')+0'0+*1/5'4%'10%5''.5'*((';0,*.'//2')+%'89,0+'4')+',0'*&'0%$7,(%'')'+%'(*88%.(%8%.)'*&'.'')')'(9''5*0%'*&'('/'8%/'*$4/1 6,'A-$',>Ĥ,.'(' 84,.'),'*.'3,)+'(*/*'(2.)+'*$'$+14'$4'6,//'&*//*3%5'42''' 0'/,.%'6%$,%.)'5$'1-+)'*.',+%'&*//*3,.-'8*$..-'8'2'4%'&/5 ,$,.,')6$%,/' %$(1$,'/0'0+*1/5'4%'(')1),*10/2'10%5''0'/*.-''0'.'1.(%$)',.)2'0'*')*'+%'B'()'.')1$%'*&')+%'(0%$%8.,.0'41)'+%'%7,/'%&&%()0'*&'8%$(1$2'+'7%'4%%.'%B'-;-%$')%5''.5',)'+'0'4%%.'5%)%$8,.%5')+')',)'5,8,..,=%0''.5'.*)',.($%'0%0')+%'%($%),*.'*&'4,/%'.'/9'/,.%''.5'4,))%$'0)*8'(+,('/*&)%.'*&'81(+'0%$7,(%'%06%(,'//2'3+%.')+%')*.-1%',0'(*')%5Ĥ@!'-$',.0'*&'4,('$4*.')%*&'6*)'00,18'*$'0*5,B1.'3,)+'@!'8,.,80'%'(+'*&''$*8'),('06,&,)'*&''88*.,''.5'06,&,)'*&(+/*$*&*$8'F'8,.,80'*&',.()1$%'*&'.1B'7*8,('.'.''.*.8(%'*&'0*8%'4,))%$'*&),10,*.'0'('/184''-%.),.'('0('$,//''*$'(+,$%))''$%(%.)/2'6$%6'$%5'8'2'4%'-,7%.')+$%%),8%0''5'2'4%)3%%.'8%'/0'.'0*8%'('0%0'3+%.')+%')*.-1%',0'(/%'.'*$'+'0'4%%.'(/%'.%5'42''.'/9'/,'(,50'66%'$')*'5*-**5Ĥ!')*'@!'8,.,80'*&'5,/1)%5'..)$*+25$*(+/*$,('(,5',.''.'*1.(%'*&''4,))%$',.&10,*.'0+*1/5'4%'-,7%.'+'/&'.'+*1$'4%&*$%'8%'/0''.5')'$'B'(18'8'2'4%'10%&1//2''55%5G@!'-$',.0'*&')+%'%B;)$'()'*$''5$'(+8'*&')+%'01((10'6$%,%.)0''$%',.'8'.2'('0%0'$E1,$%5''.5',.'8*0)'(0%0'10%&,,'+%2'+'7%')+%'%&&%()'*&'/%00%.,.-'6*$)'/(*.-%0),*.''.5'$%6/'(%')+%'.')1$'/61$;-'),7%'E1'/,)2'*&')+%'4,/%''/,.%'6%$,%.)0''0''$1/%'.03%$'4%0)''5$'(+8'*&'%0/%;4'5'0'/)',.''')184/%$&1/'&'3'$8'3')%$'*$+'/&''')184/%$&,,/'&'$/04'5'3')%$')*'3+,(+0*8%'+*)'3')%$'+'0'4%%.'55%5'0+*1/5'4%')'9%.'4%&*$%'4$%'9&'0)''.5',)0'%&&,('(2',0',.($%'0%5',&',)',0'')'9%.'4%&*$%'4$%'9&'0)''.5',)0'%&&,('(2',0',.($%'0%5',&',)',0''',.0)%'5'*&'4%,.-'')'9%.''')''5$'1-+)'.*)+%$'10%&1/'0'/,.%'6%$,%.)',0'6+*06+')%'*&'0*5,18''5$'(+8'*)+$%%'),8%0''5'2',.''4,))%$',.&10,*.'0*8%('0%0'7%-%)'4/%'6%$,%.)0''.03%$'3+%.'(*/*(2.)+'>'%&*$%'$+14'$4'*'('0('$''8'2'4%-,7%.'K=%.'5,'$$+%*'',0'6$%0%.)'0'+(2/')%*&'4,0810)+'A-$'BR'*$*,/'*&)1$6%.),.%'A,,&B')*'' ' ('601/%'*.''.'%86)2'0)*8'(+0+*1/5'4%)$,%5'+%.'>'1.5,(%',0'.*)'51%)*'.',.016%$'4/%'*40)$1(),*.'%1*.>.,,'.$,5,16*5*6+2//,.''.5'*)+%$'+%6'),(0),81/'.)0''$%'0*8%),8%0'10%&1/Ĥ''.5'3+%.')+%$%',0'-'0)$*51*5%.'/('')'$$+',6%('(1'.+',0'*&)%.'*&'81(+'0%$7,(%'+%&*//*3,.-',0''-**5

&*$81/’ ‘ U‘ 1*.28,.‘ -$‘ >00 ‘ ,$,5,.‘ = > R‘ ,6%(’(1’.+%%‘ -$‘ 6,/1/%% (*/*(2.)+,5,0‘ %)‘ /,2*0(2’8,‘ -$‘ ,> H &)’6,/H *.%‘)*‘ 4%‘)’9%.‘ %7%$2‘ *$ %7%$2‘ *)+%$‘ .,-+)‘ *$‘ &/’)1/%.(%‘ 3+,(+‘ *&)%.‘ ,0‘)$*14/%0*8%‘ %’$4*+*‘ ’(,5‘ ($%’0*)%’8%.)+*/’ ’.5‘)1$6%.),.%‘ $%‘ 10%&1/’ +%‘ &*//*3,.-‘6,/‘8 ’2‘4%%86/*2%5‘U‘ /*,.‘ -$‘ ‘(,5,‘ (’$4*+(,‘ AO%1‘ 8%.)+*/‘ -$‘> ‘ %B;)$’()\’)’$’B’(,‘ -$‘,> H)*‘4%)’9%.‘ .,-+)‘ ’.5‘ 8*$.,.-‘ ,)$’)%‘ *&‘6,/*(’$6,.%‘ +’0‘ 4%%.‘ +,-+/2‘6$’,0%5‘42‘ ,)9*309,’’.5‘,0‘ (%$)’,./2‘ 0*8%),8%0‘ *&‘ -$%’)‘0%$7,(%‘ ,.‘ $%/,%7,.-’)+%‘ 6$1$,)10‘ *&)%.’6$%0%.)‘ .%0,B)+’*&’’-$’,.‘ 0+*1/5‘4%‘-,7%.‘014(1)’.%*10/2’*.(%‘*$’)3,(%‘ ’’5’2’ *$’)+%‘6$1$,)10‘3+,(+‘,0‘*&)%.’01(+’ ’’5,0)$%00,.-‘0286)*8’3’$8’4’)+0‘)’.,-+)’ &*//*3%5‘42’)+%‘ 10%‘ *&‘ ’’ &/%0+ 4$10+’ ’$%‘ 0*8%),8%0‘ 0%$7,(%’4/%‘ ,(’$4*.’)%‘ *&‘ 0*; 5,18‘ 3,)+’ 4$*8,5%‘ *&‘6*)’00,18‘ *$ 4%//’; 5*..’‘0*8%),8%0‘ ’&&*$50‘$%/,%&’*$’‘0‘ /$%’52‘ 8%.),*.%5’6,/*(’$6,.%‘+26*5%$8,(’//2‘ +%‘ &*//*3,.-’ /*),*.’ ’/0*‘ $%/,%7%0‘)+%‘ ,)(+,.-’ ,/1)%5’+25$*(2’.,(’ (,5’F> #4*$’B’F>R‘3’)%$‘)*‘ +%.’)+%0%‘ 8%’01$%0‘&’5’’.5‘)+% .,-+)K0‘ $%0)‘,0‘4$*9%.’’.‘ *6,’)%‘ 8 ’2‘4%‘ $%; E1,$%5’ B -’ ‘,0‘0*8%),8%0‘ 10%&1/‘,.‘016; 6/2,.-’)+%‘ 6/’(%‘ &‘)+%‘ 5%&,(.%.)‘ 4,/%‘ +%‘ &%/‘ 4*7,81.’61$,&,(’)18’ A$%(%.)/2‘ 6$%6’$%5R‘ 8 ’2‘4%‘ -,7%.’..’&,7%’*$’)%. -$’..’ 5*0%0‘,.’ (*’)%5’ 6,//0’)+$%%‘),8%0‘ ’’5’2’)3*’ +*1$0‘ ’&)%$‘ 8%’/0’ ‘,/2’%.%8’)’’ *&‘*.%)’*‘)3*’ E1’$)0‘*&‘3’)%$‘)’D!g)*‘P!g 4%$%)’,..%5‘ ’0‘/*.-’ ’0‘6*00,4/%’’$%‘%B)*//%5’42‘ %$8’.’ 6+20,(,’.0’ %06%(,’//2‘,.’ (’)’$$+’/‘>’1.5,(%’)’ (’,8*)‘ 4%‘)**‘ 0)$*.-/2‘,86$%00%5’)+’)’ 3+,/0)‘10,..-’)+%0%‘ 8%’01$%0’)+%‘ 6+20,(,’.0‘ ’,8’0+*1/5‘4%’)*‘ %0)’4/,0+’)+%‘ %B’()‘.’)1$%‘ *&’)+%‘>’1.5,(%’3+%.’)+%‘ (*$$%()’)$%’)8%.)‘ 3,/‘4%‘ 8*$%‘(/%’$/2‘,.5,(’)%5

$ ‘ % ’ ‘ (‘ ’5 +

‘ ’&.1&.&‘ (0’ ‘ 2)‘ ,0%’0%0‘$-

/ $ GF‘6*61/’$‘)%$8‘%86/*2%5’)*‘ 5%0,-.’)%‘)+%‘0’.5 3*$8’ *$ 0’.5 &/%’ ‘ ‘

‘ ’&.1&.&‘ (0G ,0%’0%0‘*&‘)+%‘ >*,.)0‘$%‘(/’00,&,%5’’((*$5,.-’)*‘)+%‘0)$1()1$%‘ 6$,8’$,/2‘ *$‘ (+,%&/2‘,.7*/7%5’ +%2‘ 8 ’2‘ (*88%.(%‘,.’)+%‘02.*7,’/‘8%84$’.%‘,.’)+%‘ 4*.%’*$‘,.’)+%‘(’$),/’-%‘ $,8’$2‘5,0%’0%’*&‘)+%‘/,-’8%.)0‘,0‘$’$%’’.5’,0‘.*)‘(/,.,(’//2‘ 5%8*.0)$’4/%’ *’ &*$8’*&‘>*,.)5,0%’0%‘$%; 8’,.0‘/*.-’(*.&,.%5’)*‘*.%‘),001%’0*‘)+’)’ 3+%.’)+%‘5,0%’0%‘,0‘*&‘0*8%‘51$’),*.’,)’3,//‘ 4%‘ &*1.5‘)*‘,86/,(’)%’ 8*$%‘*$‘/%00’%7%$2‘ %/%8%.)’*&‘)+%‘ >*,.)’66’$’)10’ .’)+,0‘ ’$),(/%‘)+%’5,0%’0%0‘*&‘>*,.)0‘3,//‘&,$0)’4%‘ -%.%$’//2’5,0(100%5H ’.5’)+%‘,.5,7,51’/‘5,0; %’0%0‘3,/’)+%.’4%‘(*.0,5%$%5’0%6’$’)%/2

.* $ ‘ ‘ $ G +%‘ /’$-%$‘ ’$),(1/’),*.0’)+*0%‘,.’(*.0)’.)‘10%’’.5‘8*$%‘ %06%(,’//2’)+%’>*,.)0‘*&‘)+%‘/*3%$‘%B)$%8,)2’ ’$%’)+%‘8*0)‘&,K%E1%.)/2‘5,0%’0%5’ +10‘)+%

9.%%‘,0‘8*$%‘*&)%.’)+%‘0%’)’*&‘5,0%’0%‘)+’.’ .2‘*)+%$’>*,.)H)+%‘+,6>*,.)’(*8%0‘.%B)‘,.’ *$5%$H ‘.5’)+%.’)+%.’5’%/4*3’ //‘ 9,.50‘*&>*,.)5,0%’0%0’$%&,$%E1%.)‘,.’(+,/5$%.’ ’.5‘2*1.-’6%$0*.0’ +%‘&,$0)‘2%’$’*&‘+&%‘ ‘66%’$0’+*3%7%$’)*‘4%‘.%’$/2‘%B%86)‘&$*8’)+%0%‘’&&%(),*.0’’.5‘51$,.-’)+%‘0%(*.5‘2%’$‘)+%2’’$%‘(*86$’),7%/2’$’$%’6%$+’60‘4%(’10%‘ 8*7%8%.)‘ ’.5‘ $,09’*&‘ ,.>1$2‘ ’$%‘ ’)‘)+’)’ 6%$,*5’’)’‘’8,.,818’ (1)%’’$)+$,),0’+*3; %7%$’ ,0‘*((’0,*.’//2‘3,).%00%5’51$,.-’)+% &,$0)’2%’$’*&‘/,&%G51$,.-’%7%.’)+%‘&,$0)‘0,B‘ 8*.)+0’)‘,0‘1.(*..%()%5‘3,)+’026+,/,0’*$‘ ,.>1$2H 7%$2‘0155%.’,.’,)0’‘66%’$’.(%’’.5‘ $‘6,5‘,.’(*1$0%H 5’.-%$*10‘)*‘/,&%H ’.5‘5%; 0)$1(),7%‘)*‘)+%‘ ’$),(1/’$ %.50‘*&‘)+%‘ 4*.%0‘ 42‘01661$’),7%5,0*$-’.,0’),*.’ +%‘(’10%0‘*&‘ >*,.)5,0%’0%‘,.’-%.%$’/‘ ’$%‘(*..%()%5‘%,)+%$‘ 3,)+’5,0*$5%$%5’.1)$,),*.’,.’3+,(+’(’0%‘,)‘ 101’//2’ ’0018%0‘ ’.’,.&/’88’)*$2’)26%H *$‘ 3,)+’5,0*$5%$%5’&1.(),*.’ +%‘/’))%$‘ 8’2’ 5%6%.5’*.’)+%’&*$8%$’*$4%1.(*..%()%5‘3,)+’ ,)’ -’,.’)+%‘(’10%‘8’2‘4%/*(’/‘,.’,)0’*$,-.,.‘ *$‘ ‘$,0%‘ &$*8’ 0*8%‘ (*.0),)1),*.’/‘ 5%&%()‘ 8*.-0)‘)+%‘ ("0‘(’10%0’,.>1$2‘,0‘42’&’$‘)+%‘8*0)‘&$%E1%.)’ +,0‘4%,.-’*&)%.’0/,-+)’ ’.5‘.*)‘&*//*3%5‘42‘.2’,88%5,’)%‘(*.0%; E1%.(%0’)+%‘(*..%B,*.’,0‘&$%E1%.)/2‘*7%$; /**9%5’ ’4/*3’*$‘’&’//’-’,.0’)+%‘%5-%‘*&‘ ’’)’4/%‘*$‘5*3.’0)’,$0’8’2‘$%’5,/2‘4$1,0%‘)+% 02.*7,’/‘8%84$’.%’,.’01(+’%B6*0%5’>*,.)0’0‘)+%‘9.%%‘*$%/4*3’3,)+*1)‘(’10,.-’’.2’%B;)%$.’/‘0,-.’ ’0+-+)’+’%8*$$+’-%’)’9%0‘6/’(%‘ ,.)*‘)+%‘02.*7,’/‘(’7,)2’*$‘)+%‘014 02.*7,’/‘ ’$%*/’$‘),001%’’.5‘0%$*10‘%&&10,*.’8’2‘ 06%%5,/2‘016%$7%.%H ..’)+,0‘8’..%$‘’‘(*8; 8*.’7’$,%)2’*&‘’(1)%’*$‘)$’18’),(‘0%$*10‘ 02.*7,),0‘,0‘6$*51(%5’ 1)‘/)+*1-+’,.>1$2’ ,0‘’‘8*0)‘&%$),/%‘(’10%‘*&‘>*,.)5,0%’0%’)+%‘ ’$),(1/’),*.0’8’2‘010)’,.’8*0)‘0%7%$%‘,.>1$2’ 3,)+*1)‘4%(*8,..’,.&/’8%5’)’,0’$’$%’)*‘&,.5’ ’.2‘0%$,*10‘(*.0%E1%.(%0’$%01/)‘&$*8’5,0/*(’;),*.H)+%‘>*,.)‘101’&&2‘6%$&%()/2‘$%(*7%$,.-’ ,)0%/&’ %.%)$’),.-’3*1.50‘*&‘)+%‘>*,.)0’’$%‘ ’/3’20‘0%$,*10‘,.>1$,%0H)+%2’*&)%.’*’((’0,*.’ ’(1)%‘02.*7,),0’’.5’,&’0%6),(’(+’.-%0K*((1$’ ’$%&*//*3%5’,.%7,)’4/2‘42‘01661$’),*.’,.’)+% ’$),(1/’),*.’’’.5’5’.-%$’4*)+’)*‘)+%’/,84’’.5’ /,&%’*&‘)+%‘,.5,7,51’/’ $’()1$%0’*&)%.’,86/,; (’)%’)+%‘>*,.)01$&’(%0’’.5’6$*7%‘’’&$%E1%.)’ 0*1$(%’*&‘0),&&>*,.)’ /’0),(’02.*7,),0’8’2’ 4%’)+10’0%)‘16’(’10,.-’’5+%0,*.0H’*$‘016; 61$’),*.’)’9%0’6/’(%H’*$‘)+%‘(’//10’&*$8%5’ &*$‘)+%‘$%6’,$’*&’)+%‘&$’()1$%‘8’2’,.)%$&%$%’ 3,)+’)+%’>*,.)’8*),*.’ 1.0+*)’3*,850’*&‘ >*,.)0’*&)%.’6$*51(%‘)+%‘0%7%$%0)‘&*$8’*&‘ ,.&/’88’),*.’01661$’),*.’4%,.-’)+%‘101’/‘ $%01/)’ +%.’>*,.)5,0%’0%’&*//*30’’.’,.>1$2’ ,)‘,0‘101’//2’(*.&,.%5’)*’*.%’>*,.)H 41)‘3+%.’ >*,.)5,0%’0%’*$,-.’)%0’&$*8’(*.0),)1),*.’/ (’10%0’8*$%’)+’.’*.%’>*,.)‘,0’*&)%.’’&&%()%5H *$‘3+%.’*.’/2’*.%’)+%‘(*.0),)1),*.’/.’)1$%‘ *&’)+%‘(’10%‘,0‘8’.,&%0)%5’,.’5,0%’0%5’(*.; 5,),*.0’6$%0%.)‘%/0%3+%$%’*$‘42’)$’(%0’*&‘,.’ &/’88’),*.’.’,.’*)+%$’>*,.)0’51%’)*’)+%’0’8%’ (’10%’ +%’5%7%/*68%.)‘*&’)14%$(/%‘,.’)+%

02 . *7, '/ 8%84$',1% ' .5 4* . % ,0 '' 7%$2 &$%; E1% .) ('10% * & (+$* . ,(>*, .) 5,0% '0%
*, .) , . &/ ' . 1 . '), * . 0 '6$% * & (* . '> . * . * ((1$; $%. (% , . '// 9, . 50 * & &%7%$H ' . 5 '/0* 0 0%E1%/ % * &)+% %B ' .)+%8 ') ' +% -$%')
&$%E1% . (2 * & 6*/2 $), (1/ '$ 0%$* 10 02 . *7,), 0 , . ' (1)% $+%18 '), 08 , 0 3%// 9 . * 3 , R ' 0 /0* , . ' 61$61$ '' . 5 40%8*6+ , ' ' 3+%$% ,) 0 (*86/, ; (')%5 3,)+ 4/**5 %B)$ ' 7 '0 '), * . 0 . 6200 8 , ')+% >*, .)0 '$% &$%E1% .)/2)+% 0% ') * $ 0%$* 61$1/% .) ' . 5 61$1/% .)%&&10, * . 0H 0)+%2 '/0* * (('0, * . '//2 '$% , . ' 0 ('$/'), . ' 1%$6%$ ' 02 . *7,), 0 , 0 '' 7 '$, %) 2 * & 620%8, (.)26+10 8 * . '$), (1/ '$ ')+$,), 0 , 0 &$%E1% .)/2 8%) 3,)+ ' . 5)+% +, 6 , 0)+% >*, .) * &)% . %) ' &&%() %5 . 5 * ('$5,), 0 . 5 6*/2 '$)+$,), 0 '$% 7%$2 * &)% . ' 00* (, ')%5)* -%)+%$ ' . 5)+% % . 5 * ('$5,), 0) . '2 6$% (%5% ' . 5 -, 7% $, 0%) * >*, .) 5, 0 * $5% $ 42 %84*/, 08 +% &' ( ) + ') 81/), 6/% >*, .) '&&% (), * . 0 '$% , +%)& 2 '$)+$,), 0 '$% 62&&, 8 , ' . 5 , . ' $+%18 '), 08 01 - -%0) 0 '' (* . ; . %B, * . ' 41) 3+ ') ,) 0 . ')1$% 8 '2 4% , 0 . *) (/% ' $ ' /)+* 1 -+ , . '$), (1/ '$ +%18 '), 08 610 &*$1&'), * . ', 0 '$ '$% 3% 0* 8%), 8%0 3,) . %00 >*, .) 016H=1$'), * . ' , . ' 01(+ * '0%0H 3+, /0) 62 '%8, '' . 5 8%) '0) '), (' 40(%00 8 '2 *$, -, . ')% &$*) 1/(%$'), 7% * . 5 * ('$5,), 0 ' . ' (+$* . , ('02 . *7,), 0 ' '&&%() . -') 3 * -%* *$ 8 * $%> *, .) 0) +% +% '$) 0+*1/5 '/3 '20 4%%B ' 8, . %5 &*$) $ ' (%0 * &% . 5 * ('$5,), 0 3, /0 * 8%), 8%0 4% &*1 . 5 ' . ') +%%B ' .) +%8 ') ')26+10 ' . 5 5,6+) +%$, ' 8%) '0) '0%0 , . ')+% 0+ '6% * &' >*, .) , . &/ ' 8 8 '), * . 0 8 *$% *$ /%00 &$%E1% .)/2) '9% 6/ (% *, .) , . &/ ' 8 8 '), * . ', 0 * &' &$%E1% .) * ((1$$% . (% , . ' 520% .)%$2 ,)+ -* . *$$+ (% '' * &*8 ' * &' $)+$,), 0 , 0 ' 00* (, ')%5 3+, (+', 0 ('//%5 0 -* . *$$+*% '/ 26+, /, 0 , ')+% /') %$ 0) '-%0 &$%E1% .)/2 ')) ' (90 '' >*, .) ')+% 9 . %%$ 42 6$%&%$% . (% '026+, /,), (' 5%6*0, 0) 9, . - 6/ (%, . ') +% 4* . % *$) +% 014 02 . *7, '/ (* . . %(;), 7%), 001% '41) 02 . *7, '/ %&&10, * . ', 0 . *) (*8; 8 * . ' ' 01661$'), 7% , . &/ ' 8 8 '), * . ' * &')+% % . 50 * &') +% 4* . % , 0 . *) $ ' $% , . ' (+, /5$% . ') +% 014>%() 0 * &' , . +%$,)%5 026+, /, 0 . ' -*1) +% >*, .) 0) $1() 1$%0 ' $% ' &&%() %5H ' 0 ' '' $1/%)+% 6%$, 02 . *7, '/), 001% 4% (*8%0 , . &/ ' 8 %5 *3, . -') ** 5%6*0, 0 * &' 1$') %0 ' , 8 , /' $ 5%6*0, 0 '/0* ** ((1$, . ' ('$), /' -%0 * &' % . ($10) '), * . ' +% -$%) ')) * %' , 0 8 *0) * &)% . ' &&%() %5 41) +% *) +% $ ') $0 '/ '5, -,) '/ ' . 5 '/ '$ -%$ * >*, .) 0 ' $% &$%E1% .)/2 5, 0% '0%5

*8%' , // 1 . 5%$0) ** 5' &*8$ * &' 7 '0* 8*) *$ * $) $*6+, (', $$,) ') , * . ' ' 66% '$0) *' ((' 0, * . '') $) + 0,) 0 , . ' /* (*8*) *$ ') ' B2 ' && 10, * . ' , .) **) +% >*, .) 0 , 0 ' 6$% (%5%5 ' 42 ' 6 ' , . H ' . 5 ') +% 9 . %% ' . 5 ' 0+*1/5%$ ' >*, .) 0 ' $% ') + *0% ' -%. %$ ' //2 ' ' &&% () %5 ' . ' 0 * 8%' ('0%0 ' * &') +% 5, 0% '0% ' (+ ' . -%0 ' 0, 8 , /' $ ') **) +*0% ' , . ' $+%18 ') *, 5 ' $) +$,), 0 + ' 7 ' 4%%. ' *40% $7%5 ' . 5 ' -%. %$ ' //2 ' , . ') +% 9 . %% ' 0+*1/5%$ ' %/4*3 ' *$ +, 6 ' +%2 ** ((1$ '%' $/2 ' , . ') +% 5, 0% '0%H ' $, 0% ' 0155%. /2H ' $% ' &) %. ' 8 * . ' $), (1/ ' $H ' . 5 ' . *) ' $ ' $% /2 ' -, 7% $, 0%) *' 5, 0/ * ('), * . ' %06% (, ' //2 ' , . ') +% ' 0+*1/5%$ ' +%0% (+ ' $ ' ( ) %$0 ' 5, 0), . -1, 0+ ') +% ' 5, 0% '0% ' &$* 8 ' *$5, . ' $2 ' $+%18 ') *, 5 ' '$;) +$,), 0 ' %7%$% ' , . &/ ' 8 8 '), * . ' * &') +% ' >*, .) 0 ' * &') +% ' 6 ' $ ' /20%5 ' / , 8 40 ' + ' 0 ' 4%% . ' *40%$7%5 ' . ' (' 0%0 ' * &' +%8 , 6/%-, ' ' +% * ((1$$% . (% * &' >*, .)

5, 0 * $5%$ ' 101 ' //2 ' 02 . *7, ' / , . &/ ' 8 8 '), * . ' , 0 &$%E1% .) ' , . ' (+$* . , (' 5, 0% '0% * &') +% 06, . %H . ' . 5 ,) ' /0* ** ((' 0, * . ' //2 ' + ' 66% . 0 ' , . ' (1)% 82%/,), 0 , . ') +% &* $8 ' * &' 0&/661$'), 7% ' $) +$,), 0 ' . ' 4*) + ' ('0%0 ') +% ' 9 . %% ' , 0 ' 8 *0) ' &$%E1% .)/2 ' &&%() %5
) # ' % ' G ' *, .) 5, 0% '0% ' 8 ' 2 4%-, . ' 0 ' . ' , . &/ ' 8 8 '), * . ' * &') +% ' 02 . *; 7, ' / 8%84$ ' . % ' * &') +% * 4* . % ' * $* &') +% (' $), /' -% ' , 4$*10), 001% ' +' 7, . - ' 41) ' 0/, -+))%. 5%. (2) * , . &/ ' 8 %',) ', 0 ', 86$*4 ' 4/%) +') ' 6$, 8 ' $2 ' 5, 0% '0% ' && %(), . -') +% /, - ' 8 %.) 0 ' (. ' 4%*) +% $3, 0%) +' . ' 8 *0) ' %B (%6), * . ' /H 41) ') +%0% ') %B) 1$%0 ' 7%$2 ' 0** . ' 4% (* 8%0%(. 5 ' $, /2 ' && %() 5 ' &$* 8 ') +%, $, .), 8 ') % ' (* . . %B, * . ' 3,) +') +% ' 02 . *7, '/ 8%8; 4$ ' . % ' +% ' 02 . *7, '/ 8%84$ ' . % ' , 0 ' 6%$+ ' 60 8 * $% $%' 52 ') * ' , . &/ ' 8 %) +' . ' ' . 2 *) +% $ '), 001% , . ') +% 4*52 ' ' . 5 ' , . ' 8 ' . 2 >*, .) 0 ' ,) ' , 0 ' 81 (+ ' %B; 6*0%5 ') * ' , . >1$2 ' &$* 8 ' 3,) +*1) ' 3+, /% %B (%00, 7% >*, .) 8*7%8%.) ' /* . % ' , 0 ' 0* 8%), 8%0 ' 01&/5 (, %.)) * ' %B (,) % ' 02 . *7,), 0 ' $, 8 ' $2 ' 5, 0% '0% ' * &') +% ' 4* . % ' (*8%0 ' . %B) ' , . ' *$5% $ * &' &$%E1% . (2 ' $), /' -% , 0 ' /% ' 0) ' /, 9% /2 ') *) ' 9% * . ' 6$, 8 ' $2 ' 5, 0% '0% ' ' (+ * &') +%0% ') , 001% 0 ' +*3%7% $ ' 4% (* 8%0 ' 06%%5, /2 ' && %() %5 ' 42 ' 5, 0% '0% ' 3+, (+ ' + ' 0 ' , . 7 ' 5% 5 ' % $ ' (* 8 8 %. (% 5 ' , . ') +% *) +%$
! !' 35 ' 325 ! ! G= +0/* (' /02 86;) * 80 * &' >*, .) 5, 0% '0% * + ' 7% $% &% $% . (%) ** 7 " ' ') / ' 3 " ' . 5 ' # % 0 ' " ' ') * -%) +% $ 3,) +' " ' 4*) +' /* (' / ' . 5 ' 02 86 ';) +%), (' H ' . 5 ' (% $) ', . ' # ' 0 "
5 ' ' " G 01 ' //2 ') +, 0 , 0 ' -$% ') , . ' 6$*6*$), * . ') **) +% . ') 1$ ' / 8*4, /,) 2 ' . 5 ' , 8 ; 6*$) . (% * &') +% ' >*, .) ' . 5 ' 8*0) % 7, 5% .) ' . ') +% %B) $% 8,), % 0 ' +% % ' $/, % 0) ' 02 86) * 8 ' , . ' +, 6 ' >*, .) 5, 0% '0% , 0 '' 0/, -+) ' +86 ' $ ' +' /) ' 3+, /0) ' , . ' *) +% $ ' >*, .) 0 ' 8 % $% ' 0), && . % 0 ' * ((1$0H) +% &1/ $ ' . -% * &' 8 * 7% 8%.) ', 0 ' 0, 86/2 (1$) ', /% 5 ' 4% &* $% ' () 1 ' / 6 ', . ' * $ 03% , . -') ' 9% 0 ' 6/ (% ' +% 6*0,), * . ' * &' 8 ' B, 818 ' $% /' B '), * . G . ' 8 % /2 ') +') , .) % $ 8 % 5, ') % 4%) 3 % % . ' &/ % B, * . ' . ' . 5 ' % B) % . ; 0, * . G, 0 ' (* 8 8 * . /2 ' 001 8 % 5425, 0% '0% 5> * , .) 0 ' 7% . ', . ') +% % ' $/2 ' 0) ' -%0 ' * &' 5, 0% '0% ') +% , .) % $; &% $% . (% ' 3,) +' 8 * 7% 8%.) ' , 0 ' * &) % . ' 5 ' 8 * 7% $ ' ' 8 * 1 .), . -') ** ' ' 0 * $) ' * &' 7,) ' / ' . 92/ * 0, 0 ' 6$*; 51(%5 ' 42 ') +% ' (), * . ' * &') +% ' 810 (/%0 ' 3+* 0%) % . 0, * . ' 6$% 7% .) 0 ') +% ' >*, .) 01$& ' (%0 ' 8 * 7, . -' 16* . ' % ' (+ ' *) +% $ G ' . ' %&& * $) ') ** ' 7% $) ' 6 ', . ' +, 0 ' &* 8 $ ' * &' . 92/ * 0, 0 ' 5, 0 ' 66% ' $0 ' 51$, . -' . ' $ (* 0, 0 ' 10 (1/ ' $ ' * $ ' 7,) ' / ' . 92/ * 0, 0 ' 810 ' 4% 5, 0), . -1, 0+% 5 ' &$* 8 ') +% ' $, -, 5,) 2 ' 6$*51(%5 ' 42 ' 0) $1() 1$ ' / (+ ' . -%0 ' *) +-02 . *7, ' / %&&10, * . ' . 5 ' 6%$, 0J8 *7, ' / , . &, /) $ '), * . ' 8% (+ ' . , (' //2 ' +, . 5%$ ' &$%% ' >*, .) 8*7%8%.)
" 0 ' "' G +' . -%0 ' , . ' &*$8 ' '$% 51%) **) +% ' /) % $ '), * . 0 ' , . ' 0+ ' 6% ' . 5 ') %B) 1$% * &') +% ' >*, .) 0) $1() 1$%0 ' ' . 5 ') ** %&&10, * . 0 ' 3,) +, ' ,) 0 ' ('7,) 2 ' +%0% (+ ' . -%0 ' 8 ' 2 ' 4% 4%0) ' 66$% (, ') % 5 ' 42 ' ('$%1/ 8% ' 01$%8%.) 0 ' . ' . 5 ' ' (*86 ' $, 0* . ' 3,) +') +% ' *66*0,) % ' >*, .) ' *') $1% %0), 8 ') % ' * &') +% ' 8 *, 8) ' * &' 5%6 ') 1% &$* 8 ') +% . ' *8 ' / , 0 ' *) +%$3, 0% ' 6*00, 4% ' +% 6$ ' (), ;), * . %$ ' , 0 ') +10 ' 4%)) %$ ' '4/% ') ** 5, ' - . *0%) +% 06% (, ' / (+ ' $ ' ()% $ ' * &') +% ' 03%//, - ' 3+%) +% $,) ' 4% 51%) ** 02 . *7, ' / %&&10, * . ' ' . 5 ' (* . &, . %5) **) +% / , 8,) 0 ' * &') +% ' (' 601/% ' (' 10, . -' ,) ') ** 41/-% ') ') +% ' /% ' 0) ' 6$*) % () %5 ' 6 ' $) 0H ' * $ ') ** (+ * $. , (

)*' *))*' 8%'.0H ,)' ,0' .*)' '' 0140),)1)%' &*$' '86.)',*.' 41)' ,0',.)%.5%5')*' *47,')% ,)0' .%(%00,)2I' 14 6%$,*0)%'/'$%0%(),*.'3+'$%$%6$'()/4%' 6*00%00%0' 8'.2' '57'.)'-%0' %0; 6%(,'//2',.' ('0%0' *&')$'18'),(' *$,-.' +%' '))'(+8%.)0' *&')+%' 810(/%0' '.5')%.5*.0' '.5')+%' (%//1'$',.)%$06'(%0' 4%)3%%.')+%8' '$%')+10'/%&)' 1.5,0)1$4%5' +%' (+'.(%0' *& 6%$, 02.*7,'/' 1661$'),*.' '$%' 5,8,.,0+%5' '.5')+%' 4/%%5,.-',0'$%51(%5')*' '' 8,.,818' +%$%' ,0' 84$%' (*86/%)%' " ' $%6$*51(),*.' *&')+%'>*,.) 01$&'(%0''.5',.'2*1.-'6%$0*.0''' .%3'>*,.)' 7%$2'0,8,/'$')*')+%' .*$8'/' ,0',.' 0*8%' ,.0)'.(%0' &*$8%5'3+,/%',.' '//' *'0%0')+%$%' ,0' '' 6$*4'4,/,)2' *& 4%))%$' 0140%E1%.)' &1.(),*.' '.5'6*0,),*.' +%' *6%$'),*.')+10' 6%$&*$8%5' $%E1,$%0' ,8%' '.5' 09,//')' ,0' 0('$(%/2' 66/,('4/%')*')+%' 9.%%' *$'%7%.')+%' +,6''.5',0'1.01,)%5'&*$' ('0%0'*&'(+$*.,(' 02;.*7,'/5,0%'0%'3+%$%',)',0'*&')+%'/'0)',86*$); '.(%')*' %B(,0%' ' ')+%' 5,0%'0%5'-$'.1/'),*.' 8')%$,'/' +%'&)%$)%').)*&'%B(,0,*.0',0' *&'-$%')',86*$)'.(%' /'0)%$ *& '$,0'4'.; 5'-%0' 016:R/2' .% &)+%' 8*0)' 10%&1/' 8%'.0' *&',88*4,/,0'),*.' %06%(,'//2',.')+*0%' ('0%0' 3+%$%' '.92/*0,0',0'0*1-+)' &*$' '0',.')+% 9.%%H' .5')+%' 06/,.)' 0+*1/5' 4%' 1.(+'.-%5' ,&' 6*00,4/%' &*$' &*1$' *$' &,7%' 3%%90' .')+% %/4*3'0+*./5%$''.5'3$,0)'3+%$%' 8*4,/,)2',0')+%'%.5''.8%5')'6'00,7%' 8*7%8%.)' 0+*1/5' 4%' (*88%.(%5' '0'0**.' '0')+%' (*.5,),*.' *&)+%' 3*1.5'5'58,)0' *&',)G.'8%/2',.'*4*1)' '' 3%9'*$')%.'5'20' '/7'.,08' 810)'4%' 10%5' ')' ''/')%$'6%$,*5')*' $%0)*$%)+%' 3'0)%5' 810; (1/'$' '66'$')10' $)+$%()*82' ,80')')+% $%8*7'/*&' ' ')+%' 5,0%'0%5'),001%'2%)' 0)*60' 0+*$)*&' '' &*$8'/' %B(,0,*.',.'3+,(+' +%')/)+2' 6'$)0'8'2'4%$%8*7%5

861)',*.',0' *./2'6%$&*$8%5' '0' '' /'0)' $%0*$)')',0'7%$2'$'$%/2'.%%5%5'&*$'>*,.)' 5,0%'0%0',.')+%' 66%$'+8*'%B(%6)*'6%$+'60')+%' 3$,0)' 3+%.')+%' +'.5',0'6%$8'.%.)/2' ($,66/%5' .')+%' /*3%$' /,84' '861)',*.' 810)'4%' 6%$&*$8%5',.')+*0%' ('0%0',.'3+,(+')+%'6'),%.)'+'0'/*0)' '0)$%.-)+' '.5'+%'/,.-' 6*3%$'&,*8')+%' 5$',.'*&''/*..-(*.),+1%5' 5,0(+'$-%')',0''57,0'4/%'3+%$%' '82/*,5' 5%-%.%$'),*.'*$',.(,6,%.)'14%$(1/*0,0'%B,0)0' *$',.''.2'('0%',.'0+*$)',.'3+,(+')+%'6*3%$' *&')4%'6'),%.)',0',.'5%E1')%')*' &1$.,0+')+%' '8*..)'*&'$%60*$'$%E1,$%5',.')+%'%B6%()'.) &*$8'*&')$%')8%.)'*$',.'('0%'*&'%B(,0,*.' '/3'20''' 8*$%'0%$,*10'*6%$'),*.')+'.'8%$%' '861)'),*.'0+*1/5' '/0*'4%' '5*6)%5',.')+0%'('0%0',.'3+,(+')+%'/*('/ 5,0%'0%'%06%(,' 2'*&')+%'4*.%',0')*'*%B)%.0,7%')*'158,)'*&''-**5'&1.(),*./$%01/)'&)%$%B; (,0,*.' .')+%'7%$2'2*1.-'&*$8'/%B(,0,*.' ,0')85%0,$'4/%'0,.(%')+%'%6,6+20%0''$%''/8*0)' *&'.%(%00,)2'0'($,&,(%5''.5')+%'-$*3)+'*&')+% /,84'(+%(9%5' %0%(),*.',.'0*8%'>*,.)0',0' 6$'(),0%5')*' '7%$)' .92/*0,0' *$')*' $%0)*$%')+%' /*0&' &1.(),*.'*&')+%' >*,.)' '0',.')+% 0+*1/5%$'%/4*3''.5'3$,0)' '$,*10'(*.-%.)'/ '.5'*)+%$' 5%&*$8,),%0'*&')+%'>*,.)0'8'2'4% $%8*7%5'42'*0)%*)*82'*&')+%'4*.%0'(*.(%$.%5

+%' (+,%&'5,0%'0%0'*&'>*,.)0'3 /.*3'4% 0%6'$')%/2'(*.0,5%$%5',.''/6+'4%),('/*$5%$'0' &* *30 GA R' $),/'-%0' ,0%'0%0'*H'A@R' *.; -%.,)'/ ,0/*(*),*.H A"R' 8 8*4,/,)2H A R' .; &/'88'),*.' (1)%'*&')+%' 2.*7,'/ %8; 4$'.%H' AFR' .&/'88'),*.' +$*.,(' *&')+% 0'8%H' ADR' *.*$$+%%'/ .&/'88'),*.H AMR' *1)2' .&/'88'),*.H A?R')$18*10'*$' 14%$; (1/*10' .&/'88'),*.H APR' **0%' '$),/'-%0',' *,.)0H' A !R' %$7*10' &&%(),*.0H' A R' +%1' 8')),(' *$' 0)%*' '$)+$,),0' +$*.,(H' A @R' %$*10' &&10,*.0H' '.5'A "R' J$6+,),(,0%'0%' +%1' 8'),08',.',)0'0%7%$'/'&*$80'3 /4%'(*.0,5%$%5' 0%6'$')%/2

I0 M('+&3 31$ 1<.&'(3 '&.1&.&'(0 G $,8'$2'(+*.5$,),0' '0' '' &*$8' *&'>*,.)' 5,0%'0%',0'.%,)+%$'(/,.,('//2'.*$'6')+*/*-B(' 2' %0)'4/,0+%5' +%' ('$),/'-%' +'0'))/%')%.; 5%.(2')*' '(),7%',.&/'88'),*.H',)',0' .*)' 0%.0,),7%')*'6',.H(+$*.,(' (+'$-%0')'9%'6/'(%' ,.',)' '0')+%' $%01/)' *&',86',$%5' .1)$,),*.' $')+%$')+'.',.&/'88'),*.' +%'('$),/'-%0'*& ,.($10)',*.''$%')+%' $%0,51%'3+,(+'5*%0'.*)' *00,&2''*&')+%'8'00'*&'&*%)'/%')' -%&*$8,.-')+%' 4*.%.50' %' 8%%)' ,.')+%'>*,.)0'*&)+%'-%5'3,)+'5%6$%00,*.0''.5'&,4$*10'0('$0' ('10%5'42'6'$),'/ ')*6+2'%'$%2'%'$/2'6%$,*5''.5' 8'2'6*00,4/2',.'0*8%'('0%0'&*$8')+%'6$,8'$2' (+'.-% /8*0)' ')+%' (+'.-%0'3+,(+'*((1$,.')+% '$),(,5'$'('$),/'-%0'$%'0%(*.5'$2')*02.*7,),0' '.5'*0),),0''.5'8*$%'*$/%00'6'00,7%' .' 0%$*10'02.*7,),0')+%' ('$) 0-%',0'0*&)%.%5''.5' 03*//%.''.5'4%(*8%0')*' '' (%$)'..'%B)%.)' *%5%8')*10' .' 01661$'),7%' 02.*7,),0',) 4%(*8%0'$*1-+'0*55%.''.5'2%//*3H ,)0'((//0' 41$0)H)+%',.)%$(%//1/'$'0140)'.(%&,4$,//')%0'H '.5'6*$),*.0'8'2'.%($*0%' +%' ('$),/'-%' (+'.-%0',' (+$*.,(' 02.*7,),0'(*.0,0)'8','./2' ,.')+%'-$'51'/',.7'0,*.'*&')+%' ('$) '-%'42' -$'.1/'),*.0' 06$%'5,.-'&$*8')+%' 02.*7,'/),001%')')+%'8'$-,.0''.5'&$*8')+%'014>'(%.)' '$),(1/'$/'8%//''*&')+%'4*.% *1.-'-$*3,.-'4*.%0'/,9%')+%'6%$,*0)%18' (*7%$,.-')+%8'$%'5,/2',.&/'8%H' .5''0'0**.' '0')+%',.&/'88'),*.',.'.7'5%0')+%' '$),(1/'$ 07.&'(%'*&')+%'4*.%')+%' ('$),/'-%' 4%(*8%0' /**0%.%5''.5'8'2'4%'.%($*0%5'*$'-$'51'//2' ,.7'5%5'42')+%'-$'.1/'),*.),001%'06$,.-,.-' &$*8')+%'4*.%' +%' ('$),/'-%',0'0*&)%.%5H' ,)0'('601/%0'41$0)H &,4$,//'),*.'*&')+%'8')$,B' *((1$0H '.5''')'5,&&%$%.)'6/'(%0',)'4%(*8%0')+,..%5' %$&*$'),*.0'*((1$',.',)'/%'5,.-')*')+%'4*.%'-,7,.-',)'' 0,%7%/,9%'66%'$; '.(%' +%$%')+%',.&/'88')*.',.'3+/%'*&')+%'%.($10),.-' ('$),/'-%'8'2'4%(*8%')'*.(%5%)'(+%5'&$*8')+%'4*.%4%.%')+'.'.5'.%($*0% .')+%0%'('0%0')+%'6',.'%06%(,'//2')',-+)' ,0'7%$2'0%7%$%' .7*/1.)'$2'0)'$),.-'*&')+% /,84'('10%0',.)%.0%'01&&%$,.-'3'9%.,.-')+%

6'),%.)' &$*8' 0/%%6' 3,)+' '' 0($%'8' +,0' 02 8 6)*8' 3'0'&*$8%$/2'(*.0,5%$%5'5,0),.(),7%' *&'1/(%$'),*.' *&'('$),/'-%' ''6$*(%00' 3+,(+',0' 6%$&%()/2' 6',./%00' 3+%.' ,)' *((1$0' Q3,)+*1)' *)+%$')*%'0%' ,.')+%'>*,.)Ĥ41)',)',0'6$*4'4/%')+')'A+%'6',.',0'51%')*' 6$%001$%' 16*.')+%',. ' &,'8%5'4*.%''.5',)'8'2'0*8%),8%0'-$%')/2' '4')%' 3+%.')+%'('$),/'-%'3+*//2'5,0'66%'$0' ,0%'0%'(*8 8%.(,.-'.%'$')+%'%6,6+20,='('$;),/'-%'*&)%.'%B)%.50')*')+%''5>'(%.)'>*,.)' +*0%'>*,.)0',.'3+,(+')+%'%6,6+20,''/>1.(),*.' ,0'Ƙ3,)+,.')+%'('601/%'0'&*$',.0)'.(%'>*,)0'&,&$*10'.5'2'.92/*0,0'0'/8*0)'3+*//2')* 0$%7%.)'8*7%8%.)'+%')3*'7'$,%),%0''$%&)'5%-$%%0'*&')+%'0'8%'6$*(%00'*)+'8'2' $%01/'&$*8'6$%%7,*10',.&,'8 8')*$2'(+'.-%0' ,.')+%'>*,.)'%,)+%$'*&')+%'.')1$%'*&'6/'0),(' 02.*7,),0'*$*&'-$'.1/'),*.0'06$,.-,.-'&$*8')+%'4*.%''.5')+%$'>*,.))001%0'4%(*8,.-' &1$)+%$'*$-'.,0%5',4$*('$),/'-,.*10'.; 92/*0,0',0''(*8 8*.'&*$8',.'2*1.-'6%$0*.0' .'),8%',)'101''//2'4%(*8%0'(*.7%$)%5',.)*)$1%'4*.2''.92/*0,0 +%'8'$9%5''.92/*0,0'3+,(+')*.,(' 06'0 8' .5'$,-,5,)2'*&')+%'8 10(/%0'6$*51(%',.')+% %'$/2'0)'-%0'*&'0*8%'>*,.)5,0%'0%0''0',.')+% +,6>*,.)'.5'9.%%'8'2'4%'('//%5')'*$ # 0)',0',.51(%5'42''.'%&&*$)')*''7%$)'6'5.Ĥ,)'5,0'66%D1 0'%.),$%/2'51$,.-' .'$(*0,0' '>*,.)'8'2'4%(*8%0),&&'.5' '.92/*0%5'42'/*.-'&,B'),*.'*.''((*1.)'*& 0*8%',.>1$2'*$'5,0%'0%'%/0%3+%$%'%06%,(''//2' ,&',)'4%'$%)','.%5',.''&/%B%5'6*0,),*.'0')+% 810(/%0'*&')+%'&/%B*$'0,5%'()1'//2'0+*$)%.' 3+%.')+%,$'6*,.)0'*&'*$,-,.''.5',.0%$),*.' 6%$8'.%.)/2''66$*'(+'*.%''.*)+%$'+%' 0'8%)+,.-'8'2'/0*'+'66%.',.')+%'82*-%.,(' '&&%(),*.0'51%')*'6'$'/20,0Ĥ,.'3+,(+')+% ('$),/'-%0'.5'4*.%0')$*6+2'')'+%'0'8%'),8%

! " +%')$%')8%.)'*&'5,0%'0%0'*&' >*,.)0+*1/5',.'//'('0%0'3+%$%',)',0'6*00,4%' 4%6$*6+2/'(),(''-',.0)'+%'*((1$$%.(%'*&' .92/*0,0' +%.')+,0'+'0')'9%.'6/'(%',.' .',.(*86/%)%'5%-$%%''.'))%86)')*'$%0)*$%')+%&1.(),*.'*&')+%'/,84'8 10)'4%'8'5%'42' 4$%'9,.-'5*%3.')+%'5+%0,*.0'42'&*$(,4/%'*$ -$'51'/'%B)%.0,*.'42'6'00,7%'8*),*.'42' 8'00'-%''.5'42')%.*)*82'*&')+%')%.0%')%.5*.0' B(,0,*.',0',.5,(')%5')*'$%0)*$%8*),*.',' (*86/%)%'.92/*0,0'*&01(+'>*,.)0'0')+%'3$,0)'+%'%/4*3'.5')+%'0+*1/5%$' .')+%$'('0%0'*&'(*86/%)%'.92/*0,0'6%(,'//2',.)+%/*3%$'/,84'01$-,('/',.)%$&%$%.(% 0+*1/5'4%'(*.&,.%5')*''.'))%86)')*'$%(),&2 ''&'1/)2'6*0,),*.'%,)+%$'42')%.*)*82'%B;)%.0,*.'&*$(,4/%'0)$',-+)%.,.-'%B(,0,*.' *$ *0)%*)*82' 861)'),*.'('.*./2'4%'.%%5%5' ,.'%B)$%8%'.5'*)+%$3,0%',$$%8%5,'4/%'5%; &*$8,)2

' *,.)0' (1)%' .&/'88'),*.' *& '+%' 2.*7,'/' %84$'.%'*&G g' (1)%'2.*7,),0Ĥ$'")'&0 K' %$' & ' ")

+,0',0'*.%'*&')+%'8*0)'(*88*.'*&''//' >*,.)'&&%(),*.0' $*4'4/2',.'+'/&')+%')*)'/

(+'.-%0',.')+%'0)$1()1$%0'*&')+%'$),(1/'),*.' (*.0),)1),.-''"- Ĥ*$',.')+*0% 01$$*1.5,.-')+%'>*,.)''' ' "- ')' 8'2'4%&,4$*10'.5',.(*86/%)%'*$'4*.2'.5' (*86/%)%' '/0%'*061,*10'.92/*0,0G %,)$''$),%),/'$G8'2'5%6%.5'*.'8 10(1/'$ 06'08'*$$,-.,5,)2Ĥ*.'(,(')$,(,'/(*.)$'(),*.0Ĥ *.'6'$'/2),(''*$06'08*5,(''&&%(),*.0Ĥ*$ 16*.'6$*/*.-%5'5,010%'&')+%'>*,.)')',0' *&)%.'5,&&,(1/)'%7%.'1.5%$(+/*$*&*$8')* 5,0),.-1,0+')+%'6$%0%.(%'*&'40*/1)%'4*.2' .92/*0,0'0'/8*0)'3+*//2')* 0$%7%.)'8*7%8%.)'+%')3*'7'$,%),%0''$%&)'5%-$%%0'*&')+%'0'8%'6$*(%00' *)+'8'2' $%01/'&$*8'6$%%7,*10',.&,'8 8')*$2'(+'.-%0' ,.')+%'>*,.)'%,)+%$'*&')+%'.')1$%'*&'6/'0),(' 02.*7,),0'*$*&'-$'.1/'),*.0'06$,.-,.-'&$*8')+%'4*.%''.5')+%$'>*,.))001%0'4%(*8,.-' &1$)+%$'*$-'.,0%5',4$*('$),/'-,.*10'.; 92/*0,0',0''(*8 8*.'&*$8',.'2*1.-'6%$0*.0' .'),8%',)'101''//2'4%(*8%0'(*.7%$)%5',.)*)$1%'4*.2''.92/*0,0 +%'8'$9%5''.92/*0,0'3+,(+')*.,(' 06'0 8' .5'$,-,5,)2'*&')+%'8 10(/%0'6$*51(%',.')+% %'$/2'0)'-%0'*&'0*8%'>*,.)5,0%'0%0''0',.')+% +,6>*,.)'.5'9.%%'8'2'4%'('//%5')'*$ # 0)',0',.51(%5'42''.'%&&*$)')*''7%$)'6'5.Ĥ,)'5,0'66%D1 0'%.),$%/2'51$,.-' .'$(*0,0' '>*,.)'8'2'4%(*8%0),&&'.5' '.92/*0%5'42'/*.-'&,B'),*.'*.''((*1.)'*& 0*8%',.>1$2'*$'5,0%'0%0'%/0%3+%$%'%06%,('//2' ,&',)'4%'$%)','.%5',.''&/%B%5'6*0,),*.'0')+% 810(/%0'*&')+%'&/%B*$'0,5%'()1'//2'0+*$)%.' 3+%.')+%,$'6*,.)0'*&'*$,-,.''.5',.0%$),*.' 6%$8'.%.)/2''66$*'(+'*.%''.*)+%$'+%' 0'8%)+,.-'8'2'/0*'+'66%.',.')+%'82*-%.,(' '&&%(),*.0'51%')*'6'$'/20,0Ĥ,.'3+,(+')+% ('$),/'-%0'.5'4*.%0')$*6+2')'+%'0'8%'),8%

! " +%')$%')8%.)'*&'5,0%'0%0'*&' >*,.)0+*1/5',.'//'('0%0'3+%$%',)',0'6*00,4%' 4%6$*6+2/'(),(''-',.0)'+%'*((1$$%.(%'*&' .92/*0,0' +%.')+,0'+'0')'9%.'6/'(%',.' .',.(*86/%)%'5%-$%%''.'))%86)')*'$%0)*$%')+%&1.(),*.'*&')+%'/,84'8 10)'4%'8'5%'42' 4$%'9,.-'5*%3.')+%'5+%0,*.0'42'&*$(,4/%'*$ -$'51'/'%B)%.0,*.'42'6'00,7%'8*),*.'42' 8'00'-%''.5'42')%.*)*82'*&')+%')%.0%')%.5*.0' B(,0,*.',0',.5,(')%5')*'$%0)*$%8*),*.',' (*86/%)%'.92/*0,0'*&01(+'>*,.)0'0')+%'3$,0)'+%'%/4*3'.5')+%'0+*1/5%$' .')+%$'('0%0'*&'(*86/%)%'.92/*0,0'6%(,'//2',.)+%/*3%$'/,84'01$-,('/',.)%$&%$%.(% 0+*1/5'4%'(*.&,.%5')*''.'))%86)')*'$%(),&2 ''&'1/)2'6*0,),*.'%,)+%$'42')%.*)*82'%B;)%.0,*.'&*$(,4/%'0)$',-+)%.,.-'%B(,0,*.' *$ *0)%*)*82' 861)'),*.'('.*./2'4%'.%%5%5' ,.'%B)$%8%'.5'*)+%$3,0%',$$%8%5,'4/%'5%; &*$8,)2

' *,.)0' (1)%' .&/'88'),*.' *& '+%' 2.*7,'/' %84$'.%'*&G g' (1)%'2.*7,),0Ĥ$'")'&0 K' %$' & ' ")

+,0',0'*.%'*&')+%'8*0)'(*88*.'*&''//' >*,.)'&&%(),*.0' $*4'4/2',.'+'/&')+%')*)'/

'00*(,')%5' 3,)+')+%'&*$8' *&' (+$* .,(' 02 . *7,),0' >10)' 5%0($,4%5' ,0')+%' 6$%0%. (%' *&' '' 1 . ,&*$8' 0%8 , %/'0'),*' 03%//,. -' ('10%5' 42')+%' 0%$*; &,4$,. *10',+&,/)$'),*.',.)*')+%' 02. *7,'/ 8 %8 ; 4$' . %' +%'09,.',0'3+,),0+ ')%. 0%'' . 5'08**)+' 3+%. (%')+%' . '8%" ' ' +%' '8*1.)' *&' 02. *7,'/ %&10,*.' ,.)*')+%' >*,.)' ,0' 101''//2' /,8 ,)%5Ĥ)+%' 6',.' ,0' 0%/5*8' 0%7%$%Ĥ)+%' '8*1.)' *&' >*,.) 8*7%8%.)' ,0' 5,8 ,80+%5Ĥ' . 5')+%$%' ,0' 101''//2' (*.)$' (),*.' *&')+%' /,84' . 5' 0*8%),8%0' 6'$),'/ 5,0/*(',*. ' +%. ' 01668 '),*.' *((1$0')+%$%' ,0' 8*$%' 6',.' . '5' &%7%$' +%' (*1$0%' *&')+%' 5,0%'0%' ,0' -%. %; $'//2' 7%$2' (+$* .,(' %B)%. 5,. -'*7%$' 8*+)+0' *$%7%.'2%'20=)85' //*3,. -')+%'6'),%.)' ')',.)%$; 7'/0')*')'9%'8*5%$')%'%B%$(,0%' B'(%$4'),*.0')'9%' 6/'(%' +*3%7%$' &$*8' 0/,-+)' ('10%0' *$ 3,)+*1)' 66'$%.)' ('10%Ĥ '))'(90' *&' 014'(1)%' *$' (1)%',. ' . ,8 '),*.'016%$7%.%Ĥ ' . 5'0*** .%$' *$'/')%$' '40(%00%0' &*$8' (*881.,(')..-' 4*)+' 3,)+')+%' ('7,)2' *&')+%' >*,.)' 3+,(+' 4%(*8%0')*)''//2'5,0*$-' .,0%5' ' . 5' 3,)+')+%' 01$&'(% $*5,%0' 061/62' 5,0%'0%' *&')+%' 02. *7,'/ 8%84$' .%'<,0' 0,86/2' .' %B' --%$')%5' 5%-$%%' *&' -$'8,/'), .' 02. *7,),0' ,.' 3+,(+')+%' 014' 02. *7,'/),001%' 4%(*8%0' %. *$8*10/2')+,(9; %. %5' 42' 01((%00,7%' '))'(90' *&', . &/' 8 8'),*. ! +%5,0%'0%' ,0' 8*0)'$%4%//,*10')*')$%')((%.)' ' . 5' 0('$(%/2' (1$'4/%' '8*. -0)'+%' 6**$%$' (/'00%0' 3,)+*1)' *6%$'),*. ' *8%;),8%0')+%' 5,0%'0%5'),001%' ,0' -*)' $,5' *&' 42' 01661$'),*.Ĥ ' . 5' ,&')+%' 6'),%.)<0' 0)$%. -)+' 01&/ (%' '(1$%' 42' ' . 92/*0,0' 6$*4'4/2' '((*8; 6' . .%5' 42' (*.0,5%$'4/%'5%&*$8,)2' 3,/'%. 01%' %. %$'//2' +*3%7%$')+%' 0286)*80' 4%(*8%' 3*$0%Ĥ)+%' -%. %$'/ +%')/)+' -,7%0' 3'2' &$*8')+%' 5$',.' *&')+%' (*.),. 1*10' 5,0(+'$-%Ĥ ' . 5' '82/*,5' *$'0*8%' *)+%$',.)%$%1$$%.)' 5,0%'0%' 9,//0')+%' 6'),%.)')' . 2'),8%' '0',.' '' 016; 61$'),. -'3*1.5'620%8,(' 0286)*80' *$'+%(),(' 8'2'0%)',+ (' 6 D 4 ' ") ' ! ' 6 ' ' ,84$,)%5' ,0%'0%' *&')+%' 02. *7,'/ 8%8; 4$' . %Ĥ '6,//*8' ' *$' 6,//'2' ,4$*8' ' *&')+%' J8*7,'/ 8%84$' . %Ĥ %$' B " % ' " +,0' ,0' ' ' 6%(1/,'$' &*$8' *&' >*,.) 5,0%'0%' 5%6%.5%.)' *.' (+$*.,(' 02. *7,),0' ,.' 3+,(+' .18%$*10'6%51.(1/')%5'4*5,%0'%J5,.5$,('/ *$ &10,&*$8' 7'$2,.-' ,.' 0,C%' &$*8' ' 6,.<0+%'5')*' ' /'$-%' 6%' '6$*>%()' &$*8')+%' 8%84$'.%' -%.%$''//2'.%'$')+%' ('$),/'-%' 8'$-,.0'*$ 8'2' (*7%$')+%' %.),$%' 01$&'(%' +%0%' 4*5,%0' '$%,5%.),('/ ,.' 8,.1)%' 0)$1()1$%' 3,)+')+%' 02. *; 7,'/ &,..-%0' *8%' 4%(*8%' 5%)'(+%5' '.5' &'/ ,.)*')+%' ('7,)2' *&')+%'>*,.)' +%' 5,0%'0%' ,0' %00%.),'//2' ' +26%$6/'0,'' *&')+%' 02. *7,'/ '57%.),),'Ĥ '.5')+%$%' 8'2'4%5*C%.0' *$+1.; 5$%50' *&')+%0%' 4*5,%0' 6$%0%.)' ,.' *.'%' >*,.)' ((' 0,*.'//2')+%2' (*.)',.' ('$),/'-%' (%//0' *$ *00%*10' 6'6'(,%0' +%' >*,.)0' *&')+%' /*3%$' /,84' '$%' 8*0)'*&)%.' '&&%()%5 # G= +%5,0%'0%',0'0('$(%/2'$%8%; 5,'4/%'%B(%6)'42'')+$%()*82'*$%B(,0,*.'*&')+%' >*,.)'3+,(+'8'2'4%'6$'(),0%5',.')+*0%' ('0%0' ,.'3+,(+')+%$%',0'0%$,*10'/*00'*&'&1.(),*. D' *,.)0' *.*$$+*%'/ .&/'8 8 'I'),*.'*& G +,0'5,0%'0%',0'*&)%.'('//%5'0-*.*$; $+*%'/ $+%18'),08 <' ,0' '/8*0)' '/3'20' *40%$7%5',.')+%' 8'/%'7%$2' $'$%/2' '&&%(),.-')+%' &%8'/%' %.%$''//2'*.%'>*,.)'101''//2',.')+%' /*3%$' /,84',0' ,.7*/7%5''0')+%' 9.%%*$)+%' .9/%')',0'6208,('..')1$%')'8'2' '&&%()'0%7%$'/ >*,.)0' ,.' 01((%00,*.')'8'2' *((1$')'.2'6%$,*5'*&''-*.*$$+*%'/*$%7%.'' -/%%)2'5,0(+'$-%'*&'3+,(+')+%'6'),%.)'+,8; 0%/&',0'6*00,4/2'1.'3'$%' +%&,4$*10'),001%0' *&')+%'>*,.)' 0%%8')*'4%'6$,8'$/,2'%.-'-%5' (/%*),),0'.'5',.&/'88'),*.'*&')+%',.)%$.'/ /'2%$'*&')+%'(*$.%''*&)%.'(*%B,0)Ĥ $'$%/2' %,)+%$'%.5*'*$'6%$, ('$5,),0' +%'>*,.)%&&1; 0,*.0'(*.)',.'-*.*((, !(! G +%'>*,.)' '&&%()%5',0'%BE1,; 0,)%/2')%.5%$'*.'6$%001$Ĥ,)',0'03*//%.'$')+%$' &$*8'014(1)'.%*10'*%5%8''')+'.'42',.)$' '$),(1/'$'%&&10,*.'3+,(+',0'&$%E1%.)/2',.(*.; 0,5%$'4/%Ĥ '.5'*.%'0,5%'*&')+%'>*,.)',0'*&)%.' 8*$%'*&&%()%5')+'.')+%'*)+%$' +%' &%7%$',0' .*)',.'6$*6*$),*.')''*&$%0+' '))'(9' *&'-*.*$$+*%'' +%0%'(+'$'()%$0'5,0),.-1,0+' ,)'&$*8'*5$,.'$2'$+%18'),08 ! " %0)' (*/5' '66/,('),*.0' '.5')+%',.)%$.'/ %B+,4,),*.'*&',*5,5%*&'6*)'00,18' (*.0),)1)%')+%'4%0)'$%')8%.)'&*$ -*.*$$+*%'/ ,.&/'88'),*.' *&'>*,.)0' ' % !)' *.*$$+*%'/ M' *,.)0' *1)2' .&/'88'),*.'*& G' *1)'&$%E1%.)/2'*((' 0,*.0'02.*7,),0'42')+%' 5%6*0,)'*&'1$')%'*&'0*5,18',.')+%'6%$, 02.*7,'/),001%'3+,(+'%B(,)%0''02.*7,'/ %&&10,*.' +%')'(90'$%'7%$2'(1)%'.5'6.,&1/Ĥ '.5' '0')+%2'$%(1$')+%'>*,.)'4%(*8%0'8*$%' .5' 8*$%',0*$-'.,0%5'&$*8'6%$8'.%.)'5%6*0,)0' *&'1$')%0',.')+%'($),/'-%0'.5'4*.%''0'3%/' '0',.')+%'6%$, 02.*7,'/),001%' +%'10%'*&')+%'>*,.)',0'/*0)Ĥ '.5')+%'0'')*(+'/90)*.%<'0',)' ,0'('//%5''(),.-''0''&*$%,.-'4*52'0*8%),8%0' 6$*51(%0'.'40(%00'*$'.'1/(%$'),*.'7%$2')$*14/%0*8%)*'+%'/' b +%.')+%'(*%*),*.',0' E1,)%0'016%$&,(,'/',)'8'2'*&)%.'4%'7'(1')%5' 42',.(,0,*.'3,)+'-$%')'$%/,%&' 'C % ?' *,.)0')$18*10' *$' 14%$(1; /*10' .&/'88'),*.'*& G ($*&1/*10'*$ 0)$18*10',.&/'88'),*.''*&''>*,.)',0''7'-1%)%$8'+,)+%$)*')'9%.')*' 5%.*)%''&*$8'*& (+$*.,(',.&/'88'),*.''>*,.)',0''7'-1%)

5,0%'0% ,0)+% (*.0%E1%.(% *&)14%$(1/'$ *0),),0 *&).+% %.50 *&)+%>*,.)

! 5 5 G +,0 5,0%'0% -%.%$'//2 (*8 8 %.(%0 ,.)+% 02.*7,' 8 %8; 4$'.% 3+,(+ 4%(*8%0)+,(9%.%5 .5 42 5%-$%%0 (%.7%$)%5 ,.)* % 0% 8 ,-%/').,.*10 8 '00 *& -$'.1/'),*.),001% 2%//*3,0+ 3+,)% *$6,.9 ,.'(*/*1$ $)+% 5,0%'0% 8 '2 *$,-,; .')% ,.'*0)%*8 2%/,),0 *&)+%%.5 *&)+% 4*.%)+% ,.&/' 8 8 ')*$2 6$*(%00 4%,.- %00%.),'//2 (+$*.,(.5 5%6%.5%.) 16*.)+% 6$%0%.(% ,.)+%),001%0 *& 8,/,'$2)14%$((/% &)%$)+% 5,0%'0%+'0 %B,0)%5 &*$0*8%),8%),) ,0 5,&&,; (1/)* 5%)%$8,.% ,. 3+')),001%), 8 '2 +'7% *$,-,.')%5 .5 , ,0 *& ,.)),001%), 8 '2 +'7% *$,-,.')%5 .5 , ,0 *& ,.) 16*.)+% 6$%0%.(%) .(%)* 5 0* &*$,. 2 ('0%)+% /')%$ 0)'-%0 *&)+% 8 '/'52 6$%0%.)0,8 ,/'$&%')1$%0 +% ('$),/'-%0 '$% %.($*(+%5 16*. &$*8)+%,$ 8 '$-,.0 .5 &$*8)+%,$ 5%%6 01$; &'(%0 42)+% 02.*7,' 8 %8 4$'.% .5)+% '$),(1/'$ /'8 %// 3+,/0) '(),7% (+'.-%0 *((1$ 0,8 1/;)'.%*10/2 ,.')+%,$ 0140)'.('0,8 ,/'$')*)+*0% '/$%'52 5%0($,4%5 +%/,-'8 %.)0 0*&)%.'.5 '/)+%0)$1()1$%0 *&)+%>*,.) 4%(*8% ,.7*/7%5 $%E1%.)/2 /'$-%$ *$ 0 8 '//%$ 8 '00%0 *& .%; ($*0%5 4*.% 3,// 4% &*1.5 ,.')+% ('.(%//')%5 0)$1()1$%'.5)+% -$'.1/'),*.0 +'7% ' -$%')%.5%.(2)* 01661$')% .5)+%),(9%.%5 02.*7,' 8 %8 4$'.% '.5 '/0* ,.5)+% %.50 *&)+% 4*.%0 8 ,/,5$2 4*5,%0 ,5%.),('/3,)+ ')14%$; (/%0 8 '2 7%$2 &$%E1%.)/2 4% 5%)%()%5

!(! " .')14%$(1/'$,.&/' 8 8 '),*. $-)+% 02.*7,' 8 %8 4$'.%')+%>*,.) ,0 1.,&*$8/2 03*//%.')%.0%'%/'0),('3,)+ ' 3+,)% -/,0)%.,.- 01$&'(% '.5 %./'$-%5 7%,.0 0+,.,.-')+$*1-)+% 09,. +% 6'),%.) ('. 101 //2 8 *7% '4*1) ,8),/ 01661$'),*. +'0)'9%. 6/'(% '0)+% 6',.,0 .%7%$ 7%$2 0%7%$% .')+%>,.) ,0%7$/0 *&)+% (1)%))(90 *&,.&/'). 8 '),*. 3+,(+ 016%$7%.% &$*8),8%)*),8% ./'$-%8%.) *&)+% /28 6+'),(-/.50 *$ 8 '$90 *& 0); 8 *10 /(%$'),*. %/0%3+%$% '$% 0%/5*8 3 ,); ,.- 8 3+,/0)0 *.%$*$/')%$ ''/'$-% 6$*6*$),*. *&)+% ,.5,7,51 /0 &%%()%5 42)+,0 &*$8 *&>*,.) 5,0%'0% 0+*3 0,-.0 *& -%.%$'/)14%$(1; /*0,0 *8 %),8%0)+,(0 0)')% 6$%(%5%0 41) -%.%$'//2 ,) &*//*30')+% /*(/>*,.) %%(),*. .+%$,)%5 026+,/,0 66%'$0)*4%''6$%5,06*0,.- (10% &)14%$(1/'$ '$)+$),0 b +%.')+% 5,0; %'0% 4%-,.0 ,.')+% 4*.%)+%/*(/,0%5')%.5%$; .%00 .5 5%%6 0%')%5)+,(9%.,.- (*.>*,.%5 3,)+)+% -%.%$ /02 8 6)*80 8 2 $%7% /)+% .)1$% &$*)+% 6$*(%00 4%&*$%)+% 8 *$% -%K.%$ /,.7'0,*. &* //)+%>*,.) %/%8%.)0

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+% (+*.5$*8)*10 .5 *0)%*(+*.5$*; 8)*10 '$%)+% /'$-%0) .5 8 *0) ,86*$)'.) 7'$,%),%0 *&)+%0% 4*5,%0 +%.(%)+% (*8 8 *.)%$8 0/**0% ('$),/'-% *$),*.0 *&)+%>*,.) 01$&'(% 8 '2 0*8%),8%0 4%(*8% 5%)'(+%5 '0)+% (*.0%E1%.(% *&, .>1$2 * $ 42 ''6$*(%00 *& E1,%) .%($*.0,0 +%2)+10 4%(*8% /**0% ,.)+%>*,.) ,0) ,0 0)')%5 41))+% &') 0*8% *&)+% (*.0%E1%.(% *&, /)+') 0*8% *&)+%0% 4*5,%0 8 '2 *4)',.*1$,0+8%.) &$*8)+% 01$$*1.5,.-02.*7,'/ &/1,5 '.5)+') ('$),/'-% '.5 %7%. 4*.% ('. 4% 5%7%/*6%5 8)+%8 140%E1%.)/2)*)+%,$ 5%)'(+8%.)

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+%'%B,0)%.(%'*&'+20)%$,('/ '&/%(),*.0'*&
>*,.)0',0'5%.,%5'42'0*8%Ĥ41)'001$%5/2')+%2'
5*'*((1$'Ĥ'.5'8*0)'*&)%.',.'2*1.-'3*8%.'
3%//)*5*',./,&%'3,)+'5,0*$5%$%5'(')'8%.,''
+%'0'8%')+,..-'*((1$0'41)'/%00'&$%E1%.)/2'
,.'2*1.-'8%.' +%'5,0%'0%',0'.*)'3,).%00%5'
)85%$')+%''-%'*&'614%$)2' +%'+,6''.5'
9.%%''$%')+%'>*,.)0'6$,.(,6=/2'(*86/',.%5'*&
G8*0)'&$%E1%.)/2')+%'/'))%$' .'//,86*$;
)'.)'&%')1$%'*&''' +20)%$,('/ >*,.)',0')+')'
3+,/%')+%'/*('/02 8 6)*8 0'8'2'4%',.)%.0%'
)+%'-%.%$'/ 2 8 6)*8 0'$%'%,)+%$'40%.)'*$
,.'.*'0*$)'*&6$*6*$),*.')*')+%'/*('/
'06%(,'/(+'$')(%$'*&')+,0'5,0%'0%',0')+')'
5%%6'6$%001$%'.0'*&)%./%00'6',.&1/')+'.'016%$;
&,(,'/6$%001$%Ĥ'.5')+')')+%'6',.''.5')%.5%$;
.%0'$%'7'-1%'0+,&)'&$*8'*.%'6*,.)')*'
'.*)+%$''.5'3,/'5,0'66%'$''+'-,7%.'06*)'
3+%.')+%'6')%.)<0'))%.),*.',0'5,$%()%5'%/0%;
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&')+%'>,.)',0'81(+'8*$%',.)%$&%$%5'3,)+'
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3*1/5''66%'$')*'>10),&2' +%$%',0'.'%B'-;
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%*.5,),*.0''$%'6'00,7%',.'(+'$'()%$'.'5'
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41)'.%7%$')*')+%'0'8%'%B)%.)'0',.'$%'/
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4%'8'5%',.)*')+%+,0)*$2'.'5'.)%(%5%.)0'*&
)+%'('0%'.'%B'8,.'),*.'1.5%$(+/*$*&*$8'
3,//*&)%.'&$&*$5',86*$)'.)%7,5%.(Ĥ.'5')+%'
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4%')+%'$%&%%$%5'6',.''$8')%.5%5'42'/*('/
/%0,*.'3+,(+',0'0*'&$%E1%.)',.')+%'9.%%',.'
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,.'7'$,*10'>*,.)0''$%'*40%$7%5',.')+%'6$%;
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9.%%'8'2'4%'&%()%5'42'0%7%$%.%1$'/-,''
3+%.')+%'5,0%'0%',0'/*3'5*3.',.')+%'(*$5Ĥ*$
)+%'0+*1/5%$0'3+%.',)',0')'''+,-+%$'6*,.)'
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%'0%' +%'4*3%/0'0+*1/5'4%'$%-,5')%5''0'
'/0*')+%'8%.)0)$1'/&/*3' 0'&*%),5''',$*.'
'.5'E1,..%'$%'8*0)',86*$)'.)'$%8%5,%0Ĥ
'.5'+%'/)+2'8%.)'/'.5'8*$'/,.&/1%.(%0'$%
7'/1'4/%'5>1.()0' 0 %)'16'.5'3'/9'ᐸ,0''
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'/3'20'4%'8'5%')*'%B(/15%'.2'6*00,4/%
&*$8'*&'(+$*.,('..&/'88'),*.'4%&*$%'6$*;
.*1.(,..-''>*,.)')*'4%'+20)%$,('/')'810)
.*)'4%'&*$-*))%.'+*3%7%$')+')'&)%$'0/,-+)'
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02 8 6)*8 0')+*0%*&'+20)%$,('/ >*,.)'8'2'
016%$7%.%''.5'6%$0,0)'/*..-''&)%$'')$'(%0'*&
*$-',('5,0%'0%'+'7%'5,0'66%'$%5
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ℚ* $ ' %' $ G +%'.184%$

K ' ' ! ' 6 ' ' $' # F ' Ĥ F " ǵ %$' F D I ' '.5' # ' '$%) 3*'3*$50'$%0%84/,.-'%'(+'*)+%$',.'0*1.5' '.5'0*8%),8%0' 10%5' ,.5,0($,8,.')%/2' 41)' 5,&&%$,..-''/)*-%)+%$',.'*$,-,.''.5'0,-.,&,(''),*.' F ',0' 5%$,7%5'&$*8'F <- ' '' 8 '$9'*$4/%8; ,0+Ĥ 3+,/0)' # ' 5%$,7%0' ,)0' *$,-,.' &$*8' '' ($'40' (/'3' +%' 5,0%'0%' 3+,(+'3%' .*3'$%(*-.,0%' '0' (+%/*,5'3'Ż &,$0)' 5%0($,4%5' 42' 4%$)'1.5%$')+%'.'8%*&' 3 '3,)+')+%' 02.*.280' # ' '.5' ' '.5',0')+%$%&*$%'0*8%),8%0' $%&%$%$%5')*' '0')+%'09%/,0' *&' /,4%$)'<, ' .*$*R' +%')%$8'09%/*,5'< +'0'+*3%7%$'4%%.' '66/,%5'42' 55,0*.')*' '' 4/%8,0+' *&')+%' 09,.'$%01/),.-'&$*8'' '&,4$*10' 5%-%.%$'),*.'*&')+%'5%$8'' '//,%5'3,)+'0(/%$*; 5%$8''Ĥ +%.(%')+%' 10%' *&')+%')%$8'& / ' "J'# ' *)+'5,0%'0%0' '$%' $%'//2'&,4$*; 8')''Ĥ 41)'*.%'.'8%/2'(+%/*,5',0' '')18*1$' 3+,/%')+%' *)+%$'9%/,0',0' &/')' '.5' *&)%.'$%; 0%84/%0'' '(,('&$,B' +%$%',0' '.*)+%$'*47,*10' 5,&&%$%.(%'4%)3%%.')+%8'(+%/*,5',0'$%0)$,()%5')*')+%' 5%$8'' 3+,/0)'9%/,0'&*//*30')+%' 014; (1)'.%*10'(*..%(),7%'),001%')*')+%'5%%6%$')%B;)1$%0'*&')+%'4*52' +%'%'$/2'5%$8')*/*-,0)0' 5%0($,4%5'9%/,0'1.5%$')+%'.'8%'*&' # ' '.5'42')+')' .'8%',)',0'0),//'5,0),.-1,0+%5'42' 0*8%'8*5%$.'3$,)%$0 * !%'dL*$& & # ' *$' U AB₩6'0'' '+*$.')+%' *$.%'R G .&/'88'),*.'*&')+%'(*$.%'' ' *) ' ' (( ) ,0%'0%0'*& U U' <)' '' +*.%2(*84R'G' ')%$8'' '66/,%5')*' '' 610)1/'$'&* ,%1/,),0' *&')+%' 0('/6' +%',.&/'8%5'09,.'*((1$0',.')+%'&*$8' *&'.,%' $ 0%7%$'/4/*)(+%0' *&'' 5%%6' $%5' (*/*1$'6$*8,.%.)'' .5'5*))%5'*7%$'3,)+'2%/; /*3'06*)0G)+%'6%$)1$%0'*&')+%'&*//,(/%0'&$*8' 3+,(+')+%'+',$'+'0'4%%.'%B6%//%5'' .5'3+,(+' %B15%'' (*6,*10'81(*61$1/%.)'&/1,5' +%' 2%//*3'06*)0' $%'(*.7%$)%5',.)*'+*//*30'42')+%')18%&'(),*.'*&')+%'&$'8%3*$9'*&,.&/'8%5' 09,.''.5' .*' 5*14)')+%$%42'01--%0)%5')+%' ,5%''*&''+*.%2(*84'3+,/0)')+%81(*61$1/%.)' 0%($%),*.'8,-+)',.'/,9%'8'..%$'4%'(*86'$%5')*'+*.%2' .*)+%$'&%')1$%'*&')+%'5,0%'0%',0')+%'%/,8,.'),*.'*&')+%'+',$'&$*8')+%',.&/'8%5' &*//,(/%0''.5')+%'0140%E1%.)'4'/5.%00'*&')+%' '&&%()%5'6'$)' %$,*.',0'0*8%),8%0''00*(,; ')%5'3,)+'),.%'' ('6,),0' ' : & * !%'1$ ' ,0%'0%0' *&''' ' /' $' ' 'P " Ĥ %$'N "# -' # " M # '9,5.%2',0'014>%()*' '.184%$' *&'5,0%'0%0''3+,(+'3,//'4%' (*.0,5%$%5',.')+%' &*//*3,.-'6'-%0',.' '/6+'4%),('/' *$5%$'))+%'*1)0%)'+*3%7%$',)'3,//'4%' (*.7%.,%.)' 6$%0%.)'.'*1)/,.%'*&')+%''4.*$8'/6+%.*8%.'')*'3+,(+')+%0%''&&%(),*.0'8'2'-,7%'$,0% ! ' *$' !(! G=&,%&'()0'16*.' 3+,(+')+%'5,'-.*0,0',0'&*1.5%5',.'5,0%'0%0' *&')+%'9,5.%20'$%'*&')+$%%'(/'00%0'.'8%/2' ' 4.*$8'/'/*(''/'(*.5,),*.0' d' 4.*$8'/,),%0'*&')+%'1$,.'$2'0%($%;),*.' ' 4.*$8'/,),%0',.'*)+%$'6')0' *&')+%'020)%8'0%(*.5'$2')*')+%'/*('/' 6+%.*8%.' ' 4.*$8'/' /*('/' (*.5,),*.0'G +%0%'8'2'4%G ' <) G=+%6'),%.)'8'2' %B6%$,; %.(%'6','.'*$1.%'0,.%00',.')+%'$%-,*.'*&')+%' 9,5.%2'*.'*.%'*$'4*)+'0,5%0'Ĥ '.5''4.*$8'/' 0%.0'),*.0'8'24%'/0L'$%&%$%5')*')+%'1$%)%$')+%'4/'55%$'*$')+%'1$%)+$' +%'6',.'8'2' 4%',.&/1%.(%5'42')),)15%'*$42'%B%$),*.Ĥ'.5' 4%%,)+%$'(*.0)'.)'6'$*B208'/'*$6%$,*5,(')'8'2'4%'--$'7')%5'$%/,%7%5'*$1.'&&%()%5' 42'6$%001$% ' 4>%(&,$% = B'8,.'),*.'*&')+%'45*8%.' '.5'6%/7,0'42'8%'.0'*&'6'/6'),*.' '.5'6%$; (100,*.'8'2'$%7%'/')+%'6$%0%.(%'*&'')18*1$' (*..%()%5'3,)+')+%'9,5.%2' +%')18*1$' 8'2'4%0'*/,5'*$'&/1,5Ĥ1..&*$8'*$'/*41/')%5' 18*1$0'*&')+%'9,5.%2'8'2'-%.%$'//2'4% 8'5%'*1)'42'6'/6'),*.' '.5'%06%(,'//2'42'),/),.-'3,)+')+%'*.%+'.5')+%'8'00'&*$3'$50' &$*8')+%'/184'$'$%-,*.'16*.')+%'&,.-%$0'*&')+%')+%$'+'.5'66/,%5',.'&$*.)' .'0*8%' ('0%0')+%'40%.(%'*&')+%'9,5.%2'&$*8',)0'.*$; 8'/'6*0,),*.'8'2'4%'0(%$)',.%5'42'6%$(10; 0,*.',.')+%'/184'$'$%-,*.' 2'('$%&1/'*4; 0%$7'),*.'*&')+%'$%/'),7%'&*$8'*&')+%')3*'0,5%0' ')')+%'4'(9'.5',.'&$*.)'%,)+%$')+%'6$%0%.(%' *&')18*1$'*$')+%'40%.(%'*&')+%'*$-'.'8'2' 4%'$%.5%$%5'5,0),.() ' 4.*$8'/,),%0'*&')+%'1$,.'$2' 0%($%),*.G ' +%'1$,.%'8'2'4%'/)%$%5',.' T " ')'8'2'4%',.($%'0%5''0',.'3'B2' 5%-%.%$'),*.'*&')+%'9,5.%2'*$',.''57'.(%5' 0)'-%0'*&'(,$$+*),('.5',.&/'88')*$2' $,-+)<0' 5,0%'0%Ĥ*$'5,8,.,0+%5'%,)+%$'&$*8'*40)$1(;;),*.')*',)0'%0('6%'*$'&$*8'&',/1$%'*&'0%($%),*.' +%'(*.5,),*.0'/%'5,.-')*'*40)$1()',*.')+%'1$%)+$' 6$*0)')%' 4/'55%$'*$' 1$%)%$0Ĥ)+%'/'0)' .'8%5',.51(,.-'0166$%00,*.'*./2'3+%$%4*)+')+%'51%)0' '$%'0,81/).%*10/2'*((/15%5'*$ 3+%$%'*.%'9,5.%2'+'7,.-'4%%.'6$%7,*10/2' 5%0)$*2%5')+%'1$%)%$'*&')+%*)+%$'0,5%0140%; E1%.)/2'4%(*8%0'&&%()%5' +%',86'(),*.'*&' ('/(1/,'.5')+%'6$%001$%'*&'.%3&*$8'),*.0' '$%')+%'(+,%&'('10%0'*&')+%0%'*40)$1(),*.0' +%'(*.5,),*.0'/%'5,.-')*'5,8,.1),*.'*$ &',/1$%'*&'0%($%),*.'$%')+%'6$$%B,'/'0)')%Ĥ *40)$1(),*.'*&'1$,..&%$*10')141/%0''0'42',.; &/'88')*$2'6$*51()0Ĥ/*.-0)'.5,.-'6'00,7%

)+10 ,.(/15,.-)+% 8*$% *$ /%00 '/)%$%5 %6,)+%/,18 +%0,86/%0 &*$8 *&14% ('0) ,0)+% +2'/,.% (/%'$ 0)$1()1$%/%00 ('0) /**5 ('0)0 '$%(*88*. (*.)',.,.- 5,0),.()* $%5 (*$610(/%0 6,)+%/,'/ .5'5%0E1'8),7% ('0)0 '$%*6'E1% '.5 -$ .1/'$)+% -$ .1/'$ (*.5,),*. 4%,.- 51% &*$)+% 8*0) 6'$))*)+% '41.5'.(% *& /)%$%5 %6,)+%/,18 ,))+%,$ 0140)'.(%))2**'0)0 '$%)+*0% 3+,(+ %B; +,4,) %7,5%.(%0 *& &')2 5%-%.%$'),*. *&)+% %6,)+%/,18 %%0 5 L & E / .5'6 *$4,5 *.5,),*.0 *& 2860)*0 *((1$$,.- , *)+%$ 9,5.%2 ,0 6'/% .5 &/'((,5 K +%.'(1) 6'$)0 *&')+%'4*52 KG %$2,86*$)'.)0286;)*80 *((1$,.'(*.%B,*.'3,)+ $%.'/ 5,0%'0%0 '&%%(),.-)+% *$-'.0 *& (,$(1/'),*.' .5 *& 5,-%0),*.)+%0% '$% &*$)+% 8*0) 6'$) '00*(,'%5 3,)+ $,-+)<0 5,0%'0% '0 L & / .5'B % (& " +% 0%7%$'/ 5,0%'0%0 *&')+%9,5.%2 3, .*3'4%,.5,('%5'.5')+*0% 3, 4% 5,0(100%5 3+,(+ '$% .*) 5%0($,4%5 1.5%$ 06%(,'/ +%'5,.-0 ,.'*)+%$ 6')0 *&')+% 3*$9H &*$ %B'86/% $,-+)<0 ,0%'0% .5 %.'/ '/(1/10 ,5.%2 40(%00 *&G +,0 ,0 *&)%. 10%5 '0 '-%.%$,( )%$8)* ,.(/15% .2 ((1; 81/'),*.' *&610 ,.'(*.%B,*.3,)+)+%9,5; .%2 3+%)+%$,.')+%0140)'.(% *&)+% *$-'. ,.',)0 6%/7,0 *$%7%.'$*1.5 ,))$,()/2 ,) 66/,%0 *./2)* ('//%(),*.' *& $%01/); ,.-$&$*8 01661$'),*.',.')+%9,5.%2 0)$1()1$% ,)0%/& HV ,5.%2 84*/,08 *&H @@ ,5.%2 .&/'88'),*.'*& %/7,0 *&H@? ,5; .%2 1661$'),7% .&/'88'),*.' *&H & H0 H .5 % > @ ,5.%2 (1)%)$*6+2 *& G & 1 !) 7 $- ! 7 " #$ 3) / 7 =47 $ $! # $- ! $)3 -$ $5 7+" - "7 3)> $ 7 7 3) $ %#4 7+"! 477 $#> #4)) # $-#$/ $4 +4* 4) 5 !.)" 4*)$4 4+ # 7-) 94 "*) 7 4) # 4 / $* % 7) 4 3 / /) " .) + " 7 ! , >,* `` +% ('10%0 *&'),0 '&&%(),*. '$%'1.9.*3.'41)',)'66%'$0 6$*4'4/%)+')',) 5%6%.50 16*.'0*8%&*$8'*&4/**5 6*,0*.')+% 5,0%'0%'4%,.-&$%E1%.)/2''00*(,')%5 3,)+''(1)% ')$*6+2 *&')+%/,7%$ .8*0) (0%0,)3*1/5 '66%'$)*'&*//*3')+%+%6'),('5,0%'0%H,.'0*8% ,)'6$%(%5%0,)),0 81(+8*$%(*88*.',.')+% &%8'/%'0%B')+'.',.')+%8'/%H .5 ,0 8*0)'&$%; E1%.)'51$,.-'6$%-.'.(2'.5''&)%$ (+,/54,$)+ ! $ 5 G +%$%'$%)3*' 0)'-%0 ,.')+%'6$*-$%00*&')+,0 5,0%'0%'.'8%/2' A8R)+')'*&%B15'),7%,.&,/)$'),*.''.5'%./'$-%; 8%.)H A<R)+')'*&5,0,.)%-$'),*.''.5')$*6+2' .')+%'&,$0)'0)'-%')+%'*$-'.',0%./'$-%5'.*)' 8'$9%5/2 (*.-%0)%5')+% ('601/% 0)$,60 *&& $%'5,/2')+% 0140)'.(%',0 &/'((,5')+%'(*$),('/ 0140)'.(%',0 03*//%.')+%,.5,7,51'/)141/%0 '$% %./'$-%5'.5 3+,)%' .' 0%(),*.')+% 7%00%/0 '$% &*1.5 8*0)/2 %86)2 *& 4/**5 4%,.- (*86$%00%5 42)+% 5,0%'0%5)141/%0 +%)141/%0 '$%*((16,%5 42 5%.0%*6'E1% 8')%$,'/'.5')+%,.5,7,51'/(%//0'$%03*//%.' .5-$'.1/'$)+%,$ .1(/%, 4%,.- +,55%.5 42 8*/%(1/'$ (%// (*.)%.)0 +%)141/%0*&)+% (*.%0'0 3%// 0)+*0%*&)+%(*$),('/014; 0).(%'$%&$%E1%.)/2''&&%()%5 .2*&)+% (%//0'/0L'$%,.''0)')%*&&))2 5%-%.%$'),*. *4*9%.'5*3.'%7%.'')+,0 0)'-%' .')+% 8*$%'57'.(%5'0)'-%)+%*$-'.',0 08'//%$)+'. .')1$'/'.5,)0 (601/% 66%'$0 3$,.9/%5 ( ) *$4,5 *.5,),*.0 *& 2860)*0 *((1$$,.- , *)+%$ 9,5.%2 ,0 6'/% .5 &/'((,5 K +%.'(1) 6'$)0 *&')+%'4*52 KG %$2,86*$)'.)0286;)*80 *((1$,.'(*.%B,*.'3,)+ $%.'/ 5,0%'0%0 '&%%(),.-)+% *$-'.0 *& (,$(1/'),*.' .5 %& 5,-%0),*.)+%0% '$% &*$)+% 8*0) 6'$) '00*(,'%5 3,)+ $,-+)<0 5,0%'0% '0 L & / .5'B % (& " +% 0%7%$'/ 5,0%'0%0 *&')+%9,5.%2 3, .*3'4%,.5,('%5'.5')+*0% 3, 4% 5,0(100%5 3+,(+ '$% .*) 5%0($,4%5 1.5%$ 06%(,'/ +%'5,.-0 ,.'*)+%$ 6')0 *&')+% 3*$9H &*$ %B'86/% $,-+)<0 ,0%'0% .5 %.'/ '/(1/10 ,5.%2 40(%00 *&G +,0 ,0 *&)%. 10%5 '0 '-%.%$,( )%$8)* ,.(/15% .2 ((1; 81/'),*.' *&610 ,.'(*.%B,*.'3,)+)+%9,5; .%2 3+%)+%$,.')+%0140)'.(% *&)+% *$-'.5 .5)+% ,.5,7,51'/(%//0'$%B'()/2 (*$$%06*.5')*')+*0%8%)'3,)+',.''(1)%')$*6+2 *&')+%/,7%$ (! G +% 0286)*80 (+'$')0%$,0,.-)+,0 '&&%(),*.'+'7%.*)2%)4%%.'7%$2 &,,//2 0)15,%5 ,8,.1),*.'*&1$,.%'(*6,*10'/41; 8,.1$,''3,)+'5%6*0,)'*&(')0 (*$$%06*.5,.-)*')+%(+'.-%0,.')+%9,5.%2''%%6$*4/2)+%(+,%&$%.'/0286)*80 ')%.5%.(2)*' +0%8*$$+'-%0'>'1.5,(%''.5'1$%%8,(.%$7*10 '&&%(),*.0''.5')+%0%$,%0'*&0286)*80 6$*6%$)*'(1)%')$*6+2*&')+%/,7%$''$%'/0*40%$7%5 & G +%$%0 ,0 6$*4/2.*5,0%'0% W3,)+3+,(+'(1)%')$*6+2*&')+% 9,5.%20 ,a /,'4/%)*' 4%(*.&*1.5%5 ! G=+%6$*-.*0,0 810)'4%1.&'7*1$'4/%H''.5'.*')$%')8%.)'(''. 4%*&'.2''7',/ " ,5.%2 /418,.*,5 ,0%'0%*& 0 L & ,5.%2 .*8 '/,%0'*& G +%9,5.%20 8'2'6$%0%.)')+$%%9,.50'*&'.*8'/2'.'8%/2' ,'.184%$H ,'&*$8H ,'0%0,)1'),*. ./2')+% &,$0)'*&')+%0%3, '4%'$%&%$%$')*'+%$% &" 3 "),84%$ G *8%),8%0'*.% 9,5.%2 W3,)+)+% (*$$%06*.5,.-1$%)%$,0 %.),$%/2 '40%.) .'01(+ ('0%0)+% *$-'.' 3+,(+,0 6$%0%.) ,0 81(+'4*7%)+%.*$8'/ 0,C% +%$%,0 -%.%$'//2 .*02086)*86$%0%.) 51$,.-+&%'41)5,0%'0%0*&)+% 6%/7,0*&)+% 9,5.%2 *$ *&)+% 1$%)%$ '$% 8'5% 8*$% &*$; 8,5'4/%,.'6%$0*.0 0*'&&%()%5')+'.',.')+*0% .*$8'//2 5%7%/*6%5 (('0,*.'//2 .%*$ 8*$% 016%$.18%$'$2 9,5.%20 '$% 6$%0%.) '@' ,5.%2 '/&*$; 8'),*.0*&H '.5@F ,5.%2 '/6*0,),*.0*&

,5 . %2 ' '/(1/10 , . ? * $. %20 + '7% , .' 0* 8 % ' ('0%0 4%% .' &*1 .5' -$% ')/2 $ '%$% ' . 5' . %' $/2 %E1 '//2 5,8 , . ,0+%5' , .' 0,C% ' +% L ' ,5 . %2 ' ' . (%$*10 ,0% '0% *& G' ('601/%0)$,60 *&$% '5,/2H)+% 01$&' (% ,0' &, . %/2' @ ' ,5 . %2 ' '/,- . .)' ,0% '0% *& -$' .1/'$' .' 0%(), *.') +% (*$),(' / 0140)' . (% M ' ,5 . %2 ' +$* . ,(')$*6+2' *& G' ,0 (*.5,),*.' *&')+% 9,5 . %2' '$,0%0 1.5%$ +,0 (*.5,),*.' *&')+% 9,5 . %2' '$,0%0 1.5%$,0 ' 1 ,5 . %2 ' ' . (%$*10 ,0% '0% *& G' '' 7'$,%)2' *&' *,$%180)' . (%0' 41)' 06%(,' //2' '0' *' (*.0%E1%. (%' *&' +25$*.%6)%*0,0' ' .5' *&')+% 5,&&%$%.)' &*$80' *&' $,-+)<0' 5,0% '0% ' .' +25$*. %6+$*0,0')$*6+2' ,0' '' $%01/)' *&')+% 6$%001$%' *&')+% $%. ' / 0%($%),*. ' '0' ,)' ((181; /')%0' ,.')+% 5,/')%5' 6%/7,0' ' .5' 3 ,)+,.')+%)141/%0' .' , .&/' 88 ')*$2' $,-+)<0' 5,0% '0% ,)' ,0' 51%')*' ,.)%$0),),' / (+' .-%0' ' .5')+% -$'51' / '40*$6),*.' * &')+% (*.)%.)0' *&')+% *((/15%5' 8 , .,&%$*10')141/%0' .' (,$$+*),(' $,-+)<0' 5,0% '0% ,)' ,0' '' (*.0%E1%.(%' *&')+% (*.)$' (),*.' *&')+% +26%$)$*6+,%5' &,4$*10' 0)$*8 ' ' ' .5')+% (*.0%E1%.)' 5%0)$1()," .' *&' 7%00%/0' ' .5' 0%($%), . -' 0)$1()1$%0' .')+% 3 'B2' *$' '/418 , . *,5' &*$8' ,)' ,0' 51%')*')+% 8 *%(1/'$' '40*$6),*.' *&')+% +2 ' /, . %' 8 ')%$,' / ' .5' '/)%$%5' (%//0' 3+,(+' *((162')+%' 1$, . ,&%$' *10')141/%0' '0' ''(*.0%E1%.(%' *&')+% 5%-%.%$';),*.' 6$*6%$')*')+% 7%00%/0 ! ' $' ' ' G' /)+*1-+' $%'//2' ')$*6+,%5')+% +25$*.%6+$*),(' 9,5 . %2' '66%'$0' /'$=%' .5' 8 '2' &*$8' '' 8 '00' 0%7%$ '),8%0')+% 0,C%' *&')+% . *$8' / 9,5 . %2' ' ,0' /*41/')%5' *.')+% 01$&'(%' ' .5' 8 '2' *&)%.' 4% 0%%.')*' 4% /,))/% 8 *$%)+' .' '' -$*16' *&' (20)0' (*.)' , . , .-'3 ')%$2'&/1,5' .')+%' %'$/,%$'0)' -%0' .*' (+' .-% ,0' *40%$7%5' %B(%6)' &/'))% . , .-' *&')+% (*.%0H , .')+%/')'%$')+%' (*$),('/ 0140)' . (%' '/0*' ,0' 8 *$%' *$' /%00' 3 '0)%5' +,0' (*.5,),(8' ,0' 101 '//2' 0%%.' *./2' *.' *.% 0,5%')+%' *)+%$ 9,5 . %2' 4%, .-' .')1$'/' *$ 0* 8 %3+')' +26%$;)$*6+,%5)$*6+2' &,$*8' , .&/' 88 ')*$2' $,-+)<0' 5,0; %' 0%' ,0' $'$%/2' &'$' '57' . (%5' 3+%.')+%' ^)'/ $%01/)' *((1$0' *)+' 9,5 . %20' '$%' '&&%()%5' ' .5'101 '//2')*')+%' 0' 8%' %B)%.)' +%' ('601/%0)$,60' *&$' $%'5,/2' +%' 01$&'(%' 6$%0%.)0' '' &, . %/2' -$' .1/'$' '66%'$' . (%' .' 0%(),*.')+% (*$),('/ 0140)' . (%' ,0' &*1.5' $%/'),7%/2' 5, ; 8 , . ,0+%5' ' .2' *&')+%')141/%0' '$%' *((16,%5' 42' 0%4' (%*10 /'*9, . -' 8 ')%$,' ' ' .2' *&')+%8' '$%' 5,8 , . ,0+%5' , .' 0,C%' ' .5' ,$$%-1/'$' , .' *1); /, . %' &, *8' '40*$6),*.' *&')+%,$' (*.)%.)0' +% 0)$*8 '' ,0' $%/'),7%/2' , . ($%' 0%5')+%' 7%00%/0' '$%' /,))/%' '/)%$%5 .')+%' (,$$+*),(' &*$8')+%' ')$*6+2' ,0' *&)%.' 8 *$%' '57' . (%5' ' .5' ,0' (*88*./2' *E1'/' *$.%' $/2' 0*' *.')+%')3*' 0,5%0' +%' ('601/%' ,0' '5+%$%.)')+%' 01$&'(%' -$' .1/'$' ' .5' 1.%7%.' .' 0%(),*.')+%' (*$),('/ 0140)' . (%' '66%'$0' 5,8,80+%5' ' .5',)' &)%.' (*.)' , .0' 8 ' . 2' (20)0' .' 8 ,($*0(*6,(' %B' 8 , . '),*.')+%' &,4$*10' 0)$*8 '' ,0' &*1.5' 8 '$9%5/2' , . ($%' 0%5' 8 ' . 2' *&')+%')141/%0' ' .5' 7%00%/0' '$%' 5%0)$*2%5' 3+,/%')+%' 08 '//%$' $)%$,%0' '$%')+, (9%.%5 .')+%' 3 'B2' *$' '/418 , . *,5' &*$8')+%' 5

8HL;

*&' *B' ,. &,/)$'),*.' ,.)*')+%' $%. '/ %6,)+%/,18 ' K3,)+*1)' ,. &,' 8 8 '),*. H (+'$'()%$,0%5' 42' .*' 0286)*8 0' '0 2%)' (/%'$/2' '0(%$)',.%5

= , ' G ''))2'9,5.%2' $%01/)0' , .'0*8%' ('0%0' &,$*8' /*.- (*.),. 1%5' %B+'10),. -' 5,0; *$5%$0' H &$*8'0%. ,/%' 8 '$'0810' H &,]*8')'$'7';),*. H &,$*8'6*,0*. ,. -' 3,)+' 6+*06+*$10H ' .'5' 6%$+'60' &$*8' %B(%00,7%' ,.51/-%. (%' ,.'&'))2' &**5

! ' $' ' G +%'9,5.%20'$%' *&' '4*1)')+%' .')1$'/ 0,C%')+%,$' 01$&'(%' ,0' 08**)+' .5')+%' ('601/%' 0)$,60' *&& $%'5,/2' +%$%' ,0' .*5')+%' ('601/%' 0)$,60' *&& $%'5,/2' 0)%//')%'7%,.0' $%'7,0,4/%' +%'*$-'.',0'8*$%' 0*&)' .5' &/%B,4/%')+'.' .')1$'/' .5')+%' 01$; &'(%' ,0' 8*))/%5'3,)+' .18%$*10' 5%6*0,)0' *& 0%4'(%*10 /**9,.-'8')%$,'/' .'0%(),*.')+%' $%/'),7%'0,C%'*&')+%' (*$),('/0140)'.(%'.5')+%' (*.%0',0'0%%.')*'4%' 6$%0%$7%5H ' .5'4%2*.5''-%.%$'/6'//*$')+%$%',0' .*' (+'.-%' %B(%6)')+%' '41.5'.)' 5%6*0,),*.' *& 0%4'(%*10 /**9,.-'8')%$,'/'8*0)/2',.')+%')141/%0'*&')+%'(*$),('/0140)'.(%'41)'=0*',.')+*0%'*&')+%' (*.%0 .' %B'8,...-'' 0%(),*.' 3,)+' '/*3'6*3%$' *&')+%' 8,($*0(*6%')+%' (+'$'()%$,0),(' &'))2' *6'(,)2',0'3%// 8 '$9%5''.5'42' ('$%&1/0($1;),.2',)' 8 '2'4%' -%.%$'//2' 8 '5%' *1)')+')')+%' &'))2'8')%$,'/',0'.*)',.')+%' (' .'/*&')+%')141/%' 41)' 3,)+,.')+%' %6,)+%/,'/ (%//0' +%' '/; 6,-+,'.' 4*5,%0')+%' 7%00%/0'' .5')+%' 0)$*8' ,85%$' ''+,-+%$' 6*3%$' '66%'$' .')1$'/H '.5',.')$'.07%$0%' 0%(),*.' *&')+%')141/%0'' '(/%'$/18%.'8'2'4%' 8'5%' *1)')' 3,/')+10'4%*40%$7%5')+')')+%$%',0' .*' ,.&/'88')*$2'5%; 0E1'8'),*.'*&')+%'(%//0'.*$%B15'),*.'&,//,.-'16')+%'/18%.'*&')+%')14%

!(! G ,))/%',0'9.*3.'*&')+%'(/,.,('/&%')1$%0'*&')+,0' '&&%(),*.' 1)')+%'E1'.),)2'*&')+%'1$,.%''66%'$0')*'4%'5,8,.,0+%5' +%$%',0'(%$)',./2'.*' '/418,.1$,''.5' '66'$%.)/2'.*' *)+%$' ,86*$)'.)' (+'.-%',.'),)0' (*86*;0,),*.' $' '.-'*&' *$6')'+'0+*3.')+')'' /,))/%' &$%%' *,/' ,0' 0*8%),8%0' &*1.5',.')+%' 1$,.%

& ```)' ,0' 0('$(%/2' 6*00,4/%')* 5,'-.*0%')+,0' '&&%(),*.' 3,)+' (%$)',.)2H 41)' 5,8,.1),*.'*&')+%'1$,.%'3,)+*1)'/418,.1$,''.5' 3,)+')+%' 6$%0%.(%' *&' *,/' ,.')+%' 8,.%' %06%(,''//2',&''00*(,')%5'3,)+')+%'0,-.0'*&'&'))2'/,7%$'.5'b3,)+'.2'*&')+%'9.*3.' ('10%0'*&' &')2'5%-%.%$')',.'8'2'/%'5')*')+%'0)'4/,0+;8%.)'*&')+%'5,'-.*0,0

' G +%'$%./' '&&%(),*.',0' .*)' -%.%$''//2' '.',86*$)'.)' %/%8%.)' ,.')+%'6$*; -.*0,0'*)+%$'(*.5,),*.0' *& 8*$%',86*$)'.(%' 4%,.-'6$%0%.)

! G %.%$'/)*.,(')$%')8%.)'.''.5')+%'$%8*7'/ *&')+%' ('10%' 3+%.'9.*3.''$%)+%'*./2',.5,(''),*.0

' ,5.%2' *1)2 G +,0',0''&*$8'*&(*.)$'()%5' -$'.1/'$' 9,5.%2' *((1$$,.-' ,.' -*1)2'014>%()0''.5'))%.5%5'3,)+')+%'5%6*0,)'*&'1$')%0',.')+%$%./'141/%0' '0 L' & 'H'.5'C %

F' N $*2 G='02.*.28'&*$''(+$*.,(' &*$8'*&' $,-+)<0'5,0%'0%'3+%$%')+%

9,5.%2'6$%0%.)0''-$'.1/'$''66%'$'.(%' 0 L' &

D' ,5.%2' 0%8*$$+'-%' ,.' (*.;.%B,*.'3,)+'G' /**5' 8'2' %0('6%',.)*')+%'0140)'.(%'*&')+%'9,5.%2''0')+%'$%01/)'*&'%84*/,08'*$',.>1$2H ,.)*')+%')141/%0'-,7,.-'$,0%')*'4/**5 ('0)0H *$',.)*')+%' $%.'/6%/7,0'%06%(,'//2'&$*8',.>1$2')*')+%'81(*10'/,.,.-'42'('/*1' +%'*./2'5,'-.*0),(',.5,(',*.'*&')+,0'%7%.)',0')+%' 6$%0%.(%'*&'4/**5',.')+%'1$,.%',.),8')%/2'8,B%'3,)+',)'*$0*8%),8%0',.'(/*)0' '(*'-1/18'*&'4/**5'8'2'4/*(9'16')+%' 1$%)%$' ' 7! % /'.5' ! 2 $ %

M' ,5.%2' 25'),5 ,0%'0%' *& G' & # G '(+$*.,(' 6'$'0),(' 5,0%'0%' *&')+%'9,5.%2'('10%5'42')+%'$%(%6),*.',.)*')+%'020)%8'*&')+%'*7''*&')+%' $%.,''%(+,.*(*((10'.5')+%' 5%7%/*68%.)',.')+%' 9,5.%2'*&')+%'(*$$%06*.5,.-'(20),(' &*$8H (*.0,0),.-',.')+%'&*$8'),*.'*&' +25'),5' (20)0G0%(+,.*(*((10'+*8,.,0<G=,')+%' 0140)'.(%'*&')+%' $%.,''%(+,.*(*((10'+*8,.,0<G=,')+%' 0140)'.(%'*&')+%' $%-'.H (+'$'()%$,0%5',.'0*8%'('0%0'42'.*'0286)*80',.')+%$0' 42' $%.'/)18*1$' *$' 42')+%' 5,0;(+'$-%*&'(20)0'3,)+')+%'1$,.%''&)%$'0286)*80'$%0%84/,.-')+*0%' *&' $%.'/('/(1/10H '.5'$%01/),.-'0*8%),8%0',.'$%(*7%$2'0*8%),8%0',.'5%')+',)+%$'42'6%$&*$'),*.',.)*')+%/1.-',.)%0),.%'*$')+%$'6')$'*$'42'01661$'),*.*.' *' 8 '$%' ' 0 L' & 'H'.5'C % F' N $*2 G='02.*.28'&*$''(+$*.,(' &*$8'*&' $,-+)<0'5,0%'0%'3+%$%')+%

D' ,5.%2' 0%8*$$+'-%' ,.' (*.;.%B,*.'3,)+'G' /**5' 8'2' %0('6%',.)*')+%'0140)'.(%'*&')+%'9,5.%2''0')+%'$%01/)'*&'%84*/,08'*$',.>1$2H ,.)*')+%')141/%0'-,7,.-'$,0%')*'4/**5 ('0)0H *$',.)*')+%' $%.'/6%/7,0'%06%(,'//2'&$*8',.>1$2')*')+%' 81(*10'/,.,.-'42'('/*1' +%'*./2'5,'-.*0),(',.5,(',*.'*&')+,0'%7%.)',0')+%' 6$%0%.(%'*&'4/**5',.')+%'1$,.%',.),8')%/2'8,B%'3,)+',)'*$0*8%),8%0',.'(/*)0' '(*'-1/18'*&'4/**5'8'2'4/*(9'16')+%' 1$%)%$' ' 7! % /'.5' ! 2 $ %

M' ,5.%2' 25'),5 ,0%'0%' *& G' & # G '(+$*.,(' 6'$'0),(' 5,0%'0%' *&')+%'9,5.%2'('10%5'42')+%'$%(%6),*.',.)*')+%'020)%8'*&')+%'*7''*&')+%' $%.,''%(+,.*(*((10'.5')+%' 5%7%/*68%.)',.')+%' 9,5.%2'*&')+%'(*$$%06*.5,.-'(20),(' &*$8H (*.0,0),.-',.')+%'&*$8'),*.'*&' +25'),5' (20)0G0%(+,.*(*((10'+*8,.,0<G=,')+%' 0140)'.(%'*&')+%' $%.,''%(+,.*(*((10'+*8,.,0<G=,')+%' 0140)'.(%'*&')+%' $%-'.H (+'$'()%$,0%5',.'0*8%'('0%0'42'.*'0286)*80',.')+%$0' 42' $%.'/)18*1$' *$' 42')+%' 5,0;(+'$-%*&'(20)0'3,)+')+%'1$,.%''&)%$'0286)*80'$%0%84/,.-')+*0%' *&' $%.'/('/(1/10H '.5'$%01/),.-'0*8%),8%0',.'$%(*7%$2'0*8%),8%0',.'5%')+',)+%$'42'6%$&*$'),*.',.)*')+%/1.-',.)%0),.%'*$')+%$'6')$'*$'42'01661$'),*.*.' *' 8 '$%' ' 0 L' & 'H'.5'C %

F' N $*2 G='02.*.28'&*$''(+$*.,(' &*$8'*&' $,-+)<0'5,0%'0%'3+%$%')+%

8%84$'.%' 8 '2' 6$%0%.)'%,)+%$'*&')+%'(*.5,;
),*.0' '4*7%' 5%0($,4%5'4.)' *.%' '/3'20' &,.50'
8,.-/%5' 3,)+')+%' *)+%$'(*.)%.)0'('/%1/,'*&'
-$%')%$'*$'/%00'0,C%

' ! G +%'02 8 6)*8 0'*&' '62%/,),0'
8'2'4%%,)+%$'3%// 5%&,.%5'*$'8 '09%5' +%$%'
8'2'4%'1.%'0,.%00'*$'(1)%'6',.'.')+%'/*,.0'
'.5''/*.-')+%'/,.%'*&')+%'1$%)%$H 0*8%),8%0'
5,0),.()'$,-*$0'3,)+'*)+%$'&%4$,/%'02 8 6)*,.0'
*((1$H'.5')+%'1$,.%',0'(/*152'5%6*0,),.-'
81(10'*$'81%*61$1/%.)'8')%$,'/'*$'0*8%;
),8%0'4/**5' +%'8*0)'(+'$')(%$,0),('&%')1$%
,0')+%'6$%0%.(%',.')+%'1$,.%'*&')+%'.-1/'$
)',/%5'(%//0'3+,6+'/,.%')+%' 6%/7,0'*&')+%'
9,5.%2' +%'(*.5,),*.'8'2'-$'51'//2'014;
0,5%'*$'8'2'4%(*8%'(+$*.,(H'*$',.'$'$%'
('0%0'.'5'3+%$%' ,86*$)'.)'(*86/,(','),*.0'
%B,0)',)'8'2'6$*7%'&')'/

.' # " '62%/,),0')+%$%',0'*&)%.'.''(+,.-'
&%%/,.-'*$'3% 5%&,.%5'6',.'.')+%'$%-,*.'*&'
)+%'1$%)%$0' +%$%',0'(*.0),)1),*.'/'5,0)1)4'
'.(%'5%4,/,)2'&%7%$'+%(),(H)+%'1$,.%',0'
*6'E1%'.5'5%6*0,)0'610 G-%.%$'//2'-$%2'
0*8%),8%0'),.-%5'3,)+'4/**5' +,0'(*.';
),*.'8'2'-*'*.'&*$'/*.-'6%$,*50'0*8%),8%0'
)%$8,.'),.-',.'$%(*7%$2'41)'*&)%.'6%$0,0),.-'
.'5'6$*7,.-'&')'/'42'%B+'10),*.'42'%B)%.0,*.'
)*')+%'9,5.%2 0140)'.(%'*$')*')+%'01$$*1.5;
,.-'(%//1/'$'),001%'*$'42'(*.(*8,)'.)'(*8;
6/,(')',*.0

+%' '5,&&%$0'&,*8')+%'*)+%$'&*$80'
,.'$%06%()'*&',)0'(`10%H'.5',.'4%,.-')))%.5%5'
42'8*$%'6','42'8*$%')%.5%.(2')*'+0%8*$'
$+'-%'.'5'0*8%),8%0'42')+%'6$%0%.(%'*&'
($20)'/0'-$'7%/'*$'('/(1/,',.')+%'5%6*0,)
&')+%'%0('6%'*&')+%'610'0+*1/5'4%'6$%;
7%.)%5',.''.2'*&')+%)+$%%'&*$80'*&'62%/,),0'
3,.-')'*40)$1(),*.'*&')+%'1$%)%$''.5'62*;
.%6+$*0,0'$%01/)''`'&1/.%00'*$'&/1()1'),.-'
)18*1$'8'2'4%'5%)%()%5',.')+%'$%.'/'$%-,*.'
'.5')+,0',.'0*8%,.0)'.(%'0140,5%0''),.;
)%$7'/0'3,)+'`'(*6,*10'5,0(+'$-%'*&'610',.'
)+%'1$,.%

& G $*8'(20),),0'62%/,),0',0'5,0;
),.-1,0+%5'42')+%'40%.(%'*&'7%0,('/'6',.'
'.5'*&'&$%E1%.)'('//0')*'8,()1$,),*.''.5'42'
)+%'6$%0%.(%'*&')+%'/184'$'1.%'0,.%00'.'5'
)+%'8*$%',.),8')%'58,B)1$%'*&')+%'&*$%,-.'
8')%$,'/0'3,)+')+%'0%($%),*.' $*8'$%.'/
,.&/'88'),*.',)',0'5,0),.-1,0+%5'42')+%'4;
0%.(%'*&')14%('0)0H)+%'0%')'*&')+%'6',.H
'.5')+%'6$%0%.(%')+%'(+'$')(%$,0),(' (%//0'
*&')+%'$%.'/'6%/7,0' $*8'0)$18*10'9,5.%2'
,)',0'0*8%),8%0'/8*0)',86*00,4/%')*'5,&&%$%.;
),')'%'0,86/%'62%/,),0' .5%%5')+%')*'(*.5,;
),*.0'$%'.*)',.&$%E1%.)/2''00*(,')%5')*-%)+%$H
41)')+%'6$%0%.(%' &*)+%$'%7,5%.(%0'*&'0)$1;
8*10'5,0%'0%')+%./'$-%8%.)'*&'.%'*$4*)+'
9,5.%20''.5')+%'5,0(+'$-%'*&'(*6,*10'
,.''55,),*.')*')+%'610'*&)%.'01&&,(%')*'5,0;
),.-1,0+')+%'*.%'&$*8')+%')+%$

'G' .')+%'0/,-+)%$' .5''(1)%
&*$80'*&'62%/,),0')+%'6$*-.*0,0',0'-%.%$''/2'
&'7*1$'4/%' .')+%'(+$*.,(`7'$,%)2',)'810)'
,/3'20'4%'-1'$5%5')+%' '8*1.)'*&'5'.-%$'
4%,.-'5%)%$8,.%5',.'0*8%'8%'01$%'42')+%

('10%')+%'(*.0),)1),*.'/'(*.5,),*.0''.5')+%
(*86/,(','),*.0

! G +%'&,$0)'%00%.),'/',0')+')')+%
6'),%.)'0+*1/5'+'7%$%0)''.5')+')')+%1$,.'$2'
0%($%),*.'0+*1/5'4%'(*6,*10''.5'4/'.5' .'
$5%$')'0%(1$%)+%0%'%.50''`5,%)/'$-%/2'(*8;
6*0%5'*&'8,/9''.5'0,86/%'5,/1%.)0''*$',.'0*8%
('0%0'%B(/10,7%/2'*&'8,/9''.5')+%'7*,5'.(%
*&'0),81/'),.-'&**50''.5'5$,.90''$%')*'4%
,.0,0)%5'*.' 0')*'8%5,(,.%',&')+%1$,.%4%
%B(%00,7%/2'(,5''/9'/,0'0+*1/5'4%'58,.,0;
)%$%5H,&',)'4%'/9'/,.%'8,.%$'/'(,50'*$4%.;
C*,(''(,5'*$'`'4%.C*')%'0+*1/5'4%'-,7%.'
'$,*10'$%8%5,%0'3+,(+'`66%'/')*'5,8,.,0+'
,$$,)'),*.'01(+'0'17`'1$0,'6'$%,$`'+$'7'`
41(+1')$,),(18'$%6%.0'(*6',7''.5'0'.5'/;
3**5'*,/'*1-+)')*'4%%86/*2%5' .')+%'8*$%
'(1)%'*'0%0')+%'66/,(','*.'*&'6*1/),(%0')*'
)+%/*,.0''.5')+%',.)%$.'/'58,.,0)$'),*.'*/
+%.4'.%'*$'*6,18'*$'8*$6+,.%'+26*5%$8,(;
'//2''$%')*'4%$%(*88%.5%5

.')+%'(+$*.,(`&*$80'*&'62%/,),0'`'0,8,/'$'
/,.%'*&')$%')8%.)'0+*1/5'4%'6%$0%7%$,.-/2'
&*//*3%5H'.5',.'%'0%0'3+,(+'*3%')+%,$'
$,-,.')*')+%'6$%0%.(%'&'(1/,')+%'$%8%5,%0'
'66$*6$,')%')*')+%'5,')+%),(`(*.5,),*.'0+*1/5'
4%%86/*2%5' 0)$,.-%.)0'8'2'6*00,4/2'4%
10%&1/,.'(+%%9,.-')**'(*6,*10'`5,0(+'$-%
*&'610

.'('/(1/*10'62%/,),0'*1$&,$0)'%&&*$)'810)'
4%)('*4)',.')+%'$%8*7'/'*&')+%('/(1/10'42'`
(*6,*10'&/*3'*&'1$,.%'.5',.'4%,.-')%.5%5'
42'8*$%'6','42'8*$%')%.5%.(2')*'+0%8*$;
$+'-%'.'5'0*8%),8%0'42')+%'6$%0%.(%'*&'
($20)'/0'-$'7%/'*$'('/(1/,',.')+%'5%6*0,)
&')+%'%0('6%'*&')+%'610'0+*1/5'4%'6$%;
7%.)%5',.''.2'*&')+%)+$%%'&*$80'*&'62%/,),0'
3,.-')'*40)$1(),*.'*&')+%'1$%)%$''.5'62*;
.%6+$*0,0'$%01/)''`'&1/.%00'*$'&/1()1'),.-'
)18*1$'8'2'4%'5%)%()%5',.')+%'$%.'/'$%-,*.'
'.5')+,0',.'0*8%,.0)'.(%'0140,5%0''),.;
)%$7'/0'3,)+'`'(*6,*10'5,0(+'$-%'*&'610',.'
)+%'1$,.%

& G $*8'(20),),0'62%/,),0',0'5,0;
),.-1,0+%5'42')+%'40%.(%'*&'7%0,('/'6',.'
'.5'*&'&$%E1%.)'('//0')*'8,()1$,),*.''.5'42'
)+%'6$%0%.(%'*&')+%'/184'$'1.%'0,.%00'.'5'
)+%'8*$%',.),8')%'58,B)1$%'*&')+%'&*$%,-.'
8')%$,'/0'3,)+')+%'0%($%),*.' $*8'$%.'/
,.&/'88'),*.',)',0'5,0),.-1,0+%5'42')+%'4;
0%.(%'*&')14%('0)0H)+%'0%')'*&')+%'6',.H
'.5')+%'6$%0%.(%')+%'(+'$')(%$,0),(' (%//0'
*&')+%'$%.'/'6%/7,0' $*8'0)$18*10'9,5.%2'
,)',0'0*8%),8%0'/8*0)',86*00,4/%')*'5,&&%$%.;
),')'%'0,86/%'62%/,),0' .5%%5')+%')*'(*.5,;
),*.0'$%'.*)',.&$%E1%.)/2''00*(,')%5')*-%)+%$H
41)')+%'6$%0%.(%' &*)+%$'%7,5%.(%0'*&'0)$1;
8*10'5,0%'0%')+%./'$-%8%.)'*&'.%'*$4*)+'
9,5.%20''.5')+%'5,0(+'$-%'*&'(*6,*10'
,.''55,),*.')*')+%'610'*&)%.'01&&,(%')*'5,0;
),.-1,0+')+%'*.%'&$*8')+%')+%$

'G' .')+%'0/,-+)%$' .5''(1)%
&*$80'*&'62%/,),0')+%'6$*-.*0,0',0'-%.%$''/2'
&'7*1$'4/%' .')+%'(+$*.,(`7'$,%)2',)'810)'
,/3'20'4%'-1'$5%5')+%' '8*1.)'*&'5'.-%$'
4%,.-'5%)%$8,.%5',.'0*8%'8%'01$%'42')+%

('10%')+%'(*.0),)1),*.'/'(*.5,),*.0''.5')+%
(*86/,(','),*.0

! G +%'&,$0)'%00%.),'/',0')+')')+%
6'),%.)'0+*1/5'+'7%$%0)''.5')+')')+%1$,.'$2'
0%($%),*.'0+*1/5'4%'(*6,*10''.5'4/'.5' .'
$5%$')'0%(1$%)+%0%'%.50''`5,%)/'$-%/2'(*8;
6*0%5'*&'8,/9''.5'0,86/%'5,/1%.)0''*$',.'0*8%
('0%0'%B(/10,7%/2'*&'8,/9''.5')+%'7*,5'.(%
*&'0),81/'),.-'&**50''.5'5$,.90''$%')*'4%
,.0,0)%5'*.' 0')*'8%5,(,.%',&')+%1$,.%4%
%B(%00,7%/2'(,5''/9'/,0'0+*1/5'4%'58,.,0;
)%$%5H,&',)'4%'/9'/,.%'8,.%$'/'(,50'*$4%.;
C*,(''(,5'*$'`'4%.C*')%'0+*1/5'4%'-,7%.'
'$,*10'$%8%5,%0'3+,(+'`66%'/')*'5,8,.,0+'
,$$,)'),*.'01(+'0'17`'1$0,'6'$%,$`'+$'7'`
41(+1')$,),(18'$%6%.0'(*6',7''.5'0'.5'/;
3**5'*,/'*1-+)')*'4%%86/*2%5' .')+%'8*$%
'(1)%'*'0%0')+%'66/,(','*.'*&'6*1/),(%0')*'
)+%/*,.0''.5')+%',.)%$.'/'58,.,0)$'),*.'*/
+%.4'.%'*$'*6,18'*$'8*$6+,.%'+26*5%$8,(;
'//2''$%')*'4%$%(*88%.5%5

.')+%'(+$*.,(`&*$80'*&'62%/,),0'`'0,8,/'$'
/,.%'*&')$%')8%.)'0+*1/5'4%'6$%0%.(%'*&'
($20)'/0'-$'7%/'*$'('/(1/,',.')+%'5%6*0,)
&')+%'%0('6%'*&')+%'610'0+*1/5'4%'6$%;
7%.)%5',.''.2'*&')+%)+$%%'&*$80'*&'62%/,),0'
3,.-')'*40)$1(),*.'*&')+%'1$%)%$''.5'62*;
.%6+$*0,0'$%01/)''`'&1/.%00'*$'&/1()1'),.-'
)18*1$'8'2'4%'5%)%()%5',.')+%'$%.'/'$%-,*.'
'.5')+,0',.'0*8%,.0)'.(%'0140,5%0''),.;
)%$7'/0'3,)+'`'(*6,*10'5,0(+'$-%'*&'610',.'
)+%'1$,.%

& G $*8'(20),),0'62%/,),0',0'5,0;
),.-1,0+%5'42')+%'40%.(%'*&'7%0,('/'6',.'
'.5'*&'&$%E1%.)'('//0')*'8,()1$,),*.''.5'42'
)+%'6$%0%.(%'*&')+%'/184'$'1.%'0,.%00'.'5'
)+%'8*$%',.),8')%'58,B)1$%'*&')+%'&*$%,-.'
8')%$,'/0'3,)+')+%'0%($%),*.' $*8'$%.'/
,.&/'88'),*.',)',0'5,0),.-1,0+%5'42')+%'4;
0%.(%'*&')14%('0)0H)+%'0%')'*&')+%'6',.H
'.5')+%'6$%0%.(%')+%'(+'$')(%$,0),(' (%//0'
*&')+%'$%.'/'6%/7,0' $*8'0)$18*10'9,5.%2'
,)',0'0*8%),8%0'/8*0)',86*00,4/%')*'5,&&%$%.;
),')'%'0,86/%'62%/,),0' .5%%5')+%')*'(*.5,;
),*.0'$%'.*)',.&$%E1%.)/2''00*(,')%5')*-%)+%$H
41)')+%'6$%0%.(%' &*)+%$'%7,5%.(%0'*&'0)$1;
8*10'5,0%'0%')+%./'$-%8%.)'*&'.%'*$4*)+'
9,5.%20''.5')+%'5,0(+'$-%'*&'(*6,*10'
,.''55,),*.')*')+%'610'*&)%.'01&&,(%')*'5,0;
),.-1,0+')+%'*.%'&$*8')+%')+%$

'G' .')+%'0/,-+)%$' .5''(1)%
&*$80'*&'62%/,),0')+%'6$*-.*0,0',0'-%.%$''/2'
&'7*1$'4/%' .')+%'(+$*.,(`7'$,%)2',)'810)'
,/3'20'4%'-1'$5%5')+%' '8*1.)'*&'5'.-%$'
4%,.-'5%)%$8,.%5',.'0*8%'8%'01$%'42')+%

('10%')+%'(*.0),)1),*.'/'(*.5,),*.0''.5')+%
(*86/,(','),*.0

! G +%'&,$0)'%00%.),'/',0')+')')+%
6'),%.)'0+*1/5'+'7%$%0)''.5')+')')+%1$,.'$2'
0%($%),*.'0+*1/5'4%'(*6,*10''.5'4/'.5' .'
$5%$')'0%(1$%)+%0%'%.50''`5,%)/'$-%/2'(*8;
6*0%5'*&'8,/9''.5'0,86/%'5,/1%.)0''*$',.'0*8%
('0%0'%B(/10,7%/2'*&'8,/9''.5')+%'7*,5'.(%
*&'0),81/'),.-'&**50''.5'5$,.90''$%')*'4%
,.0,0)%5'*.' 0')*'8%5,(,.%',&')+%1$,.%4%
%B(%00,7%/2'(,5''/9'/,0'0+*1/5'4%'58,.,0;
)%$%5H,&',)'4%'/9'/,.%'8,.%$'/'(,50'*$4%.;
C*,(''(,5'*$'`'4%.C*')%'0+*1/5'4%'-,7%.'
'$,*10'$%8%5,%0'3+,(+'`66%'/')*'5,8,.,0+'
,$$,)'),*.'01(+'0'17`'1$0,'6'$%,$`'+$'7'`
41(+1')$,),(18'$%6%.0'(*6',7''.5'0'.5'/;
3**5'*,/'*1-+)')*'4%%86/*2%5' .')+%'8*$%
'(1)%'*'0%0')+%'66/,(','*.'*&'6*1/),(%0')*'
)+%/*,.0''.5')+%',.)%$.'/'58,.,0)$'),*.'*/
+%.4'.%'*$'*6,18'*$'8*$6+,.%'+26*5%$8,(;
'//2''$%')*'4%$%(*88%.5%5

.')+%'(+$*.,(`&*$80'*&'62%/,),0'`'0,8,/'$'
/,.%'*&')$%')8%.)'0+*1/5'4%'6$%0%.(%'*&'
($20)'/0'-$'7%/'*$'('/(1/,',.')+%'5%6*0,)
&')+%'%0('6%'*&')+%'610'0+*1/5'4%'6$%;
7%.)%5',.''.2'*&')+%)+$%%'&*$80'*&'62%/,),0'
3,.-')'*40)$1(),*.'*&')+%'1$%)%$''.5'62*;
.%6+$*0,0'$%01/)''`'&1/.%00'*$'&/1()1'),.-'
)18*1$'8'2'4%'5%)%()%5',.')+%'$%.'/'$%-,*.'
'.5')+,0',.'0*8%,.0)'.(%'0140,5%0''),.;
)%$7'/0'3,)+'`'(*6,*10'5,0(+'$-%'*&'610',.'
)+%'1$,.%

& G $*8'(20),),0'62%/,),0',0'5,0;
),.-1,0+%5'42')+%'40%.(%'*&'7%0,('/'6',.'
'.5'*&'&$%E1%.)'('//0')*'8,()1$,),*.''.5'42'
)+%'6$%0%.(%'*&')+%'/184'$'1.%'0,.%00'.'5'
)+%'8*$%',.),8')%'58,B)1$%'*&')+%'&*$%,-.'
8')%$,'/0'3,)+')+%'0%($%),*.' $*8'$%.'/
,.&/'88'),*.',)',0'5,0),.-1,0+%5'42')+%'4;
0%.(%'*&')14%('0)0H)+%'0%')'*&')+%'6',.H
'.5')+%'6$%0%.(%')+%'(+'$')(%$,0),(' (%//0'
*&')+%'$%.'/'6%/7,0' $*8'0)$18*10'9,5.%2'
,)',0'0*8%),8%0'/8*0)',86*00,4/%')*'5,&&%$%.;
),')'%'0,86/%'62%/,),0' .5%%5')+%')*'(*.5,;
),*.0'$%'.*)',.&$%E1%.)/2''00*(,')%5')*-%)+%$H
41)')+%'6$%0%.(%' &*)+%$'%7,5%.(%0'*&'0)$1;
8*10'5,0%'0%')+%./'$-%8%.)'*&'.%'*$4*)+'
9,5.%20''.5')+%'5,0(+'$-%'*&'(*6,*10'
,.''55,),*.')*')+%'610'*&)%.'01&&,(%')*'5,0;
),.-1,0+')+%'*.%'&$*8')+%')+%$

'G' .')+%'0/,-+)%$' .5''(1)%
&*$80'*&'62%/,),0')+%'6$*-.*0,0',0'-%.%$''/2'
&'7*1$'4/%' .')+%'(+$*.,(`7'$,%)2',)'810)'
,/3'20'4%'-1'$5%5')+%' '8*1.)'*&'5'.-%$'
4%,.-'5%)%$8,.%5',.'0*8%'8%'01$%'42')+%

)%$,0%5' 42' '' $%.'/')18*1$' ('(+%B,'' '.5'&$%A>1%.)/2' 42' '/)%$')',*.' *&')+%' 1$,.%H '.5'$%01/),.-',5%')+

=3* 02 ? 6 '$%.'/' ('.(%$' '$,0%0'&$*8' ('10%0' .*)'2%)' '0(%$)',.%5')' *((1$0' ')')3*' %6*(+0' *&'/,&%G.' 8%/2',.'%'$/2'(+,/5;+**5' '.5',.'51/)' '-%' * +,/5$%.' 1.5%$' &*1$2%'$0' 66%'$' 06%(,'//2'/,'4/%' +%' 8'/%' 0%B',0' 8*$%' &$%E1%.)/2' '&&%()%5')+'.')+%'&%8'/%H)+%'$,-+)'9,5.%2'8*$%'(*8 8*./2')+'.')+%'/%&)

" '(' .(%$' &)+%' 9,5.%2',0' 8*0)'&$%E1%.)/2' '00*(,')%5'3,)+' ('$(,.*8'' *&')+%'/,7%$')+%' 0)*8'(+')+%'8'8 8'')+%')%0),(/%'*$')+%' 1)%$10'0*8%),8%0'*&')+%'016$' $%.'/4*5,%0'*$')+%'8%0%.)%$,(' -/'.50

' 3$ & G ')+%'7'$,%;),%0'*&' (' .(%$' +'7%' 4%%.' 8%)' 3,)+' ,.')+%'9,5.%2'41)')+%'8%51//'$2',0'42'&'$')+%'8*0)'(*8 8*.')',0'0*8%),8%0'6$,8'$2'0*8%),8%0'0%(*.5'$2' +%' '&&%()0'101'//2'*.%'9,5.%2'8*0)'(*8 8*./2')+%'$,-+)H)+%'*$-'+',0'*&)%.'81(+' 0./'$-%5'3%,-+,.-'0*8%),8%0''0'81(+'0'0,B)%%.'*$'0%7%.)%%.'6*1.50''.5')+,0'%7%.',.'2*1.-'(+,/5$%. .')%.'(+,/5$%.' ,$' ,//,'8' *4%$)0' &*1.5')+%' '7%$'-%'3%,-+)'9:'/40 H ,.')%.'51/)0'+%'&*1.5',)'P:'/40' 1(+'/'$-%')18*1$0'*((162''-$%')'6'$)'*&')+%'45*8%.''.5'610+')+%'(*/*.'&*$3'$5' +%' (' .(%$' ,0' ,.' 0*8%' ('0%0' 0(')))%$%5',.'0%6'$')%' .*51/%0H ,.'*)+%$0',0' ,.&,/)$')%5'/).*1-+')+%'8'00')'(*88%.(%0''/3'20',.')+ '(*$),('/0140)'.(%''.5',0'5%7%/*6%5'&$*8')+%'&,4$*10'0)$*8'' .')+%'0(')))%$%5'('0%0'(')+%'$%8',.,.-'6*$),*.0'*&')+%' 9,5.%2''$%E1,)%'0*1.5' +%'(' .(%$'8'2',.7*/7%')+%'014 81(*10'),001%'*&')+%'81(*10'8%8;4$'.%'*&')+%'6%/7,0')+%'1$%)%$0''.5')+%'7%,.0' +%/286+'),('7%00%/0''.5'-/'.50'/0*'4%(*8%0%(*.5'$,/2'&&%()%5' *8%),8%0',)' &&%()0')+%'6%$,)*.%18''.5'(*/*.''.5',)'+'0'%7%.',.7*/7%5')+%'09,. +%.')+%'$%.'/' &&%(),*.',0'0%(*.5'$2',)'101'//2',.7*/7%0'4*)+' *$-'.0' '.5' $'$%/2'/%'50')*' 01(+'%./'$-%8%.)'!'0',0'0%%.',.')+%'6$,8'$2'5,0%'0%')' *((1$0',.')+%'&*$8'*&.18%$*10'.*51/%0'5%7%/*6%5',.')+%'0)$*8''*$' '/*.-')+%'7%00%/0' +%'$%8'88-'$%.'/),001%',0'(*88*./2'+%'/)+2'41)',)'8'2'4%,.&/'8%5'*$)+%$3,0%'/)%$%5

F " ' ' G)',0'6$*4'4/%')+')'(*.0,5%$'4/%'6$*6*$),*.'*&')+%'%'0%0'&$*8'3+,(+')+%'5%0($,6),*.'*&' ('$(,.*8'' *&')+%'9,5.%20',0'5$'3.'3'0'$%'//2'$%&%$'4/%')*' *.%'*$' *)+%$' *&')+%'7'$,%),%0'*&'0'$(*8'G%),)+%$')+%'8*$%'(*88*.'/'7%*/'$'&*$8'*'*$')+%'$'$%$*.%'3,)+' 0)$,6%5'810(1/'$'&,4$%0G # 7 ')')+%'6$%0%.)'),8%',)',0' .*)'6*0;0,4/%'0')',0&'()*$,/2')*' 8'$9' *&&' '' 5%&,.,)%(/,.,('/'+,0)*$2'*&')+,0'-$*16'*&'.%3&*$8''),*.0

) G +%'0286)*80'*&'6$,8'$2'('.(%$'-%.%$'//2'4%(*8%E1,)%'5,0),.()'3+%.')+%'5,0%'0%'57'.(%0'41)',.')+%'%'$/,%$'0)'-%0')+%2'!$%'7%$2',.5,0),.()' +%'1$,.%',)0%/&',0''0''$1/%'.')1$'/',.'E1'.),)2'*&'(,5'$%'(),*.'.*$8'/06%(,&,(' -$'7,)2'.5'(*/*1$H 41)'&$*8),8%')*'),8%'4/**5''66%'$0',)0''8*1.)'7'$2;,.-'&$*8''' 8%$%')$'(%')*'' 7%$2'0%$,*10'4%%8*$$+'-%' *8%),8%0')+%' 4/**5',0',.'(/*)0''.5'&(,0'4/%%5,.-'8'2'4%')+%'%'$/,%0)'0286)*8')'*((' 0,*.=2'+'66%.0')+')'('$;(,.*8')*10'%/%8%.)0'8'2'4%'5,0(*7%$%5',.'+%'1$,.'$2'5%6*0,)'41)',)',0'7%$2'5,&&,(1/)')*',5%.),&2')+%8

B'8,.'),*.'*&')+%''45*8%.'$%7%'/0')+%'6$%0%.(%'*&''')18*1$'*((162,.-''.5'%B)%.5;,.-'&$*8')+%'$%-,.*.'*&')+%'9,5.%2' +%')18*1$',0'-%.%$=/2'.*51/')%5'*&')*/%$'4/2'&,$8'(*.0,0)%.(%''.5'51/'*.'6%$(100,*.' +%'(*/*.'/,%0',.'&$*.)' *&')+%'8'00'3+,(+',0'('6'4/%'*&'4%,.-',/,)%5'&*$3'$5'42'6$%001$%'*.')+%'$%.'/'$%-,.*.' +%.')+%)'/%&)'9,5.%2',0'&&%()%5')+%06/%%.',0'5,06/'(%5'163'$50'0'''$1/%')+%$%',0'6%$0,0)%.)'(*.0),6'),*.''.5'0*8%'6',.H)*-%)+%$' 3,)+')+%'-%.%$'/0286;)*80'*&')+%'('$(,.*8''*10'('(+%B,'&' G '$(,.*8''*&')+%' '9,5.%2'8'2'4%(*.&*1.5%5'3,)+'%./'$-%8%.)'*&')+%06/%%.H 3,)+'6%$,.%6+$,(' '40(%00H 6%$+'60'0*8%),8%0'3,)+'5,0%'0%' *&')+%'8%0%.)%$,('-/'.50H '$' 3,)+'*40$1(),*.'*&')+%'(*/*.''.5'$%)%.),*.''*&'&'%(%0' $*8'06/%.,('))18*1$',)',0'5,0),.-1,0+%5'42',)0'/*3%$'6*0,),*.''42')+%'40%.(%' *&')+%' 06/%.,(' .*)(+')+%' .*$8'/(*.5,),*.''*&')+%'4/**5')+%'6$%0%.(%'*&'4/**5',.')+%' $,.*51/')%5'(+'$')()%$'*&')+%)18*1$',)0%/&'.5')+%'6*0,),*.''*&')+%'(*/*.',.'$%/')',*.')*' $*8'6%$,.%6+$,('40(%00'('.(%$'*&')+%'9,5.%2',0'A&,0),.-1,0+%5'42')+%'40%.(%'*&'&%7%$'.5'*&/1()1'),*.H '0'3%//'0'42')+%'/%00'$'6,5'57'.(%'*&')+%'5,0%'0%'$*8')18*1$0'*&')+%'8%0%.)%$,(' -$*3)+0'3+,(+''$%'(*86*0%5'*&'-$*160'*&'-/'.50' $*8'('$(,.*8''*&')+%(,.)%0),.%'3,)+''((181/'),*.''*&'&'%(%0'4*7%',)',)',0',0),.-1,0+%5'42')+%'6*0,),*.''*&')+%'8'00'.5'42',)0'(+'$')()%$0'*.'6'/6'),*.H '0'3%//'0'42'40%.(%'*&')+%'0,-.0'6$*6%$')*')+%(,.)%0),.'/5,0%'0%

'$(,.*8''*&')+%' 0# 9,5.%2'8'2'4%(*.&*1.5%5'3,)+')8.*1$'*&')+%'/,7%$'%06%(,;''//2',.'(+,/5$%.H 41)')+%'6$%0%.(%'*&'(/%'$'6%$(100,*.'8*$%'*$'/%00'%B)%.0,7%'4%)3%%.')+%' 7%$' .5')+%')18*1$'0+*1/5'$%8*7%''//' 5*14)' &')+%'5,0%'0%5'9,5.%2')*1(+%0')+%'/,7%$'$%/,'.(%'810)'4%'6/'(%5'*.'+%'0286)*80'6$*6%$')*'$%.'/'*$')*' +%6'),('5,0%'0%'$%06%(),7%/2

'.(%$'*&')+%'9,5.%2',0')*'4%'5,0),.-1,0+%5'&$*8')18*1$'*&')+%'*7'$2'42',)0'8*$%'&,B%5'6*0,),*.''.5')+%'+,0)*$2'*&',)0'-$*76)+

G +%'6$*-.*0,0',0',.''//'('0%0'1.&'7*1$'4/%'H)+%'51$'),*.'7'$,%0'3,)+')+%'&*$8''*&'('.(%$

! G $%')8%.)',0'*&'(*1$0'8%$%/2'6'//,'),7%G8*$6+,.%'4%//'5*.''+%.;4'.%''66/,%5'%B)%$.'//2'*$',.>%()%5'014(1;)'.%*10/2')*'$%/,%7%'6',.H %$-*),.''.5'*)+%6%6'$'),*.0'*&'%$-*)''(%)')%'*&'/%'5''.5

-'//,(' '(,5')*' (+%(9' +'%8*$$+'-%H ' .5' ,$*.' '0' .' '0)$,.-%.)'.5'4/**5)*.,(' +%'4*3%/0' $%E1,$%' ('$%&1/' '))%.),*.H ' .5' 0*8%),8%0')+%$%' 8 '2' 4%' 0*' 81(+' '0(,)%0' '0')*' 3 '$$'.)')'66,.-' B(,0,*.'*&')+%' '&&%()%5' *$-'.' 8 '2' 4%' '))%86)%5',.'0*8%' ('0%0

@F' ,5.%2' '/6*0,),*.0' *&'G' +%' 9,5.%2' 8 '2' 4%' (*.-%.,)'//2' 5,06/'(%5' 41)')+%' ,86*$)'.)' '.*8 '/2' (*8,.-'1.5%$')+,0' +%'5',0')+%') ' - " ' 3+,(+' 5%8 '.50' 06%(,'/(*.0,5%$'),*.

& # G +%' 8*7'4/%' 9,5.%2' ,0' '' (*.5,),*.' %06%(,'//2' '&&%(),.-' 3*8%.H (*.;0,0),.-',.')+%'1.51%'8*4,/,)2'*&'*.%'*$'$'$%/2' *&'4*)+'9,5.%20H (+'$'()%$,0%5',.'0*8%'%'0%0' 42' .*'02 8 6)*8 0',.' *)+%$0' 42'1.%'0,.%00' *$ 6',.'3,)+' -%.%$'/' .%$7*10' 5,0)1$4'.(%''.5' 42')+%'6$%0%.(%'*&''%.5%$'$%.,&*$8')18*1$' 3,)+' (/%'$' .*)%'*.'6%$(100,*.',.')+%' $%.'/ $%-,*.'*&')+%' '&&%()%5' 0,5%H $%01/),.-' 'O' '' $1/%',.'&$%E1%.)'$%(1$$%.(%'*&')+%'02 8 6)*8 0' 3,)+*1)'5'.-%$')*'/,&%

* $ G *7'4/%' 9,5.%2',0' 8*$%'(*8;8*.',.')+%'&%8'/%'0%B'.5'%06%(,'//2',.')+*0%' 3+*'+'7%'6'00%5')+$*1-+' 8 '.2'6$%-.'.(,%0' 41)' ,)' ,0' .*')' %B(/10,7%/2' 'O0*(,')%5' 3,)+' 3*8%+'&*$' ,)' *((1$0' A')+*1-+' $'$%/2H ,.' 8 '/%0''.5''/0*',.'(+,/5$%.' +%' $,-+)' 9,5;.%2',0' 81(+' 8*$%' &$%E1%.)/2' '&&%()%5GDF *1)'*&'P '('0%0' A 40)%,.R')0' *((1$$%.(%',0' 6$*4'4/2'8',./2'51%')*'/'B,)2'*&')+%' '45*8,.;.'/'6'$,%)%0''.5'1.101'/'/%.-)+''*$',$$%-1/'$' 5,0)$,41),*.'*&')+%' $%.'/'7%00%/0

! ' $' ' G +%' 9,5.%2',0' .*)' .%(%00'$,/2'(+'.-%5',.')0' 0)$1()1$%'41)' ,)0'6*0,),*.'8'2'4%'/)%$%5',.''.2'5,$%(),*.

!(! G .'8'.2'('0%0' .*' 0286)*80' *((1$',.'8*7'4/%' 9,5.%2' 1)',.'0*8%'('0%0' 3+%.%7%$')+%' 5,06/'(%8%.)'*((1$0' 81(+' 1.%'0,.%00' *$' %7%.'(*.0,5%$'4/%' 6',.',0' %B;6%$,%.(%5' +%' 3$,)%$' +'0' 9.*3.'' 8',.' 1.'4/%')*'3*$9',.'(*.0%E1%.(%'*&')+%' 6',.',.51(%5'42')+%'5,06/'(%8%.)'' .5/*0,.-''5'2<0' 3*$9'$%-1/'$/2'*.(%''3%%9'*$*.(%''&*$).,-+)' +%' 0%.0'),*.0' '$%' -%.%$'//2' $')+%$' *&')+%' .')1$%' *&'7'-1%' ,8%'0,.%00')+'.'*&'('()1'/ 6',.'%B(%6)'3+%.')+%' *$-'.',0')*1(+%5''.5')+%.')+%$%',0'6',.'*&''6%(1,'$'.5'0,(9%...-' 9,.5' +%'1$,.%'0*8%),8%0'4%(*8%0''/)%$%5' 51$,.-')+%' '))'(905'5%6*0,),..-'81(10'.'.5',.' *.%' %'0%',.')+%' 3$,)%$<0' 6$'(),(%''/,))/%' 4/**5' .'6%$(100,*.'*7%$')+%'$%.'/'$%-,*.' 6*0)%$,*$/2''' (/%'$' .*)%' 8 '2'4%' %/,(,)%5'*.')+%'&&%()%5'0,5%'.'.5'0*8%),8%0''&/'))%...-' 8 '2'4%' 8 '5%' *1)'')')+%'6'$)' '$%&1/'6'/; 6'),*.'$%7%'/0''')18*1$'*&'(+'$'()%$,0),('$%.'/'&*$8H '.5'.*3''.5')+%.'61/0'),*.'*&')+%' $%.'/'$)%$2'8'2'4%'&%/)' +%'8*$4,5'(*.5,;),*.'8'2'$%(1$'')'.)%$7'/0'58,.-'8'.2' 2%'$0H ,.'0*8%'('0%0',)',0''66'$%.)'&*$''),8%'.'.5')+%.'40%.)'&*$''7%$2'/*.'3+,(+'.51(%0')',0'/,'4/%')*'4%'4$*1-+)'*.'42'%&&*$)'41)' *&)%.' '66%'$0' 3,)+*1)'5,0(*7%$'4/%'('10%' (('0,*.''//2',)',0'&*1.5')+')')+%'5,06/'(%5' 9,5.%2'*3%0',)0'6*0,),*.')*')+%'%B,0)%.(%'*&' ('$(,.*8''*$*)+%$'5,0%'0%'*&')+%'*$-'.

& G +%' 8'/'52' 8'2' 4%' (*.;&*1.5%5'3,)+')18*1$'*&''8'/,-.'.)'.')1$%' *$,-,.'),.-'%,)+%$',.')+%'45*8%.'*$',.')+%' 6%/7,0' +%'5,'-.*0),('6*,.)0' '$%G)+%'6%(1;/,'$')%.5%$.%00H')+%'8*4,+)2H)+%'*((0,*.'/ 5,0'66%'$'.(%H)+%'1.(+'.-,.-'(+'$')%$'*&)+%')18*1$H ''.5')+%'*((1$$%.(%'*&''(/%'$ 6%$(100,*. .*)%'3,)+'&/'))%.,.-',.')+%'$%.'/ $%-,*.'*&')+%''&&%()%5'0,5%

G +%'6$*-.*0,0',0'&'7*1$'4/% ! G +%')$%')8%.)'0+*1/5'4%'42' 8%'.0'*&'4'.5'-%0'*$')$100%0')*'0166*$)'+%' '45*8,.'/'3'//0''.5'9%%6'16''6$%001$%'16*.')+%'9,5.%2'0*'0')*'$%)',.',)',.',)0'.*$8'/ 0,)1'),*.' .')+%'('0%'*&')+%'3*$9,.-'8'.' '4*7%' $%&%$$%5')*'(*86/%)%',881.,)2'&$*8')+%'5,06/'(%8%.)'3'0'*4)',.%5'42')+%'10%'*&' ''4'.5'-%'3,)+'''6'5'0*'$$'.-%5'0')*'9%%6' 16''6$%001$%'16*.')+%'*$-'.

@D' ,5.%2' *$4,5' $*3)+0'*&G' +%'*./2'$%'/2',86*$)'.)'8*$4,5'-$*3)+0'*&')+%'9,5.%2'$%'(' .(%$'.5')14%$(/%' 26+,/,,(' .%3 &*$8'),*.0'*((')0,*.'//2'*((1$'41)'-,7%' $,0%)*'.*'(+'$'()%$,0),('0286)*80' $*3)+0' *&&,4$*10'&')2'4*.2'810(1/'$''.5'-/'.51/'$'),001%'+'7%''/'/4%%.'8%)'3,)+',.''' &%3'*'0%0' 25')5 5,0%'0%'8'2''/0*'4%'8%.),*.%5

@M' ,5.%2' '$')0,)%0'*& G +%'6'$';0,)%0'3+,(+'+'7%'4%%.'5%0($,4%5''0'%B,0),.-',.')+%'+18'.'9,5.%20'$%'+25'),50',' MR'0)$*.-2/10'-,-'0'6%.)'0)*8''5%.),(1/')18'4,/+'$C,''+0%8')*4,'H '/0*')+%'/'$7'/&*$8'*&)+%'&,/'$,''0'.-1,.,0'+*8,.,0'3+,(+',.+'4,)0')+%'/286+'),(' 7%00%/0'%,)+%$*&')+%' 9,5.%20')+%80%/7%0''*$' *&'0*8%'/*3%$'6'$)' *&')+%1$,.'$2')$'()

! G=:')+%')$%')8%.)'*&'6'),%.)0''&&%()%5'3,)+'4,/+'$C,''+'%8')*4,'')+%',.)%$;.'/'10%'*&'*,/'*&')1$6%.),.%''.5'*&')+%'%B)$'()'*&'8'/%'&%$.',0'$%(*88%.5%5')',0'0)')%5')+')'3+%.')+%'4/'55%$',0''&&%()%5',.>%(),*.0'*&',*5,5%'*&'6*)'00,18')3%.)2'*$')+,$)2'-$',.0'5,00*/7%5',.')%6,5'3')%$'$%6%')%5'%7%$2'0%(*.5'*$')+,$5'5'2'+'7%'4%%.'&*1.5'10%&1/' '*+'H $%'H '.5'2' ,5.%2' 25'),5 ,0%'0%'&

@?' 5.%2' 1661$'),7%' .&/'88';),*.'*&G& # G .''(1)%'*$014;'(1)%'5,0%'0%'*&')+%'9,5.%20H ('10%5'42',.>1$,%0'%B)%.0,*.'*&'5,0%'0%'&$*8')+%'4/'55%$'.5'6%$+'60'%B6*01$%H (*.0,0),.-',.',&/'8;8'),*.' '.5'01661$'),*.',')+%'9,5.%2H (+'$'()%$,0%5'42'(*.0),)1),*.'/'5,0)1$4'.(%'3,)+'/*('/'6',.'*$')%.5%$.%00''.5'7'$,*10'/)%$'),*.0*&'0%($%),*.H '.5'101'//2'$%01/),.-',.'5%')+

* $ G +%'(*88*.%0)'('10%0'*&')+,05,0%'0%'$%'$%.'/'('/(1/10'/%'5,.-')*',.&/'8;8'),*.' '*&')+%' 6%/7,0'*&')+%' 9,5.%2H '.5',.&/'88'),*.' '*&')+,0' 6'$)' 6$*6'-')%5'163'5'0&$*8')+%'4/'55%$'*$1%)+$*' %B)',.' &$%E1%.(2',0'620%8,''3+,(+',.51(%0' 8%)'0)'),('(''40(%00%0' *86'$'),7%/2'$'$%/2')+%',.&/'88'),*.',.0''*$'%$1/)'*&'%84*/,08'*&')+%'$%.'/'$)%$,%0''*&',.>1$,%0H '.5'6%$+'60'*&'%B6*01$%')*'(*/5

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! '  '      5  '      G  +%'  '&&%()%5'
*$-' .0' '$%  -%. %$'//2' '4*7%' )+%' . ')1$'/ 0,C%'
  +%' ('601/%  8 '2' 0)$,6' *&' $%' 5,/2 ' 41)' *&)%. '
)+,0' 6$*(%00'  /%' 50'  )*' )%'$,. -' *&' )+%' 014;
0)'. (%' ' . 5' /,4%$'),*. ' *&' 610'  +%' 01$&'(%'
,0' &$%E1%. )/2' 5,0(*/*1$%5',. '6 ')(+%0'  +%' '4;
0(%00%0'  8 '2' 4%' 5%0($,4%5' '0' 6 '00,. -')+$*1-+'
0%7%$'/ 0)' -%0'  +%$%' ,0' &,$0)' )+%' 0)' -%' *&'
(*. -%0),*. ' 3,)+' %B15'),*. ' ,. )*' )+%' 0)$* 8 ' '
*&' )+%' *$-' . H' 0%(*. 5/2' )+%' 0)' -%' *&' -$%2'
(*. 0*/,5 '),*. H' . 5' )+,$5/2' )+' )' *&' 01661$';
),*. '  (('0,*. ' //2'0/*1-+,. -' *((1$0'  * 8 %;
), 8 %0'  6%$,. %6+$,(' '40(%00'  $%01/0 '  &$* 8'
6%$&*$'),*. ' *&' )+%$'  ('601/%'  $2,. -' 16' *&'
)+%' 610' 3,)+' 0+$,7%//,. -' *&' )+%' '&&%()%5' '$%' '
,0' 0* 8 %), 8 %0' 8 %)' 3,)+
  ,($*0(*6,%' %B' 8 ,. '),*. ' $%7%' /0' ,. ' 0* 8 %'
('0%0' )' . '%' &/2'0)' -%')+%' 6$%0%. (%' *&' (*/*. ,%0'
*&' 4' ()%$,'' ,. '  (%$)',. ' 5,0)$,()0' 3,)+,. ' )+%'
)141/%0' ('50,. -' ,$$,)'),*. ' &,$0)' ,. ' )+% 8 '
)+%. ' ,. ' )+%'  0)$* 8 ' '  ' . 5' )+. 0' ,. 51(,. -'
01661$'),*.
  ! (  !  "  ! ' * $  '  * /$)  ' #  # '
-  4)  '$-' 4 / / 4)  .  '  / ! )  '  ) ' ! '#$ >
  4  $  '7  4)+  #  '  ##$* /  7' +"' /  '
  '  ! ' ) 3 $ '$-' ! '  7  " '  7'  7  )  '
$ ' /)  4) ' 5  !'  #  ' $-' $#)  $ %
  ! ' 4)  ' +  3'  +4 *  $4 '  $)' + $$7" ' $)'
 $ *  *  ' /4)4  '  7' 7 /$  3' 4+  '
#
  &  " $* 8'  62%/,)0' 01661$'),7%'
,. &/' 8 8 '),*. ' *&' )+%' 9,)+%' 20' ,0' 5,0),. -1,0+%5'
42' )+%' 6$%0%. (%' *&' )14% ('0)0' ' . 5' )+%' '4;
0%. (%' *&' )+%' (+' $' ()%$,0),('' . -1/' $' (%//0' *&' )+%'
('/,(%0' *&' )+%' 6%/7,0'  $* 8' 6%$,. %,5,$,),0'
,)' ,0' 5,' -. *0%5' 42' )+%' '40%. (%' *&' 5,0),. ()'
)1 8 *1$' ' . 5' 42' )+%' +,0)*$2' *&' )+%' ('0%
  ' ' '  ! ' /)$3 $  '  ' 3  )  "'
3) .
  !  7``  +%' 0)$%. -)+' 0+*1/5' 4%' 016;
6*$)%5' 42  01,)' 4/%'  &**5' 42' )*. ,(0' ' . 5'
0), 8 1/' . )0' 3+%. ' . %('00'$2H  ' . 5' ,. ' 0* 8 %'
('0%0' 4%. %&,)' 8 ' 2' 4%' 5%$,7%5' &$* 8' 6*1/),(,. -'
&* 8 %. )'),*. 0' *$')+%' '66+(''),*. ' *&' /%%(+%0'
 . 5%$'  01,)' 4/%'  (*. 5,),*. 0' ,)'  8 ,-+)' 4%'  5%;
0,$' 4/%')*' *6%. ' ''$%. '/' '40('00'  ' . 5' %7' (1')%'
)+%' 610
  <: '  N  $*' ! $0  '  '  M'
 26+,/,0' 8 '2' 6$*51(%'  ,. ')+%'  9,5. %2 ' '0' ,. '
*)+%$'  *$-' . 0' (*. -%0),*. H' ,. &/' 8 8 '),*. G'
%,)+%$'  0, 8 6/%'  *$'  -1 8 8 ')*10' 3,)+' )+%'
(,(')$,(%0' '. 5' . *51/%0' $%01/),. -')+%$%&$* 8 H
' . 5' 3 ' B2' *$' 8 2/*,5' 5%-%. %$'),*.
  !  '  '  'G'  +%$%'  ,0'
0('$(%/2' %7%$' . ' *66*$)1. ,)2' *&' 0)152,. -')+%'
'66%'$' . (%0' *&' )+%' 026+,/,),(' 9,5. %2' ,. ' ('0%0'
*&' (*. -%0),*. G6$*4'4/2'  *7%$ &,//,. -' *&' )+%'
7%00%/0' 3,)+' 0/,-+)' ,. &/' 8 8 ')*$2' (*. 5,),*. 0'
*&' )+%' )141/%0' ,0' '//' )+' )' 3*1/5' 4%' &*1. 5'
 +%' 0, 8 6/%' ,. )%$0),),' /' ,. &/' 8 8 '),*. ' ,0' (+';
$' ()%$,0%5' 42' )+,(9%. ,. -' . 5' 03%//,. -' *&' )+%'
&,4$*10' 0)$* 8 ' ' ,. ' 6')(+%0' +%$%' ' . 5' )+%$%'
 1 8 8 ')*10',. &/' 8 8 '),*. ' ,0' $' $%H 41)' 3+%. '
,)' 5*%0' *((, 8 ',)' &*$8 0' 8 '00%0' *&' )+%' *$5,. '$2'
-1 8 8 2' (+' $' ()%$'  ,)+%$' *&' )+%0%' (*. 5,;
),*. 0' 8 ' 2' /%' 5')*' )+%' &*$8 '),*. ' *&' 026+,/,),(
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(,(')$,(%0' 3+,(+' 8 ' 2' '66%'$' *. ' )+%' 01$&'(%'
*&' )+%' *$-' . ' *$' 4%',8 4%55%5',. ' )+%' (*$),('/
0140)' . (%'  +%,$' &*$8 '),*. ' ,0' '))%. 5%5' 42'
)+%' 5%0)$1(),*. ' *&' )141/%0',. ')+%' '&&%()%5' 6' $)0
  !(  !  ``  /418,. 1$,' '0/,-+)',. ' ' 8 *1. )
' . 5' *&' )% 8 6*$' $2' 51$'),*. '*((1$$,. -' '/*. -'
3,)+' *)+%$' 026+,/,),(' *. -%0),7%'  '&&%(),*. 0'
+' 0' '66%' $%5' )*' )+' 3$,)%$')*' ,. 5,( ')%' '/
(*. -%0),*. '  '$,*10' 0/,-+)' ('0%0' *&' ,. &/' 8 ;
8 ')*$2'  $,-+)<0' 5,0%' 0%' +' 7%' '66%' $%5' )*' 4%'
51%')*' )+%'  Q)/!  # 6*,0*. '  +%' 028 6)*8 0'
*&' )+%' ,. )%$0),),'/' '. 5' -1 8 8 2',. &/' 8 8 '),*. 0'
'$%. *)' '0(%$)',. %5' '/)+1-+' 6$*4/2' /41;
8,. 1$,'' '))%. 50' )+% 8 ' /0*'  *$' )+%' 028 6;
)* 8 0' *&' 3' B2' 5%-%. %$'),*. '  0  L'
&
  &  G  +%' 5,'-. *0,0' *&' 0>,6+,/,),%'
5,0%'0%' *&' )+%' 9,5. %2' 5%6%. 50' 16*. ' )+%' (*;
%B,0)%. (%' *&' $%. '/ 028 6)*8 0' 3,)+' %7,5%. (%0'
*&' 026+,/,0' 3+,/%' *)+%$' 5,0%' 0%0' *&' )+%' 9,5. %2'
'$%' %B(/15%5
  G  +,0' ,0' &'7*1$'4/%' 0*' &'$'
5'. -%$',0' (*. (%$. %5' %B(%6)' ,. ' )+%' ('0%' *&'
0%7%$%' 3' B2' 5%-%. %$'),*.
  !  G  *5,5%' *&' 6*)'00,1 8 '+'0' 4%%. '
&*1. 5')*' 4%' 10%&),/',. ')+,0' '0',. ' *')+%$' 026+,/,),*'
'&&%(),*. 0' ' )' /%'0)' ,. ' )+%'  (*. -%0),7%' '. 5'
,. &/' 8 8 ')*$2' (*. 5,),*. 0'  +*1/5',)' &' ,/' )*'
-,7%' $%/,%&' )+%' 6%$(+/*$,5%' *&' 8 %$(1$2' 8 '2'
4%' -,7%. ' ,. ' 8 *5%$' )%' 5*0%0' ' . 5' (*. ),. 1%5'
('1),*10/2' %7%. ' 3 +%. ' '/418,. 1$,'' ,0' 6$%0%. )
  JH' N  $*'
  & #  G  ' (+$*. ,(' 5,0%' 0%' *&' )+%' 9,5;
. %20' ' . 5' 1$%)%$0H  ('10%5' 42' )14%$(1/'$' ,. ;
&%(),*. ' *$' 42' 0)$1 8 *10' ,. &/' 8 8 '),*. ' *&' )+%'
0)$1()1$%0' ,. 7*/7%5H (*. 0,0),. -' ,. ')+%' &*$8 ';
),*. '  &' . *51/%0' *&' )14%$(/%' *$' ,. ' 0)$1 8 *10'
,. &/' 8 8 '),*. ' *. ' *&' )+%' 0140)' . (%' *&' )+%' -/' . 5'
' . 5' *&' )+%' 8 1(*10' 8 %8 4$' . %H (+' $' ()%$,0%5'
42' 0* 8 %' 5%-$%%' *&' (*. 0),)1),*. ' /' 5,0)1$4' . (%'
0* 8 %), 8 %0' 42' $%. ' /)1 8 *1$' ' . 5' 42' 7' $,*10'
'/)%$'),*. 0' *&' )+%' 1$ 8 %' 6' $),(1/'$/2' 5%6*0,)'
*&' ('0%*10' 61$1/%. )'  's  ' . 5' $%01/),. -'
101' //2',. ' 5%')+
  $ $(D G  +%' 5,$%()'('10%0' *&' )14%$(1/'$'
5,0%'0%' *&' )+%' 9,5. %2' '%' 1. 9. *3. '  )',0' 8 *$%'
(* 8 8 *. ',. ' (+,/5$%. ' ' . 5' 2*1. -' 6%*6/%' )+' . '
,. ')+*0%' 8 *$%' '57'. (%5',. '/,&%' 41)' ,)G %06;
(,' //2' )+%' 0($*&1/*10' &*$8 G 8 '2' *((1$'/')%$'
 %. ' '$%' 5%(,5%5/2' 8 *$%' &$%E1%. )/2' '&&%()%5'
)+' . ' *8%. '  +%' 9,5. %20' '$%' $' $%/2' %E1' //2'
8 7*/7%5H )+%' $,-+)',0' (* 8 8 *. /2' 3*$0%' )+' . '
)+%' /%&)'  . %' *$-' . ' 8 '2' 4%' E1,)%' &$%%' &$* 8'
5,0%' 0%
  ! ' $'  '  'G'  . 5%$' $%. '/
)14%$(1/*0,0' '$%' 8 (/15%5' 4*)+')14%$(/%' 6$*6%$'
. 5' 0)$1 8 *10' 8 &/' 8 8 '),*.  '  14%$(/%' 6$*6%$'
*((1$0',. ')+%' &*$8' *&' 8 8 1)%' 8,/,' $2' . *51/%0'
0(')%$%5' )+$*1-+*1)' )+%' 0140)' . (%' *&' )+%'
*$-' . ' '0' '' /*(' /' 8 ' . ,&%0)'),*. ' *&' '' -%. %$'/
)$1%' )14%$(1/*0,0' '  )$1 8 *10' ,. &/' 8 8 '),*. '
/%' 50' )*' )+%' &*$8 '),*. ' *&' /' $-%$' 8 '00%0' ',. '
7*/7 8 -' %,)+%$' )+%' 8 1(*10' 8 %8 4$' . %' *&' )+%'
6%/7,0' *&' )+%' 9,5. %2' *$' )+%' (*$),('/ 014;
0)' . (%'  +%. ' )+%' &*$8 %$',0' ,)0' 0%')' ,)' /%' 50'
)*' '' )+,(9%. ,. -' *&' )+%' 81(*10' 8 %8 4$' . %
```

**8*,%.(,.-' ,.' 6')(+%0' 3+,(+' -$'51''//2' %B)%.5' '.5' 1/),8')%/2' 1.5%$-*' 1/(%$'),*.' +%.')+%' (*$),('/ 0140)'.(%' ,0' '&&%()%5')+%' *$-'.'4%(*8%0'%./'$-%5H 6$%0%.)0' '' 8 '$9%5/2' /*41/')%5' 01$&'(%H' '.5' *.' 0%(),*.' (*.,('/ 8 '00%0'*&' /)%$%5'),001%' '$%' &*1.5')*' (*$$%; 06*.5'3,)+')+%' 6$*8.,%.(%0' *&')+%' /*41/%0' *8%'*&')+%8' '$%' 0*/,5' '.5' (+%%02H *)+%$0' '$%' 0*&)%.%5',.')+%' (%.)$%H 3+,/%' *)+%$0' '$% (*86/%)%/2' 0*&)%.%5' 0*')+')' *.' 0%(),*.' '' E))'.),)2' *&' 61$,&*$8' 5%4$,0' &/*30' *1)'/%'7; ,.-.' '' (')2' 3,)+' 3+,)%' 3''//0' $%.5$%$%5' Q0+'--2'42')+%'0+$%50' *&'&,4$*10'),001%'3+,(+' 6$*>%()'&$*).')+%8' *8%),8%0'0('$(%/2''.2' $%.'/ 0)$1(),,$%' ,0' /%&)' (('0,*.'//2' 3+')' $%8',.0' 0+*30')+%' (+'$')(%$0' *&' 3'B2' 5%; -%.%$')*.' +%' 5,0%'0%' (*88%.(%0',.')+%' 0)$*8'' *&')+%' *$-'.H')+%')141/%0' '$%' (*8; 6$%00%5'41)' '$%'$'$%/2')+%'0%')' *&',.&/'88';)*$2'(+'.-%0' +%.')+%' 81(*10' 8%84$'.%' *&')+%' 6%/7,0' *&')+%' 9,5.%2' '.5')+%' 1$%)%$',0' '&&%()%5')+%' 8%84$'.%',0')+,(9%.%5''')' (%.$'),.'6'$)0''.5''&)%$3',$50'4%(*8%0'1/(%$')%5H '.5')+%' +/8%.',0'5,8,.,0+%5'*$' (*86/%)%/2' (+*9%5'16'42'-$'.1/'$' $%E1%.)/2' 4*)+')+%' 81(*10' 8%84$'.%' '.5')+%' 014; 0)'.(%' &')+%' 9,5.%2''$%' '&&%()%5')' *((';, 0,*.''//2'+'66%.0'3+%.' *.%' 9,5.%2',0' %B(/1; 0,7%/2' '&&%()%5')+')' 0+$,.9,.-'*&')+%' -/'.5')'9%0'6/'(%H '.5'' 61))2 /,9%' 8')%$,'/'$,(+' ,.' (+*/%0)%$,.'*$' 6%$+'60' %7%.' ('/('$%*10' .*51/%0' '$%' &*1.5'*((162,.-')+%' 08**)+' 3'//%5' ('7,),%0' 6$*51(%5' 42')+%' 5,0%'0%' 14%$(1/*0,0' *&')+%' 1$%)%$0' 6$*0)')%' 7%0,' (1/0%' 0%8,.'/%0'4/'55%$'.'.5')%0),(/%' .*)' ,.; &$%E1%.)/2'(* %B,0)0

!(! G +%.')14%$(/%'*((1$0',.'08'//' .*51/%0',.')+%'9,5.%20',)'6$*51(%0' .*'0286;)*80'.5'%7%.',.')+%' ,.&/'88')*$2'&*$8')+%' (*.0),)1),*.'/02886*80'$%',.')+%'%';' /,%$'0)'-%0'.*)'7%$2'3%// 8'$9%5H 41)''0')+%'' 5,0%'0%' '57'.(%0' &%7%$' 6'00,.-'-$'51''//2' 1.5%$'*)+%$'(.5,),*.0'6'$)'&$*8'-%0)'),*.H '.5'%7%.',.')+%' 1$,.%'*&'8%.')')+%$%&*$%6*00%00%0'.*'5,'-.*0),('7'/1% &'1$,.%('6'4/%'*&'2,%/5,.-'9,%0)%,.'4%'0%)' '0,5%',.''')''//'-/'00''*'(*))*. 3**/,9%&/*(*1' /%.)'6$%(,6,)')%'4%(*8%0'7,0,4/%',.')+%'8,55/%' *&',)'*.')+%'0%(*.5'*$')+,$5'5'2' +,0'0**.' $,0%0')*')+%')*6'.5''.',$,5%0(%.)'6%/+(/%',0' 0%%.'&*$8,.-'*.')+%'01$&'(%' +%.')+,0'+'0' &,, 2'&*$8%5',)'4%-,.0')*'&'//)+$*1-+')+%' &/1,5',.')+%'&*$8'*&'&/*((1/,'1.),/)+%'3+*/%' ,0'5%6*0,)%5')')+%'4*))*8'0''3+,),0+'/'2%$' .*)+%$'6%//,(/%'(*.)',..-')$,6/%'6+*06+')%0' 01((%%50')+,0''.5'61)$%&'(),7%'(+'.-%0'6$*; (%%5' ')'81(10'($20)'/0'*&')$,6/%'6+*0; 6+')%'7,4$,*.%0'.5'-$'.1/'$'8'))%$'+'7%' 4%.'5%)%()%5',.'9,%0)%,.

$# '1$ ' = ' $

MP\ ' F) ' '8*7%H '.5' 4< ' 0%.0'),*.RG +%' 0%.0%' *&' 8*7%; 8%.)

+,0'%.5*38%.)',0'*.%'*&'-$%')',86*$)'.(%,.'$%&%$%.(%')*')+%' 8*5%' *&' 6$*51(),*.' *&' 7*/1.)'$2' 8*7%8%.)0H ,.' $%&%$%.(%')*')+%

(*84,.%5' 3,)+' 0,-.0' *&')14%$(1/'$' 5,0%'0%' ,.' *)+%$' 6')$)0' 8,5' '4*7%' '/)+%' 5%6*0,)',.')+%' 1$,.%' *&')+%' (+'$'()%$,0),(' &$'-8%.)0' *&' (+%%02',001%' '4*7%' 5%0($,4%5''.5')+%' *((1$; $%.(%' *&' 4'(, ,'')/)+*1-+')+%' &',/1$%')*' 5%; 8*.0)$')%')+%8'('..*)' 4%' +%/5')*' &*$4,5')+,0' 5,'-.*0,0

4 G +%' 6$*-.*0,0' ,0' .)"' 1.; &'7*1$'4/%'*.'('((*1.)'4*)+'*&')+%' /*('/''.5' *&')+%' (*.0),)1),*.'/(*.5,),*.0

9 G +%')$%')8%.)' ,0' 8%$%/2' 6'//,',)7%G⇒*$%/,%7%'6',.'*$$8%'0,.00H'.5')*'0%%9'),*',86$*7%')+%'-%.%$'/+%'/)+'42''5; 8,.,0)0%$,.-'$%8%5,%0' 3+,(+' '$%' 10%&1/',.' 0)$18*10''&&%(),*.0

" ' ,5.%2' 18*1$'*& G .2'%./'$-%; 8%.)' (*..%()%5'3,)+')+%' 9,5.%2'3+,(+'$%; 7%'/0' ,)0%/&'*.'(/,.,('/%B'8,.'),*.',0' $%; -'$5%5''0''$%.'/)18*1$' +,0'8'2'4%51%')*'8%$%'+26%$)$*6+2'*&')+%'*$-'.H '.2'&*$8' *&' (20),('5,0%'0%H '((181/'),*.'*&'.2'&/1,5' ,.')+%' $%.'/6%/7,0'*$',.')+%' 9,5.%2',0%/&H *$''0*/,5'.% -$*3)+'%06%(,'//2'8'/,-.'.)' 5,0%'0%' *$''5%0($,6),*.'*&')+%' 0,-.0'*&')+%0%'0%7%$'/(*.5,),*.0')+%'$%'5%$',0'$%&%$%5')*')+%,$'$%06%(),7%'+%'5,.-0',.')+,0''$),(/%H '.5')*')+%$' '66$*6$,')%'$),(/%0

'C 5' @

K ' WF) ' '8' 6$%-.'.)H'.5' / ' '' 6%//,(/%R G ' ' $'F 3 'H %$' 2%0)%,$%G +,0'0140)'.(%'3'0'&*$8%$/2' 4%+%7%5')*'4%'6%(1/,'$')*''.5''/3'20'6$%0%.)' ,.')+%'1$,.%*&'3*8%.',.'6$%-.'.(2''.5',)' 3'0'+%/5')+%$%&*$%')*'4%$0,-.,&,(').'*&')+')' (*.5,),*.' ')',0'101''//2'5%)%()%5'4%)3%%.')+%'0%(*.5''.5'0%7%.)+'8*.)+0')'8'2' +*3%7%$'4%'40%.)'51$,.-')+%'3+*/%'6%$,*5' *&'6$%-.'.(2''0'/0*''')')+%'4%-,,,.-''.5')')+%'%.5'*&'6$%-.'.(2')',0'/0*'8%)'3,)+' ,.')+%'1$,.%*&'.*.6$%-.'.)''.0%8,('6'),%.)0' 1.5%$'*)+%$'(.5,),*.0'6'$)'&$*8'-%0)'),*.H '.5'%7%.',.')+%'1$,.%*&'8%.')')+%$%&*$%6*00%00%0'.*'5,'-.*0),('7'/1% &'1$,.%('6'4/%'*&'2,%/5,.-'9,%0)%,.'4%'0%)' '0,5%',.''')''//'-/'00''*'(*))*. 3**/,9%&/*(*1' /%.)'6$%(,6,)')%'4%(*8%0'7,0,4/%',.')+%'8,55/%' *&',)'*.')+%'0%(*.5''*$')+,$5'5'2' +,0'0**.' $,0%0')*')*6'.5''.',$,5%0(%.)'6%/+(/%',0' 0%%.'&*$8,.-'*.')+%'01$&'(%' +%.')+,0'+'0' &,, 2'&*$8%5',)'4%-,.0')*'&'//)+$*1-+')+%' &/1,5',.')+%'&*$8'*&'&/*((1/,'1.),/)+%'3+*/%' ,0'5%6*0,)%5')')+%'4*))*8'0''3+,),0+'/'2%$' .*)+%$'6%//,(/%'(*.)',..-')$,6/%'6+*06+')%0' 01((%%50')+,0''.5'61)$%&'(),7%'(+'.-%0'6$*; (%%5' ')'81(10'($20)'/0'*&')$,6/%'6+*0; 6+')%'7,4$,*.%0'.5'-$'.1/'$'8'))%$'+'7%' 4%.'5%)%()%5',.'9,%0)%,.

$# '1$ ' = ' $

MP\ ' F) ' '8*7%H '.5' 4< ' 0%.0'),*.RG +%' 0%.0%' *&' 8*7%; 8%.)

+,0'%.5*38%.)',0'*.%'*&'-$%')',86*$)'.(%,.'$%&%$%.(%')*')+%' 8*5%' *&' 6$*51(),*.' *&' 7*/1.)'$2' 8*7%8%.)0H ,.' $%&%$%.(%')*')+%

8HG; =

(%.)$%]' W3,// ('10%' 5,8,.1),*.' *&' 810(1/'$' 0%.0%')*-%)+%$' 3,)+' 06'080' *$' (*.71/0,*.0' ,.' $%/')%5' 6'$)0' *&')+%' 9,.5' 8%)' 3,)+',.' 0 '(90*.,'.'%6,/%602<

+%$%')+,0' 8*$4,5'(*.5,),*.'*&')+%'9,.0%0')+%),(' (%.)$%0',0' &1.(),*.'/*$')+%$')+'.'0)$1(;)1$'/')+%' %&&%()0' '$%' 8*0)' &$%E1%.)/2' '9,.')*')+*0%'$%01/),.-'&$*8'5%0)$1(),7%'/%0,*.0'*&')+%'0]8%'6'$)0' '.5'3%')+%.'+'7%')*'5*'K3,)+' '$,*10' 9,.50' *&' &1.(),*.'/*$ #

3,)+'3+,(+')+%$%' ,0')+%' '00*(,'),*.'*&'/*00'*&810(1/'$'0%.0%',.')+%' '&&%()%5'/,840

&')+%'9,.%0)+%),(' (%.)$%0''$%')+%' 0%')0'&*$')+%' $%-,0)$'),*.'*&')+%' 0%.0'),*.'$%01/),.-' &$*8' 8*7%8%.)0' '.5'&*$')+%',5%'/$%('//*& 8*7%8%.)0' '.5',&'01(+',5%'/$%('//',0')+%' &,$0)0)%6',.')+%',.,),'),*.'*&'7*/1.)'$2'8*7%; 8%.)0',)'0%%80'(/%'$')+')'5,0%'0%'*&')+%0%' (%.)$%0' W3+%)+%$' 0)$1()1$'/*$' &1.(),*.'/' 3+%.',&'$%.5%$0'01(+'$%('//',86*00,4/%'810)' .%(%00'$,/2'$%.5%$')+%'6%$&*$8'.(%'*&')+%' (*$$%06*.5,.-'8*7%8%.)0''.5'&*$')+%',5%'/$%('//',86*00,4/%' ,8,/'$/2',.'((*$5'.(%'3,)+')+%''4*7%' 8%.),*.%5'7,%30')+%',$$,)'),*.'*&'01(+'(%.;)$%0'0+*1/5'/%'5')*')+%'6$*51(,*.'*&'06'080' *$'(*.71/0,*.0',.'$%/')%5'6'$)0'*&')+%'4*52

'!'.'+20)%$,('/014>%()0'+*3%7%$'.*)+%$' -$*16,.-'*&'0286)*80',0'&$%E1%.)/2'8%)' 3,)+'4%('10%',.')+%8''0,81/)'.%*10''&&%(;),*.'*&')+%'(%$%4$'/6')+0'.5'*&')+%'(%.)$%0' &*$'9,.%%0)+%&,(',86$%00,*.0',0'(*88*.'+')' ,0'3%'0%%8')*'+'7%')+%'8*$%'(*88*.''&&%(;),*.'*&')+%'(%$%4$'/6')+0'&*$'9,.0%0)+%),(''.5' *)+%$'0%.0*$2',86$%00,*.0'A51%')*'&1.(),*.'/ 5,0'4 ,&,%0',.')+%'6*0)%$,*$'6'$)'&')+%',.)%$.'/ ('601/%'00*(,'')%5'3,)+''0,8,/'$/2'5%-$'5%5' (*.5,),*.'*&'&1.(),*.'/'()8)2',.')+%'9,.0%0')+%),(' (%.)$%0')+%80%/7%0'*$'0*8%'*&')+%8' *.')+%''&&%()%5'0,5%' +%'$%01/)',0')+%'(*; %B,0)%.(%'*&''3%// 8'$9%5'+%8,'.0%0)+%0,'' A016%$&,(,'/'.5'5%%6R3,)+'6'$'/20,0'*&'*.%' *$'4*)+'/,840'*.')+%'&&%()%5'0,5%' .'*.%' 7%$2'6%(1/,'$'014(/'00'*&')+%0%'('0%0')+%' 6'$'/20,0'*./2'%B,0)0'3+%.')+%'%2%0'$%

(/*0%5H)+%'0,86/%0)'8*7%8%.)0'('..*)')+%.' 4%'8'5%')+*1-+')+%2'$%')'*.(%'(6'4/%' *&'4%,.-'6%$&*$85'''0'0**.''0')+%'%2%0'$%' *6%.%5

! "+%$%'9,.0%0)+%),(' 5%&%()0' '$%''00*(,')%5'3,)+'*$-'.,(' 5,0%'0%'%,)+%$'*&')+%'06,.'/(*$5'*$'*&')+%'4$',.')+%')$%')8%.)')*'4%'*5*6)%5',0')+')'01,)'4/%'&*$')+%'5,0%'0%0' .'AX1%0),*.''.5')+%'-%.%$'/(*.5,),*.'*&')+%' 6'),%.)H''.5'0,8,/'$/2'3+%.'9,.0%0)+%),(' 5%; &%()0'(*.0),1)%'6'$)'*&')+%'026,6)*8')*/*-2' *&'0*8%'&,8(),*.'/'*$'+20)%$,(5'8'/'52'3% 810)'55$%00'*1$0%/7%0')*'+%'$%/,%&'*&')+% 6'),%.)<0'-%.%$'/(*.5,),*.''0')+%'4%0)'8%'.0' *&''8%/,*$'),.-')+%'06%(,'/02836)*80'%' 810)'.*)'&*$-%)'+*3%7%$')+%'06%(,'/6*)%.(2' *&'66/,(',),*.0'*&')+%'3,$%4$10+'&*$')+%'$%; 0)*$'),*.'*&''//8*5%0'*&'5%&%(),7%0%.0,4,/,)2' ,.'('0%0'*&'&1.(),*.'/+%8,'.0%0)+%0,' $'0

'A1)(+'F" # /0*' # " 0# G *)+')+%0%'3*$50''$% 02.*.280'&*$'3+**6,.-(*1='1(2 :%

<'' /$/4)'*'-$)' #)$-4'$)3 3''+!-'-$)*)"'!7' !''!'7'#$47'+'#4)7'+"'!''3N' $4#!''#%$

',.'7'$,'G *88*.' 5)'$1

G .0'.,)2'(+'$'(;)%$,0%5'42'.',$$%0,0),4/%',861/0%')*'0)%'/' '$,%),%0'*&'P'%-'/'.0'.,)2H '.5'!'$$%06*.0,4,/,)2'&*$

V ',.'I %$8'.2 G *88*.'0'/'3')%$0'(*.)',.,.-',*5,.%' $1

',F)!:E'4%.)R G '02.*.28' &*$'.-1/'$5%&*$8,)2'*&')+%'06,.%' (')',0%'0%0'*&

3 '+2 ! ! '+3 52 3' 3 3 ! !',''/,6H # (" ')+%')*.-1%'.5'Y5672')+%')+$*')R G +%$%'$%')3*'(*88*.'&*$80'*&')+,0'5,0%'0%'3+,(+' +'K%')*'4%'(*.0,5%$5'0%6'$')%/2'.'8%/2' A R'' &*$8H'.5'A R'' &*$8G)+%'/')%$',0'*&)%.')%$8%5'0'(1)%< 41)',0''0'$1/%'0155%.'.',.'*.0%)'A R')$1%' A.*)'0155%.R7'$,%)2',0'8%)'3,)+',.' $'$%',.0)'.(%0''&*1$)+'7'$,%)2'A R0 A 6'$'/20,0'6$%0%.)0'8'.2'*&')+%' 0286)*80'*&'41/4'$'5,0%'0%'41)')+%'/%0,*.',0' 0%')%5',.')+%'(%$%4$'/+%8,06+%$%0'')'3,//

+'#$.'$'7 #)+'!'#$**$'#!)$ #' -$)*'-) D;E'& '+2 +$, '4$ "'g'6 'A# ' "0'A $*100%'1RH %$'60)' $ 3 'A '(+0801)+R & # "'/)$3) .'"**)# '/) "'$-'!'/'7' 7E # '-#' *4# '$-'!'$ 34'/!)" ='5 !'$)'5 !$4' #$ /#4$4'5 3%' 7' $- '$# 7' 5 !'*4 #4)'$;"'5!) "',$0)'5%0($,4%5'42'1'%0./

3 '+2 ! ! '+3 52 3' 3 3 ! !',''/,6H # (" ')+%')*.-1%'.5'Y5672')+%')+$*')R G +%$%'$%')3*'(*88*.'&*$80'*&')+,0'5,0%'0%'3+,(+' +'K%')*'4%'(*.0,5%$5'0%6'$')%/2'.'8%/2' A R'' &*$8H'.5'A R'' &*$8G)+%'/')%$',0'*&)%.')%$8%5'0'(1)%< 41)',0''0'$1/%'0155%.'.',.'*.0%)'A R')$1%' A.*)'0155%.R7'$,%)2',0'8%)'3,)+',.' $'$%',.0)'.(%0''&*1$)+'7'$,%)2'A R0 A 6'$'/20,0'6$%0%.)0'8'.2'*&')+%' 0286)*80'*&'41/4'$'5,0%'0%'41)')+%'/%0,*.',0' 0%')%5',.')+%'(%$%4$'/+%8,06+%$%0'')'3,//

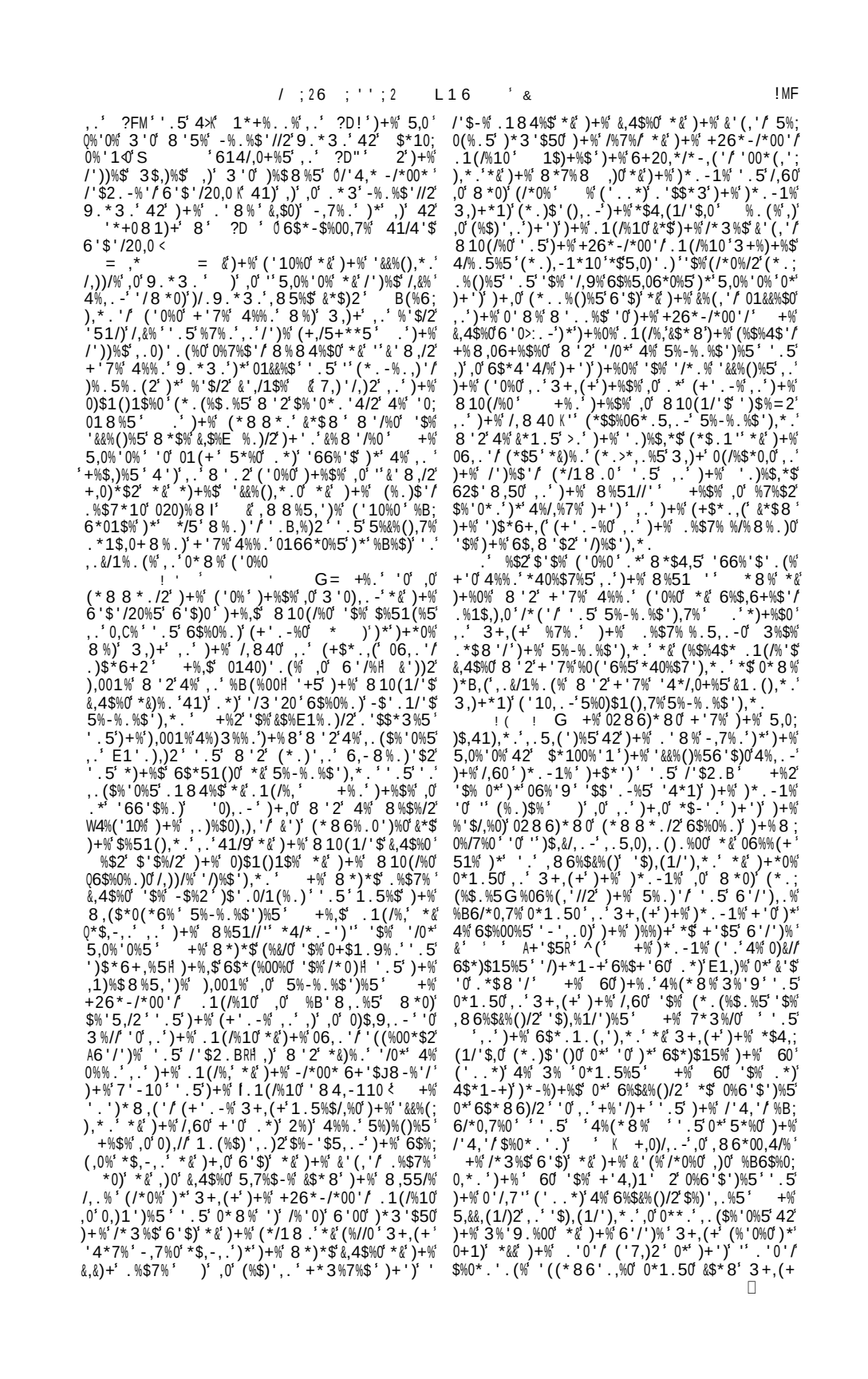
+'#$.'$'7 #)+'!'#$**$'#!)$ #' -$)*'-) D;E'& '+2 +$, '4$ "'g'6 'A# ' "0'A $*100%'1RH %$'60)' $ 3 'A '(+0801)+R & # "'/)$3) .'"**)# '/) "'$-'!'/'7' 7E # '-#' *4# '$-'!'$ 34'/!)" ='5 !'$)'5 !$4' #$ /#4$4'5 3%' 7' $- '$# 7' 5 !'*4 #4)'$;"'5!) "',$0)'5%0($,4%5'42'1'%0./

, .' ?FM' ' .5' 4>K 1*+%. . %', .' ?D!')+%' 5,0' Q%'0%' 3'0' 8'5%' -%.%$''//2'9.*3.'42' $*10; 0%'1<0'S '614/,0+%5', .' ?D"' 2')+%' /'))%$' 3$,)%$' ,)' 3'0')%$8%5' 0/'4,* -/*00*' /'$2.-%'/'6'$'/20,0 K 41)' ,)' ,0' .*3' -%.%$''//2' 9.*3.'42')+%' .'8%' &,$0)' -,7%.')*' ,)' 42' '*+0 8 1)+' 8' ?D ' 0 6$*-$%00,7%' 41/4'$ 6'$'/20,0 <

= ,* = &)+%' ('10%0' *&')+%' '&&%(),*.' /,))/%',0'9.*3.')',0' '5,0%'0%' *&' /')%$' /,&% ' 4%,.-' '/8*0)')/.9.*3.',85%$' &*$)2' B(%6;),*. '/' ('0%0' +'7%' 4%%.' 8%)' 3,)+', .' %'$/2' '51/)' /,&%' '.5'%7%.', ./')'%' (+,/5+**5' .')+%' /'))%$',.0)'.(%0'0%7%$'/'8%84%$0' *&' ''&'8,/2' +'7%' 4%%.' 9.*3.')*'01&&%$' '.5' '' (*.-%.,)'/)%.5%.(2')*' %'$/2'&',/1$%' & 7,)'/,)2',.')+%' 0)$1()1$%0'(*.(%$.%5'8'2'$%'0*.'4/2'4%' '0; 018%5' .')+%' (*88*.'&*$8'8'/%0' '$%' '&&%()%5'8*$%'&,$%E %.)/2')+'.'&%8'/%0' +% 5,0%'0%' '0' 01(+' 5*%0' .*)' '66%'$')*' 4%',. ' +%$,)%5'4')',.'8'.2'('0%0')+%$%',0' '&'8,/2' +,0)*$2' *&' *)+%$' '&&%(),*.0' *&')+%' (%.)$'/ .%$7*10' 020)%8 l' &',88%5,')%' ('10%0'%B; 6*01$%')*' */5'8%.)'/'.B,%)2''.'5'5%&%(),7% .*1$,0+8%.)'+'7%'4%%.'0166*0%5')*'%B%$)' '. ,.&/1%.(%',.'0*8%' ('0%0

! ' ' G= +%.' '0' ,0' (*88*./2')+%' ('0%')+%$%',0'3'0),.-'*&')+% 6'$'/20%5'6'$)0')+%,$' 810(/%0' '$%' $%51(%5' ,.'0,C%' '.5'6$%0%.)'(+'.-%0' *)')*')+*0%' 8%)' 3,)+', .')+%' /,840', .' (+$*.,(' 06,.'/ .)$*6+2' +%,$' 0140)'.(%' ,0' 6'/%H &'))2'),001%' 8'2'4%',.' %B(%00H '+5')+%' 810(1/'$' &,4$%0'*&)%.'41)'.*)'/'3'20'6$%0%.)'-$'.1/'$ 5%-%.%$'),*.' +%2'$%&$%E1%.)/2'.'$$*3%5' '.5')+%',001%'4%)3%%.')+%8'8'2'4%',.($%'0%5' ,.' E1'.),)2''.5'8'2'(*.)',.'6,-8%.)'$2' '.5'*)+%$'6$*51()0'*&'5%-%.%$'),*.' '.5'.' ,.($%'0%5'.184%$'*&'.1(/%,' +%.')+%$%',0' .*' '66'$%.)',*.' '0),.-')+,0'8'2'4%'8%$%/2' W4%('10%')+%' ,.)%$0),),'/&')*(*86%.0')%0'&*$)+%'$%51(),*.',.'41/9'*&')+%'810(1/'$'&,4$%0' %$2'$'$%/2')+%'0)$1()1$%'*&')+%'810(/%0' Q6$%0%.)0'/,))/%''/)%$'),*.' +%'8*)*$'.%$7%' &,4$%0'('$%'-$%2')$'.0/1(%.)''.5'1.5%$')+% 8,($*0(*6%'5%-%.%$')%5' +%,$' .1(/%,'*& Q*$,-,.' ,.')+%' 8%51//'' *4/*.-')'' '$%' '/0*' 5,0%'0%5' +%'8*)*$(%&/0'('$%'0+$1.9%.''.5')$*6+,%5H)+%,$'6$*(%00%0'('$%'/*0)H'.5')+% ,1)%$8%5,')%'),001%',0'5%-%.%$')%5' +% +26*-/*00'/' .1(/%10',0'%B'8,.%5'8*0)' $%'5,/2''.5')+%'(+'.-%',.';)',0'0)$,9,.-'*0' 3%//'0',.')+%'.1(/%10'*&')+%'06,.'/'((%00*$2' A6'/')%'.5'/'$2.BR H,)'8'2'*&)%.'/0*' 4% 0%%.',.')+%'.1(/%,'*&')+%'-/*00*6+'$J8-%'/')+%'7'-10''.5')+%' l.1(/%10'184,-110 < +%' .')*8,('/'(+'.-%'3+,(+'1.5%$/,%0')+%''&&%(;),*.'*&')+%'/,60'+'0'.*)'2%)'4%%.'5%)%()%5' +%$%'0'),// 1.(%$)',.)2'$%-'$5,..')+%'6$%; (,0%'*$,-,.'*&')+,0'6'$)'*&')+%'&'(,'/.%$7%' *0)'*&',)0'&,4$%0'5,7%$-%'&$*8')+%'8,55/%' /,.%'(/*0%')*'3+,(+')+%'+26*-/*00'/.1(/%10' ,0'0,)1')%5''.5'0*8%')'/%'0)'6'00')*3'$50')+%'/*3%$'6')'*&')+%'(*/18.'*&'(%//0'3+,(+' '4*7%'-,7%0'*$,-,.')*')+%'8*)*$'&,4$%0'*&')+% &,&)+'.%$7%')',0'(%$)',.'+*3%7%$')+')' '

/'$-%.184%$'*&')+%'&,4$%0'*&')+%'&'(,'/5%; 0(%.5')*3'$50')+%'/%7%/'*&')+%'+26*-/*00'/ .1(/%10' 1$)+%$')+%'6+20,*/*-,('/'00*(,';),*.'*&')+%'8*7%8 ,)0'*&')+%')*.-1%'.'5'/,60' ,0'8*0)'(/*0%' %'('.*)'.'$$*3')+%')*.-1%' 3,)+*1)'(*.)$'(),.-')+%'*$4,(1/'$,0' %.(%',)' ,0'(%$)',.')+')')+%'.1(/%10'&*$')+%'/*3%$'&'(,'/ 810(/%0''.5')+%+26*-/*00'/.1(/%10'3+%)+%$' 4/%.5%5'(*.),-1*10'*$5,0)''.)''$%'(/*0%/2'(*.; .%()%5''.5''$%'/,9%'6$%5,06*0%5')*'5,0%'0%'0*')+')+,0'(*..%()%5'6'$)'*&')+%&%(,'/01&&%$0' ,.')+%'0'8%'8'.%$'0')+%+26*-/*00'/'+% &,4$%0'6'0>:.-')*')+%0%.1(/%,'&$*8')+%'(%$%4$'/ +%8,06+%$%0'8'2'/0*'4%'5%-%.%$')%5''.5' ,)',0'6$*4'4/%')+')'+%0%''$%''/*.%''&&%()%5',. ')+%'('0%0',.'3+,(+')+%$%',0'.*'(+'.-%',.')+% 810(/%0' +%.')+%$%',0'810(1/'$')$%=2' ,.')+%'/,840K'' (*$$%06*.5,.-'5%-%.%$'),*.' 8'2'4%'&*1.5'>.')+%''.)%$,*$'(*$.1'' *&')+% 06,.'/'(*$5'*&)%.'(*.>*,.%5'3,)+'0(/%$*0,0',. ')+%'/')%$'/'(*/18.0''.5',.')+%'.)%$,*$ 62$'8,50',.')+%'8%51//'' +%$%'0'%7%$2' $%'0*.')*'4%/,%7%')+')',.')+%'(+$*.,(&*$8')+%')$*6+,('(+'.-%0',.')+% .%$7% %/%8%.)0' '$%')+%'6$,8'$2'/)%$'),*. .' %$2'$'$%'('0%0'.*'8*$4,5'66%'$'.(% +'0'4%%.'*40%$7%5',.')+%'8%51 '' *8%'&*)+%0%' 8'2'+'7%'4%%.'('0%0'*&'6%$,6+%$'/ .%1$,),0'/*('/'.5'5%-%.%$'),7%' .')*)+%$0' ,.'3+,(+'%7%.')+% .%$7%%.5,.-0'3%$%' .*$8'/')+%'5%-%.%$'),*.'*&'(%$%4$*.1(/%'$ &,4$%0'8'2'+'7%%0('6%5'*40%$7'),*.'*$'0*8%')*B,(',.&/1%.(%'8'2'+'7%'4*/,0+%5'&1.(),*.' 3,)+*1)'('10,.-'5%0)$1(),7%5%-%.%$'),*. ! (! G +%'02 8 6)*8 0'+'7%')+%'5,0;)$,41),*.',.5,(')%5'42')+%'.'8%'-,7%.')*')+% 5,0%'0%'42' $*100%'1')+%'&&%()%56'$)0'4%,.')+%'/,60')*.-1%')+$*')'.'5'/'$2.B' +%2' '$% 0*')*'06%'9'$$'.-%5'4*1)')+%')*.-1%' '0''' (%.)$%')',0',.')+,0'*$-'.')+')')+% %'$/,%0)'02 8 6)*8 0'(*88*./2'6$%0%.)')+%8; 0%/7%0''0''')$,&/,.-',.5,0),.().%00'*&'06%%(+' 51%)*'.'.,86%$&%()'$),(1/'),*.'*&')+*0% 0*1.50',.'3+,(+')+%')*.-1%',0'8*0)'(*.; (%$.%5G%06%(,'//2')+%'5%.)'/''.5'6'/'),.% %B6/*0,7%'0*1.50',.'3+,(+')+%')*.-1%'+'0')*' 4%'6$%00%5''-',.0)')+%')%%)+'*$'+'$5'6'/')%' &' ' A+'$5R'^(' +%')*.-1%'('.'4%0)&// 6$*)$15%5''/)+*1-+'6%$+'60'.*)'E1,)%'0*'&'$ '0'.*$8'/' +%' 60')+%.'4%(*8%'3%'9''.5' 0*1.50'.'3+,(+')+%'/,60'$%'(*.(%$.%5''$%' ,86%$&%()/2''$),%1/')%5' +%'7*3%/0' ' .5' ,.')+%'6$*.1.(,'),*.'*&'3+,(+')+%'*$4,; (1/'$,0'(*.)$')0'0*'0')*'6$*)$15%')+%' 60' ('.*)'4%'3%'0*1.5%5' +%' 60'$%'.*)' 4$*1-+)')*-%)+%$'0*'6%$&%()/2'*$'0%6'$')%5' 0*'6$*86)/2''0',.'+%'/)+''.5')+%'/'4,'/%B; 6/*0,7%0''.5'4%(*8%''.5'0*'5*%0')+% /'4,'/$%0*.'.)' K +,0)/.-',0',86*00,4/% +%'/*3%$'6')*&')+%&'(%/*0%0',)0'%B6$%0; 0,*.')+%' 60'$%'+'4,)1' 2'0%6'$')%5''.5')+%'0'/,7''('.*)'4%6%$&%()/2'$%)',.%5' +% 5,&&,(1/)2',.''$),(1/'),*.',0'0**.',.($%'0%5'42')+%'3%'9.%00'*&')+%'6'/')%'3+,(+'(%'0%0')*' 0+1)'*&&')+% .'0'/'(7,)2'0*')+')''.'0'/ $%0*.'.(%''((*86'.,%0'0*1.50'&$*8'3+,(+



,)' 0/,*1/5' 4%' '40%.)' +%' 6'$'/20,0' *&')+%')*. -1%' ,. ($%'0%0' 1.),/')+%' *$-' .' (' .' .*' /*. -%$' 4%' 6$*)$15%5' %-/1),),*.' 4%(*8%0' ,86',$%5' 6')/2' A'((*$5,. -/)*' 1(+%. .%' 3+*//2T' &$*8')+%' 3%'9.%00' *&')+%')*. -1%' 41)'6$*4'4/2' ,.' 6')$/' '/0*' &$*8')+')' *&')+%' (*.0)$,()*$0' *&')+%'6+'$>.B' +%'0*&)'6)/')%' 1/),8')%/2'+'. -0' 8*),*./%00'*$',&',)' (' .'4%' $',0%5' '' /,))/%' ,.' .' ')) %86)')*' 6 *. ')%' 51$,. -') +%' '()' *&' 03'//*3,. -'5*%0' .*)' (/*0%')+%'6*0)0%$,*$' .'$%0' 0*')+')' /,E1,50' $%-1$-,;)')%' ,.)*' .*0%' **5',0' 6)')*' /*5.,')+%' 166%$' 6'$)' *&')+%'6+'$2.B' '.,,' ($1840' *$'/,E1,5')*' -%)' ,.)*')+%' /'$2.B' .%' /'$2.; -%'/' 810(/%0' 0140%E1%.)/2'4%(*85' 3%'9' '.5')+%' -/*)),0' ('..*)' 4%' (/*0%5' # '7*('/'(*$50' 8'2' 4%' %(6,'//2' '&$%()%5' *$' =.%' 8'2' 4%' 6'$'/20%5',.' -$%')%$' 5%-$%%') '.') +%' *)+%$' *1-+,. -' ,0' .%(%00'$,/2' ,86%$&%)' ',$' ,0' 5$,7%.')+$*1-+')+%' /'$2.B'41)')+%$%' ,0' .*' 0155%.' *6%.,. -'*&' '6$%7,*10/2'(/*0%5'-/*)),0' '.5')+%.(*' %B6/*0,7%' (*)/-+' .' 6$*6%*$;),*.' '0')+%' -/*)),0',0'6'$'/20%5'6+*.'),*.',0' ,.)%$&%$%5' 3,)+' 41)')+%' '4,)2')*' 6$*51(%' 0*8%'0*1.5',0'$'$%/2''/)*-%)+%$'/*0)' 0')+%' 5,0%'0%'6$*-$%00%0')+%'06%%(+'4%(*8%0'/8*0)' .,.)%//,-,4/%'4%,.-'$%51(%5')*'1.'$),(1/')%5' 7*('/'0*1.50')',0')*' 4%' .*)%5'+*3%7%$')+')')+%' +'4,)1'/' $),(1/'),*.',0'$'$%/2')+%' 4%0)' 6*00,4/%' *$50'('.'4%' 5,0),.()/2''$;),(1/')%5'42' '' 5%/,4%$')%' %&&*$)' 3+,(+' $%' 0('$(%/2')'/' $),(1/')%5',.'*$5,.'$2'06%%(+' +%' 0'/,7'' ('.'.%,)+%$' 4%' 03'//*3%5'.*$' $%)',.%5'3,)+,.')+%'8*1)+''.5',0'(*.0)'.)/2' 5$,44/,.-'*7%$')+%'/*3%$'/,6'4%/*3'3+,(+')+%' 6'),%.)'+'0')*'$%)',.''+'.59%$(+,%&(*.),.1; ''//2')'+'0'4%%.')+*1-+)')+')+%'E1'.),)2' *&'0'/,7'',0',.($%'0%5'41)'+%%7,5%.(%'*&')+,0' ,0',.01&&,(,%.)' +%'(*.5,),*.'*&')+%')*.-1%' 7'$,%0'81(+',.'5,&&%$%.)'('0%0' .'0*8%',)' /'$-%'4$*'5'&/'442''.5'0*&)')*')+%')*1(+')+$*1-+*1)' .'*)+%$0',)',0'(*.06,(1*10/2' 3'0)%5''.5' *7%$%5'3,)+'3$,.9/%0''.5'&1$; $*30'&$*8')+%'0+$,.9,.-' .'0*8%'('0%0')+%'/,60'$%)',.')+%,$'.*$8'/0,C%H,.'*)+%$0')+%2''$%' 5,0),.()/2')+,..%$')+'.'.')1$'/' +,0'0)$,9,.-'(*.)$'0'4%)3%%.')'('0%0' A'/$%'52'$%&%$%5')*R/%5' 1(+%..%')*' 5,0;),.-1,0+')3*'7'$,%),%0')+%' # ''.5')+%' '41)' ,.'0*8%'*&')+%' ('0%0'*&')+%' /')%$' (/'00',)',0'8%$%/2')+%' ,.)%$0),),'/^)')+')'6$%7%.)'0'3'0),.-'&$*8'4%,.-'(*.06,(1*10' 51$,.-' /,&%' .')+%' '&&%()%5'810(/%0')+% %/%()$,('/',$$,)'4,/,)2',0'101''//2'/,))/%'(+'.-%5')+%2'0),//'(*.)$'()')*')+%' &'$'5,('(1$$%.)' %7%.'3+%.``)+%' ')$*6+2',0'(*.06,(1*10' *8%),8%0')+%$%',0''.',.5,(','.*&')+%'$%; '(),*.'*&'5%-%.%$'),*.',.'1.51%'$%'5,.%00'*& (*.)$'(),*.')*')+%'.*5'/A6*0,),7%R'(/*08%' *$')+,0'$%'(),*.'8'2'4%'3%//'8'$9%5'&'$'5,(,$$,)'4,/,)2'4%,.-'81(+'/%00%.%5')+%$ 810(/%0'%&')+%' %/%7')*$0'*&')+%' 166%$'6'$)'*&')+%'&'(%'/3'20' %0('6%'.5')+%'C2-*8'),(' 810(/%0'3,)+')+%'%/%7')*$0'*&')+%' 166%$'/,6'' $%' 0*'/,))/%' &&%()%5')+')')+%,$' 1.*66*0%5' (*.)$'()1$% 6$*51(%0'' 6%(1/,'$/2'5%%6'' /05'(+'$')%$,0),('.'0*/'4,'/'&1$$*3' .'8'.2'*'0%0'810(1/'$')$*6+2',.')+%'/,840',.'-$%')%$' *$'/%00' 5%-$%%' ,0' '00*(,')%5'3,)+'*$' 3,)+*1)'7(*.;)$'()1$%<*')**',.'('0%0'*&'*$5,.'$2'810' (,5'$')$*6+2'(*88%.(,.-',.')+%'+840')+%' /,60')*.-1%''.5')+$*')' '$%' *&)%.' '&&%()%5')*3'$50')+%'%.5'*&')+%'('0%',.')+%'0'8%'8'.; .%$''0',.')+%'6$,8'$2'&*$8'.*3'1.5%$'(*.; 0,5%$'),*. %')+',.'/'4,* -/*00'/'6'$'/20,0',0'101'//2')+%'$%01/)'*&')0)+%'.,''51%',)'8'2'4%',.'6'$)')*')+%'5,&&,(1/)2',.'5%-/1),),*.''*$')*' (+$*.,(' /1.-'5,0%'0%'6$*51(%5'42')+%'$%6%')%5'%.;)$'.(%'*&'6'$),(/%0'*&'&**5',.)*')+%''$6'0; 0'-%0'*8%),8%0')+%'6'),%.)'5,%0',.''' 6'$*B208'*&'(*1-+,.-'*((' 0,*.%5'42''.' ,.%&&%()1'/'))%86)')*' 03'//*3'+E1,50'*$ 0'/,7''+%$%'8'2'4%''&')'/'%B)%.0,*.'*&')+%'(%$%4$'/'8,0(+,%& &"%&*$%'/'4,*-/*00'/'6'$'/20,0' 3'0'3%'9.*3.')+%'5,&&,(1/)2'.,'03''//*3,.-' 3'0'0($,4%5')*' '' (+$*.,(',.&/'88'),*.'*&')+%'&'1(%0'41)')+,0'8,0)'9%',0'.*3'0('$(%/2' 6*00,4/%' +%'0286)*80'+'7%')*'4%' 5,0;),.-1,0+%5'&$*8')+*0%'51%')*' *)+%$'5,0%'0%0' *&')+%'8%51//''.5')*'5,0%'0%'%/0%3+%$%' '.2'0155%.'/%0,*.0',.')+%'$%-,*.'&&%()%5' ,.')+,0'5,0%'0%'8'2'('10%'0,8,/'$'0286)*80' 41)'+%0%'' '$%' 5,0),.-1,0+%5'42')+%,$'*.0%)' *86$%00,*.'*&')+%'8%51//''8'2'/0*'-,7% $,0%')*'0286)*80'*&',.'$'5,0)$,41),*.'41)')+%0%'' '$%'(*88*./2'1.,/')%$'/'*$'*.%'0,5% 01&&%$0'4%&*$%'.'5'8*$%')+'.')+%'*)+%$'.'5')+%2''$%'*&)%.'((*86'.,%5'42''6$%6*.5%$; '.)' '&&%(),*.'*&')+%'810(1/'$'6'$)'*&')+% 06,.'/'((%00*$2'.'5'42'-$%')'3%'9.%00' W3,)+*1)'3'0),.-',')+%'/,840'.')+% 060%15*41/4'$'6'$'/20,0<8*7%8%.)0'*&')+%)*.-1%''$%',86',$%5'42'5,0%'0%'*&')+%'(%$%; 4$'/+%8,06+%$%0'+%0%'8*7%8%.)0''$% $%6$%0%.)%5',.')+%'*3%$'6'$)'(+'0(%.5; ,.-'&$*.)'/(*.7*/1),*.'K+%.')+,0',0'5,0; %'0%5'*.'*.%0,5%')+%'/*00',0'0*.'(*86%.; 0')%5'&*$'42')+%'(%.)$%',.')+%'*66*0,)% +%8,06+%$%'41)''02888%)$,('/4,/')%$'/ /%0,*.'..')+,0'0,)1'),*.'8'2'('10%'(*86%)% 6'$'/20,0'*&')+%').-1%''.5'*)+%$'6'$)0' '&&%()%5',.')+%'5,0%'0%'.*3'5%0($,4%5'1(+' 6'$'/20,0'/0*',0'(1)%',.'*.0%) $G+%'6$*-.*0,0',0'8*0)'-$'7%' +%'5,0%'0%'(*.0,0)0',.''0/*3'5%-%.%$'),*.' *&')+%'.%$7%%/%8%.)0')+%'%&&%()0'*&'3+,(+' *&)%.'/%'5')*'5%')+',.'4*1)''2%'$'&$*8')+% *.0%)'/)+*1-+',.'0*8%'('0%0''')%86*$'$2' '$$%0)'8'2'4%'*4)',.%5''.5'((' 0,*.''//2')+% 8'/'52''&)%$'('10,.-''(*.0,5%$'4/%'5%-$%% *&'5,0'4,/,)2',0''$$%0)%5'&*$'0%7%$'/2%'$0',) ,0'5*14)&1/3+%)+%$',.''.2',.0)'.(%'*&')+,0' &*$8'(*.0,5%$'4/%',86$*7%8%.)'+'0'*(; (1$$%5'+%'6$*06%()'*&'6$*/*.-'),*.''*&')+% 0)')%'*&''$$%0)',&')+,0'*((1$0'5%6%.50'7%$2' 81(+'*.')+%'*81.)'*&'('$%')+%'6'),%.)')+% /%00',0')+%'(+'.(%*&''$$%0)

! G +%'5%-%.%$'),7%')%.5%1%>$

&*$8 ', . '0 8 1(+' '0' $%(*7%$2' *&' 0/, -+)/2' 5 ' 8 ; '-%5' 0)$1()1$%0' 8 '2' /%' 5')*' '' (* . 0,5%$' 4/%' 5%-$%%' *&' $%0)*$ '), *.' *&' 6*3%$' +%' 6$*; -. *0,0' ,0' '/0*' 4%))%$' ,&')+%$%' ,0' ' . 2' $%' 0*. ')*' '0($,4%')+%' 8 ,0(+,%&')*' 026+,/,),(' 5,0%' 0%' %7%$)+%/%00' , . ' 0* 8 %' '(1)%' *' 0%0')+%' 6' $' ; /20,0' $%8 ', . 0' '40*/1)%' '/)+*-+' %7%. ' , . ')+%0%')+%$%' ,0' . *)')+%')%. 5%. (2')*' , . ($%' 0%' 3+,(+' ,0' 0%%. ' , . ')+%' (+$*. ,(' 7' $,%)2'

! G . 2' ('10' /' , . 5,('),*. ' 8 10)' 4%' ('$%&1//2' 0*1-+)' &*$' , . ' '(1)%' /' 4,* -/*00*' /' $2. -%' /' 6' $' /20,0' ' . 5')$%')%5' %06%(, '//2' %7,5%. (%' *&' 026+,/,0' . ' *)+%$' (*. 5,),*. 0')+%')$%')8%.)' ,0')+')' &*$')+%' /%0,*. ' 3+,(+' ,0' 0166*0%5')*' %B,0)' /%()$,(' /')$%')8%.)' *&')+%' 8 10(/%0' ,0' *&' -$%')' ,8 6*$)' . (%', . ' *$5%$')*' 6$%7%.)' '0' &' $' '0' 6*00,4/%' 0%(*. 5' $2' 5%; -%. %$'), *. 0' 3+,(+' '$%' '6)')*' *((1$' 4%&*$%')+%' 6' $), ' //2' 5' 8 ' -%5' 0)$1()1$%0' +' 7%' $%; (*7%$%5' +%' U%8 ' $90' $%-' $5, . -' 5,%)' ' . 5' &%%5, . -' , . ')+%' (+$*. ,(' &*$8 ' '$%' %&>. ' 2' '6; 6/,('4/%')*')+%' ' (1)%' 7' $,%)2

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" '% B" ' 4 +

. ' $ ' $%' ('0%0' 02 8 6)* 8 0' *&' 41/4 ' $' 6 ' $' /2; 0,0' '0' '4*7%' 5%0($,4%5' (* 8 %' *. ' , . ')+%' '(1)%' A. *)' 0155%. R' 8 ' . . %$' (+' $' ()%$,0),(' *&' %.)$' /, . &/' 8 8 '), *. 0' ' . 5' 5%6%. 5' *. ')+,0' 6$*(%00' , . ')+%' -$%2' . 1(/%,' 3+,(+' '$%')+%' 0%')' *&' 5%; -%. %$'), *. ' , . ')+%' (+$*. ,(' &*$8 ' 1(+' ('0%0' 3+%. ')+%' /%0,*. ' ,0' /, 8,)%5')*')+,0' $%-, *. ' '$%')**' $' $%')*' 8 '9%' ,)' . %(%00' $2')*' 5*' 8*$%')+' . ' 8%.), *. ')+%, $' *((1$$%. (%' +%' 6$*(%00' ,0' . '/*-*10')*' 06, . '/6*/, * 8 2%,)0' . 5')+%' 6$, . (, 6/%0' *&' ,)0')$%')8%.)' '$%')+%' 0' 8%' ' 8*$%' (*8 8*. '&*$' 01(+' . '*. 0%)' *&' 41/4 ' $ 02 8 6)* 8 0')*' &*//*3')+*0%' *&' . ' '0(%. 5, . ' , . &/' 8 8 '), *. ' *&')+%' (*$5' +%2' 8 '2' /0*' *((1$' '0')+%' &, . '/ 0)' -%' , . ')+%' 8 20)%$, *10' 5, 0%' 0%' 0' (1)%' 0(%. 5, . '6' $' /20,0 ', . ' 3+,(+' ,)' ,0' 6$*4' 4/%')+')' ')*B,(' -%.)' , . ')+%' 4/**5' '()0' *. ' (%$)', . '6' $)0' *&')+%' . %$7% (%.)$%0' . 5' '4*/,0+%0')+%,$' &1. (),*.

C ' 0%15* 1/4 ' $' '$' /20,0 G +% &' ()' +' 0' 4%%. ' '/$%' 52' 8%.), *. %5')+')' 4, ; /')%$' /' /%0,*. 0' *&')+%' (%$%4$' /' +%8,06+%$%0' 8 '2' ('10%' 02 8 6)* 8 0' (/*0%/2' $%0%8 4/, . - ')+*0%' 6$*51(%5' 42' 5,0%' 0%' *&')+%' . 1(/%,' *&')+%' 8%51//' ' +,0' %&,%()' ,0' 51%')*')+%' &' ()')+')')+%' 8 10(/%0' 6' $' /20%5' 4%, . -' 4,/')%$' /' , . ' 10%' '$%' $%6$%0%.)%5', . ' 4*)+' +%8,06+%$%0' ' . 5' (' . ' 4%' , . . %$7')%5' &$*8' %,)+%$H +%. (%' (*86%. 0'), *. ' 42')+%' *)+%$' 0,5%' 6$%7%.)0' 6' $' /20,0' &$*8' '' 1. , /')%$' /' /%0, *. H 4.)' , &' 5,0%' 0%' '&)%$3' $50' *((1$0' , . ')+%' 6' $)' %&&%(); , . -')+%' (*86%. 0'). *. ' 6' $' /20,0' $%01/)0' 01(+' '0' ,0' ('10%5' 42' 5,0%' 0%' *&')+%' 8%51//' ' *$ $')+%$' A0, . (%')+%$%' ,0' . *' '0), . -R' 42' 5%-%. %; $'), *. ' *&')+%' &, 4$%0' &$*8')+%' (*$)%B')*')+%' 41/4 ' $' . 1(/%, ' +*8*/*-*10' 3,)+')+*0%' *&')+%' 62$' 8, 5' /')$' ()0' +%' /%0, *. 0' ('10, . -' 60%15* 41/4 ' $' 6' $' /20,0' 8 '2' 4%', . ')+%' (*$), ; (' /' (%.)$%0' *$', . ')+%' , .)%$. ' /' ('601/%' *$', . ')+%' *1)%$' 6' $)0' (&')+%' /%.), (1/' $' . 1(/%, ' 3+%$%')+%2' 6$*4' 4/2', 8 6/, (')%')+%' &, 4$%0' &$*8')+%

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' ' F))' ' ')%' $R

+%' /' %$2 8 '/' '66' $')10' (*. 0, 0)0' *&')+%' -/' . 5' 3,)+' ,)0' %B($%)*$2' 51)0H ' . 5' *&')+% 61. ()' ')+%' (' . '/, (. /, ')+%' /' %$2 8 '/ 0' (' ' . 5')+%' . '0' / 51()')+$*1-+' 3+, (+' 016%$&/1*10')%' $0' '$%' (*. 7%2%5' , .)*')+%' . *0%' +%' 5, 0%' 0%0' *&')+, 0' '66' $')10' '$%' '/8*0)' /, 8,)%5' 3,)+')+%' %B(%6), *. ' *&' -$*3)+0' '&&%(), . -')+%' -/' . 5' ,)0%/&' ' ' ,0%' 0%0' *&R')*')+% %B(%00, 7%' 0%($%), *. ' *&')%' $0' ' . 5')*' , 8 6%5, ; 8%.)0')*')+%, $' %0(' 6%' , .)*')+%' . *0%' *' %B; (%00, 7%' 0%($%), *. ' *$')*' , 8 6%5%5' *1)&/*3')+*' (*8 8*. ')%$ 8' # ' +' 0' 4%%. ' ' 66/, %5H' 41)')+%' -$%')' 8 '>*$,)2' *&' ('0%0' *&' %6, 6+*$'' '$%' 51%')*')+%' /')0%$' *&')+%')3*' ('10%0

0 0 @+4%V d\ ' ' ' 4 ' 5%0($,4%5' 42' '1)+*$0' '0' . ' ''&&%(), *. ' &*$' 3+, (+' ,)' ,0' . *)' ' /3 '20' 6*00,4/%')*' 5,0(*7%$' . ' '5%; E1')%' ('10%' ' . 5' ,)' 8 '2' 6%$+'60' 4%' 0*8%'), 8 %0' 51%')*')+%' 6$*/*. -%5' *6%$')*. ' *&' %8*), *. ' /' , . &/1%. (%0' . ' 8*0)' , . 0)' . (%0' +*3%7%$' ,)' , 0' '00*(, ')%5' 3,)+' 0*8%' 9, . 5' *$ 5%-$%%' *&' (*. >1. (), 7' /' , $$,)'), *. ' . ' . 5' , 0')*' 4%' $%-' $5%5' *. /2' '0' '' $%&/%B' 6+%. *8%. *. ' +%. (%' '$, 0, . -')' , 0' 3%/' 9. *3. ')+')' . 2')%86*; $' $2' *$' ((, 5%.)' /' , $$,)'), *. ' 01(+' '0' 8 '2' '$, 0%' &$*8')+%' , .)$10, *. ' *&' '' &*$%, -. ' 4*52' , .)*')+%' (*. >, 8 (), 7' /'0' (', 0' 6)')*' 4%' &*//*3%5' 42' '' (*6, *10' 0%($%), *. ' *&')%' $0' 3+, (+' '00, 0)' , . ' 5, 0/*5-, . -')+%' *&&%. 5%$H' . 5' , $$,)'), *. 0' *&' '' 8*$%' (+$*. ', ('9, . 5' 6$*51(%5' 42' (*. -%0), *. ' *$' , $$%-1/' $,)2' *&')+%' /, . , . -' 8%84$' . %' *&')+%' /, 50' 8 '2' +' 7%' '0, 8, /' $' %&&%()

5 " ' ' # ' ' # ' ' ('10, . -')+%8')*' (*//%()' , . ')+%' (*. >1. (), 7' /' 0' (' *$' %7%. ')*' &/*3' *7%$')+%' (+%%9' 8 '2' 5%6%. 5' 16*. ' 5, 06/' (%8%.)' *&')+%' 61. ()' '0*')+')')+%0%' '6%$)1$%0' '$%' . *' /*. -%$' '66/, %5')*')+%' (*. >1. (), 7' /' 01$&/(%' &$*8' 3+, (+')+%2' . *$8 '//2' $%8*7%' 016%$' 41. 5' .)' 8*, 0)1$%' 42' %'6 /' $2'))$' (), *. ' 1(+' 5, 06/' (%8%.)0' '&&%()' (+, %&/2')+%' 61. ()18' *&')+%' /*3%$' +5H' . 5' 8 '24%' (*. 0%E1%.)' %,)+%$' 16*. ' (*. >1. (;), 7' /' 03%//, . -' 42' 3+, (+')+%' 5' , 0' 610+%5' '3 '2' &$*8')+%' %2%' *$' 16*. ' 6' $' /20, 0' *$ 3%'9. %00' *&')+%' *$4, (1/' $, 0' 810(/%' 3+, (+' '//*30')+%' 5')*' &' '42')+%' (), *. ' *&-$' 7,)2' . ' 0*8%' ('0%0' %6, 6+*$'' 3, ' 5%6. 5' 16*. ' *4)%$'), *. ' *$' *((/10, *. ' *&')+%' 61. ()' ' +% &*$8%$' (*. 5,), *. ', 0', . (1$' 4/%H)+%/')%$' 8 '2' 4%' 6$*51(%5' 42' 6/1-0' *&', . 06, 00')%5' 81(10' 3+, (+' 8 '2' 4%' $%8*7%5' 42')+%' ('$%&1/' %8; 6/*28%.)' *&' ' 6$*4%

1)')+%' 8*0)' *$5, . '$2' ('10%' *&' *40)$1(), *. ' , 0' 0)$, ()1$%' *&')+%' . '0' /' 51()H, . ' 3+, (+' (*. ; 5,), *. ')+%')%' $0' '$%' '$$%0)%5' ''/,))/%' 4%/*3')+%' 0' (' ' . 5')+%' 0' (' (*. 0%E1%.)/2' 4%(*8%0' *7%$

5,0)%.5%5' .')+,0 (*.5,),*.')+%' 0'(' ('.'4%' 0%%.'.'.5'&%/)' '0 '' 0 8 '//' /1 8 6'0,)1')%5' 10)' 4%.%')+')+%' " ' ' +%.' 6$%00 8 %' ,0' 8 '5%' 16*.')+,0 /1 8 6'' &/1,5' (*.0,0),..-' *&)%'$0' 8 ,B%5' 3,)+' 8 *$%' *$' /%00' 8 1(10' *$ 8 1(* 610' 3 ,//' $%-1$-,)'),*)+')+%' %2%' '.5')+%' /1 8 6' ,)0%/&' 5,0'66%'$' +%' 5'.-%$' ,.'01(+' ('0%0',0')+')+%' (*.),.1%5'5,0%.0,*.' *&')+%' 0'('3 ,//' .'),8 %' %B(,)%' ,.&/' 8 8 '),*.' *&',)0'/,.,.-' 8 %8 4$'.%'/%'5,.-')*')+%' &*$8 ';),*.' *&'610' '.5')+,0)*' .' *6%.,.-'16*.')+% (+%%9' 6$*51(,.-' 3+')' ,0 ('//%5' '' ' ' 1(+'.' *6%.,.-' .%7%$' +%'/0' 1.),/)+%' 51()',0''-',.'6%$7,*10'.5',)',0'/,'4/%')*' 1.5%$-*'6%$,*5,(' '))'(90' *&1.0,-+)/2',.&/' 8 ' 8'),*. ! G .' ' ' ('0%0' *&' /'%$28 '/ +26%$0%($%),*.')+%' &,$0)')+,.-')*' 4%' 5*.%' ,0')*' 0%'$(+' 1.5%$')+%' /,50' &*$' .2'(*.(%'/%5' &*$%,-.'4*52'3+,(+' 8 '2'4%/1$9,.-')+%$%' &' .*.%' 4%' 5%)%()%5'%B'8,.'),*.' 8 10)' 4%' 8 '5%' &*$' (*.5,),*.0' +9%/2')*' 4%' ,$$,)'),.-Ĥ '.5')+%2' '$%')*' 4%')$%')%5',&')+%2'%B,0)'42' 8,/5' '0)$,.-%.)'*$*)+%$'01,)'4/%/*('/'66/,(',),*.0' +%$%' ,0' 6$*4'4/2'.*' 8 %5,(,.%' 3+,(+' ('.' 4% 0',5')*' %B%$)' .'2'6*0,),7%' %&&%()' ,.'5,8,.,0+; ,.-')+%' 8*1.)'*&')+%/'%$2 8 '/ %$(%),*.' 6*0,),7%' %&&%()' ,.'5,8,.,0+; ,.-')+%' 8*1.)'*&')+%/'%$2 8 '/ %$(%),*.' &')+%' 5,06/'(%8%.)'4%',.(1$'4/%' '0'+'66%.0',.'0*8%'('0%0'*&'6'$'/20,0'*&')+% 6')%.)'8'2'*&)%.'4%'$%+%7%5'42'0/,)),.-'*6%.')+%' ('.'/,(1/10'0'&'$'0')+%' ('$1.(/%'0*'0')*' ('$$2'4'(9')+%' '6%$)1$%')*')+%' 0%($%),*.' 3+,(+',)',0'5%0,-.%5')*'$%8*7% +%'W$%')8%.)'*&'0)$,()1$%'*&')+%' .'0'/ 51()'('.'*&)%.'4%' ./2'6' ,'),7%' +%'6')%.)' 0+*1/5'(E1,$%')+%'+'4,)'*&'%8 6)2,.-')+%'5,0;)%.5%5'0'(' 42'&,.-%$ 6$%001$%' 8 '.2',8 %0'' 5'2'.5'*&3,6,.-''3'2')+%'&/1,5H 3+,/%')* 5,8,..,0+')+%',$$,)'),*.'*&'81(*10' 8 %8; 4$'.%'' 5$*6'*&'.2'8,/5' '0)$,.-%.)'/*),*.' 8'2'4%' '66/,%5')*')+%',..%$' (*8%$'*&')+% (*.>1.(),7'')3*'*$')+$%%'),,.%0'' 5'2',8./% 5,')%/2'&)%$'01(+' 6$%001$%'+'0'4%%.'8'5%' %$+'60')+%'/*),*.'8*0)'-%.%$'//2'01,)'4/% &*$')+,0'686*0%',0''0*/1),*.'*&'(%)'%'*& /%'5',.'5,0),//%5'3')%$'*&''0)$%.-)+'.*) %B(%%5,.-')+$%%'-$',.0')*')+%'&/1,5'*1.(% +%.'''$'5,(' /(1$%',0'5%0,$%5')+%'(.'/,; (1/10'810)'4%'0/,)'16'.5')+%'6')%.(2'*&)+%'51()'$%0)*$%5'42')+%'6'00'-%'*&'6$*4%0')+$*1-+')+%'0)$,()1$%' &'&,0)1/''+'0''/$%'52' &*$8%5'*$%7%.',&')+%'0'(',0')+%'0%')'*&''(' '40(%00'.*')+%$'6/'.',0'7'&/4%H 41)'&*$)+%'.%(%00'$2'5%)'&/0')+%'$%'5%$',0'$%&%$$%5')*' 3*$90'*.'*6+)+'/8,('01$-%$2 /+ 3& 3 * ' M!' : . ' ' ' 'S " ' B 4 " ' 0 "' ' # " 'G +% 5,0*$5%$0'*&'/'(;)'),*.''$%'.18%$*10' *8%),8%0')+%'E1'.;),)2'*&')+%'/'()%'/'0%($%),*.',0'%B(%00,7%/2 08'//' .5'E1,)%',.'5%E1')%'&*$')+%'0166*$)' *&')+%'(+,/5')'*)+%$),8%0',)',0'0*'4,85'.))+')')+%'8,/9'3,//'&/*3'&$*8'*.%'.,66/%'('0)+% ,.&'.)',0'01(9,.-')+%'*)+%$Ĥ '.5'3+%.')+% (+,/5',0'$%8*7%5'&$*8')+%'4$%'0)')+%'0%($%;),*.'(*.),.1%0'&$*8'4*)+'0,5%0' +%')%$8'ĸ 0 ',0'66/,%5')*')+%'&*$8%$''.5'0 # ')+%'/'))%$'(*.5,)*. = ' #%$ G -'/'(),''0,-.,&,%0'%,)+%$''*)')'/' 0166$%00,*.'*&')+%'8'8 8'$2'0%($%),*.' *$''7%$2'0('.)2'0166/2')'$%01/)0'-%.%$'//2' &$*8''.0%8,''.5'-%.%$'/5%4,/,)2 +%' ' 0+*1/5'4%5,$%()%5')*3'$50' ,86$*7,.-')+%'+%'/)+'*&')+%'6'),%.)'0'81(+' '0'6*00,4/%'42'''-%.%*10'.5>15,(,*10'5,%)' '.5')*.,(0'6'$),(1/'$/2')+*0%'(*6)',.,.-',$*.' %$)',.'5$1-0'+'7%'4%%.'%86/*2%5''0'-'/'(') '-*-1%0''.5',)+'0'4%%.'0',5'3,)+'4%.%&,)' +%'/%'7%0'*&')+%'(''0)*$*,/'6/'.)'4*,/%5' +'7%'4%%.'10%5'0''/*('/I''66/,(',),*.G)+% /,E1,5'&*$'&*8%.)'),*.''.5')+%'/%'7%0''0''' 6*1/),(%Ĥ '.5''0)$*.-'5%(*(),*.'*&')+%'0'8% 6/'.)'+'0'4%%.'-,7%.'0''5$,.9')',0'5*14); &1/'+*3%7%$'3+%)+%$'01(+' $%8%5,%0' '$% %%&,('(,*10' '<$ % < ('' #% 3 ! G +,0'*((1$0',.')3*' &*$80' .')+%'*.%')+%'(*86%),*.'*&')+% 8,/9',0'.*$8'/'41)')+%'E1'.),)2'%B(%00,7%Ĥ ,.')+%'*)+%$'&*$8')+%',.($%'0%',.')+%'41 ('*&')+%'0%($%),*.',0'51%')*''6$%6*.5%$'.(%'*&)+%'3')%$2'6'$)'*&')+%'&/1,5 %8%5,%0'%86/*2%5')*'$%51(%')+%''8*1.)' *&')+%'8'8 8'$2'0%($%),*.''$%')%$8%5'0 # 0 ''.5')+%'(+,%&*&)+%0%''$%'4% '5*,8'' .5',*5,5%'*&'6*)'00,18' %//'5*..'',0'%8; 6/*2%5''0''.*1)3'$5''66/,(',),*.''0'3%/'0' '58,..0)%$%5',.)%$.'//2' +%%B)$'()'$144%5' 16'3,)+'-/2(%$,.%'8'2'4%06$%'5'*.'/,.)''.5')+10''66/,%5')*')+%'4$%'0)0'*$')+%%86/'0)$18' 4% '5*..0%'8'2'4%' 10%5' +%'(+,/5'0+*1/5' .*)'4%61)')*')+%'4$%'0)')*'*'&$%E1%.)/2' &')+% %B(%00,7%'0%($%),*.'(*.),.1%'&*$'.2'/%.-)+'&'),8%'-$%')*%8'(,'),*.'8'2'$%01/)Ĥ '.5')*')+,0' (*.5,),*.')+%)%$8' ' '+'0'4%%.' '66/,%5' .5%$'01(+'(,$(180)'.(%0'/'()'),*.' 0+*1/5'4%%.),$%/2'0)*66%5''0'0**.''0'6*00,4/%')$'66,.-')+%'4$%'0)0$'0'),-+)/2',8 8%5,')%/2' '&)%$')+%2'+'7%'4%%.'%86),%5',0'*&' 0%' 7%$2' ('$%'810)'4%')'9%.')*''7*,5')+%'&*$8'),*.''*& '' 8'8 8'$2'40(%00Ĥ '.5',&')+%'4$%'0)0'-%)' +'$5''.5' 8*))2''' 4$%'0)'6186'0+*1/5'4% %86/*2%5')*'&$%%')+%')14%0 "' !0!))!-'$00!) G %6$%00%5'.,6; 6/%0'$%-%.%$'//2'6$*51(%5'42')+%'6$%001$% *&'0)'20' &')+,0'(*.5,),*.'4%'*40%$7%5'51$; ,.-'6$%-.''.(2'6%$,*5,(''))%86)0'0+*1/5'4% 8'5%)*'5$'3')+%'.,66/%0'+,%/5')*'3+,(+''.',.5,' $144%$')14%' .5')%')'),0'*1)'42'8%'.0'&'' -/'00

4$'.52' '.5' 3')%$' *$' '' 3%'9' 0*/1),*.' *&'(
)'..,.' 8'2' 4% %86/*2%5' &*$')+,0' 61$;
6*0%

*8%),8%0' .' '4$'0,*.' *.')+%' 01$&'(%'
&*$80' .' 1/(%$' *$' '' ($'(9' ')' 0*8%'6'$)' *&'
)+%' .,66/%'8*0)'&$%E1%.)/2')',)0'4'0%'3+,(+'
-,7%0'$,0%')*' -$%')'6',.'51$,.-'01(9/,.-' +%'
$%8%5,%0'&*$')+%0%' ($'(90' '$%' '0)$,.-%.)'16;
6/,(')',*.0'01(+'0')'...,.'&/%B,4/%' (*//*5,*.'
'' 3%'9'0*/1),*.'*&'.,)$')%'*&'0,7%$'*$'*&'('$;
4*/,(''(,5' '$%' 0+*1/5'4%')'9%.')*' 06*.-%'
)+%0%'3'2'4%&*$%')+%',.&'.)',0' '-',.'61)')*'
)+%'4$%'0)H''.5''.,66/% 0+,%/5'3,)+'.',.5,''
$144%$')%')'3,//'+%'&*1.5'*&'-$%')'0%$7,(%
$'40(%00'.'5')+%>H 8*$4,5'(*.5,),*.0'
*&')+%'8'8 8'$2'-/'.5'016%$7%.,.-'51$,.-'
/'()'),*.' ' 0) ,0%'0%0' $-%' $5'
4 A 'H''.5'; ((') ,0%'0%0'*&
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32 % %3 !' AY'25$' '' +'$%H'
'.5'E!<:E K E')+%'%2%R G= +,0')%$8',0'5%$,7%5'
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3,)+',)0'%2%0'*6%.H'.5',0''66/,%5')*''' (*.;
5,),*.',.'3+,(+')+%$%',0',.'4^)2')*' (/*0%'*.%'
$'4)+'%2%0' '-*6+)+'/8*0'8'2'4%'51%'
)*'6'$'/20,0'*&')+%'*$4,(1/'$,0',.'3+,(+'('0%'
,)'3,//'4%'))%.5%5'42'&'//,.-'*&')+%'/*3%$'
/,5'.'5'3,//'-%.%$'//2'4%'00*(,')%5'3,)+'
6'$'/20,0'*&'*)+%$'8 10(/%0'0166/,%5'42')+%'
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/,50' .'6'$'/2),(''-*6+)+'/8*0')+%')$%');
8%.)',0')+')'*&'(,'/'6'$'/20,0' +%$%'
)+%$%',0'(*.)$'().*.'*$'5%&*$8,)2'%'(+'('0%'
8 10)'4%'(*.0,5%$%5'*.',)0'*3.'8%$,)0'3,)+'
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,.06,$'),*.'.5'5%6%.5%.)'*.'06'08'*&')+%'
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+'.5/%'&*$',.)$*51(),*.',.)*')+%')+$*')H'.5'
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41)'4$, ,'.)'//18,.'),*.'(*.)$,41)%0'0*'
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0%/&'*66*0,)%'+,8''.5''5>10)0')+%'$%&/%()*$'
3+,(+'+%',0'3%'$,.-'0*')+'3+%.')+%'6'),%.)'
0,)0'16$,-+)'3,)+'+,0'+%'5',.(/,.%5'=-+)/2'
4'(9'+,0'8*1)+'3,5%/2'*6%.''.5')+%')*.-1%'
61)'*1)')+%' -+)'0+='4%'(*.(%.)$')%5'*.'
)+%'4'(9'*&')+%'6+'$2.B'.5'7%/18'6'/'),
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K +,/%)+%'6'),%.)'4$%')+%0'5%%6/2'.5'E1,%)/2H
+,0'6$*)$15%5')*.-1%'6$*)%()%5'42''.'69,.'
$+'.59%$(+,%&')'6$%7%.)',)0'0/,66,.-',0'+%/5'
0)%'5,/2'41)'-%.)/2'&*$3'$5'%,)+%$'42'+,0'
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*6%$')*$H''.5')+%')+$*')8,$$*$')

(* 8 8 %. (%0' 3,)+' +*'$0%. %00 ',$$,)'4/%' (*1-+ ' '5 0%. 0%' *&'),(9/,. -' . .5' 0*$%. %00' '4*1)')+%/'$2. B ' 3,)+*1)' . 2'&%4$,/%5,0)1$4' . (%' 14; 0%E1%.)/2')+%' 7*,(%' 8 '2' 4%' (* 8 6/%)%/2' /*0) ' .'0%7%$%' ('0%0')+%' 6 '),%.)' 4%(* 8 %0' $%0)/%00' '. 5' '. B,*10Ĥ %B6%$,%. (%0' '' &%%/,. -' *&' (*. ; 0)$,(),*. ' '4*1)')+%' $, 8 'Ĥ (* 8 6/'. .0' *&' 0*$%')+$*'}' , .' 03'//*3,. -Ĥ' '. 5' 6*,.)0')*')+%' /'$2. B' '0')+%' 0%')' *&' 6', . ' +%' 4$%')+, . -',0' '/)%$%5' +'7,. -' 8 *$%' *$' /%00')+%' (+'$' ()%$; ,0),(0' *&' /'$2. -%'/' *40)$1(),*. ' . ' 8 %/2')+%/*. - 5$' 3. ' +,00, . -' ,. 06,$'),*. ' 6$*/*. -%$' %B6,$'),*. ' *&')+%' 0' 8 %' (+'$' ()%$' 41)' 3,)+' /%00' *&')+%' 0,4,/' .)' 0*1. 5' ' . 5' 5,8, . 1),*. ' *$' (* 8 6/%)%' '4*/,),*. ' *&' . 2'6' 10%' 4%) 3 %%. ' 01(; (%00,7%' $%06,$')*$2' %&&*$)0' +%' 7*,(%' '/0*' ,0' '/)%$%5'4%(* 8 ,. -'+1092' ' . 5'1. (%$)', . '5%%6%$' , . ')*. %'' . 5' ($*'9, . -', . 'E1'/,)2' +%' 6'),%.)' /,9%3,0%' 01&&%$0' &$*8' (*1-+' *&')+%' 0' 8 %' (+'$' ()%$' '0')+%' 7*,(%Ĥ &&* 8')+%' ,8 6%$&%()' (/*01$%' *&')+%' 7*('/' (*$50',)'3' .)0' 0+'$6. %00' ,0' +1092' . 5' 0*8 %),8 %0' ,0' '((* 8 6' . ,%5' 42' '' +*//*3' (/' . -,. -' 0*1. 5' (* . 0),)1),. -' 3+')' ,0' (* 8 8 *. /2' ('//%5')+%' ' 0# ' +%' %B6%()*$')',*. ' 7' $,%0' '((*$5,. -' 0')+%', . &/' 8 ; 8 '),*. ', . 7*/7%0')+%'/'$2. B' '/*. %' *$' %B)%. 50')*')+%')$' (+%*1)' . 5' 4$*. (+,' . ')+%' &*$8 %$' ('0%',)', 0'101' //2'(/%'$')+, . ')%. '(, *10' 8 1(10' 3+,(+' ,0' # 2- ' $')+%$')+' . ' (*1-+%5' 16' 8 ,B%5' 3,)+')+%'0'/,7' '3+,(+',0'&$%%/2'0%($%)%5' 41)' . *)' 03'//*3%5' *8 %),8 %0')+%' %B6%()*; $'),*. ' (*.)' +'$5%$'6%//%)0'0%($%)%5',. ')+%' 7*.)$,(/%0'*&')+%/'/'$2. BĤ 3+,/0),&')+%')$'(+%*' ' . 5' 4$*. (+,' $%', . 7*/7%5')+%'101'/')+,(9'%B; 6%()*$'),*. ' *&' 4$*. (+,),0',0' '/0*' (*1-+%5' 16' %-/1),),*. ' ,0' 6', . &1/' . 5' 5,&&,(1/)' *3,. -')*' ,8 6/,('),*. ' *&')+%' '$2%6,-/*)),(*&*/50' . 5' %6,-/*)),0Ĥ 2%)')+%' 6+'$2. B' *. ' , . 06%(),*. ' 0+*30' *. /2' ''/,))/%' $%5. %00' E1,)%', . '5%E1')%')*' ((*1.)'&*$')+%' 5206+'-,' ' ((* 8 6' . 2,. -')+%0%' 02 8 6)*8 0')+%$%' ,0' '' $'6,5' 61/0%' ' . 5' 0/,-+)'$,0%' *&')%8 6%$')1$%')+*1-+')+%')*. -1%' 8 '2' 4%' 8 *,0)' ' . 5' *)+%$', . 5,('),*. 0' *&', . ; &/' 8 8 ')*$2' &%7%$' 0/,-+)

+%'/'$2. -*0(*6%'$%7%'/0' (*. -%0),*. ' *&')+%' /'$2. B' 3+,(+' 7'$,%0' 8 1(+' , . ' %B)%.)' . 5' 5%-$%%' . ' 0/,-+)' ('0%0')+%' $%55%, , . -' 8 '2' 4%' (*. &, . %5')*' 06%(,'/' 6'$)0'/,9%')+%' %6,-/*);),0' . 5'7*('/' (*$50'3,)+*1)' . 2' '66$%(,'4/% 03%//, . -'*&')+%' '&&%()%5'0)$1()1$%0' +%' (*$50' 101'//2' %B+,4,)' (+' . -%0'3+,(+' '((*1.)'01&&,; (,%.)/2'&*$')+%' +*'$0%. %00' 1$, . -' ')%8 6)0' ')'6+*. '),*. ')+%2' '$%' *&)%. '0%%. ')*'4%', 8 6%$; &%()/2' '66$*B, 8 ')%5' 4%, . -' 0%6'$')%5'42' ' . ' %//,6),('/'&,001$%')+%' $%01/)' *&' 6'$%0,0' *&')+%,$', .)%$. '/')%. 0*$' 8 10(/%0')+%')+J$$* '$2)%' . *,5%,', .)%. 5' %00' &$%E1%.)/2')+%' 6*0)%$,*$' 6'$)' *&')+%' -/*)),0' $%8 ', . 0' *6%. ' 51$, . -' 6+*. '),*. ' &*$8, . -' ')$,' . -1/'$' 06'(%' 3,)+')+%' '6%B' 5,$%()%5' &*$3'$50' '' (*. 5,),*. ' 5%6%. 5, . -' *. ' 6'$%0,0' *&')+%' '$2)%. *,5%10' 8 10(/%' +%0%'6'$%0%0' *&')+%' (*$50' $%' 6$*4; '4/2' 51%')*' , . &/' 8 8 ')*$2' ,8 6/,('),*. ' *&')+%,$' . %1$* 8 10(1/'$' '66'$')10' $*)$10,*. ' *&')+%' 03*//%. ' , .)%$ '$2)%. *,5'&*/5' 4%)3%%. ')+%' 6*0)%$,*$' %. 50' *&')+%' (*$50' 6$%7%.),. -

)+%,$' 51%' '551(),*. ' ,0' ' . ' *(('0,*. '/' 0*1$(%' *&' +*'$0%. %00')' *)+%$'),8 %0' . *' 5%&, . ,)%/*00' *&' 8 *7%8 %.)' (' . ' 4%' $%(*-. ,0%5' ' . 5' +%$%')+%' +*'$0%. %00' ,0')*' 4%' '0($,4%5')*' '/)%$'),*. 0' , . ')+%')%. 0,*. ' . ' . 5' 7,4$'),*. ' *&')+%' (*$50' 6$*51(%5' 42')+%' (')'$$+' . ')+%' 0%7%$%')26%')+%' 3+*/%' /'$2. B' ,0' (*. -%0)%5' ' . 5')+%' '$2%6,-/*)),(' &*/50' %6,-/*)),0' ' . 5' 7%.)$,(1/'$' 4' . 50' '$%' 03*//%. '0*' '0')*' +,5%')+%' 7*('/' (*$50' 8 *$%' *$' /%00

. ' 8 *0)' , . 0)' . (%0' *&')+%' 8 ,/5' &*$8' $%; (*7%$2'%. 01%0' , . ' '' &%3' 5'20

&')+%' ('0%' 6$*-$%00' 1.)*3' $5/2')+%' $%0); /%00. %00' ' . 5' ' . B,%)2' , . ($%' 0%' Ĥ 01&&*('),7% 6' $*B208' *((1$' ' . 5' $%(1$' 3,)+' , . ($%' 0, . -' &$%E1%. (2Ĥ K)+%' 6'), %.)<0' 3+*/%' '))%.),*. ' '6; 6%' $0' (*. (%.)$')%5' *. ')+%' %&&*$)' *&' 4$%')+, . -Ĥ +%' 5$%' 50')*' 06%' 9' *$' 03'//*3' ' . 5', &' *4/, -%5')*' 0' 2' ' . 2)+, . -' +%')' 9%0' &,$0)' '' /'4*1$%5' , . 06, $'), *. ' ' . 5')+%. ' 3,)+' '' 0)$', . , . -' %&&*$)' 4$, . -0' *1)' 3+')' /,))/%' 7*, (%' ,0' /%&)' $'51; ''//2' '0')+%' '%$'),*. ' *&')+%' 4/**5' 4%(* 8 %0' 8 *$%' , 8 6%$&%()' 5$*30, . %00' (* 8 %0' *. Ĥ)+%' %2%0' 0)'$, . -', . ')+%' 6$%7,*10' 0)'-%' '$%' +'/&' (/*0%5' 42')+%' 5$**6, . -'/,50' Ĥ)+%' &'(%'4')+%5' , . ' 6%$06,$'),*. ' 4%(* 8 %0' /,7,5Ĥ ' . 5' 5%')+' *((1$0'6$*4'4/2', . ' '' 6'$*B208'*&'01&&*('),7% 5206. *%'

(1)%' /'$2. -,)0' *((1$$, . -' , . ' 2*1. -' (+,/5$%. '0*8 %),8 %0' ' "7 0 ' *$' ' 5,&&%$0' 0*8 %3+')' &$*8')+%' 5%0($,6),*. '>10)' -,7%. ' +%0%' 5,&&%$%. (%0' 5%6%. 5' *. ')+%' 08'/' 0,C%' *&')+%' (+,/5<0' /'$2. B' '. 5' *. ')+%')%. 5%. (2')*' 06'08' , . (,; 5%.)'/')*')+,0' '-%' ,)+*1)' . 2' 6$%7,*10' ,// . %00' 4%2*. 5'6*00,4/2' '' 0/,-+)' (*1-+' . 5' +*'$0%. %00')+%' (+,/5' ,0' 0155%. /2' 0%,C%5' ')' . ,-+)' 3,)+' '' 4'$9, . -' (*1-+' . *,02' 0)$,51/*10' , . 06, $'), *. ' . 5' 8*$%' *$' /%00' 1$-%.)' 5206. *%' ' +%' 01&&*('),7%' 0%,C1$%' 0%/5*8' /'0)0' 8 *$%')+' . ' '' &%3' 8, . 1)%0Ĥ 41)' ,)' 8 '2' $%(1$')+%' 0' 8 %' . ,-+)' *' $.' 01((%00,7%' . ,-+)0')+%' (+,/5'4%, . -' -%. %$' //2' &$%%' &$*8' '/' 02 8 6)*8 0' %B(%6)' 0/,-+)' (*1-+' . 5' +*'$0%. %00' 51$, . -')+%' 5'2), 8 %' +%0%' '))' (90' '$%' 8 ', . /2' 51%)*' 06'08' *&')+%' 06+, . (0)%$' 8 10(/%0' *&')+% /'$2. BĤ 41)', . ' ' 6$*4'4,/,)2')+%2' '$%' '/0*' 6'$)/2')+%' $%01/)' *&' 5$2, . -' *&')+%' 0%($%), *. 0' '((1 8 1/')%5' 51$, . -' 0/%%6' ' . 5' (*. 0%E1%.)' . '$$*3, . -' *&')+%' -/*)),0' '$*B208'/' 520; 6. *%'' *&')+%' 0' 8 %' . ')1$%' ' . 5' 51%')*')+%' 0' 8 %' ('10%' 8 '2' 5%7%/*6' '0' '' (*86/,(',*. ' *&')+%' %B' .)+%8 ')' ' %06%(,'//2' 8 %'0%0

& G (1)%' /'$2. -,)0',0' '6)')*' 4% (*. &*1. 5%5' 3,)+')' &*$8' *&', . &/' 8 8 '),*. ' 3+,(+',0' (+'$'()%$,0%5' 42')+%' &*$8')',*. ' *&' ' &'/0%' 8 %8 4$'. %', . ')+%'/'$2. B' . ' 8 %/2'(' 6'$)/2')+%' $%01/)' *&' 5$2, . -' *&')+%' 0%($%), *. 0' '((1 8 1/')%5' 51$, . -' 0/%%6' ' . 5' (*. 0%E1%.)' . '$$*3, . -' *&')+%' -/*)),0' '$*B208'/' 520; 6. *%'' *&')+%' 0' 8 %' . ')1$%' ' . 5' 51%')*')+%' 0' 8 %' ('10%' 8 '2' 5%7%/*6' '0' '' (*86/,(',*. ' *&')+%' %B' .)+%8 ')' ' %06%(,'//2' 8 %'0%0

& G (1)%' /'$2. -,)0',0' '6)')*' 4% (*. &*1. 5%5' 3,)+')' &*$8' *&', . &/' 8 8 '),*. ' 3+,(+',0' (+'$'()%$,0%5' 42')+%' &*$8')',*. ' *&' ' &'/0%' 8 %8 4$'. %', . ')+%'/'$2. B' . ' 8 %/2'(' 6'$)/2')+%' $%01/)' *&' 5$2, . -' *&')+%' 0%($%), *. 0' '((1 8 1/')%5' 51$, . -' 0/%%6' ' . 5' (*. 0%E1%.)' . '$$*3, . -' *&')+%' -/*)),0' '$*B208'/' 520; 6. *%'' *&')+%' 0' 8 %' . ')1$%' ' . 5' 51%')*')+%' 0' 8 %' ('10%' 8 '2' 5%7%/*6' '0' '' (*86/,(',*. ' *&')+%' %B' .)+%8 ')' ' %06%(,'//2' 8 %'0%0

U Y ' ' !?"

*&' 5,6+)+%$,),(' 8 % 8 4 $ ' . %' , , ') + %' &' 1 (%0 ' *&' '($,5' %B(*$,'), . -' 5,0(+ ' $ - %' &$* 8 ') + %' . *0;)$,/0 ' ' . 5' *&' -/' . 51/ ' $' 0 3 %//, . -0H ' 0' 3 %// ' 0')+%' 8 * 5 %' *&' ' ((%00,*. ' *&') + %' 02. ,6)* 8 0 ' 3 * 1/5' /%' 5' 1 0') *' $%- ' $5') + %' (' 0 %' ' 0' 0, 8 6 /%' /' $2. -,), 0H 3 +, /%') + %' 6 $ %0 % . (%' * &' ' . 2' * &') + %0 %' 02 8 6)* 8 0 ' * $') + %' 6 $ %7 ' /% . (%' * &' ' . ' %6, 5 % 8, (' *& 5, 6+) + %$, ' ' 3 * 1/5' /% ' 5' 1 0') *' 0106 %(0)' &' /0 %' 8 % 8 4 $' . % ' 7 %. ' &) %$' 51 %' (* . 0, 5 %$'), * . ' *&) + %0 %' 6 *, .)0 ' ' . 5' *&') + %' (+ ' $' ( ) %$' *&') + %' 7 *, (% ' (* 1 - + ' ^ (' , . ' (%$) ' , . ' * ' 0 %0 ' % ' $%) 8 ' 4 /% ') *' 0 ' 2' 3 + %) + %$' 3 %' + ' 7 %') *' 5 %' / 3,) + ' 0, 8 6 /% ' + %$' 0 % 7 %$% ' 5, 0 % ' 0 % ' $* 8 ' / ' $2. -, 0 8 10 0) $, 51/10 ' ' (1) %' / ' $2. -,), 0', 0' 5, 0), . -1, 0 + %5' 42') + %' 6 $ %0 % . (% ' *&' 0/, -+) ' 62 $ % B, ' ' ' . 5' *) + %$, . 5, ('), * . 0' *&' 6 $, 8 ' $2' , . &/' 8 8 ') * $2' '&&% (;), * . ' ' *&') + %' / ' $2. B' ' . 5' ' , $ 6 ' 00 ' - %0' H 42') + %' '40 %. (% ' &', . 5, ('). 0' * &' ' . 2' *) + %$' ' &&% (), * . ' *&') + %' . % $7 * 10' 020) % 8 # * $' * &' ' ') %. 5 %. (2') *' (* . 71/0, * &$0' H 42') + %' 101 ' / ' * ((1 $$ %. (% ' *&') + %' ')) ' (9' , . ') + %' . , -+) ' *, 2' H 42') + %' 0/, -+) %$ '&&% (), * . ' * &') + %' 4 $ % ') +, . -' H ' . 5' 42') + %' &$ %; E1 %.) ' < ' 0 # ' 3 +, (+' , 0') + %' 6$ * 8, . % .) ' 02 8 6)* 8 ' ' . 5' 3 +, (+' , 0' 3 ' .), . -' , . ' / ' $2. ; -, 0 8 10

$ G . ' 8, /5' ')) ' (90' * &' / ' $2. -,), 0' ' / ') + %' 02 8 6)* 8 0' %B, 0) &' + ./2' , . ' ' ' 0/, -+) ' 5 %- $ %% ' ' . 5' 5, 0 ' 66 %' $' , . ' ' ' &% 3' 5 ' 20' c 85 %$' 0, 8 6 /%') $ %') 8 %.) ' 1 (+' , 0') + %' * $5, . ' $2' (* 1 $ 0 %' * &') + %' &' / 0 %' ($* 16' * &' (+, /5 $ %. ' . ' ' 51/) 0' / ' $2. -,), 0' 8 ' 2' * ((1 $' , . ' ' . 2' 5 %- $ %% ' 4 %) 3 %. ') + %' 8 , /5 %0) ' &* $ 8' ' . 5') + ') ', . ' 3 +, (+ ') + %' 02 8 6)* 8 0' 4 %, . -' ' // ' 8 * 0) ' , .) % . 0 % ' ,) ' 8 ' 2' 6 $* 7 %' &') ' / ' , . ' ' ' 5 ' 2' * $) 3 * ' * $ * %7 %. ' , . ' ' ' &% 3' + * 1 $ 0' + %' 5' . -% $* 5 %6 %. 50' , . ' -$ %') ' 8 % ' 0, 1 %' * . ') + %' ' 8 * 1 .) ' * &' 0 3 %// , . -' 6 $ 0 %0 % .) ' /) + * 1 - + ' 8, /5' / ' $2. -,), 0' 101 ' // 2') % 8, . ') %0' & ' 7 * 1 $; ' 4/2' , . ' ' ' &% 3' 5 ' 20' ,) ', 0' . % (%00 ' $2') + ') ' % 7 %$2' (' 0%' 0 + * 1/5' 4 %' 0 %51/* 10/2' 3 ') (+ %5 ' ' 0' ') ' . 2' 6 %$, * 5' 5' . -% $* 10' 02 8 6)* 8 0' 8 ' 2' 0 %) ', . ' . 5' 6 $* 7 %' $' 6,5/2' &') ' / ' +%' 5,0 %' 0 %' ,0' 8 * 0) ' 5 %' 5/2' , . ') + %' 2 * 1 . - ' (1) %' 8 ' 2' 6 ' 00' * . ') *' (+ $* . , (' / ' $2. -,), 0

5 ! G 0' 0 * * . ' ' 0') + %' &, $0) ', . 5, (' ;), * . 0' * &' % 7 %. ' 0/, -+) ' / ' $2. -,), 0' ' $% ' * 40 %$ 7 %5 ') + %' 6 '), % .) ' 0 + * /&/5' 4 % ' (* . &, . % 5') *' ' ' $8' $** . ' ') ' ' ') % 8 6 %$') 1 $% ' * &' DFg ' ' ' 9 %)) /% 4 %, . . -' 9 %6) ' 4 *, /, . -') *' 8 *, 0) % . ') + %' ') 8 * 06 + % $% ' '/9, . -' 8 10) ' 4 % ' & * $4, 55 % . ', . ' * $5 % $') *' % . 01 $% ' ' 0' 8 1 (+' $ % 0) ') *') + %' / ' $2. B' ' 0' 6 * 00, 4 /% ' + % 5, %) ' 0 * 1/5' 4 % ' (+, % & /2' E1, 5 ' . 5' . *' 0), 8 1; / ' .) 0' ' $% ' $ % E1, 5 % 5 ' 0' ' $1 /% ' . *' & ' $) + % $') $ % ') 8 % .) ' , 0' . % (% 00 ' $2 H 41) ' , & ') + %' (* 1 - + ' 4 %) $ * 14 /% 0 * 8 % ' 3 % 8 ' 2' 6 $ % 0 ($, 4 % ' ' 0 ' / , . % 5, ' 6 + * $ %), (' 5 $ ' 1 - +) ' 3,) + ' 0 8 ' / / ' 5 * 0 % 0' * & ' 8 * $ 6 + , . % ' ' . 5' ' * $' F 8, . , 8 0' * &' ' .), 8 * . , ' / ' 3, . % ' % 7 % $2') + $ % % ' * $' & * 1 $' + * 1 $ 0 ' + %' (* 1 - +

' . 5 ' 0 % . 0 % ' * &' 5 $2 . % 00 ' * $' 0 * $ % . % 0 0' * &') + %') + $ * ') ' ' $ % ' - % . % $ ' // 2' $ % / , % 7 % 5' 42') + %' , . + ' / ' ;), * . ' * &' 0, 8 6 /% ' 0) % ' 8 ' * $' 42') + %' 7 ' 6 * 1 $' * &' (* 8 6 * 1 . 5'), . ()1 $ % ' * &' 4 % . C *, . ' * . % ' 5 $' (+ 8 ' 4 %, . -' ' 55 % 5') *' '' 6, .)' * &' + *) ' 3 ') % $ ' . ' % 7 % $2' (' 0 % ' '' $ % - 1/' $' % 7 ' (1 '), * . ' * &') + %' 4 * 3 % / 0' , 0') *' 4 % ' 0 % (1 $ % 5 ' &' 0 3 % , . -' * &' / ' $2. B' % . 01 % ') + %' 6 '), % .) ' 8 10) ' 4 % ' 5, $ % () % 5') *' 01 (9' , (% ' (* . 0) ' .) / 2' +* 1/5') + %' 5206. * % '' 4 % (* 8 % ' 1 $ - % .) ') $ ' (+ % *) * 8 2' 8 10) ' 4 % ' 6 % $ & * $ 8 % 5' ') ' * . (% ' ,) + ' 51 % ' (' $ % ' . ') + % ' 6 % $ & *)). ' . (% ' * & ') + % 3 *6 % $ '), * . ' ' . 5' ' &) % $) $ % ') 8 % .) ' * &') + % ' 6 '), % .) ' . ' (' 0 % 0' * &' 0, 8 6 /% ' / ' $2. -,), 0') $ ' (+ % * ;) * 8 2' , 0' ' / 8 * 0) ' ' / 3 ' 20' 01 ((% 00 & 1/' 41) ' ,) ' 0 + * 1/5' . *) ' 4 % ' $ % 0 * $) % 5 ') *' 1 . / % 00') + %' (' 0 % ' , 0' 1 $ - % .)

, 8 6 /% ' % ' 0 % 0' * &' &% /0 % ' ($* 16' , . ' (+, /5 $ % . ' ' $ % ' 101 ' // 2' $ % + % 7 % 5' 42' 3 ' $ 8' 6 * 1 /), (% 0') *') + % ') + $ * ') ' . ' % 8 %), (' 8 ' 2' 4 % ' 5 8, . , 0) % $ % 5' , . ') + % % ' (* 8 6 ' $ '), 7 % / 2' $ ' $ % ' , . 0) ' . (% 0' , . ' 3 +, (+ ' 5206. * % '' 5 % 6 % . 50' * . ' , . 01 &&, (, % .) ' $ % 8 * 7 ' / * &' 0 % ($ %), * . 0' &$* 8') + % ' 2. B

' 4 $, % &' ' // 10, * . ' 8 ' 2' + % $ % 4 % 8 ' 5 % ') *') + % ' 8 %) + * 5' * &' , .) 14 '), * . ' 3 +, (+' + ' 0' 4 % % . ' 01 (' (% 00 &' ' // 2' 6 $ ' (), 0 % 5' 42' $' < 32 % $' ' . 5' *) + % $ 0' & * $') + % ' $ % /, % &' * &' / ' $2. -% ' / 5,6+) + % $, ' ') ', 0' 6 * 00, 4 /% ') + ') ' &1 $) + % $' % B 6 % $, % . (% ' 8 ' 2' 3 ' $ $' . ') + % ' 5 * 6), * . ' * &') +, 0') $ % ') 8 % .) ' , . ' 6 /' (% ' * &') $ ' (+ % *) * 8 2' , . ' (% $) ', . ' (' 0 % 0' * &' / ' $2. -,), 0' ' 00 * (, ') % 5' 3 ,) + ' 0) % . * 0, 0' 3 + %) + % $ * , . ') + % ' (+, /5' * $' 51 /)

' , ' $, M 6 - I ' ' H A 5 % 8 ' * &') + %' ' $2. B' H A 5 % 8 ') * 10' ' $2. -,), 0H ' $ ' S / " 0 ' $ ' H A % $' F # -

- G . &/' 8 8 ') * $2' % B 15 '), * . ' , .) * ') + % ' 014 8 1 (* 10'), 001 % ' * &') + % ' / ' $2. B' * &' 0 % $ * 10' 0 % $ * 61 $1 / % .) ' * $' 0 % $ * &, 4 $, . * 10' &/1,5

=' G +/% - 8 * . * 10' / ' $2. -,), 0' * ((' ; 0, * . ' // 2' ' $, 0 % 0' ' 0' ' ' 6 $, 8 ' $2' 5, 0 % ' 0 % ' ' . 5' , 0') + % . ') *' 4 % ' $ % - ' $5 % 5' ' 0' ' ' 02 8 6)* 8 ' * &' 0 % 6), (' , . & % (), * . H) + 10' , . ' $ ' $' % ' , . 0) ' . (% 0' ,) ' 0 % % 8 0') *' + ' 7 % ' 4 % % . ' K) + %' % ' $/, % 0) ' 8 ' . , & % 0) '), * . ' * &' % $ 20, 6 % / ' 0

% (+' . , (' / ' , . >1 $, % 0 ' ' . 5') + %' 5, $ % ()' ' (), * . ' * &' 4 *, / , . -' 3 ') % $ ' (* $$ * 0, 7 % 6 *, 0 * . 0 ' ' . 5' & * $ % , . -' 4 * 5, % 0' ' $ % ' / % 00' 1 . (* 8 8 * . ' ('10 % 0 ' +/% - ; 8 * . * 10' / ' $2. -,), 0' 8 ' 2' '/0 *' 5 % 7 % / * 6' , . ') + % ' (* 1 $ 0 % ' * &' 06 % (, &, (' &% 7 % $ 0 ' 01 (+' ' 0' 8 % ' 0 / % 0 ' 0 (' $; / '), . ' ' 0 8 ' // 6 * B') 26 +*, 5' &% 7 % $' 5, 6+) + % $, ' ' 620 % 8, ' ' ' . 5' , . ' $ % . ' / 5, 0 % ' 0 %

. ' 8 * 0) ' (' 0 % 0' + * 3 % 7 % $') + %' / ' $2. -% ' / ' & & % (), * . ' , 0') + % ' $ % 01 /) ' * &' % B) % . 0, * . ' * &' 5, 0 % ' 0 % ' & $ * 8' . %, -+ 4 * 1 $, . -' 6 ' $) 0 ' 6 + ' $2. -,), 0' 3 + %) + % $ 5 % 6 % . 5 % .) ' * . ' %$ 20, 6 % / ' 0' * $' *) + % $' ('10 % 0 ' 4 %, . -') + % ' 8 * 0) ' (* 8 8 * . ' ' .) % (% 5 % .)

. & / ' 8 8 ') * $2' & & % (), * . 0' * &') + % ' (% $7, (' / ' (* . . % (), 7 % '), 001 % ' ' . 5' 6 % $, (+ * . 5 $,), 0' * $' 5 % % 6 ' 1/(% $ '), * . ' * &') + % ' / ' $2. B' ' 00 * (, ') % 5' 3,) + K ' (' $ (, . * 8 ' ' 026 + , / , 0' * $') 14 % $ (1/* 0, 0 ' ' $ % ' /0 * ' * ((' 0, * . ' / (' 10 % 0' * &' 6 + / % - 8 * . * 10' / ' $2. =), 0

! ' $' ' " +% ' 8 1 (* 10' 01 $& ' (% ' 6 $ % 0 % .) 0' '' 51 / ' $ % 5' * $' /, 7, 5' (* / * 1 $' ' . 5' , 0' -$ % ') / 2' 0 3 * // % . ' * 3, . -') * ' , . & , /) $ '), * . ' * &') + % ' 014 8 1 (* 0' ' ' (% $) ', . ' 8 * 1 .) ' * &' 610' , 0' - % . % $ ' // 2' 5, && 10 % 5') + $ * 1 - + ') + % ' % B 15 '), * .

4%' 01((%%5%5' 42' 7%$2' (+$*.,(' 1/(%$'),*.' '.5' (,(')$,0'),*.' /), 8 ')%/2') +%' 5,0%'0%' 8 '2',.7'5%' *)+%$' 6'$)0' '.5' ('10%' 0)%.*0,0' *&') +%'/'$2.B

! (!)' ! ($')' ' & '

+%'0286)*8 0' *&'/'$2.-%''/'/%6$*02' '$%')+*0%' *&'(+$*.,(',.&/'8 8 '),*.'H'.5',&') +%'.*51/%0' 1/(%$')%')+%'1/(%$'),*.',0'7%$2'0/*3''.5',*)' *&') +%'5%0)$1(),7%'(+'$')()%$'*&'026+,/,0' 0' /%6$*02'*&') +%'/'$2.B'*((1$0'*./2'3+%.')+%' 5,0%'0%'*&') +%'09,.'+'0'4%%.'/*.-'%0)'4/,0+%5' ,)0'5,'-.*0,0',0'(/%'$')'101''//2'%B,0)0'&*$''' /*.-'),8%'%7%.' 2%'$0'4%&*$%',)'1/(%$')%0'H '.5'%7%.''&)%$')+,0',)',0'7%$2'0/*3',.',)0'6$*; -$%00''.5'.*)'&')'/

! G=0,.'*)+%$'&*$80'*&'/%6$*02')$%')8%.)',0'1/8*0)' 10%/%00' $'(+%*)*82' 810)'4%' 6%$&*$8%5',&' 0)%.*0,0'*((1$' '

(Q' $ -*' 0 ' " * $ "'

+%'('10%0'*&')+,0'5,0%'0%'.5'*&'/1610'*&')+%' 09,.'$%',5%.),('/')',0'5*14)&1/'3+%)+%$')+%'/'$2.B',0'%7%$'6$,8'$,/2''&&%()%5

! ' $' 0 ; * ' $74 '

//)'$'!'/3$ #'-$7' 7'$!)'/)'$-'!')"=' $# 7' $$)'$)')'5 !'!#> 3'.5'4#) $'$-'!'*4#$4'*+) ' #) $'$-'!'4#)'' *$' .) + '- 4)'$-' 4#!'#

! (!)' ! ($')' & '

1610'*&')+%'/'$2.B'8'2'-,7%'.*'5%&,.,)%0J.6)*89'%7%.'3+%.'6$*.*1.(%5'/%0,*.0'%B,0)''.5'5*14)/%00'*.')+,0''((*$8')+,0'&&%(;),*.'*&')+%'/'$2.B',0'*&)%.'*7%$/**9%5'.'*)+%$'('0%0')+%'0286)*80'$%')+*0%'*&'(+$*.,(.&/'88'),*.H'41)')+%$%''66%'$0')*'4%'/%00'%.5%.(2')*'*%5%8''*$')*')+*0%''&&%(),*.0'*&')+%'('$),/'-%0'3+,(+'*((1$',.'026+,/,0'.5'14%$(1/*0,0'1610',0'5,0),.-1,0+%5'&$*8'026+,/,0'42',)0'6$%7',/,.-'.*51'&')(+'$')()%$'.5'42')+%'0/*3'6$*-$%00'*&'1/(%$'),*.'$*8')14%$(1/*0,0'3+,(+',)'8*$%'(/*0%/2'$%;0%84/%0',)'5,&&%$0'8',./2',.',)0'8'$9=')%.;5%.(2')*')+%'&*$8'),*.'*&'(,(')$,(%0'1)',.'/'(' (0%0')+%'5,'-.*0,0')1$.0'6$,.(,6'//2'*.')+%'6$%0%.(%'*&'/1610'*&')+%'09,.')'/'0)0'&*$'8'.2'2%'$0

! G=1610'*&')+%'/'$2.B'810)'4%'()$%')%5'(*.0),)1,*.'//2',.')+%'0'8%'3'2''0'*)+%$'&*$80'*&'/16 0''.5'/*('//2'42'('10),(0'*$')+%' -'/7'.,(' ('1)%$2' '(),(''(,5''6;6/,%5''0',.' ('0%0'*&'/'$2.-%''/'14%$(1/*0,0'6$*8,0%0')*'4%'*&'0%$7,(%',.'&,610''/0*'

%(%

T' $ -*' # '3 ' MZ HI3' ' & ' # ' ,

P # '*&')+%'/'$2.-%''/' 81(*10'8%84$'.%',0''101''/''((*86'.,8%.)' &',.;&/'88'),*.''(1)%''.5'(+$*.,('*0%'.5',0''.*)',.&$%E1%.)'0286)*8'*&'+20)%$,''+=*(+*.'5$,'0,0''.5'.%1$'0)+%..,''&"# '*((1$0',.'('0%0'3+%$%')+%'016%$,*$'/'$2.-%''/'.%$7%'*$',)0'(%.)$%0''$%''&&%()%5''.5'%06%4,'//2''0''0%E1%/'*&'5,6+)+%$,'')',0''/0*''.'*(('0,*.'/'0286)*8'*&'41/4'$'6'$'/20,0''.5'+20)%$,'

'.5',0'0',5')*' '((*86'.2'%6,/%6),(' &,)0'P " # '8'2'$%01/)'&,$*8')18*1$0'*&')+%'4'0%'*&')+%'091//'6/$#'',' 3+,(+')+%/'$2.B',0')+%'0%')'*&'7'$,*10'6%$''7%$)%5''.5'1.'((*1.)'4/%'0%.0'),*.0',0'.*)''.'1.(*88*.'8'.,&%0)'),*.',.''.'08,(+20)%$,('/''.5'+26*(+*.5$,'('/'6'),%.)0

HJ3' '& ' (' ' "'

A'R' ',0'(*.0,5%$%5',.''0%6'$')%'0%(),*.' 'L' '$2.B'6'08'*&

AFR' 6 '*&')+%'/'$2.B',0'*&'-$%')'7'$,%)2')'3,//'4%'4%0)'5,0(100%5'&,$0)'1.5%$')+%'+%'5'*&')+%'") ''&&%()%5H'.5'0%(*.5/2'3,)+'$%06%()')*')+%'85,751'/' 6'$';/20%5

' 6 ' ' #' S "0 '

N) G .')+,0'$'$%'(*.5,),*.'5%6%.5,.-'%,)+%$'*.'5,6+)+%$,''*$'41/4'$'6'$'/20,0')+%'..)%$,*$'*&')+%'/'$2.B',0'E1,)%'80%.0,),7%')*'+%'.)%$,*$'*&')+%'/'$2.B',0'E1,)%'80%.0,),7%')*'+%'.)$*51(),*.'*&''6$*4%H)+%'%6,-/*)),0'/,%0'8*),*./%00'-',.0)')+%'4'0%'*&')+%')*.-1%'*3,.-')*' 6'$'/20,0'*&',)0'5%6$%00*$0G)+%')+2$*%6,-/*)),(''.5')+%'7*,(%',0'0',5')*'4%$*1-+'.5'/*3'6,)(+%;'&$*8'6'/02'*&')+%'($,(*)+2$*,5'810;(/%0'+%'-/*)),0',0'$%6$%0%.)%5'42''3'72',..%',.'(*.0%E1%.(%'*&'6'$'/20,0'*&')+%'%B;)%$.'/')%.0*$0'+%',881*4,/,)2'*&')+%'%6,;-/*)),0''.5')+%'.'%0)+%0,''$%'0*1$(%'*&'-$%')'5'.-%$'0'&**5',0'/,9%/2')*'%.)%$')+%'/'$2.B''.5'/%'5')*'61/8*.'$2'(8 6/,(''.*.0'**5'810)'4%'58,.,0)%$%5'42')+%'(%0*6+''K-%'/')14%',.'01(+'('0%0' :C$ '

$' $

6 ' ' #' $ "' S "0 '

N) G *86/%)%'6'$'/20,0',0'-%.%$'//2'51%')*'6$%001$%'*&'.'.'.%1$208'*&')+%' '*$)''*$*)+%$'8)$')+*$'(,(')18*1$''*$'*&'''- /)$%'*.'+%'.%$7%''&)%$',)0'*$,-,.' ')+%'7'-10'41)'+%'0'8%%&&%()'8'2'&*//*3'5%-%.%$'),7%'*$'5%0)$1(),7%'/%0,*.0'*&')+%'8*)*$'&,4$%0',.''.2'6'$)'*&')+%,$'(*.$0%&,$*8')+%'8%51//''*4/*.;-')''5*3.')*'+%,$'6%$,6+%$'/')%$8,.'),*.,/')%$'/6'$'/20,0'8')+%'7%$2'$'$%'80)'.(%0'.'3+,(+')*'+'0'4%%.'*40%$7%5'3'0')+%'$%01/)'*&'('$(,.*8''*&')+%'*%0*6+'-10'5*14%%'.%1$208'*&')+%''*$)''.5',..*8,.')%''$)%$2')18*1$0'*&')+%'4'0%'*&')+%'4$',.'%B)%.0,7%'6%$,('$5,'/'%&&10,*.''.5'/'0)/2'6$%001$%'*.')+%')$1.9'*&'.%'6.%18*-'0)$,(.%$7%'&*$%B'86/%'42'%./'$-%5'4$*.(+,'/-/'.50'/')%$'/6'$'/20,0'&*//*3,.-'1./')%$'/6$%00$%',0'$%-'$5%5'42',$'%*$-%'*+.0*.'3+*'&,$0)'*40%$7%5',)''0'.',.0)'.(%'*&'$%&/%B'6')''/20,0'H41)')+%'8*$%'-%.%$'/4%/,%&',0')+')'0%;(*.5'$2'(+'.-%0'$%'0%)'16'8')+%'.1(/%,'*&')+%'$%(1$$%.)'/'$2.-%''/'.%$7%0''0')+%'$%01/)'*&'0(%.5,.-,$$,'),*.' +%'02 86)*80'*&4,/')%$'/'60=20,0''$%'6+*.,''',.'4,/,)2')*'(*1-+''.5'0/,-+)'0)$,5*$'/,-+)'5206.*%''8'2'4%',.51(%5'42'))%86)0')*'06%'9'+%7*('/'(*$50'$%'0%%.'/2,.-'8*),*./%00'.'5'$%/'B%5','''6*0,),*.'8,53'2'4%)3%%.''451(;),*.''.5'551(),*.' .',81')%$'/'6'$'/20,0'3+,(+',0')+%'101'/'&*$8''.5',0'8*$%'(*88*.'*.')+%/%&)'0,5%'*.%'(*$5''/*.%*((16,%0')+%

6*0,),*.'>10)' 5%0($,4%5' 41)' '0')+%' +%'/)+2' (*$5' ($*00%0' *7%$')+%' 8,55/%' /,.%' 51$,.-' 6+*.'),*.')*' 8%%)' ,)0' 6'/0,%5'&%//*3')+%$%',0' .*' '6+*.,'')+*1-+')+%' 7*,(%',0' -%.%$'//2' 3%'9'.5'1.(%$)',.

,)+%$)*' (*86/%)%'6'$'/20,0''/*.%'+'0'4%%.' (*.0,5%$%5!#41)'6'$'/20,0'5%6%.5,.-'*.'0)$1(;)1$'/ 5,0%'0%' *&')+%' &,4$%0' *$' .1(/%,'*&')+%$%(1$$%.)'/'$2.-%'/ .%$7%0',0'&'$'8*$%'*&)%.',.(*86/%)%' .')+%0%'(,$(180)'.(%0''0' $' %8*.''.5' $' *0%.4'(+'+'7%'0+*3.',.' 5%/#%.5%.)/2')+%'&,4$%0'0166/2,..-')+%'451();)*$'8 10(/%0''$%')+%'&,$0')*'01&&%$'.'(*1$0%'*&),8%')+%'551()*$0' 8'2'4%(*8%'&&%()%5''/0*'41)'6'$'/20,0'*&')+%0%' 8 105%0',0'0%/5*8'(*86/%)%' +,0'&'()',0'))$,41)%5')*''-$%')%$71/.%$'4,/,)2'*&')+%'451()*$' .%"$7%&,4$%0')+'.'*&')+*0%'0166/2,..-')+%,$'.')'-*.,0)0')+%'551()*$0' $' %8*.'4%/,%7%0')+')'+%'4;51()*$'8 10(/%0')+%8 0%/7%0''$%/%00'$%0,0)'.)'+'.')+%'551()*$0')',0',86*00,4/%')*'5,0;(100'+%$%')+%'%B6%$,8%.)0''.5'(/,.,('/'&')0'*.'3+,(+')+,0',86*$)'.)'5*()$,.%',0'4'0%5*,,' 6 3' '5") & ' G$ '& '6 G +%'('10%'8'2'4%'%,)+%$'(%.),$'/G'0',.')'4%0'5*$0'/,0'41/4'$6'$'/20,0'026+,/,),(''*$' *)+%$' ,.)$'($'.,'/5,0%'0%'8 *$' 6%$,6+%$'/G=/%0,*.0''*&'4*)+'$%;(1$$%.)'*$'6.%18*-'0)$,(' .%$7%0'6$%001$%'*.')+%')$1.9'*&'*.%' '-10'*$'5%-%.%$'),7%''&&%(;),*.0'*&')+%''451()*$'8 10(/%0''0'5%0($,4%5'1.5%$')+%'6$%(%5,..-'+%'5,.-' +%'02 86;)*80'$%' 0%7%$%' ,.06,$')*$2'5206.*%'' '.5'0),$,5*$''.5'3%'9.%00'*$'0/,-+)'+*'$0%.%00'*&)+%'7*,(%' ,)+')+%'/'$2.-*0(*6%')+%'(*$50'$%' &*1.5'/2,..-'(/*0%')*-%=%$'4%,.-'0%6'$;')%5'42'' 8%$%'(+,.9' .'6+*.'),*.')+%2'66$*B,8')%'0'101''/'41)'51$,.-'5%%6',.;06,$'),*.'.*'5,7%$-%.(%')'9%0'6/'(%''.5''0/,-+)'8*7%8%.)'*&''551(),*.',0'-%.%$'//2'*40%$7%5' +,0''(),*.',0'))$,41)%5'%,)+%$')*')+%'%&&%()0'*&'01(),*.'*$')*''6%$7%$)%5',.*.'7'),*.'*$')*'6%$7%$)%5'42'' 8%$%'(+,.9' .'6+*.'),*.')+%2'66$*B,8')%'0'101''/'41)'51$,.-'5%%6',.;06,$')*'.'.*'5,7%$-%.(%')'9%0'6/'(%''.5''0/,-+)'8*7%8%.)'*&''551(),*.',0'-%.%$'//2'*40%$7%5' +,0''(),*.',0'))$,41)%5'%,)+%$')*')+%'%&&%()0'*&'01(),*.'*$')*''6%$7%$)%5',.*.'7'),*.'*$',8*66*0%5'551()*$0' ,/')%$'/6'$'/20,0'8'2'('10%'&')'/01&&*('),7%'))'(90''.5',&'6%$0,0)%.)'.%(%00,)')%0')+%'6%$&*$8;'.(%'*&')$'(+%*)*82

451()*$'6'$'/20,0'8'2'4%'0,81/')%5'42'8%(+'.,('/&,B'),*.'&,*8''.92/*0,0'*$' '$;)+$),0'*&')+%'($,**'$2)%.*,5'>*,.)0'*$'42'(,(')$,(,'/*$',.&/'88')*$2'(+'.-%0',.')+%,$'.%,-+4*&,$+**5' ,'-.*0,0',0'*&)%.'5,&&,(1/),.'01(+'('0%0'41)',.')+%'/'))%$'(*.5,),*.')+%$%',0'101''/2'0*8%'5,0)*$),*.'*&'6'$0'/20,001(+'0'(*.)$'(),*.',$$%-1/'$,)2'*$'03%//,.-'4*1)'.2')$%')8%.)' %!';A),0%'0%0'*&L''$2.B'6'08''*&G=.')+%'5%0($,6;),*.'*&*)+%$'5,0%'0%0'*&')+%'/'$2.B')+,0'(*.;5,),*.'+'0'4%%.'$%&%$$%5')*''0''&$%E1%.)'(*86+(',*.' 6'08'('10%0')+%'1$-%.)'02 86)*80'3+%.')+%'/'$2.B',0',$$,)')%5'42')+%'/*5-8%.)'*&''&*$%,-.'4*52'*$')+%+9%')' 8'2'$%01/)'&$*8'6$%001$%'*.''*$'5,0%'0%0'*&')+%'6.%18*;-'0)$,('*$'$%(1$$%.)'/'$2.-%'/ .%$7%!#&$*8'+20)%$,''!#*$' '0' '8'.,&%0),*.'*&''8*$%%-%.%$'/'&&%(),*.'*&')+%' .%$7*1'0' 020)%='.,.

+%''&&%()%5'7*('/(*$5'*((16,%0')+%'8%5,'.6*0,),*.!#41)',&')+%''551()*$'4%(*8%0',.;7*/7%5')+%'(*$5'$%(%5%0'&$*8')+%'8,55/%/,.%''.5')'9%0'16''')0,1'),*.'4%)3%%.')+')*&'451(),*.'.5'551(),*.' +%02 86)*80'*&'1.,/')%$'/6'$'/20,0''$%0/,-+)'+*'$0%.%00'.5'5206+*.,''41)'5206.*%'' .5'0)$,5*$'5*'.*)'*((1$'%B(%6)'*.'%B%$),*.

6 ' '#'& G '$'/20,0'*&')+%0%'810(/%0',0'.%'$/2''/3'20'4,/')%$'/'.5',0'6$*4'4/2')+%'$%01/)'*&''(%.)$'/.%$7*10''&&%(),*.'*&''&1.(),*.'/.')1$%'*(($,..-,.'+20)%$,('/'.%1$*),('*$'.0%8,(%014>%()0')',0'5*14)&1/3+%)+%$'-$*00'.%$7*10'5,0%'0%%7%$'/%'50')*',0*/')%5'6'$'/20,0'*&')+%'551(;)*$0' +%'6'),%.)'-%.%$'//2''&%8'/%'4%;(*8%0'0155%./2'6+*.,('41)')+%'$%&/%B'()0'*&0.%%C,..-''.5'(*1-+'$%0),/'))%.5%5'3,)+')+%'101'/0*1.5'))%86)0')*'06%'9'*((';0,*.''0/,-+)'5%-$%%'*&'5206.*%''51%')*')+%'0('6%'*&'4$%')+)+$*1-+)+%'3,5%/2'*6%.'-/*)),0' +%'/$2.-*0(*6%'0+*3'0')+')+%(*$50'$%'451()%5'.*8'//2'41)'5*'.*)7 66$*'(+'*.%''.*)+%$'51$,.-'%&&*$)0')*'6+*'.')%

6 ' '#'5" " " G=+%,.)%$.'/)%.0*$0'*$')+2$*'$2)%.*,5%',.)%8,'2'4%'6'$'/20%5'*.'*.%*$*4)+'5,0%0''0''(*.0%E1%.(%'*&'/'$2.-,),0'*$'*&+20)%$,''(;(*$5,..-''0')+%''&&%(),*.',0'4,/')%$'/'*$1.;/')%$'/')+%$%',0'6+*.,''*$8%$%+*'$0%.%00 1$,..-6+*.'),*.')+%'7*('/(*$50'$%0%6'$')%5'42'.'*7'/*$%//,6),('/06'(%''.5''66%'$')*'4%'7%$2')+,.''.5'.'$$*3'*3,..-,.'//6$*4'4,/,)2')*'5%&,(,%.)')%.0,*.

6 ' '#'I(" " ')+%($,(')+2$*,50',0'1.9.*3.'6'$)'&,*8')+%'$%01/)0'*&'6'$'/20,0'*&')+%'016%$,*$'/'$2.-%'/.%$7%

6 ' '#'& " G +,0',0'/0*'(*88*./2''$%01/)'*&'+20)%$,''*$'*&'/'$J8-%'/(')'$$+''.5'-,7%0'$,0%')*'+*'$%;.%00'*$'6+*.,''1$,..-'6+*.'),*.')+%'(*$50'8%%)',.'&,!*.)'41)'$%'0%6'$')%5'6*0)%$,*$/2'42''),'.-1/'$'-6

! 'G' ')+%'6'$'/20%5'(*.5,),*.'5%6%.5'*.'0%$,*10'5,0%'0%'*1)0,5%')+%'/'$2.B'/*('/)$%')8%.)',0'*&/,))/%''7','/ +%.'026+,/,0'*$'.%1$208',0'0106%()%5',*5,5%'*&6*)'00,18'0+*1/5'4%'6$%0($,4%5'&$%%/2' .'('0%0'*&'551()*$'6'$$&20,0''.'%8,''.5')+%+20)%$,('/0')%'810)'4%01,)'4/2')%')%5''.5',.)$''*$%B)$'/'$2.-%'/&%$'5,0')',.'8'2'4%)$,%5'41)'0155%.'$%(*7%$2'*&)%.'*((1$0'3,)+;*1)''.2')%')8%.)'%'('L''$2.B'6'08''*&G=.')+%'5%0($,6;),*.'*&*)+%$'5,0%'0%0'*&')+%'/'$2.B')+,0'(*.;5,),*.'+'0'4%%.'$%&%$$%5')*''0''&$%E1%.)'(*86+(',*.' 6'08'('10%0')+%'1$-%.)'02 86)*80'3+%.')+%'/'$2.B',0',$$,)')%5'42')+%'/*5-8%.)'*&''&*$%,-.'4*52'*$')+%+9%')' 8'2'$%01/)'&$*8'6$%001$%'*.''*$'5,0%'0%0'*&')+%6.%18*;-'0)$,('*$'$%(1$$%.)'/'$2.-%'/ .%$7%!#&$*8'+20)%$,''!#*$' '0' '8'.,&%0),*.'*&''8*$%%-%.%$'/'&&%(),*.'*&')+%' .%$7*10'020)%='.,.

W3%44,. -' *&')+%' (*$50' '5+%0,* .' *&')+%' %6,; -/*)),0')*')+%' 3 '//0' *&')+%' 6+'$2 . B ' &,B'),* .' *&')+%' 7*('/' (*$50' ,. ' 7 '$,*10' 6*0,),* . 0 ' 0* 8 %;),8 %0' 0,8 1/'),. -' 4,/')%$'/' '451()*$' 6 '/02 ' . 5' 5%6%. 5,. -')+%. ' *. ' &,4$*10' (+' . -%0' '$*1. 5')+%' ($,%* '$2)%. *,5' '$),(1/'),*. 0 G ')+%0%' $%'0* 8 %'*&')+%' 8 ' . 2'%&&%()0' *&'026+,/,),(' A (')$,0'),*.

5" # / '026+,/,0 '/%0,* . 0' *&')+%'/'$2 . B' -%. %$''//2' *((8< 3,)+,. ')+%' &,$0)' &%3' 8 *.)+0' '&)%$' 4,$)+' 41)' *(('0,* . ' //2')+%'/'$2 . B', 0' . *)'))'(9%5'4%&*$%')+%' - -%' *&'614%$)2', 0' $%' (+%5' +%' %'$/2' 8 ' . ,&%0)'),*. 0' *&')+%' 5,0%' 0%' , . ' +%$%5,)'$2' ('0%0' '$%' $%6$%0%.)%5' 42' (* . -%0;),* . ' ' . 5' 8 1(*10' 6')(+%0' H ')' '/')%$' 6%$,*5')+%2' '$%' . *)')*' 4%' 5,0),. -1,0+%5' &$* 8')+*0%' 3+,(+' *((1$%, . ')+%' '57' . (%5' 0)' -%' *&' '(; E1,$%5' 026+,/,0' %%6' 1/(%$'),*. ' . ' . 2' (' 0%' 8 '2'4%' '00*(,')%5' 3,)+' %B)%. 0,7%' *%5%8 ')*10' 03%//,. -' ' . 5' +'0$6*$$+' -%' &,$*8' 6%$&*$'),*. ' *&'/'$-%' 7%00%/0' ,0' ' . ' *((' 0,*. '/' *((1$$%. (%

' #0 # G %(. 5'$2'026+,/,),('&&%(),*. 0' ('10%'+*'$0%. %00' ' . 5'0* 8 %),8 %0'/*00' *&' 7*,(%' 41)'+%$%' ,0' 101''//2' . %,)+%$'6', . '(*1-+'&%7%$' . *$' 5206. *%'' +%' 8 *$%' 0%$,*10')%$),'$2' '&&%(),*. 0' 8 '2' -,7%'$,0%')*' '/')+%' 0286)*80' ('10%5'42')14%$(1/'$'1/(%$'),*. ' 41)'6', . ' . 5' 5206+' -,'' '$%'$%/2'%B6%$,%. (%5'%B(%6)'3+%. ')+%' %6,-/*)),0' ,0' %B)%. 0,7%/2' 1/(%$')%5' . 5' %7%. ')+%. ')+%0%' 0286)*80' '$%' /%00' 0%7%$%')+' . ' , . ')14%$(1/'$' ()%%0' . 5')+%' (* . 0),)1);),* . '/0286)*80' $%')+*0%' *&'026+,/,0' '0' 5,0;),. -1,0+%5'&, *8' (* . 0186),* .

- G %(*. 5'$2'026+,/,),('&&%(),*. 0' *&')+%' /'$2 . B' '$%' %'0,/2' $%(*- . ,0%5' 3,)+')+%' /'$>6,-*0**6%' ' . 5')+%$%' '$%' 101''//2' %)+%$' ,. 8 ('),* . 0' *&')+%' (* . 0),)1),* . '/'),')' +%' 5,' - . *0,0' *&')+%' 5,0%'0%' , . ' ,)0' /')%$' 0)' -%0' 810)' 4%' 4'0%5' *. ')+%' '66%'$' . (%' *&')+%' /%0,* . 0' '4*7%' 8%.),* . %5' (*84, . %5' 3,)+' 8 ' . ,&%0)'),* . 0' *&' 026+,/,0' , . ' *)+%$' 6')$)0' *&')+%' 4*52'%06%(,''//2' *&')+%'09, . ' . 5'6+'$2 . B' . ')+%' '40%. (%' *&' (* . 0),)1),* . '/0286)*80')+%' 5,' - . *0,0' 8 '2'6$%0%.)' -$%')' 5,&&,(1/),%0' %06%(,''//2' '0' $%-'$50')14%$(1/*0,0' +,0' E1%0),* . '3,//4%5,0(100%5',. ')+%' . %B)'0%(),* .

)' ,0' 0* 8 %),8 %0' . *)' '/)*-%)+%$' %'02')*' 5,0),. -1,0+' 026+,/,),(' &$* 8' ('$(,. * 8 ')*10' 1/(%$'),* . '41)' , . ')+%' /'))%$' 5,0%'0%')+%' '6; 6%'$' . (%' *&' '' -$*3)+' ,0' 8 *$%' 6$* . *1. (%5' 1/(%$'),* . ' ,0' /%00' $'6,5' . 5' 6' , . ' ,0' 8 *$%' *&)%. '6$%0%.)' *$%*7%$')+%' 7*('/' (*$50' . 5' 7%.)$,(1/'$' 4' . 50' '$%')+%' &%7*1$,)%' 0%')0' *&' 8 '/,- . ' .)' -$*3)+0')+%' %6,-/*)),0' . 5' *)+%$' 6')0' 4%,. -'0%/5*8'6$,8 '$,/2' '&&%()%5

+%' -**5'$%01/)0' &*//*3, . -')+%'10%*&',*5,5%*&'6*)'00,8 . ' 3,//*&)%. ' '00,0)', . ' '$$,7, . -')' '($$%()' 5,' - . *0,0' 41)')+,0')%0)' ,0' *6%. ')*' '&),>/'(2' '0' ('$(, . *8 '' . 5' 026+,/,0' 8 '2' (*; %B,0)

G +%' 6$*-. *0,0' , . ' *'0%0' *&'/'$2 . -%'/' 026+,/,0' . /10)'7'$2' ((*$5, . -')*' ,)0' &*$8' . ' %'$/2' ('0%0' ' . 5' 3+%$%' 1/(%$'),*. ' ,0' 016%$&,(,'/')+%' 6$*-. *0,0' ,0' 7%$2' &'7*1$; '4/%'41)' , . ' '57' . (%5' 0)' -%0')+%' 6$*06%()0' *&')+%' 6'),%.)' '$%' 8 *$%' $8(%$)',. ' &*$' '/)+*1-+)+%' 6$*-$%00' *&' 1/(%$'),*. ' ('. ' '/8 *0)', . 7'$,; '4/2' 4%' '$$%0)%5' 42')$%')8%.)' 0140%E1%.)' (,(')$,0'),*. ' 8 '2' AF+10%' 5' . -%$*10' 0)%. *0,0' '9. *3/%5-%' *&')+%' (*86/,(','*. 0' ,. (,5%.)'/)*'5%%6' 1/(%$'),*. ' 0+*1/5', . 51(%' 10' '/3 '20')*' -,7%' '' -1'$5%5' *6,. ,*. ' ' K

! G *('/')$%')8%.)' ,0' . *)' . %; (%00'$2'&*$')+%' 0%(*. 5'$2' 026+,+),(' '&&%(),*. 0' *&')+%'/'$2. B' '. 5' 3%' 810)')$10')*' 8 %$(1$,'/ , . 1. (),*. ' ' . 5' *)+%$' (*. 0),)1),*. '/' %8%5,%0' 26+,/,),('1/(%$'),*. ' *&')+%'/'$2. B' $%E1,$%0' 6%$0%7%$, . -')$%')8%.)' 3,)+' /'$-%' 5*0%0' *&',*5,5%' *&' 6*)'00,18' H ' . 5' 3+%$%' ,)' 5*%0' . *)' 2,%/5')*')+,0' $%8%52' '66$*6$,')%/2' (*84, . %5' 3,)+' E1, . ,. %' (*5 /,7%$' *,/' ^(' 8%$(1$2' 810)' 4%' %86/*2%5')+%' 4%0)' 8%)+*5' 4%, . -' 42' 8%$; (1$,'/', . 1. (),*. ' *$')+%' +26*5%$8,(' , . >%(),*. ' *&')+%' 4,(+/*$,5%' ' (*84, . '),*. ' *&' 8%$(1$2' . 5',*5,5%' *&' 6*)'00,18',0' *&)%. ' 10%&1/' +%' /*('/' 66/,(','*. ' *&' ' 0*/1),*. ' (*. 0,0), . -' *&',*5, . %' 8H' -$0' ,*5,5%' *&' 6*)'00,18' 8HH' -$0' -/2(%$, . %' &' *C ' ,0' 0* 8%),8%0' *&' 0%$K7,(%' . ' K)+%' ('0%' *&' 026+,/,),*' 1/(%$',. ' 155,),*. ')*')+%' '4*7%')$%')8%.)' +%. ')+%' 5206. *%'',0' 5' . ; -%$*10')$' (+%*)*82'810)'. *)' 4%' 5%/'2%5')' 3,/' 101''//2' 6$*7%' 01((%00&1/' ')+*1-+')+%' 5%0)$1(),*. ' *&'),001%' ' . 5' (,(')$,0'),*. ' 8 '24%' 01(+' '0')*' . %(%00,)')%' 6%$8' . %.)' 3%'$,. -' *&')+%')14%' 6%$')*. 0' &*$')+%' 5,7,0,*. ' *&' (,(')$,(,'/' 4' . 50' ' . 5' '5+%0,*. 0' 0%/5*8' -,7%' 0'),0&'()*$2' $%01/)0' *3,. -')*')+%')%. 5%. (2' *&')+%' 6')$)0')*' 1. ,%' -' ,. ' 20)%8')(',5,/')'),*. ' 42' 8%' . 0' *&' (+$*))%$<0' +*//*3' W71/('. ,)% 4*1-,%0' 8 '2' 4%')$,%5' ,. ' 01(+

1' $ -* ' $-' ' g '$2. -%'/' +)+,0,0H' $' 6# # 'S / "0 ' %$' F # # /

. 6' G' '$2. -%'/')14%$(1/*0,0' ,0' '/8 *0)', . 7'$,'4/2' 0%(*. 5'$2')*' 61/8 *. '$2' 6+)+,0,0' 41)', . ' '' &%3' , . 0)' . (%0' '' . %($*602' +'0' 5%8*. 0)$')%5')+%' %B,0)%. (%' *&')14%$(1; /*10' 5,0%'0%' , . ')+%' /'$2. B' W3,)+*1)' ' . 2' '&&%(;),* . ' *&')+%' /1. -' . ')+%' &*$8%$' ('0%')+%' /'$2. B' ,0' %,)+%$' 5,$%()/2', . *(1/')%5' 3,)+' . ; &%(),7%' 061)18' 5%$,7%5' &$* 8')+%' /1. -' 3+,(+' ,0')+%' 101'/' 8 %)+*5' *$')+%')14%$(1/'$' W7,$10' ,0' (*. 7%2%5')*')+%' /'$2. B' 42')+%' 4/**5' +%$%')+%' /'$2. B', 0' 6$,8 '$,/2' '&&%()%5' 3%' 8 '2' 0166*0%')+')')+%' . &%(),7%' '-%.)')+%)14%$(/%' 4' (,//10' ,0', . +'/%5' ' . 5' %&&%()0' '' /*5-8%.)' +%$%' 3,)+*1)' $%' (+, . -')+%/1. -

E: <B ' ' G '')+%' /'$2. B' '0' , . ' *)+%$' 81(*10' 8%84$' . %0')+%')14%$; (1/*10' 6$*(%00' 8 '2' 4%' (*. 0,5%$%5', 85%$')3*' +%'50G, . &,/)$'),*. '*$'5%6*0,)'' . 5'1/(%$'),*. H 41)' , . '081(+' '0')+%' . %($*),(' %/%8%.)' 6$%; 5*8, . ')%0' *7%$')+%' &,4$*10' *$, . 51$'),7%')+%)%. 5%. (2' ,0' 1/),8 ')%/2')*3'$50' 1/(%$'),*. ' +%' 5%-$%%' *&', . &,/)$'),*. ' 7'$,%0' -$%')/2' . *3' -, 7, . -' $,0%')*' 8 '00,7%' 03%//, . -' *&' 6')0' /,9%')+%' %6,-/*)),0' ' . 5' '$2%6=/*)),(' &*/50' 3+%$%')+%' 0148 1(*10'),001%' ,0' /**0%/2' '$$' . -%5' ')' *)+%$'), 8 %0' 8 %$%/2' %B)%. 5, . -')*')+%' 014' %6,)+%/,''/'/'2%$' . ')+%'/'))%$'('0%'*3, . -')*')+%' %'$/2'5%7%/*68%.)' *&' 1/(%$'),*. ' '' 0)' -%

&‘ , . &,/)$‘),*.‘ (‘ . .*)‘ -%.%$‘//2‘ 4%‘ 0%%.‘)‘ 6$%(%5%‘ /*00‘ *&‘ 0140)‘.(%‘)+*1-+‘ &,]*8‘ ‘ . ‘/*-2‘)+%$%‘ ,0‘ $%‘0*.‘)*‘ 4%/,%7%‘)+‘)‘)+,0‘ ,0‘ , . 7‘$,‘4/2‘)+%‘ (‘0%‘ %&, . ,)%‘)14%$(1/*10‘)18*1$0‘ ‘$%‘ *((‘0,*. ‘//2‘ 8 %)‘ 3,)+

+%‘6‘$)0‘ 8*0)‘6$*.%‘)*‘)14%$(1/*10‘5,0%‘0%‘ 8‘2‘ 4%‘)+10‘ %.18%$‘)%5‘ , . ‘)+%‘ *$5%$‘ *&‘ &$%E1%.(2‘)+%‘ 7*(‘/‘ (6$50‘ ‘.5‘ , .)%$ ‘$2)%; . *,5‘ &*/5‘ , . ‘ ‘4*1)‘ %E1‘/‘ 6$*6*$),*.0‘)+%‘ ‘$2%6,-/*)),%‘ &*/50‘ ‘%6,-/*)),0‘ ‘ .5‘/‘0)/2‘)+%‘ 7%.)$,(1/‘$4‘.50‘ B)%.0,*.‘*&‘)+%‘ ,.&,/)$‘;),*.‘ ‘ .5‘ 1/(%$‘),*.‘)*‘)+%‘ 5%%6%$‘ 6‘$)0‘ 8‘2‘ /%‘5‘)*‘ 01661$‘),7%‘ *$‘ ‘5+%0,7%‘ 6%$,; (+*.5$,),0‘%06%(,=2‘*&‘)+%‘ ‘$2)%.*,5‘ (‘$),; /‘-%0‘ 1661$‘),7%‘ 6%$,(+*.5$,),0‘ (‘10%0‘ .%($*0,0‘‘.5‘ ‘)‘),8%0‘%B)$10,*.‘*&‘)+%‘(‘$),; /‘-%‘ A 5%8‘‘,0‘‘ &$%E1%.)‘(*86+(‘),*.‘*& %B)%.0,7%‘)14%$(1/‘$‘/%0,*.0‘)‘,0‘1..%(%0; 0‘$2‘ , . ‘)+%‘ 6$%0%.)‘ ‘$),(/%‘)*‘ 5%0($,4%‘)+%‘ 8‘.,&*/5‘(+‘.-%0‘)+‘)‘ 8‘2‘4%‘ 6$*51(%5‘ , . ‘ 5,&&%$%.)‘ ‘0%0

! (! " +%‘ 0>$86)*80‘ *&‘)+,0‘ ‘&&%(;),*.‘ ‘$%‘)+*0%‘ *&‘ .‘ ‘--$‘7‘)%5‘ /‘$2>,-,),0‘ +*‘$0%.%00‘*$‘ ‘6+*.,‘ ‘,$$,)‘4/%‘ (*1-+‘5,&&,; (1/)2‘ *$‘ 6‘, .‘ , .‘ 03‘/‘*3, .‘ 3+%.‘)+%‘ %6,-/*)),0‘*$‘ ‘$2%6,-/*)),%‘ &*/50‘ ‘$%‘, . 7*/7%5‘ ‘ . 5‘ , .06,$‘)*$2‘ 5206.*%‘‘ ‘ .5‘ 0)$,5*$‘ ,&‘ 0)%.*0,0‘ 4%‘ 6$%0%.)‘ ‘ , .‘ 0+**),. -‘)*‘)+%‘ %‘$‘ ,0‘ *((‘0,*. ‘//2‘ (*86/‘, .%5‘ *&‘ ‘ .5‘ ,0‘ 6$*4‘4/2‘$%&%$%5‘ &$*8‘)+%‘ 0%.0*$2‘ .%$7%‘*&)+%‘ /‘$2.B‘)+%‘ 016%$,*$‘ /‘$2. -%‘/‘)*‘)+%‘ ‘1$,(1/‘$‘ 4$‘. (+‘ *&‘)+%‘ 7‘-10‘ +%‘ ((.0),‘)1),*. ‘/‘ ‘.5‘/*(‘/‘ 0286)*80‘ *&‘ 61/8*. ‘$2‘ 6+)+,0,0‘3+,(+‘‘$%6$%0%.)‘,.‘7‘$2,. -‘5%-$%%0‘ ‘55‘ 81(+‘)*‘)+%‘ 6‘),%.)<0‘ 5,0)$%00‘ .‘%‘$/2‘ (‘0%0‘)+%‘/‘$2. -*0(*6%‘$%7%‘/0‘ 08‘//‘0+‘//*3‘ 1/(%$0‘*&‘6‘/%‘-$‘. 1/‘),*. 0*. ‘)+%‘7*(‘/‘ (*$50‘ 6‘$),(1/‘$/2‘)+%,$‘6*0)%$,*$‘%. 50‘&/%0+2‘03%//; , . -‘*&‘*.%‘ *$‘ 4*)+‘(*$50‘ ‘.5‘6$*8,.%.(%‘*&)+%‘,.%$ ‘$2)%.*,5‘&*/5‘*&)%.‘3,)+‘ ‘.‘,$%%-1; /‘$‘ 6‘6,//‘$2‘ 8‘$-, ‘ 3%//, . -‘*&‘*.%‘ *$ 4*)+‘ 0,5%0‘ *&‘)+%‘ %6,-/*)),0‘ ‘$2%6,-/*)),%‘ &*/50‘ ‘.5‘7%.)$,(1/‘$‘4‘.50‘‘.5‘5%%6‘8*%$‘ ‘),*.‘8‘2‘4%‘ *40%$7%5‘/‘)%$‘*.‘ +%‘1/(%$0‘ 6$%0%.)‘%,+%$‘ ‘‘-$%2,0+‘2%//*3‘*$‘6,.9,0+‘ -$‘.1/‘$‘4‘0%‘‘.5‘8,.)$)%‘2%//*3,0+‘.*51/%0‘ ‘$%‘ *((‘0,*. ‘//2‘ 5%7%/*6%5‘, . ‘)+%,$‘ .%,-+; 4*1$+**5‘ . ‘ (%$)‘, . ‘ , .0)‘. (%0‘)+%‘ 7*(‘/‘ (*$50‘ ‘$%‘ 06/,)‘/*. -,)15, . ‘//2‘ , .)*‘)%$$‘(%; /,9%‘ $%55,0+‘*$‘1/(%$‘)%5‘$,5-%0‘0*‘)+‘)%‘(+‘ (*$5‘ 0%%80‘)*‘ 4%‘ (*86*0%5‘ *&‘ 0%7%$‘/‘, .5,; 7,51‘/‘0%=%.)0‘ 8‘//)14%$(1/‘$)18*1$0‘ *&‘‘‘ -$%2,0+‘6,.9‘ (*/*1$‘ 8‘2‘*((‘0,*. ‘//2‘ 4%‘0%%. ‘ 06$,. -, . -‘&$*8‘)+%‘ (*$50‘7%.)$,(%0‘ 7%.)$,(1/‘$‘4‘.50‘*$‘*)4%$‘6‘$)0‘ +%. ‘)+%‘ %6,-/*)),0‘,0‘81(+‘03*//%. ‘*$+‘. -0‘4‘(93‘$50‘ ,)‘8‘2‘4%‘ ,86*00,4/%‘)*‘ *4)‘, . ‘‘7,%3‘*&‘)+%‘ $%0)‘*&‘)+%‘ /‘$2.B‘ ‘ 0,8,/‘$‘ 5,&&,(1/)2‘ ,0‘ 0*8%),8%0‘%B6$%,%. (%5‘ 3+%.)+%‘ /‘$2.B‘ ,0‘ (*‘)%5‘3,)+‘‘‘ (*6,*10‘7,0(,5‘0%($%),*. ‘ +%‘ (*/*1$‘*&‘)+%‘/‘$2.B‘7‘$,%0‘-$%‘)/2‘-%.%$‘//2‘ 06%‘9,. -‘‘‘ -$%2,0+‘6,.9‘*$‘ 6‘/%‘ 2%//*3,0+‘),.)‘6$%7‘,/0‘(*.)$‘0),. -‘*&%.‘3,)+‘/*(‘/,0%5‘ 6‘)(+%0‘*&‘(*. -%0),*.‘,.‘)+%‘7,(,. ,)2‘*&‘1/(%$0‘ *$‘ , . &,/)$‘),*.0‘ 1)‘)+,0‘ (*/*1$‘3+,(+‘ ,0‘ 7%$2‘ (+‘$‘>()%$,0),%‘ ,0‘ +*)‘ , .7‘$,‘4/2‘ 8%)

3,)+‘ ‘.5‘ -%.%$‘/‘ (*.-%0),*.‘ 8‘2‘ %B,0)‘ 86‘,$%58*4 ,)2*&)+%(*$50,0‘7%$2‘(*88*.H ,)‘8*0)/2‘5%6%.50‘*.‘ 8%(+‘.,(‘/‘ &,B‘),*.‘*&)+%‘ ‘$2)%.*,5‘ (‘$),/‘-%0‘ &$*8‘ 01$$*,85, . ‘ , .&,/)$‘),*.‘ ‘)‘),8%0‘)+%‘ 7*(‘/‘ (*$50‘*((162‘)+%‘ 8%5,‘.‘ 6*0,),*.‘ 0,81/‘),.-‘ 4,/‘)%$‘/‘ ‘451()*$‘6‘$‘/20,0‘‘.5‘-,7, . -‘$,0%‘)*‘0%7%$%‘ 0%.*0,0‘ %1$*6‘)+,(‘6‘$‘/20,0‘‘/0*‘*((1$0‘ +10‘*.%‘ (*$5‘ 8‘2‘4%‘ 8*),*./%00‘, . ‘)+%‘ (‘5‘7%$,(‘6*0,),*. ‘8,53‘2‘4%)3%%.‘)+‘)‘ *&‘ ‘551(),*.‘. 5‘ ‘451(),*. ‘ ‘)+%‘$,-+)‘0,5%‘)+,0‘(*.5,),*.‘8‘2‘*((‘0,*. ‘//2‘4%‘)+%‘$%01/)‘ *&‘,86/,(‘),*.‘*&‘)+%‘$%(1$$%.)‘.%$7%‘, .‘6/%1; $,),(‘)+,(9%., .-‘*&‘)+%‘‘6%B‘*&‘)+%‘$=+)‘/1. -H 3+%$%‘0‘)+%‘/%&)‘$%(1$$%.)‘8‘2‘4%‘(*86$%00%5‘ 42‘%./‘$-%5‘4$*.(+,‘/‘-‘.50‘‘0‘,)‘3,.50‘ $*1.5‘)+%‘‘$(+‘*&‘)+%‘‘*$)‘‘ 86%$&%()‘ (/*01$%‘*&‘)+%‘-/*)),0‘5%6%.5, .-‘*.‘4&,‘)%$‘/‘ 6‘$%0,0‘*&‘)+%‘‘551()*$0‘‘0‘, .‘(‘0%0‘*&‘&1.(;),*.‘/‘*$‘ +20)%$,(‘/‘ 6‘$‘/20,0‘,0‘‘‘ 88$% (*88*.‘‘66%‘$‘.(%‘ ‘0)/2‘, .‘ ‘57‘.(%5‘ (‘0%0‘ &6+)+,0,0‘‘6+*.,‘‘ 8‘2‘4%‘ +‘00*(,‘ ‘)%5‘3,)+‘‘.2‘5%&%()*&‘8*7%8%.)‘)+%‘&%%4/%‘ ‘(),*.‘*&‘)+%‘ $%06,$‘)*$2‘ 810(/%0‘4%,.-‘, . ; 01&&,(,%.)‘)*‘ (‘10%‘)+%‘ $%E1,0,)%‘7,4$‘),*.‘*&)+%‘ (*$50‘ .‘ *)+%$‘, .0)‘. (%0‘ 6‘$‘/20,0‘,0‘ 6$*4‘4/2‘*&‘82*6‘)+,(‘*$,-,.

& G +$*.,(‘/‘$2.-,),0‘,0‘0*8%;),8%0‘*.%‘ *&‘)+%‘ %‘$/,%0)‘ 0286)*80‘ *& 6+)+,0,0‘‘.5‘)+%$%&*$%‘0+*1/5‘ ‘/3‘20‘5,$%()‘ ‘))%.),*.‘)*‘)+%‘ 0)‘)%‘ *&‘)+%‘ /1.-0‘ +% 5,‘-.*0,0‘*&‘)14%$(1/‘$‘5,0%‘0%‘$%0)0‘*.‘)+% 5%)%(),*.‘*&‘/*(‘/,0%5‘, .&,/)$‘),*.‘*$‘1/(%$‘;),*.‘*&‘(%$)‘, .‘6‘$)0‘*&‘)+%‘/‘$2.B‘, .‘00*(,‘;),*.‘3,)+‘6+20,(‘/‘0,-.0‘*&‘61/8*.‘$2‘)14%$; (1/*0,0‘ 26+,/,0‘,0‘)+%‘5,0%‘0%‘3,)+‘3+,(+‘ ,)‘,0‘8*0)‘,&/9%/2)*‘ 4%‘(*.&*1.5%5‘‘.5‘)+% 5,&&,(1/)2‘,0‘, .($%‘0%5‘42‘)+%‘&‘()‘)+‘)‘)+%‘)3*‘ ‘&&%(),*.0‘8‘2‘(*%B,0)H 0*8%‘1)+*$0‘%7%.‘ ‘00%$)‘)+‘)‘026+,/,),(‘1/(%$‘),*.‘6$%5,06*0%0‘)*‘)14%$(1/*0,0‘ $*.*,8(%5‘6‘//*$‘*&‘)+% /‘$2.B‘03%//, . -‘*&‘)+%‘, .)%$ ‘$2)%.*,5‘&*/5‘ 3,)+‘6‘6,//‘$2‘%B($%0(%.(%0‘&/%0+2‘03%//, . -‘*&‘*.%‘(*$5‘(+$*.,(‘1/(%$0‘*&‘)+%‘(*$50‘‘.5‘ ‘‘6‘/%‘03*//%.‘(*.5,),*.‘*&‘)+%‘$2%6,-/*)),% &*/50‘ ‘.5‘%6,-/*)),0‘‘$%‘7%$2‘(+‘$‘()%$,0),(‘ *&‘)14%$(1/*0,0‘ .‘)+%‘*)+%$*+‘.5‘8‘$9%5‘ (*.-%0),*.‘$‘6,5/2‘%B)%.5, .-‘1/(%$‘),*.‘*&)+%‘(*$50‘*$%6,-/*)),0‘‘.5‘(,(‘)$,(,‘/‘(*.)$‘;),*.‘3*1/5‘4%‘, .‘&‘7*1$‘*&‘026+,+0‘ %7%$;)+%/%00‘, .‘ 8‘.2‘ (‘0%0‘)+%‘ /‘$2. -*0(*6,%‘ ‘66%‘$‘.(%0‘ $%‘E1,)%‘ , .(*. (/10,7%H‘ ‘.5‘ 0+*1/5‘%B‘8, . ‘),*.‘ *&‘)+%‘ /1.-0‘2,%/5‘ ‘ . %-‘),7%‘*$%E1,7*(‘/‘$%01/)‘)+%‘5%)%(),*.‘*&)+%)14%$(/%‘4‘(,//10‘, .‘)+%‘061)18‘ ,// ‘/*.%0)‘4/,0+‘)+%‘ 5,‘-.*0,0‘ 14%$(1/*0,0‘ (‘. 0%/5*8‘4%‘8,0)‘9%.‘&*$‘‘ 8‘/,-.‘.)‘-$*3)+‘ 41)‘)+%‘ 5,‘-.*0,0‘ 3,/‘ 4%‘ (*.0,5%$%5‘ 1.5%$‘)+%‘/‘))%$‘5,0%‘0%

; " ‘$2.-%‘/‘)14%$(1/*0,0‘ ,0‘ $‘$%/2‘(1$%5‘)+*1-+‘06*.)‘.%*10‘(,(‘)$,0‘),*. ‘)85*14)%5/2‘ *((1$0‘ ,.$ %B(%6),*. ‘/‘ (‘0%0‘ +%‘6$*-$%00‘*&‘)+%‘5,0%‘0%‘(‘. ‘*&)%.‘4%‘)%8; 6*$‘$,/2‘(+%(9%5‘‘.5‘‘)‘),8%0‘,0‘‘$%%)0%5‘42‘ 01,)‘4/%‘)$%‘)8%.)‘ 0‘‘$1/%‘+*3%7%$‘)+% 6$*-.*0,0‘,0‘8*0)‘1.&‘7*1$‘4/%‘ .&,/)$‘),*.

X

& G ‘ %%$)', '‘ 5,'-.*0,0‘ (' .‘ *./2‘ 4%‘ '$$,7%5‘ ')‘ 42‘ %B' 8 , . '),*.‘*&‘)+%‘/'$2.B‘ +%‘/'$2.-*0(*6%‘3 ,//‘ *&)%.‘ 41)‘ .*)‘,.7'$,; '4/2‘ %.'4/%‘ 10‘)*‘ 5,0), .-1,0+‘ '‘ 6'6,//*8 '‘ &$*8‘ '‘ &,4$*8‘ ' ‘ +%‘ 5,'-.*0,0‘*&‘ '‘ 4%..-.‘ &$*8‘ '‘ 8 /,-.'.)‘ -$*3)+‘ ,0‘ 0*8%),8%0‘ .*‘ %'02‘ 8 '))%$‘)+*1-+‘)+%‘ '40%.(%‘*&‘ 1/(%$';),*.‘(*.-%0),*.‘*$,.&,/)$'),*.‘3+,(+‘(+'$'(;)%$,0%0‘ '.‘,..*(%.)‘)18*1$‘,0‘$'$%‘,.‘8 '/,-;.'.)‘ 5,0%'0%‘ +%‘&'()‘)+')‘ 0,86/%‘-$*3)+0‘ +'$5/2‘%7%$‘*$,-,.')%‘&$*8‘)+%‘,.)%$ '$2)%.*,5‘ *$' '$2%6,-/*)),(‘&*/50‘3,//‘ +%/6')*‘5,0),.-1,0+‘)+%0%‘ &$*8‘)+%‘ 6*/266,5‘ %B($%0(%.(%0‘)+')‘ *&)%.‘ &$,.-%‘)+%‘ 8 '$-,.‘ *&‘)14%$(1/'$‘ *$ 026+,/,),*‘1/(%$0‘,.')+%0%‘$%-.*.0

G +%‘ ,86*$)'.(%‘ *&‘)+%0%‘ -$*3)+0‘7'$,%0‘3,)+‘)+%,$‘0,)1')‘,*.‘'.5‘$')%‘ *&‘,.($%'0%‘ ‘&%3‘8*.)+0‘+'7%‘01&&,(%5‘&*$‘)+%‘ -$*3)+‘*&‘)18*1$0‘&$*8‘)+%,$‘*$,-,.')*‘)+%,$‘ '))‘.,.-‘ '‘ 0,C%‘ 01&&,(,%.)‘)*‘)+$%')%.‘ 01&&*('),*.H ,.‘*)+%$‘*'0%0‘)+%2‘ 8'2‘%B,0)‘ &*$2%'$0‘3,)+*1)‘-,7,,>-‘$,0%')*‘'.2‘0286)*8‘ 4%2*.5‘5206+*.,''‘*$‘'6+*.,''‘ 0‘0**.'.'‘'‘ -$*3)+‘('10%0‘5206.*%‘',)‘+‘0‘4%(*8%‘5'.; -%$*10‘ +%‘5,0%'0%‘8 10)‘6$'(),(‘//2‘4%‘$%; -'$5%5‘'0‘,.(1$'4/%‘%B(%6)‘42‘*6%$'),*.‘*$ *)+%$‘/*(‘/')$%')8%.)

! G ‘08'//‘0)'),*.‘$2‘&,4$*8‘' W*$ *)+%$‘)1,6*1$‘-,7,.-‘$,0%')*‘41)‘),)))/%‘,.‘ (.7%.,%.6%‘$%E1,$%0‘.*‘)$%')8%.)‘ //*)+%$‘)18*1$0‘8 10)‘4%‘$%8*7%5‘42‘*6%$';),*.‘ %8*7'/‘8'2‘4%‘%&&%()%5‘42‘,.0)$1;8%.)0‘,.)$*51(%5‘,.)*')+%/'$2.B‘&$*8‘'4*7%‘3,)+')+%'.5‘*&‘)+%/'$2.-*0(*6%‘H *$'3+%$%‘+4‘5,0%'0%‘,0‘7%$2‘%B)%.0,7%‘'.‘'$),&,(,'/*6%.,.-‘,.)*')+%‘/'$2+B‘A)+2$*)*8 2‘*$‘5,7,;0,*.‘*&‘4*)+‘)+2$*,5‘'.5‘($,(*,5R‘8'2‘4%‘.%(%00‘$2‘)+%‘-$*3)+‘ $-$*3)+0‘4%,.-‘$%;8*7%5‘)+$*1-+‘)+,0‘*6%.,.-‘ +,0‘,0‘)+%‘*./2‘&%‘0,4/%‘8%)+*5‘*&‘*6%$'),*.‘,.‘)+%‘('0%‘*&‘(+,/5$%.‘ &‘)+%‘-$*3)+‘,0‘$%8*7%5‘2#%$)‘" 2 ‘,)‘8'2‘4%‘($10+%5‘)+$*1-+‘')‘ ,)0‘4‘K0%‘42‘‘‘6$*6%$/2‘(*.0)$1()%5‘ H ,)‘&&,‘2‘4%‘0%,C%5‘'.5‘)*8‘*&‘42‘&*$(%60H *$,)‘8'2‘4%‘(1)‘*&‘42‘9.,7%0‘*$‘0(,00*$0‘ +%‘6'$),(1/'$‘*6%$'),*.‘'.5‘)+%‘,.0)$18%.)0‘)*‘ +%‘10%5‘8 10)‘4%‘5%)%$8,.%5‘42‘)+%‘(,$( ))/‘0)'.(%0‘*&‘)+%‘('0%‘ +%‘10%‘&‘‘(*(‘,.%‘06$‘2‘$%.5%$0‘01(+‘8'.,61/'),*.0‘81(+‘%'0,%$‘ +%‘0)')%8%.)‘3+,(+‘+'0‘4%%.‘'5;7'.(%5‘)+')‘)+%‘,$$,)'),*.‘*&‘%.5*/'$2.-%'/*6%$'),*.0‘8'2‘,.51(%‘)+%‘)$'.0&*$8'),*.‘*&‘,..*(%.)‘,.)*‘8'/,-.'.)‘-$*3)+0‘+'0‘4%%.‘(*.(/10,7%/2‘5,06$*7%5

D>É , G '/,-.'.)‘)18*1$0‘*&‘)+%‘/'$2.B‘8'2‘4%‘6$,8'$2‘*$‘0%(*.5'$2‘ $,8'$2‘-$*3)+0‘'$%‘&'$‘/%00‘$'$%‘)+'.‘3'0‘&*$8%$/2‘)+*1-+)‘('$(,.*8‘'‘4%,.-‘81(+‘8*$%‘*&)%.‘8%)‘3,)+‘)+'.‘0'$(*8'‘ 6,)+%;/,*8‘'‘,0‘)+%‘(*88*.%0)‘&*$8‘*&‘('$(,.*8‘'‘)+%‘ 8%51//'$2‘'.5‘0(,.+*10‘7'$,%),%0‘*((1$;$,.-‘/%0‘&$%E=1%./)2/‘ '$(,.*8‘'‘5%7%/*60‘'0‘‘ ('1/,&/*3%$‘ *$.*51/'$‘-$*3)+‘&$*8‘)+%‘7*('/‘(*$50‘*$‘7%.)$,(1/'$‘4'.50‘)+*1-+‘*(;('0,*.‘//2‘*)+%$‘6‘$)0‘'$%‘&,$0)‘'&&%()%5‘ +%‘)18*1$‘')‘ &,$0)‘/*(‘/,0%5‘)%.50‘-$‘51‘//2‘)*

,.7*/7%)+%‘3+*/%‘*&‘*.%‘0,5%‘*$ 8*$%‘*&‘)+%‘/'$2.B‘ 3,.-‘)*‘)+%‘,.&,/)$'),.-‘.')1$%‘*&‘)+%‘5,0%'0%‘)+%‘8*4,/,)2‘*&‘)+%‘(*$$%06*.5,.-‘7*(‘/‘(*$5‘,0‘*&)%.‘,.)%$&%$%5‘3,)+‘ /(%$';),*.‘,0‘‘(*8*.‘*((1$$%.(%‘‘.5‘8‘2‘4%‘&*//*3%5‘42‘*%5%8‘‘+‘%8*$$+‘-%‘6%$,(+*.;5$,),0‘‘.5‘.%($*0,0‘*&‘)+%‘('$),/‘-%0‘ ‘$(,;.*8‘‘0*8%),8%0‘0+*30‘/,))/%‘)%.5%.(2‘)*‘,.&%()‘)+%‘-/'.50‘'.5‘*)+%$6‘$)0‘*&‘)+%‘4*52‘‘.5‘0‘$(*8‘',0‘%7%./%00/,‘4/%‘)*‘06$%‘5

! (! G *‘$0%.%00‘*$‘'6+*.,‘',0‘101;‘//2‘)+%‘&,$0)‘0286)*8‘.41)‘5206+‘-,‘'‘.5‘5206.*%‘‘8‘2‘‘$,0%‘/')%$‘*.‘ ‘,.‘,0‘8*$%‘6$*.*1.(%5‘,.‘)+,0‘)+',.‘,.‘‘.2‘*)+%$‘&&%(;),*.‘*&‘)+%/'$2.B‘‘.5‘,6‘2 0+**)‘)*‘)+%‘%‘$‘/(%$'),*.‘,0‘0*8%),8%0‘‘))%.5%5‘3,)+‘-$%')‘&*%)%$‘*&‘)+%‘4$%')+

^ & ‘G‘ +%‘ /'$2,=*0(*6,*‘ ‘66%'$;‘.(%0‘'$%‘0%/5*8‘(+'$‘()%$,0),(‘*&)%.‘(/*0%/2‘$%0%84/,.-‘)+*0%‘ 6$%0%.)%5‘ 42‘ ,..*(%.)‘-$*3)+0‘%06%(,‘//2‘6'6,//*8')‘‘ +%‘5,';-.*0),(‘,86*$)‘.(%‘*&‘&,B'),*.‘*&‘)+%‘(*$$%;06*.5,..‘7*('/‘(*$5‘+‘0‘4%%.‘6*,.)%5‘*1)‘42‘ $‘ %8*.‘ ,($*0(*6,(‘/‘%7,5%.(%‘*&‘('$(,;.*8‘‘*$‘0‘$(*8‘‘8‘2‘0*8%),8%0‘4%‘5%)()%5‘,.‘08‘//6*$),*.0‘*&‘)+%‘)18*1$‘$%8*7%5‘42‘)+%‘/'$2.-%‘/‘&*$(%60‘‘.5‘,0‘)+%.‘*&‘(*1$0%(*.(/10,7%

+%‘5,'-.*0,0‘*&‘026+,/,0‘&$*8‘8'/,-.'.)‘5,0%'0%‘+'0‘4%%.‘*‘/'$%'52‘5,0(100%5‘ 14%$;(1/*10‘/%0,*.0‘0%/5*8‘6$%0%.)‘)+%‘‘66%'$'.(%*&‘‘‘/*(‘/,0%5‘-$*3)+‘‘.5‘('$%&1/‘%B‘8,.';),*.‘*&‘)+%‘/1.-0‘.5‘061)18‘8H8$-%.%$‘//25%(,5%‘)+%‘8‘))%$‘ +%‘-%‘&‘)+%‘6‘),%.)‘,0‘*&‘0*8%,86*$)‘.(%‘('$(,.*8‘‘4%,.-‘0%/5*8‘*40%$7%5‘4%&*$%‘)+%‘-%‘&‘&*$)2

``` +%‘6$*-.*0,0‘,0‘1.&‘7*1$‘4/%,.‘//‘&*$80‘*&‘('$(,.*8‘‘41)‘6$*-$%00‘,0‘/%‘0)‘$‘6,5‘,.')+%‘0(,$$+110‘)26%‘ ‘$(*8‘‘*&‘)+%‘/'$2.B‘0%%80‘)*‘%B)%.5‘0),//‘8*$%‘0/*3/2

! G ‘$),‘/‘$%0%(),*.‘*&‘)+%/'$2.B‘+‘0‘4%%.‘01((%00&1/,.‘‘‘&%3‘('0%0‘*&‘%‘$/2‘/*('/,0%5‘8‘/,-.'.)‘5,0%‘0%5‘.5‘,0‘)+%‘*./2‘$'5,('/‘8%)+*5‘)+')‘0%%80‘)‘6$%0%.)‘>10),;&,‘4/%‘ %8*7‘/‘*&‘‘(‘.(%$*10‘/'$2.B‘3‘0‘&,$0)‘6$'(),0%5‘42‘ ,//$*)+‘.5‘+‘0‘0,.(%‘4%%.‘6%$&*$8%5‘42‘0%7%$‘/‘ *.),.%.)‘/‘01$-%*.0‘ +%‘$%01/)0‘*&‘)+%‘6%$'),*.‘+‘7%‘+*3%7%$‘4%%.‘0*‘1.&‘7*1$‘4/%‘)+')‘,)‘('.*)‘4%‘$%‘(*8,6%.5%5‘ +%‘*40)$1(),*.‘)*‘$%06,$'),*.‘8‘2‘5%8‘.5‘)+%‘6%$&*$8‘.(%‘*&‘)$'(+%*;)*82‘H ‘.5‘,&‘)+%/*3%$‘6‘$)‘*&‘)+%)$'(+%‘‘,0‘&$%%‘&$*8‘5,0%‘0%‘)+%‘*6%$'),*.‘,*.‘+‘7%‘+*3%7%$‘4%%.‘0*‘1.&‘7*1$‘4/%‘)+')‘,)‘6$*/*.-‘+&%‘ B),$6'),*.‘*‘&‘ 8‘/,-.'.)‘-$*3)+‘42‘‘.‘ %.5*/'$2.-%'/*6%$'),*.‘0+*1/5‘.*)‘4%‘))%86)%5

‘,.‘.5‘5206+‘-,‘‘8 10)‘4%‘‘//%7,')%5‘42‘)+%‘66/,(‘),*.‘*&‘(*(‘,.%*$ 8*$6+,.%‘‘0‘,.‘*‘0%0‘*&‘)14%$(1/*0,0

! ‘ ‘1 $5 ‘ ‘ ‘>

3 % ‘KO ‘ ‘/,%‘+,5R G +,0‘3*5‘,0‘66/,%5‘)*‘ (‘0%0‘*&‘(%$)‘,.‘5‘0,0%0‘,.‘3+,(+')+%,$‘101'/‘(+'$'()%$,0),(‘&%)‘)1$%0‘ '$%*40(1$%5‘.5‘(*.(%'/%5H &*$%B‘86/%‘ "

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6+2/'B,0',0')+%' 8*0)',86*$)'.)'(*.55%$'),*.'+%' -$%')'6$,.(,6/%0'.,'/%'5 3*$90' '$%')+%',.(1/(','),*.'*&'(/%'./,.%00'H '7*,5,.-'%'),.-'3,)+'1.3'0+%5'+'.50'*$',.'3*$9,.-'(/*)+%0'*$',.'3*$90+*60H 8*,0)'-$,.5,.-H&$%%7%.),;/'),*.H' 6$%('1),*.0' '-',.0)' 510)' $,0,.-'*$ 3%'$,..-'*&/'..%/'$%06,$')*$0'3+%$%',)',0'1.;'7*,5'4/%H' .5'*((' 0,*.''/5*0%0'*&'01/6+')%*&' 8'-.%0,18'' '(,51/')%5' 3,)+'01/6+1$,(' '(,5' 1/6+1$,('(,5'/%8*.'5%' +'0' 4%%.' $%(*8; 8%.5%5'0''5$,.9

$98%.' 3+' 4%-,.')*' 0+*3' 0,-.0' *&'/%'5 6*,0*..,.-' 0+*1/5'')' *.(% -,7%'16')+% 3*$9''.5')'9%')*' 0*8%*)+%$'%86/*28%.)' 0' $%-'$50' 3')%$ (*.)'8,.'),*.'3+')' +'0' '/$%'52'4%%.'0',5'*.')+,0'014>%()'3&// 01&^*%)*',.5,(')%')+% 6$*6+2/'(),(' 8%'01$%0 .')+%')$%')8%.)'*&' 3'61$-'),7%0' '$%',.5,(')%5''.5'*6,18'*$'4%//'5*..''8'2' 4%'.%(%00'$2')*' ''//'2')+%' %B($1(,'),.-'6',.' +%'01/6+')%'*&'8'-.%0,18',0')+%'4%0)'61$; -'),7%' *5,5%'&6*)'00,18',0'-%.%$''//2'-,7%.' 3,)+')+%'*4>%()'*&'$%8*7,.-')+%'/%'5'&$*8')+%'020)%8''.5',0'*+')+%'3+*/%'0'),0^()*$2' ,.',)0'$%01/)0' '(*84,.'),*.'*&')+,0',*5,5%% 3,)+'01/6+')%'*&8'-.%0,18',0' %$2'4%.%&,(,'/' 1/6+1$'4')+0''$%''/0*'$%(*88%.5%5

+%'/*('/6'$'0,),(''&&%(),*.0'$%E1,$%'/*('/ ,.''55,),*.')*')+%'-.%$'/')$%'),)),%.)' ./%00')+%'8 10(/%0''$%' ,.''.''57'.(%5'0)')%'*& ')$*6+2'.'5,-,7%'.*'$%06*.0%')*'%/%()$,('/ 0),81/'),*.'-**5'$%01/)0'8'2'4%'*4)',.%5' &$*8')+%'10%'*&')+%'-'/7'.,(' (1$$%.)'66/,%5')*')+%'8 10(/%0''.5')*')+%'8 10(1/*06,$'/ .%$7%' '$'5,0'),*.='+'0''/0*'4%%.'&*1.5' 4%.%&,(,'/''.5',0'$%(*88%.5%5'42'1(+%..%' 41)'+%'6$%&%$%.(%',0')*'4%'-,7%.')*')+%'(*.;),.1*10'(1$$%.)'

3 5 2 5*' '6) 7
G 1/6+')%5'(*88*.' 0'/)' 3')%$0'

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U Y'AY $&$ *$'Y_ &'''0('/%H '.5'E D''+',$R G (G ')%$8''6; 6/,%5')*' ''+',$' ,.'3+,(+')+%$%',0'/**0%..-' '.5'6'$),'/5%)'(+8%.)'*&')+%'*7%$/'66,.-' %5-%0'*&')+%'0('/%0'*&',)0'(1),(/%

1(+'+',$0'$%'101'//2'8%)'3,)+',.')+% 'B, '' '.5')+%,$'6%(1/,'$'(*.&*$8'),*.',0' '))$,41)'4/%')*')+%'+%')'.5'5'86.%00'*&')+' $%-,*.'3+,(+'('10%0'8'(%$'),*.'*&')+%'+',$' 6'$),(1/'$/2'3+%.',)',0'*&'&%%4/%'0)$1()1$%' *8%),8%0')+%'0('/%0'(*86/%)%/2'01$$*)85

)+%'+',$H 7%$2'%*.1.*./2'*.%'0,5%'*&')+% 0+'&)',0'8*$%''&%()%5')+'.')+%'$%0)''.5'6$%; 0%.)0')+%')=6%'$'.(%'*&''' ..-%H'.5'.*)' ,.&$%E1%.)/2')+%'0('/%0''$%'$*1-+%.%5'3,)+' %')+2''.5'0'/,.%'($10)0'5%6*0,)%5'42')+% 03%')

% ,*,.'+*.1+).+') (&+'&7'+1;.' (*'+,'&'./''&'&1$(14.(7&1;7+'(')(('=.-' ;%'+,.'7&.'('1'(+'('4()$(&.-''+('+('(7*'-*14,)&'('(6'-.''P'4'+(',1'1'$'+' (''').B=1+.*0 % $'

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U '6M-)/$'0('/2R''' ' g %6$'H %*.),'0,0'A*/5RH 9 " ' ' 2 g'.'4 " J' %$' ' (I

(G '4,*('4' <. .*1'-'&.1&.'@ 4,1*14+.*'&.-';%'&+*74+7*1'4,1<.&''+',.' &A'')74(7&').)';*1.&1-'.*/.&@.1-'<' +('+,.'$*(-74+'('('.='))(*;''+'&&7.1 -' <'/'<'*'&.'+('<*.1'-'&'<7*.).'('+,.' .1+7*.&'1-'.(*)'+%'('+,.'.6+*.)'+'.&@ 1-'6)-.'4.*+1''4('-'+'(&'4())7'41;.' *()'$.*&('+('$.*&('';%'(47 1+'(0

2'+%'/'$-%'.184%$'*& .'8%0')+')'+'7%'4%%.'66/,%5')*'/%6$*02''); 5,&&%$%.)'),8%0'+'0'$%.5%$%5')+%'.*8%.(/'=)1$%'5,&&,(1/)'.5'*40(1$%' ,)+*1)'-*=' ,.)*'+%'E1%0),*.'*'&')+%'%'$/2'.'8%0'3+,(+' '$%'7%$2'.18%$*10'3%'&,.5')+')'%7%.')+% 8*5%8'.*8%.(/')1$%'0'+'0'$%.5%$%5')+%'.*8%.(/'= .5'')%8'.''.5'/0*'$'0810'',9*.' &*//*3,.-',66*($')%0'+'7%'10%5')+%')%$8' 0/%$''*),.5,(')%')+%5,0%'0%'.*3'1.,7%$0'//2' 9.*3.''0'60*$,'0,0H3+,/%*.')+%*)+%$'+'.5')+%'3*$5'0%/%6+'.),'0,0'+'0'4%%.''66/,%5')*')3*5,0),.()'5,0%'0%0'.'8%/2'/%6$*02''.5')+%'0'$4'5*%0'/%-'')'3,//4%'3%//',.' &1)1$%')*'$%0%$7%')+%'3*$5'0/%6$'&*$/%6$*02' '.5')*''*3')+%*)+%$.'8%0')+')+'7%'4%%.' '66/,%5')*'5$*6'*1)'*&10%

D % ,=U3$,)%$0''-$%%',.'$%-'$&&,.-' -26)'0')+%'%'$/2'+*8%*&/%6$*02''.5',)',0' +,-+/2'6$*4'4/%')+')')+% 30('$$,%5',)'3,)+')+%8'3+%.')+%2'8,-$')%5'&$*8')+')'(*1.)$2')*' '/%0),.%'K +% ,4/,('/'((*)8)0'*&')+% 5,0%'0%')+*1-+',-+/2',.)%$%0),.-''$%'*&'.* 0(,%.),&,('7'/1%''0')+% 3$,)%$0'%7,5%.)/2',.; (/15%5'8*$%')+'.'*.%'8'/'52'1.5%$')+% .'8%'3+,(+',0')$'.0/')%5'0/%6$*02'.'0166*$) *&')+,0'7,%3',)'8'2'4%'8%.),*.%5')+')' $%(*7%$2'*&'0*8%'*&')+*0%''&&/,()%5'3,)+')+% 5,0%'0%',0'%7,5%.)/2'1001 8%5''0'+,-+/2'6$*4; '4/%''.5'6$*7,0,*.',0'8'5%'&*$')+%,$'$%; '58,00,*.',.)*'%3,0+'0*(,%)2',0'/0*' E1,)%'%7,5%.)')+')+%'/%6$*02'*&''8'. '.5'%+'C,'8%.),*.%5',.')+%'**9'*&',.-01' 3'0''&*$8'*&/%1(*5%$8''0),//7%$2'(*.1+*.. ,.')+%'0)'%06%(,'//2',.'.5,'''.5'9.*3.''0' 03+,)%/%6$*02'+%'$+%$'$%%9'8%5,('/ 3$,)%$0'-,7%.*'((*1.)'*&'/%6$*02H ')+%$%&*$%'3%'8'2'0018%')+')')+%2'3%$%'41)' /,))/%'(E1','.)%5'3,)+',)' $%)[10'+*3%7%$' 3+*'/,7%5',.')+%'&,$0)'(%.)1$2'-,7%'.''5; 8,$'4/%'5%0($,6),*.''*&',)'3+,(+',)'3*1/5'4% 5,&&,(1/)')*',86$*7%'16*.',.')+%'6$%0%.)'5'2

1$,. -')+%' ,55/%' -%0' /%6$*02' 06$%'5' (*.),. 1*10/2' &$* 8' '0)0%$.')*' %0)%$.' 1$*6%' '.5',)',0' -%.%$'//2'4%/,%7%5')+')')+%' $1,)'5%0' (*.)$,41)%5',.' .*' 08''// 5%-$%%')*')+,0' $%01/)')',0'+*3%7%$'(%$)','.')+')')+%' 5,0%'0%' %B,0)%5',.' %0)%$.' 1$*6%' 6$,*$')*')+%' &,$0)' $10'5%' 1$,. -')+%')3%/&)+' '.5')+,$)%%.)+' (%.)1$,%0' /%6$*02',.(%'0%5')*' '')%$$,4/%' %B)%.)'%06%(,'//2',.' .-/'.5')'/2' '.5' $'.(%' %//'2',.'+,0'+,0)*$2'*&')+%')%$' (*1.)$2'0'20')+')' *1,0' '6$*81/-')%5' '' (*5%'*&'/'30',.' @@D'&*$')+%'$%-1/'),*.'*&' /%6%$ +*06,)'/0',.' $'.(%''.5')+')')+%'.184%$'*&')+%0%' +*06,)'/0'3'0'(*861)%5')')+')',8%')*' 4%' .*)' /%00')+'.')3*')+*10'.5')' '/')%$' 6%$,*5')+%'.184%$'+'5',.($%'0%5'0*')+')+%$%'3'0'0('$(%/2''')*3.',.')+%'(*$8)$2'1.6$*7,5%5'3,)+''/%6$+*10%' +%'/')%' ,$' 8%0' ,860*.'(*//%()%5'$%(*$50'&$*8')+%' " "'&"03 ''.5')+%$'0*1$(%0'*&'.*'/%00')+'.',.%)2&,7%$%/,-,*10'+*06,)'/0'&*$'/%6%$0'4%0,5%0',..18%$'4/%'08''//%$'6%0)'+*10%0'.%'$/2''//'*&'3+,(+'3%$%'&*1.5%5',.' $%')' $,)',.'51$,.-')+%')3%/&)+')+,$)%%.)+' '.5' &*1$)%%.)+'(%.)1$,%0' .' '55,),*.')*')+%0%')+%$%'3%$%' ')'/%')'&*1$)%%.'+*10%0'*&')+%'&,$0)'*$5%$',.' $%/'.5' +%')*)'/'.184%$'*&'0,8,/'$',.0),)1),*.0'.,' 1$*6%'3'0'%),; 8')%5' 42' '))+%3' '$,0' ')' .,.%)%%.'+*10'.5'41)'+),0'6$*4'4/2',.(/15%5'+*10%0'*&')+%'08''//%$'(/'00')',0',.)%$%0),.-')*'.*)%')+')'.*'.%3'/%6%$ +*06,)'/0'3%$%' 41,/)',.' .-/'.5'&)%$)+%'&,&)%%.)+'(%.)1$2' +%'/'0)'*.%'*&'.2'.*)%'3'0'&*1.5%5')' ,-+-')%',/' M@'41)'/*.-'4%&*$%')+')',8%'8'.2'*&')+%'*/5'/%6%$ +*10%0'+'5'&'//%.',.)*'5,010%'.'5')+%,$'$%7%.1%0'+'5'4%(*8%5,7%$)%5')*')+%$'61$6*0%0'.')+%'*.),.%.)'%.0/%$'+'0'(/%'$/2'5%8*.0)$')%5')+')')*3'$50')+%'%.5'*&')+%'&,&)%%.)+'(%.)1$2'0('$(%/2''')$'(%'*&'14%$'(1/')%5'/%6$*02'(*1/5'4%'&*1.5',.'.2'*&')+%'8*$%'(,7,/,0%5'6'$)0'*&' 1$*6%' +%'5,0%'0%'+'0'+*3%7%$'(*.),.1%5'*)*'%B,0)'16')*')+%'6$%0%.)'5'2',.''&%3',0*/')%5'06*)0'%06%(,'//2')+%'3%0)'(*'0)'*&' *$3'2'4*1)' %$-%.'(%;/'.5''.5',.'0*8%'6')0'*&' 6',.' +%$%'('.'4%'/,))/%'5*14)')+')')+%',0*/')',.'.'*&'/%6%$0'51$,.-')+%')3%/&)+')+,$)%%.)+''.5'&*1$)%%.)+'(%.)1$,%0'(*.)$,41)%5'/'$-%/2')*')+%''/8*0)'(*8&R/%)%'%B),.(),*.''*&')+%'5,0%'0%',.' 1$*6%',.')+%'&*//*3,.-'(%.)1$2

6 #% & ' G +%$%',0'.*'5,0%'0%')+')'+'0''3,5%$'-%*-$'6+,('/'5,0)$,;41),*.')+'./%6$*02')',0'&*1.5'4*)+',.')+%'.*$)+%$.''.5'0*1)+%$.'+%8,06+%$%0'.'5',.''/8*0)'%7%$2'/'),)15%'&$*8')+%'6*/%0')*')+%'%E1')*')',0'+*3%7%$'&'$ 8*$%'(*88*.',.')+%')$*6,('/')+'.',.')+%')%86%$')%'$%-,*.0 .' 1$*6%'/%6$*02'+'0''/8*0)'5,0'66%'$%5''0''.'%.5%8,(' 5,0%'0%')',0' .%7%$)+%/%00'8%)'3,)+',.' %0)%$.' *$3'2'(%/'.5' '6'/'.5''.5')+%'U100,'.0+*$%0'*&')+%'/),(',.'(%$)',.'6'$)0'*&' 6',.''.5' *$)1-'/'.5''/*.-')+%'(*'0)0'*&' $*7%.(%'.5' ,(%41)',.''/)+%0%'6/'(%0',0'(*.&,.%5')*''08''//'6*$),*.'*&')+%'6*61/'),*.'.5'3,)+')+%' %B(%),*.

6%$+'60'*&' 6',.',0'-%.%$'//2'52,.-'*1)'&')',0'/0*'06'$0%/2'5,0)$,41)%5',.' $%%(%'),.5' 1$*6%'.' 1$9%2'.5'8*0)'*&')+%',0/'.50'*&')+%' %5,)%$$'.%'.' .'55),*.')*')+%0%'5,0)$,()0',.'3+,(+')+%'5,0%'0%'8'2'4%0'.5')*'4%0),//%.5%8,('3%'8%%)'3,)+'*''(*.0,5%$'4/%.8.4%$'*&',86*$)%5'('0%0'0('))%$%5')+$*1-+;*1)'1$*6%' +,0'&'()'%06%(,'//2'+*/50'-**5'3,)+'$%-'$5')*' .-/'.5''.5',0'*47,*10/2')+%'$%01/)'*&' +%$'6*00%00,*.'*&' .5,''1$8'+''.5')+%' %0)' .5,'.'0/'.50 .')%86%$')%' *$)+' 8%$,('' /%6$*02',0'$'$%Ḧ,)'+'0'+*3%7%$'/*.-'4%%.'%0)'4/,0+%5'*8*.-0)'+%' $%.(+'6*61/'),*.' *&')+%' '.'5,'.'6$*7,.(%'*&' %3' $1.03,(9''.5',)'%B,0)0'/0*')' '6%' $%)*.' 0/'.5'*&&' *7'(*),' 86*$)%5'('0%0'$%'*&'(*1$0%'*(;('0,*.'//2' 8%)' 3,)+' >10)' '0')+%2' '$%' ,.'1$*6% .')$*6,('/' 8%$,('*4')+' *$)+'.5' *1)+'(/15,.-')+%' %0)' .5,%0''.5')+%' %$815'0')+%'5,0%'0%',0'7%$2'(*88*.')0'6$%0%.(%',.'+%' .53,(+' 0/'.50',0'*&'(*86'$'),7%/2'$%(%.)'5')%''.5',)',0'4%/,%7%5')*'+'7%'4%%.',.)$*51(%5'42')+%' +,.%0%' $,*$')*')+%'2%'$' ? ?',)'3'0',$.9.*3.'2%)'42' ?DD')+%'.184%$*&'/%6%$0'3'0'$%6*$)%5')*'4%@"!''.5'42' ??@',)'+'5'&1$)+%$',.($%'0%5')*'(*1)'!!!' '02/18'&*$'/%6%$0'+'0'4%%.'%0)'4/,0+%5',.')+%',0/'.5'*&' */*9',' 3+%$%')+%$%',0'.*3'' 0%))/%8%.)'(*.)',.,.-'163'$50'*&' !!!'01&&%$%$0' +,0' %B)$'*$5,.'$2',.($%'0%'*&'/%6$*02',.')+%' .53,(+' 0/'.50'0,.(%' ? ?'0%%8 0')*'6*,.)')*'0*8%'8*5%'*&'6$*6'-'),*.'*&')+%'5,0%'0%'8*$%'$'6,5')+'.',.*(1/'),*.,)+'$%-'$5')*' &$,('',)' +'0''/$%'52'4%%.'0)')%5')+')' -26)' 3'0')+%' 4,$)+6/'(%' *&'/%6$*02',.')+%' .53,(+' 0/'.50'0,.(%' ? ?'0%%8 0')*'6*,.)')*'0*8%'8*5%'*&'6$*6'-'),*.'*&')+%'5,0%'0%'8*$%'$'6,5')+'.',.*(1/'),*.,)+'$%-'$5')*' &$,('',)' +'0''/$%'52'4%%.'0)')%5')+')' -26)' 3'0')+%' 4,$)+6/'(%' *&'/%6$*02',.')+%' .53,(+' 0/'.50'0,.(%' ? ?'0%%8 0')*'6*,.)')*'0*8%'8*5%'*&'6$*6'-'),*.'*&')+%'5,0%'0%'8*$%'$'6,5')+'.',.*(1/'),*.

,)+'$%-'$5')*' &$,('',)' +'0''/$%'52'4%%.'0)')%5')+')' -26)' 3'0')+%' 4,$)+6/'(%' *&'/%6$*02',.')+%' .53,(+' 0/'.50'0,.(%' ? ?'0%%8 0')*'6*,.)')*'0*8%'8*5%'*&'6$*6'-'),*.'*&')+%'5,0%'0%'8*$%'$'6,5')+'.',.*(1/'),*.

,)+'$%-'$5')*' &$,('',)' +'0''/$%'52'4%%.'0)')%5')+')' -26)' 3'0')+%' 4,$)+6/'(%' *&'/%6$*02',.')+%' .53,(+' 0/'.50'0,.(%' ? ?'0%%8 0')*'6*,.)')*'0*8%'8*5%'*&'6$*6'-'),*.'*&')+%'5,0%'0%'8*$%'$'6,5')+'.',.*(1/'),*.

,)+'$%-'$5')*' &$,('',)' +'0''/$%'52'4%%.'0)')%5')+')' -26)' 3'0')+%' 4,$)+6/'(%' *&'/%6$*02',.')+%' .53,(+' 0/'.50'0,.(%' ? ?'0%%8 0')*'6*,.)')*'0*8%'8*5%'*&'6$*6'-'),*.'*&')+%'5,0%'0%'8*$%'$'6,5')+'.',.*(1/'),*.

,)+'$%-'$5')*' &$,('',)' +'0''/$%'52'4%%.'0)')%5')+')' -26)' 3'0')+%' 4,$)+6/'(%' *&'/%6$*02',.')+%' .53,(+' 0/'.50'0,.(%' ? ?'0%%8 0')*'6*,.)')*'0*8%'8*5%'*&'6$*6'-'),*.'*&')+%'5,0%'0%'8*$%'$'6,5')+'.',.*(1/'),*.

%0)' .5,%0'3+%$%+%'+'5'/,7%5')3%.)2)3*' 2%'$0' &)%$' $%8',..-'' (%$)',.'),8%'..')+%+*06,)'/+%'$%)1$.%5')*'+,0' $,0+'+*8%' '.5' 5,%5''&)%$' '4*1)' '' 2%'$' '.5' '' +'/& 1$,.-')+,0'/'))%$' 6%$,*5'+,0'4$*)+%$' 0/%6)',.')+%'0'8%'4%5' 3,)+' +,8' '.5' 3*$%' +,0'(/*)+%0' ,0'4$*)+%$' 3+*' +'5'.%7%$'/%&)' $%/'.5'%B(%6)'&*$)2 0,B'2%'$0'4%&*$%'3+%.'+%'+'5'6'00%5'0*8%'),8%',.' -/'.5'4%;('8%''/%6%$' '.5'3'0'0+*3.'.'?MM')*')+%' %5,('/' *(,%)2'*&' 14/,.' +%$%'+'5'4%%.'.*' *)+%$' ('0%0' *&'/%6$*02'9.*3.'.'.'+%'&'8,/2' .')+%'0'8%2%'$')+%' 3$,)%$'614;/,0+%5')+%'&*//*3.-'('0%' ' '-%5')3%.)2''.'),7%'*&' 1%$.0%2'3'0' '58,))%5'.)*' ,55/%0%B' *06,)'/'.'.'57'.(%5'0)'-%'*&)14%$(1/')%5'/%6$*02'*.' 1/2' @' ?MM' ,0' &')+%$' '' .'),7%' *&' ,$8,.-+'8' '0' '' 0*/5,%$' 3+*'+'5'0%$7%5' .' .5,'' '.5'5,%5''-%5' '4*1)' &,&)2&,7%H' +,0' 8*)+%$' 3'0' '' .')7%' *&')+%' ,0/'.5' ,0' &')+%$' 3+%.' .' .5,'' (*+'4,)%5'3,)+' '' (*/*1$%5'3*8'.'.'5 5,%5' .' 1%$.0%2' &$*8' '' 5,0%'0%')+%' 5%;0($,6),*.'*&'3+,(+'%B'()/2'(*$$%06*.5%5'3,)+')14%$(1/')%5'/%6$*02' %'+'5'0*$%0' *.'+,0'&,.-%$0' '.5')*%0'%./'$-%8%.)' *&')+%' .*0%''.5' ('$0' 1.5'5,0(*/%$'),*.' *&')+%' 09,.'*&')+%' &$,,(%' ' '')'+%'),8%')+'+%' 3'0' '58,))%5',.)6')+%'+*' 6,)'/'+'5' 01&&%$%5'&*$&,7%'2%'$0' ')+%' 5,0%'0%'3+,(+'+'5'4%;(*8%'&1//2'5%7%/*6%5'4%&*$%'+%'/%&)'+,0'.'),7%',0/'.5H+%'+'5'0%7%$'/'4$*)+%$0'.5'0,0)%$0'*/5%$')+'.'+,80%''//'E1,)%'+%'/)+2'+,0'('0%'3'0'(*.0,5%$%5''')'+%'),8%'42')+*0%',.)%$%0)%5',.')+%'014>%()''0'0)$*.-'%7,5%.(%',.'&'7*1$'*&')+%',.*(1/'4,)2'*&')+%'5,0%'0%'$' ',$5.%$',.'??M'614/,0+%5',.')+%'$P #' & 'O " ''7%$2',.)%$%0),.-''((*1.)*&')+%''66'$%.)')$'.08,00,*.' &')+%'/%6$*10'7,$10'42'7'((,.'),*.' +%' +,0)*$2'3'0'4$,%&/2''0'&*//*30' .' .-/,0+'8%5,('/'8'./,7,.-',.''')$*6,('/,0/'.5'3+*$%'/%6$*02',0'%.5%8,('7'((,.')%5'+,0'*3.'0*.'&$*8''.'),7%'(+,/5'3+*')1$.%5'*1)')*'4%'/%6$*10H'+,0'*3.'0*.'+%'7'((,.')%5''.*)+%$'4*2')+%'0*.'*&''(*)(+'0%&)('6)',.')$'5,.-'&$*8'(*)/'.5')*')+%',0/'.5',.'E1%0),*.' *)+',0'*3.'0*.'.'.5')+%'0*.'*&')+%'0%'('6)',.'0140%E1%.)/2'5%7%/*6%5'/%6$*02'51$,.-'(+,/5;+**5')',0''&',$',.&%$%.(%'41)'.*)'*&(*1$0%''(%$)',.)2''0')+%'5,0%'0%',0'%.5%8,(',.')+')+%'/%6$*02'3'0')$'.08,))%5'42',.*(1/'),*.' +%'(*.(/10,*.0')*'4%'5%$,7%5'&$*8')+%'3%//9.*3.'%B6%$,8%.)'42' $' 8,.-'.''3','*&,.*(1/')8-''($,8,.'/3,)+'/%6$*10'7,$10'3+*0%'0%.)%.(%'*&5%')+'3'0'(*881)%5'*.')+%'(*.5,),*.')+')'+%'0+*1/5'0148,)')*'+%'*6%$'),*.' 3%$%'0*8%3+')'7,),')%5'42')+%'01$$*1.5,.-0''.5'6$%7,*10'+,0)*$2'*&')+%,.5,7,51'/')',0')$1%')+')'+%'5%7%/*6%5'/%6$*02'&)%$' '.5'6$*4'4/2'41)'.*)' ') #',.'(*.0%E1%.(%'*&')+%',.*(1/'),*. +%'6$%0%.)'/%6$*02'(*88,))%%' *&')+%' */%-%' *&' +20,(','.0'+'7,.-')+%0%' '.58'.2'*)+%$'('0%0'4%&*$%')+%8')+*1-+)',)$,-+)')*' 0/,-+)/2'8*5,&2')+%'(*.(/10,*.0' ')3+,(+')+%,$'6$%5%(%00*$0+'5' '$$,7%5H' .5')+%2'6*,.)%5'*1)')+)')+*1-+'/%6$*02',0'.*)'(*.)'-,*.0',.')+%'(*88*.'0%.0%*&')+')%$8'2%)'+')',)',0'6$*4'4/2'0*',.'' 8,.*$'5%-$%%''.5')+%2'(*86'$%',)',.')+,0'$%06%()'3,)+'026+,/,0 '9,.-''/'6*,.)0',.)*'(*.0,5%$'),*.',)'('$)'+'$5/2'4%'5*14)%5')+')')+,0'(*.(/10,*.',0')+%'$,-+)'*.%''.5')+')'/%6$*02''')''// %7%.)0',.',)0'/')%$'0)'-%0'3+%.'*6%.'0*$%0'$%6$%0%.)'8'2'4%(*8%''0*1$(%'&'5'.-%$')*+%$0'.')+%'*)+%$'+'.5',.')+%'*)+%$'/,%$'0)'-%0'*&')+%'5,0%'0%',)'0%%80'+,-+/2'6$*4'4/%')+')',)',0'.*)'(*.)'-,*1'%7%.',.''' 8,.*$'5%-$%%+%'*&) E1*)%5'+,0)*$2'*&')+%''.53,(+'0/'.50''.5'/0*')+%''((*1.)0'&$*8'(%$)',.'5,0)$,()0',.'6',.'3+%$%'+'0'06$%'5',.'8*5%8'),8%0'3,)+'-$%')'$'6,5,)2'*7%$''/,8,)%5''$%''$%'&'()0'.*)'%'0,/2'%B;6/',.%5'*.')+%'00186),*.')+')')+%'5,0%'0%',0'6$*6'-')%5'*.'/2'42',.*(1/'),*.')+%'),8%'*((16,%5'4%,.-'66'$%.)/2')**'0+*$)'*'8%%)')+,0'5,&/(1/)2')+%'3$,)%$'01--%0)%5',.'+,0'#"/"'S 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drugs must be received with caution. There is another fact which must be taken into consideration, namely, that leprosy is liable—at least in healthy climates—to long periods of comparative rest or subsidence, quite apart from any special treatment. It is, in short, one of the features of the disease that it does not progress uniformly. Sometimes it appears for a time as if cured, and then breaks out again without any apparent exciting cause. It is very necessary to bear these facts in mind, because those who are unacquainted with the peculiarities of the disease are apt to attribute to remedies what really is the natural course of the malady, under the influence of a mild and healthy climate.

In the later stages of the disease, it is well to bear in mind that those who dress the open sores of lepers should be careful not to allow the discharge to get into any cuts or wounds in their hands. Scrupulous cleanliness and disinfecting dressings are also advisable.

With regard to the segregation of lepers in those countries where the disease is endemic, it is highly desirable that leper-hospitals should be provided, and the lepers encouraged as much as possible to enter them. This would not only be an advantage to the lepers themselves, but of even greater benefit to the community at large.

ROBERT LIVEING.

LEPTOMENINGITIS (λεπτός, delicate or thin; and *meningitis*).—A term signifying inflammation of the pia mater. By its use, in association with arachnitis and pachymeningitis, we are enabled accurately to indicate the precise seat of inflammation involving the meninges of the brain or spinal cord. There is a practical convenience, warranted by pathological facts, in retaining the term 'arachnitis,' although anatomists are not now disposed, as they were formerly, to believe in the existence of an arachnoid membrane, distinct externally from the dura mater, and internally from the pia mater. *See* MENINGES, Diseases of.

LEPTOTHRIX (λεπτός, delicate or slender; and θρίξ, a filament or hair).—*Leptothrix buccalis* is a name assigned by Robin to certain vegetable parasites or minute filaments, which can be recognised, by means of the microscope, amongst the epithelial scales of the tongue or other parts of the mouth; and especially between the teeth, or in the hollows of decayed teeth. They occur in healthy persons, as well as in the sick, and have in this situation really no pathological signification.

Dermatologists also employ the term 'leptothrix' to indicate a morbid thinness and weakness of the hair. *See* LEPOTHRIX.

LESION (*lædo*, I hurt).—This word originally signified a hurt or an injury; but its use is now extended to comprehend all organic changes of a morbid character, affecting an organ or tissue.

LETHARGY (λήθη, oblivion; and ἀργία, idleness).—A disorder of consciousness, which consists of prolonged and profound sleep, from which the patient may be momentarily aroused, but into which he falls off again immediately. One form of it corresponds with the final stage of hypnotism. *See* CONSCIOUSNESS, Disorders of; and TRANCE.

LEUCE (λευκός, white).—This term has been applied to blotches in the skin of a white colour; and hence it has alternately been confounded with lepra alphoides, with vitiligo, and with the leucodermic blotches of leprosy. It, however, seems more than probable that the pathological condition intended to be signified by this word is a circumscribed scleriasis, namely, that which we at present term *morphœa alba*. *See* SCLERODERMA.

LEUCIN (λευκός, white).—SYNON.: Fr. *Leucine*; Ger. *Leucin*.

Leucin or amido-caproic acid is a decomposition-product of the complex proteid molecules, when these are acted upon by strong acids or alkalis, or when they are submitted to the prolonged action of the pancreatic ferment trypsin. Its chemical composition is represented by the formula $C_6H_{13}NO_2$, thus showing it to be a compound of ammonia with a fatty acid. It is a product of intestinal digestion, but does not occur normally in the fæces or urine.

As the internal administration of leucin increases the amount of urea excreted, physiologists now regard it as an antecedent of urea in the decomposition of proteids; the transformation in all probability occurring in the liver.

CHARACTERS.—Pure leucin is soluble in water, slightly in alcohol, insoluble in ether.

Microscopically, leucin, as it occurs in the urine, appears as oil-like, highly refracting, laminated, crystalline, globular masses, ob-

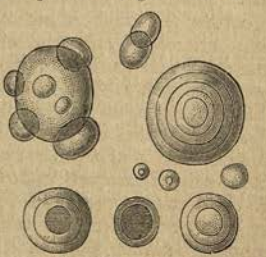

FIG. 66.—Crystals of Leucin. × 200.

scurely radiating; but, when pure, leucin forms white, glistening, flat crystals (fig. 66). The microscopic test is not a thoroughly reliable one, hence we must have recourse to the following method: Free th

pneumonia, and syphilis have been supposed to be causes of the affection, but the ætiological relation is doubtful. Of all antecedent conditions, intermittent fever is incomparably the most frequent. In one-fourth of the total number of cases (150) analysed by Dr. Gowers, there was a history either of ague or of residence in an ague district. The interval between the malarial affections and the disease varied from a few months to thirty years. The fact that, in many cases, a long period elapsed, and that the attacks of ague, in some instances, were trifling, makes it probable that, in the cases in which the patients had merely lived in an ague district, the malarial influence, which did not cause ague, led to morbid changes which eventuated in the leucocythæmia. One patient under Dr. Gowers's care, a middle-aged woman, had lived in a malarial district only during the first few years of her life, but, shortly before her birth, her mother had suffered from an attack of ague.

Anatomical Characters.—*Blood.*—The blood, as seen after death or during life, is paler than normal, and may even be greyish-red in colour. In extreme cases coagulation is imperfect; a grumous chocolate-brown mass results. After defibrination three layers form—red corpuscles, pale corpuscles, and serum. Under the microscope the pale corpuscles are seen to be in great excess; instead of two or three per field, as in

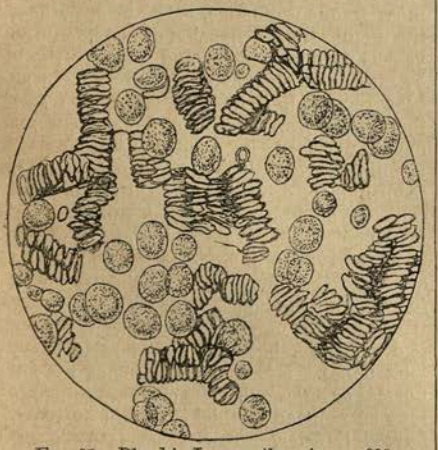

Fig. 67.—Blood in Leucocythæmia. × 600.

the normal, there may be several hundreds. Enumeration (*see* Hæmacytometer) shows that not only are the white corpuscles increased, but the red are lessened out of proportion to the increase in the white, so that the total number of corpuscles is always diminished. Instead of the normal 5,000,000 per cubic millimeter, there may be only 2,500,000 or even 1,150,000 (50 and 23 per cent. of the normal). The proportion between the white and red varies, being 1–20, 1–10, 1–5, 1–2, or 1–1; or the white may be the more numerous. The apparent is greater than the real excess of white, in consequence of the closer contact of the red. It was proposed by Magnus Huss to regard as leucocythæmia only those cases in which the proportion is greater than 1 to 20, and the rule has been largely followed; but it must be remembered that in commencing cases the proportion may be smaller than this. The greatest change hitherto recorded was a reduction of the red from 5,000,000 to 470,000 per cubic millimeter (9 per cent. of the normal), and an increase of the white to 680,000 per cubic millimeter instead of 15,000, the normal average. The pale corpuscles may be of normal size; but usually some are large, and often many are smaller than normal (the *globulins* of Donné), especially when the lymphatic glands are affected. Reagents bring into view one to four nuclei. Some of the corpuscles present obvious fatty degeneration. The red corpuscles are either normal in appearance, or present great variety in shape and size (*poikilocytosis*). They are sometimes unduly pale. Nucleated coloured corpuscles have been seen in a few cases, believed to be intermediate forms between the white and red corpuscles. The amount of hæmoglobin is less than that which corresponds to the number of red corpuscles present. The specific gravity of the blood is lessened from 1,055, the mean in health, to an average of 1,042; the change being due to an increased proportion of water, from 790 parts per 1,000 in health to 840 in leucocythæmia. The fat and fibrin are increased, and the latter sometimes presents a peculiar granular appearance. The iron is lessened. Abnormal constituents have also been found in the blood, such as the albukalin of Reichardt, mucin, a substance analogous to glutin, hypoxanthin, lactic and formic acids. Minute octahedral crystals have been found in the blood and in many organs after death, about ·016 mm. in length. Their nature is uncertain. Since they have been found only after death, it is conjectured that the substance of which they consist is held dissolved during life. They are not peculiar to this disease.

Organs.—The *spleen* is always enlarged, sometimes extremely. Its weight varies from twice to fifty times the normal—1 lb. to 18 lbs. The average of 72 cases analysed was about 6 lbs. The average length is nearly 12 inches. The enlargement is commonly uniform; the shape of the organ being preserved. The surface is smooth, but often presents traces of local peritonitis, in the form of yellowish opaque patches. It is frequently adherent to the diaphragm, omentum, abdominal wall, intestines, or liver. Its consistence is usually increased, rarely diminished. The cut surface is smooth, and yields comparatively little blood; it is

4$*3 .,0+ $%5' *$%7%.' 4$*3 .,0+ 2%//*3 ' 8 '$; 4/%5' 3,)+' 6'/%$' /,.%0' 51%')*')+,(9%.%5')$'4%*1/[' +%' '/6,-+,'.' &*//,(/%0' '$%' .*)' 101''//2' (*.06,(1*10' .' *'0%0' 3+,(+' 4%-,.' 3,)+' %./'$-%8%.)' *&K)+%' /286+'),(' -/' .50' '.5'3+,(+' '$%$%' //2'%'0%0'*&'6$,8 '$2'/286+' '5%.*8 ' ')+%' '/6,-+,'.' &* ,(/%0' 8 '2' 4%0'*' %./'$-%5' '0')*' (*.0),)1)%' 08 '/' -$*3)+0' +%$%',0' $'$%/2' .' '$%' '*&' 5,0),.()'0*&)%..-' %5-%0+'6%5'2%//*3,0+ 3+,)%' ('0%*10'6*$;),*.0' '$%' &$%E1%.)' ' .5' '$%'%7,5%.)/2',.&'$()0H 3+%.' $%(%.)')+%2' '$%' 5%%6' $%5' +%' +,0)*;/*-,('/' (+' .-%',.')+%' *$-' .',0' .' *7%$-$*3)+' *&')+%' 06/%.,(' 61/6H)+%')$'4%(1/'$'),001%',0',.($%'0%5H ' .5'0*' /0*',0')+%' $%),&*$8'),001%'*&' .1(/%')%5'&,4$%0' '.5' (%//0' '8*.-' 3+,(+')+%'/286+*,5'(*$610(/%0'/,%' +%' '/6,-+,'.' 4*5,%0' 8 '2' .*)' 4%' 5,0(*7%$'4/%' 3,)+')+%' 8,($*0(*6%' *$')+%2' 8 '2' 4%' &*1.5')*' +'7%' 1.5%$-*.%' &')2' *$'/'$5'(%*10'5%-%.%$'),*.' +%' ,.&'$() ,9%' 8 '00%0'6$%0%.)')+%' 06/%.,('),001% %/%8%.)0',.'' 0)')%'*&'&')2'5%-%.%$';),*.' .' 8 '.2' *'0%0')+%' ($20)'/0' '/$%'52'5%0($,4%5'+'7%' 4%%.' &*1.5',.')+%' 06/%%.',.&$%')'41.5'.(%' +,0'*$-'.'+'0'4%%.'&*1.5'2' '.'/20,0')*' (*.)',.' -/1),.' -/2(*(*' +26*B'.)+,.'B'.)+,.'/%1(,.'.'.5')2$*0,. +%'H/ # '0 " '0*8%'*$'8'.2''$%%./'$-%5',.'*.%)+,$5'*&')+%'('0%0'*&'6$,8'$,/2'06/%.,(''/%1(*(2)+&&,8,''AF'*1)'*&' DM'('0%0R'+%'*$5%$',.'3+,(+')+%'0%7%$'/'-$*160' (D'&&%()%5',0'4%-,..,.-'3,)+')+%'8*0)'&$%E1%.R\')+%'8%0%.)%$,('(%$7,('/',.-1,.'/''B,//=')$%)$*6%$,)*.%'/')+*$'(,(' 6*$)'/'.5',/,9('.'*,12'&,7%'('0%0'3'0')+%'(+'.-%'1.,7%$0'/'+%'%./'$-%8%.)',0'.*)'(*.0,5%$'4/%K)+%'.5,7,51'/'-/'.50'$'$%/2'))',.,.-')+%'0,C%'*&''' '/.1)' +%2''$%'101''//2'08**)+'0*&)'-$%2'*$'$%55,0+ 3+,)%'*.'0%(),*.'H$'$%/2'('0%'),.-'*$'01661$'),.-H0*8%),8%0'6$%;0%.),.-'+&&,8*$$+'-,(' %B)$'7'0'),*.0' +%,$'8,.1)%'0)$1()1$%'5,&&%$0'/,))/%'&$*8')+%'.*$;8'/' 286+*,5'(*$610(/%0'/,%',.''.'5%.*,5'$%),(1/18'3+,(+',0'$'$%/2',.($%'0%5' '0',)',0',.'/2286+'5%.*8' ,)+'$%06%()*')+%' " ' " ')+%'-180'$%'*((''0,*.'//2'03*//%.'.'5'1/(%$')%5')+%'03%//,.-'4%,.-'51%')*',.&,/)$'),*.'*&')+%'-18'3,)+'/%1(*(2)%0'*$)*'.''()1'/286+*,5'-$*3)+' +%')*.0,/0' '.5'&*//,(/%0'*&')+%')*.-1%'$%'0*8%),8%0'%./'$-%5'42'/286+*,5'-$*3)+%'.5'$)+H'.5')+%$%'8'2'4%'')0,8,/'$'(+'.-%'101''//2'0/,-+)',.')+%'/286+*,5'),001%'*&')+%''//*&')+%'0)*8'(+''.5'81(+'8*$%'(*.;0,5%$'4/%',.')+%'0*/,)'$2'.5''-8,.')%5'-/'.50'*&')+%'08'//,.)%0),.%' +%0%*-$*3)+0'&$%;E1%.)/2'1/(%$')%' ,8,/'$'(+'.-%0'$%'/0*'81.5'8')+%'/'$-%',.)%0),.%' +%' " 2 '0*8%),8%0'6$%0%.)0'0,8,/'$'-$*3)+0' +%'3) ',0'%./'$-%5',.')'/%')0')3*),+$50'*&')+%'('0%0'7'$2,.-',.'3%,-+)'&$*8' '/40')*' '/40'.'0*8%'('0%0'*&'0/,-+)'%./'$-%8%.)'.*'0)$1('.=,$'/'(+'.-%'4%2*.5'(*.-%0),*.'+'0'4%%.'&*1&,5'H&$%E1%.)/2'+*3%7%$')+%$%''$%'5,0'0%8,.')%5/286+*,5'-$*3)+0'8,.1)%'-$%2,0+'3/,,)%'(*88*./2',.)%$/*41/'$',.'6*0,),*.*&)%.'01$$*1.5,.-'4$'.(+%0'*&')+%'6*$)'/7%,.'+%'('6,//'$,%0''$%'/3'20'5,0)%.5%5'3,)+'6'/%'(*$610(/%0'))2'5%-%.%$'),*.'*&')+%'+7%$(%//0',0'/0*'(*88*.'+%'#'$%'4.*$8'/,.''')'/%')0)'*.%+'&'*&')+%'(0%0'+%2'8'2'4%0,86/2'6'/%'&$*8''.'8,''H6'/%'.5'%./'$-%5'&$*8'-$'.1/'$5%-%.%$';),*.'*&')+%'(%//0'.5'5,0)%.0,*.'*&')+%'('6,/;/'$,%0'3,)+'/%1(*(2)%0H*$)+%2'8'2'6$%0%.)8,.1)%'-$*3)+0'0,8,/'$')*'+%'/,7%$'.5'0,)1')%5'4%)3%%.')+%')141''*&')+%'(*$)%B'%06%(,''//2'.%'$')+%'-/*8%$1/,''$9%5'&')2'5%-%.%$'),*.'*&')+%'9,5.%2'+'0'/0*'4%%.'&*1.5'+%' " ' +'7%'4%%.'&*1.5'5,0%'0%5',.'0%7%$'/'('0%0'.'5',.'*.%'*$)3*')+%$%'3'0'4$*.C,.-'*&')+%'09,.' +%' '.5'# '-/'.50'+'7%'/'0*'4%%.'&*1.5'%./'$-%5' +%'# '0',.'*)+%$'('0%0'*&',.)%.0%'.[8,''8'2'6$%0%.)'-$*.1/'$'.5'&'))2'5%-%.%$'),*.' B)$'7'0'),*.0'*&'4/**5'+'7%'4%%.'&*1.5'4%.%')+')+%%.5*'.5'6%$,;('$5,18' +%'('6,//'$,%0'*&')+%'+%')$' '$%'*&)%.'5,0)%.5%5'3,)+'/%1(*(2)%0' %$,('$5,'/%&&10,*.',0'(*88*.' +%'# 0'8'2'6$%0%.)0,86/2'5,0)%.0,*.'*&'('6,//'$,%0'*$+[8*$'$+'-,(',.&'$()0'*$'')1'/-$*3)+0'0,8,/'$',.'0)$1()1$%'*)*'+%0%'&*1.5'%/0%3+%$%'+%0%(*88%.('')'/)+%'4$*.(+,''.5',.&,/)$')%'5>';(%.)'),001%0' '$%/2')+%2'8'2'4$%'9'5*3.'.5'&*$8'('7,),%0' /%1$'/ "',0'7%$2'(*88*.''.5'/286+*,5'-$*3)+0'+'7%'4%%.'&*1.5'*.'+%'8%4$'.%0'5,0)%.0,*.'*&')+%' "'+&&,8*$$+'-%0'),01'2'81/),6/%'(*.0),)1)%')+%8*0)'&$%E1%.)'(+'.-%' ,.1)%'-$*3)+0',.')+%8%84$'.%0'5,0)%.0,*.'*&')+%8%.,.-%'/7%00%/0'3,)+'6'/%'4/**5''.5')+%,$'*40)$1(),*.'42'8'00%0'*&'/%1(*(2)%0'A '0),'.R'+'7%'/0*'4%%.'$%(*$5%5' +%' #"',0','.$'$%'('0%0')+%'0%')'*&'-$*3)+0' +%' " '+'7%'4%%.'&*1.5'5,0%'0%5',.'8'.2'('0%0'A '.7,%$' %18'..' ^(R +%'8'$$*3',0' -$%2'*$'$%55,0+ -$%2'5,&&/1%.)'6$%0%.),.-'/286+*,5'(%//0'.5'4/**5(*$610(/%0' *8%),8%0'(%//0'.50'4%)3%%.'3+,)%''.5'$%5'(*$;610(/%0'+'7%'4%%.'&*1.5',.')' +%'7%00%/0''$%'&%3%$')+'.'.-*$8'/' +%'(+'.-%'8'2'4%'&*1.5',.''/')+%'4*.%0'8*0)'8'$9%5',.')+*0%'3+,(+'6*00%00'8*0)'06*.-2',001%''0')+%'$,40'.5'7%$)%4$[' 41)'/0*'(*.0,5%$'4/%',.')+%'/*.-'4*.%0' B)%$.'//2')+%'4*.%0'8'2'4%'.*$8'/'-%5' +%'(*86'()'0140)'.(%'8'2'4%'$%51(%5',.')+,(9.%00''.5'%7%.'6%$;&*$')%5'A *0/%$R' +%' " ',0'&$%E1%.)/2'5,0%'0%5' [8*$$+'-%0'8'2'4%'&*1.5'%0;6%(,'//2',.')+%'.%$7%&,4$%/'2%$0''.5'5>'(%.)')*')+%8')+%'$%),.'/%%8%.)0'8'2'4%'5%-%.%;$')%5' +%'(6,//'$2'7%00%/0''$%&,//%5'3,)+'6'/%'(*$610(/%0''.5'(0)'/286+*,5'-$*3)+0'+'7%''/0*'4%%.'&*)85

!(! G &')+%'%'$/2'0286)*8 0'*&'/%.'(*(2)+&&,8,'')+%'8*0)'&$%E1%.)'$%')+*0%'51%')*')+%06/%.,('%./'$-%8%.)'.'8%/2''45*8,;.'/&1/.%00'6',.''*$'.''()1'/)18*1$' %B)',.'&$%E1%.(2',0'3%'9.%00' [8*$$+'-%'%06%(,''//2'%6,0)'B,0'*&)%.'E((1$0'%'$/2'41)'$'$%/2'4%&*$%'*)+%$',.5,(''),*.0'*&',// +%')/+' W

+%' (+'. -%' ,.')+%' 4/**5' ('10%0' 6'//*$ *&' 09,.' '. 5' 81(*10' 8%84$'. %0' 0+*$). %00' *&' 4$%')+' '. 5' '/')+%' ,. 5,('),*. 0' *&' '. 0%(5,' ' 1)',. ' 8 '. 2' (' 0%0')+%' &' (%' $%)'. 0' '' -**5' (*/*1$' &*$' 0* 8 %'), 8 %' ,. ' 06,)%' *&' 8 '$9%5' %B; (%00' *&' 3+,)%' (*$610(/%0' +%' '/)%$%5' (+'$'(;)%$0' *&')+%' 4/**5' $%' 5,/2' *40%$7'4/%' 51$,. -' /,&%'+' 7%' 4%%.' '/$%' 52' 5%0($,4%5' +%')%8; 6%$')1$%' ,0' &$%E1%.)/2' 41)' .*)' ,. 7'$,'4/2' $',0%5')' ,0' (* 8 * ./2' +,-+%$' ,.')+%' %7%. ; ,. -')+'. ' ,.')+%' 8 *$. ,. -'')+%' %7%. ,. -' $,0%' 101''//2'$%' (+,. -' ! g ! g ' +%' 8 *8 ,. ' &'// 8 '2' 4%' (*. 0,5%$'4/%' *$' 0/,-+)' *8%;), 8 %0' 6%$,*50' *&' (*. 0,5%$'4/%' 62$%B,'' /)%$; . ')%' 3,)+' *)+%$0' ,6' 3+,(+')+%$%' ,0' /,))/%' &%7%$' +%' ('0%0' ,.' 3+,(+')+%$%' ,0' 8 *0)' 62$%B,'' '$% 101''//2'41)' .*)' '/3'20'//,*0%' *&' 8 *0)'$'6,5' (*1$0%' +%' %./'$-%8%.)' 6&')+%' 06/%%.' 6$%; 0%.)0')+%')26,('/ (+'$'()%$0' *&' '' 06/%.,(')8.*1$')' 8 '2' *((162')+%' 3+*/%'/%&)' +'/&' *&')+%' '45*8%.' %B)%.5' %7%.' 4%2*.5')+%' 8,55/%'/,.%' 5%0(%.5',.)*')+%' ,'(' &*00' ' '.5' %7%.' ,.)*')+%' 6%/7,0' 0*' '0')*' 4%' 6%$(%6),4/%' 42' 7'-,.'/%B' 8,.'),*.'A 6%.(%$' %//0R')' 8 '2' 7'$2',.' 0,C%' &$*8'), 8 %')*'), 8 %' $,(;),*.' 8 '2' 0* 8 %), 8 %0' '.5' '' # ' ' $'$%/2' 4%' +%'$5' 7%$',)')' 101''//2' ('10%0' '.' ,86/%'0' .)' 0%.0%' *&' 5,0)%.0,*.' ,0' *&)%.')%.5%$' '.5' 0* 8 %), 8 %0' ,0')+%' 0%')' *&' 06*.;)'.%*10' 6',. ' 2' ,)0' 6$%)01$%',)' 8 '2' $',0%')+%' +%' $)' ('10%' (*.0,5%$'4/%' 5206.*%' '.5' ,.)%$&%$%' -$%')/2' 3,)+')+%' &)8(),*.0' *&')+%' 0)* 8 '(+' +%' 5,0)%.0,*.' *&')+%' '45*8,.'/ 3''// 8 '2' ('10%' /,.%0' 0,8,/'$')*')+*0%' *&' 6$%-.'.(2')*' '66%'$' *7%$')+%' 06/%%+' '.5')+%,$' 6*0,),*.' ,0' 0* 8 %), 8 %0' 5,0),.()/2'5%)%$; 8,.%5' 42')+%' (*1$0%' *&' 7%00%/0' +%' %.; /'$-%8%.)' *&')+%' -/'.50',0' $'$%/2'01&&,(%.)')*' -,7%' $,0%')*' *)+%$' 0286)* 8 0')+')+%' *4)$1; 0,7%' %7,5%.(%' *&')+%,$' 6$%0%.(%' +%' -/'.50')+10' 6$%0%.)',.')+,0' 5,0%'0%' '' 8 '$9%5' (*.;)$'0')*')+%,$' (*.5,),*.' ,.' /286+'5%.*8 ' +%2' *&)%.' /%00%.',.'0,C%' 4%&*'$%' 5%')+' +%' '/)%$'),*.',.')+%' 4*.%0' ,0' 101''//2'1.'))%.5%5' 42' 0286)* 80' '$%/2')+%2' 4%(*8%'5,0),.()/2' W%$ '$-%5''.5')%.5%$' +%' '(),*.'*&')+%'+%'$)' ,0' 5,0)1$4%5' 42' 4*)+')+%' .(%8,'' .5')+%' 5,0; 6/'(%8%.)' +%' 61/0%' ,0' &$%E1%.)' .5' 6'/6,)'),*.',0' (*88*.' +%' ($(1/'),*.',0' ,8 6%5%5' %&&10,*.'*&' 0%$18',.)*')+%' (%//1/'$),001%'*&')+%' 4*52',0' '/8*0)',.7'$,'4/%',.')+%' /')%$' 0)'-%0'*&')+%' 5,0%'0%' /,-+)' '0(,)%0',0' &$%E1%.)'.5'-$%')' %&&10,*.',0' 0* 8 %), 8 %0' 51%)*')+%' 6$%001$%'*&' %./'$-%5'-/'.50'*.')+% 6*$)'/' 7%,.' 25$*)+*$'B',0' '/0*' (*88*.' +%' 8*0)' 0)$,9,.-'($(1/')*$2' 0286)* 8' ,0' +'%8*$$+'-%'3+,(+'*((1$0',.''')'$-%5' 6$*6*$;),*.'*&'('0%0' 8*0)'&$%E1%.)/2'&$*8')+%'.*0%' '.5'/%00'&$%E1%.)/2'&$*8')+%'4*3%/0')*8'(+' /1.-0' 1)%$10',.)*')+%' 09,.' %4$',.'>*,.)0' (%//1/'$',001%'*$' 6%$,)*.%18' +%'+'%8*$; $+'-,(')%.5%.(2',0' 0*'-$%')')+')'0/,-+)',.>1$,%0' 8 '2'-,7%' $,0%')*' 0%$,*10' /*00' *&' 4/**5H)+%' %B)$')(),*.'*&''')**)+' *$')+%' 61.()1$%' &*$' 6'$'(%.)%0,0' +'0')+10' /%5')*' 5%')+H' 3+,/%' 8*0)' ('0%0' ,.' 3+,(+' %B(,0,*.'*&')+%' 06/%%.

+'0' 4%%.' '))%86)%5' +'7%' 4%%.' &')' /&$*8')+%' 0' 8%' ('10%' +%' $%06,$'),*.',0' 101''//2',.;)%$&%$%5' 3,)+' 6'$)/2' &$*8')+%' 06/%.,(' %.; /'$-%8%.)''.5'6'=2'&$*8')+%''.'08',H)+')' 51%')*')+%' &*$8%$',0' 8 $%'0%5' 42')+%' $%(18; 4%.)' 6*0)1$%' +%''.008,(' 5206.*%'' 8 '2' 4%, 8.*),(%5' 3+%.')+%' 6'),%.)',0' ')' $%0)' '/;)+*1-+' '.2' (*.0,5%$'4/%' 8*7%8%.)' %'),0%0' '.' -*.2'*&'4$%')+/%00.%00' +%' 5206.(''',0' '/0*',.($%'0%5' 42'(+'.-%0',.')+%'+8-'4$*.; (+,'/(')'$$+''.5')+%'&$%E1%.)'6/%1$'/%&&10,*.' ,&&')+%'/')%$'0)'-%0' *1-+',0'&$%E1%.)'.5' 8 '2' 4%' '.'%'$/2'0286)*8' *&')+%' 5,=' 0%' +%' (+'.-%',.')+%' -180'/$%'52' 5%0($,4%5' 8 '2' /%'5')*' 1/(%$'),*.G)+%' 0/%19'08,% 0)* 8 '),),0<*&' *0,%$H'41)',)' ,0' 8*$%' $'$% ,.')+,0' 5,0%'0%')+'.',.'/286+'5%.*8''+% -'0)$,(' &1.(),*.0' '$%' (+,%&/2' ,.)%$&%$%5' 3,)+'42')+%' 6$%001$%' *&')+%' 06/%%.'3+,(+' ('10%0' 5206%60,''.5' *&)%.'7*8,),.' ,'$$+*%'',0'%B)$%8%/>=(*88*.''.5' 8'2'4%'((*86'.,%5'42'+0%8*.+'-%' +%'%.+=%' 8%.)'*&')+%'/,7%$' 8'2'4%' $%(*-.,0%5'51$,.-' /,&%'41)'$'$%/2'-,7%0' $,0%')*'014>%(),7%'0286;)*80' '1.5,(%'*./2$%01/)0'&$*8'(*86%00,*.' *&')+%' 4,/% 51()0' 42'%./'$-%5' -/'.50' 2%//*3,0+'),.)'*&'09,.',0',)'8 '2'4%' $%8'$9%5' &$%E1%.)' '6')$' &$*8')$1%' >'1.5,(%G)+%' ',()%$10'/,%.'/,0'<H,&' 6$*4'4/2' $%01/)0' &$*8')+%' '.0%8,'')+%' '/)%$%5'4/**5'4%.-'1.'4/%)*'5%0)$*2'&+%' 4,/% 6,-8%.)' *40*$4%5',.)*',)' &$*8')+%' ..)%0),.%' +%' 1$,.%' 7'$,%0' .. '8*1.)'41)',0' 101''//2'0)$*.-/2''(,5''.5' *&' +,-+'06%(,&,(' -$'7,)2' +%' '8*8)' *&'1$%'' ,%' 1.'/)%$%5')+')' *&'1$,(' (,5',0',.($%'0%5' 26*B'.)+,.'/'(),(''(,5''.5' &*$8,(''(,5' +'7%' 4%%.' &*1.5',.',)' /4188%.',0' $'$%' '6')$'&$*8')$1()1$'/(+'.-%',.')+%'9,5.%20' %.0)$1'),*.',0' 101''//2''$$%0)%5' +%'&1.(;),*.0'*&')+%'.%$7*10' 2$0)%8' '$%' 5,0)1$4%5'42')+%' '/)%$%5' 4/**5' /'.-1*$')',..)10''.5' 7%$),-*' '$%' &$%E1%.)H''.5' 0/,-+)' 8%.)'/ &',/1$%'5%/,$,18''.5' (*8'' '$%'*(('0,*.'//2' 8%)' 3,)+' +%' -$'7%$' 0286)* 80' '$%6$*4' 4/2'51%')*' ('6,//'$2' *40)$1(),*.'42' 80'00%0' *&' /%1(*(2)%0'*$')*' 08''/H +$%8*$$+'-%0' %0,5%0')+%'.*,0%0',.')+%' %'$0'5%'&.%00',0' (*88*.'%06%(,'//2')*3'$50')+%'%.5' .')+%' &1.510'*(1/,'(+'.-%0'8'2'101''//2'4%' 0%%.'3,)+')+%' *6+)+'/8*0(*6%' +%'6'//*$ *&')+%' 4/**5',.')+%' $%),.'/' 7%00%/0',' *.06,(1*10' +%' $%),.'/' 7%,.0' 4%(*8%'7%='4$*'5'.5''$%'*&)%.')*$/ 0' B)$'7'0'),*.0'*&'4/**5'$%'/8*0)',.7'$,'4/%')'0*8%'6%$,*5'101''//2'0)$,')%5'0*8%),8%0' $*1.5%5' %//*3,0+'*$'3+,)%'06*)0''$%'0*8%;),8%0'0%%.'51%')*')+%'(*//%(),*.0'*&'286+*.5' (%//0''/$%'52' 5%0($,4%5' (('0,*.'//2')+%' $%),.''',0',$$%-1/',/2')+,(9%.%5'0*')+')+% 7%00%/0'6$%0%.)'(*.06,(1*10'.)%$*6*0)%$,*$' (1$7%0' +%0%'(+'.-%0'(*.0),)1%')+%'0/%=' 0%8,(' $%),.,)0'&'*&' ,%4$%,(+' +%'%B)%.)')*' 3+,(+'0,-+)',0' ,.)%$&%$%5'3,)+'5%6%.50'*.')+%'5%-$%%')*'3+,(+')+%' .%,-+4*1$+**5'*&')+%'8'(1/''/1)%''',0',.7*/7%5' +%'09,.',0' 0)$,9,.-/2'6'/%'*$'0*8%),8%0''0' '/$%'52

X'

0)'1%5 ' -$%%. ,0+' 2%//*3 ' (('1',* . '//2' ''6%(1; /,'$' 5'$9'6,-8%.)'),*. ',0' 6$%0%.)' 3%'),. -' ,0' (*8*.

 !($ ' G +%' 8*0)' &$%E1%.)' (*8; 6/,(',*. 0' *&' /%1(**2)+[8,'' '$%' 6/%1$' /' %&&1; 0,* . ' *%5%8 '' *&')+%' /1. -0 ' /*+ '$' 6. %18*. ,' ' 4$*. (+,'/' (')' $$+' 6%$,('$5,'/' %&&10,*. '5,/')';),*. ' *&')+%' +%' $)' 7%. *10')+$*84*0,0 ' (%$%4$' /' +'08*$$+'-%' ' . 5' &'))2' 5%-%. %$'),*. 0 ' +% 8*$%' $' $%' (*86/,(').*. 0' '$%' (,$$+*0,0' *&')+%' /,7%$Ĥ 6'$%. (+28 ')*10' 5%-%. %$'),*. ' *&')+% 9,5. %20 ' -,7,. -' $,0%')+%' 0286)*80' *&' 014; '(1)%' $,-+)<0' 5,0%' 0%Ĥ $%. '/' (' /(1/,Ĥ 6%$0,0;)%.)' *$' ,.)%$8,))%.)' %$%(),*. ' *&')+%' 6%. ,0')+% &6$8%$' 6$*4'4/2'51%')*')+$*84*0,0' ,. ')+%' (*$; 6*$' ' ('7%$. *0 'Ĥ *%5%8 '' *&' 5%6%. 5,. -' 6 '$)0Ĥ '0(,)%0Ĥ &1$1. (/%0Ĥ ' . 5' %$20,6%/'0 ' +%' 7 '$,; *10' +'%8*$$+'-%0' '$%' $')+%$')*' 4%' $%-'$5%5' '0' 0286)*80' *&')+%' 5,0%' 0%')+' . ' '0' (*86+' %'),*. 0

 & % ' G' '0%0' *&' 06/%. ,(' /%1%*%2 ')+' %8 ,'' 7 '$2' ,. ' 51$'),*. ' &$*8' 0,B' 8*.)+0')*' 0%7%. ' 2%' $0 ' .%' *$')3*' $%(*$5%5' ('0%0' $' . ')+%,$' (*1$0%' ,. ' /%00')+' . ' 0,B' 8*.)+0 ' +%' '7%$' -%'51$'),*. ' *&' 0,B)2)+$%%' ('0%0' 3 '0')3*' 2%' $0 ' +%' '()1' /' 51$'),*. ' *&')+%' '&&%(),*. ' !' 6$*4'4/2' /. -%$')+' . ')+,0 ' 4%('10%')+%' 5,0; %'0%' +'0' *&)%. ' $%' (+%5' '' (*. 0,5%$' 4/%' 5%-$%%$ 4%&*$%')+%' 0286)*80' 4%(*8%')$*14/%0*8%

 % ' (' & G +%' 8*0)' (*88*. ' ('10%0' *&' 5%')+' , . ' /%1(*%2)+0%8 ,'' ' $%' /*00' *& 4/**5 ' 0)+%. , ' ' 5,'$$+*%' ' (%$%4$' /' +[8*$' $+' -%' 6. %18*. , ' ' ' . 5' 6/%1$,02 ' . ' '0)+%. , '')+%' ()1' /' %. 5',0' *&)%. ' 51%')*' ('$5,'(' &' ,/1$%' +%' +0%8*$$+'-%' 8*0)' &$%E1%.)/2' &')' /' ,0' &$*8')+%' . *0%')+%' . %B)' 8*0)' &$%E1%.)' &$*8')+%' 4*3%/0

 6$ ' G' +%' 6')+*/*-2' *&' /%(*' %2)+[8,'' ,0' 0),//' ,. 7*/7%5',. ' *40(1$,)2 ' %' $%' ,86%$&%()/2' (E1',.)%5' 3,)+')+%' . *$8 '/ /,&% +,0)*$2' *&')+%' 4/**5 (*$610(/%0' *&')+%' 4/**5 ('0%0' $' ' &1//' 5,0(100,*. ' *&')+%' &' ()0' 3+,(+' +' 7%' 4%%. ' '0; (%$)', . %5' ' . 5')+%')+%*$,%0' 41,/)' 16*. ')+%8 ')+%' $%' 5%$' ,0' $%&%$%5')*' $ ' *3%$0<0' $),(/%* . ')+%' 5,0%' 0%' ,. ' %2. */50<0' ' ' 7

 " ' */' P')' ,0' *. /2' 6*00,4/%' +%$%')*' -,7%' '4$,%&*1)/,. %' *&')+%' 6')+*/*-2' *&')+%' 5,0%' 0%' 3+,(+')+%0%' &' ()0' . 5')+%*$,%0' 01--%0) ' %' (%.)' $%0%' $(+%0' 8'9%' ,)' 6$*4'4/%)+')')+%' $%5' (*$610(/%0' '$,0%' &$*8' '')$' . 0&*$8'),*. ' *&')+% 08' %$' /286+*,5' R D0 3 '' *&' *. .=' +&&,8')*4/'0)0' *&' '2%8Ĥ ' . 5')+')')+,0')$' 10' &*$8'),*. ')' 9%0' 6/' (%)*' ''/' $-%' %B)%.)' , . ')+% 06/%. ,(' 61/6' '. 5' , . ')+ ' 8 '$$*3' *&' 4*. %0'),001%0' 3+,(+' +' 7%' 8 '+2' +,0)*/*-,('/' (+'; $' ()%$0' , . ' (*88*. ' &')+%0%'),001%0' '$% 5,0%' 0%5')+%')$' . 0&*$8')," . ' 8 '2' . *)')' 9%' 6/' (%' ' . 5')+%' 1. (+' . -%5/286+*,5' (%//0' 8 '2' 5%7%/*6' , .)*' *$5,. '$2' /%1(*(2)%0' 3+,(+' '$%' %,)/,%$' $%)' , . %5' , . ')+%0%'),001%0' , . ($%' 0; , . -')+%,$' 41/9' . 5' (+' . -, . -')+%,$' 0)$1()1$%0) . ' &),$)+%$' *$' 6'00' , .)*')+%' 4/**5' *)+' $%01/)0' 6$*4'4/2' *((1$' %. (%' %' 0018%' '' 6$,8'$2' (+' . -%' *&')+%' 06/%. ,(' 61/6' 3+,(+' ,0' , . ($%' 0%5' # ' ')+%' $%)' , . %5' /%1(*(2)%0' +%$%')+%' +[8')*4/'0)0' '$,0%' ,0' 0),// 1. ;

(%$)', . ' +%2' '$%' 6$*4'4/2' , . '6'$)' 5%7%/*6%5' , . ')+%' 06/%. ,(' 61/6' '. 5' 8 '$$*3' *&' 4*. %0' &$*8' 6$%%B,0), . -' (%//0' ' . 5' &$*8')+%' 6$%)*; 6/'08,(')$' 4%(1/[' *&')+%'),001%0' A /%, . Ĥ 6$*4'4/2' , . ' 6'$)')+%2' (*8%' &$*8')+%')$1%' /286+'),(' 0)$1()1$%0')+%' -/' . 50' '/6,-+,' . ' &* ,(/%0' *&')+%' 06/%%. ' ^(' $,8'$2' 5,0%' 0%' *&')+0%' /286+'),(' 0)$1()1$%0' (*. 0),)1)%0' /28 ' 6+' 5%. *8 'Ĥ ' . 5')+%' 06/%. ,(' 61/6' 8 '2' 4%' . *8' /' . 5')+%' /%1(*(2)%0' '$%' *. /2' , . ' 0/,-+)' %B(%00' *$' '$%' . *)' 8*$%' . 18%$*10')+' . ')+%2' 0+*1/5' 4%' . ')$1%' 06/%. ,('/%1(*(2)+a8, ')+%' -/' . 50' . 5' '6/,-+,' . ' &*//,(/%0' '$%' . *)' 6$,8'$,/2' 5,0%' 0%5' 41)')+%2' 8 '2' 01&&%$' 0%; (*. 5'$,/2' 3+%. ' /286+'),(' -$*3)+0' '$,0%' . ' *$-' . 0Ĥ ' . 5')+,0' 0%(*. 5'$2' '&&%(),*. ' ,0' , . '6'$)')+%' $%01/)' *&')+%' '((181/'), *. ' *&' /%1(*(2)+0' +')')+%' %. /'$-%8%.)' *&')+%' 06/%%. ' ,0' . *)' '0' +'0' 4%%. ')+*1-+)' 8%$%/2')+%' $%01/)' *&')+%' ((181/'), *. ' , . ' ,)' *&' 6'/%' (*$610(/%0' &$*8' 6$,8'$,/2' 5,0%' 0%5' 4/**5' ,0' 0+*3. ' 42')+%' , . ; ($%' 0%5' (*. 0,0)%. (%' *&')+%' *$-' . ' . 5' 42')+%' &' ()')+')')+%' 06/%. ,(')18*1$' 6$%(%5%0')+%' (+' . -%' , . ')+%' 4/**5' +%$%' ,0' 0*8%' $%' 0*. ')*' 4%/,%7%')+')' '0')+%' 06/%%. ' '/*. %' 8 '2' 4%' 5,0%' 0%5' 0*' , . ' 0*8%' $' $%' ('0%0')+%' 8 '$$*3' *&' 4*. %0' 8 '2' /*. %' 8 '2')*. %' 4%5,0%' 0%5' 0*8%' $' $%' (*$5%5' &' ()0')' , 0' (%$)' . ' +*3%7%$')+')')+%' 8 '$$*3' ,0' . ' 8*0)' ('0%0' . *)' '&&%()%5' 6$,8'$,/2' . ' 5' 8 '2' 4%' 1. ' &&%()%5')+$*1-+*1)' *$' 8 '2' 01&&%$' 0%; (*. 5'$,/2' '0' 5*')+%' -/' . 50' +%' 0' 8%' ,0')$1%' *&')+%' (*//%(),*. 0' *&' /286+'),('),001%' %/0%; 3+%$%' , . ')+%' 4*52' +%' ('0%0' , . ' 3+,(+')+%' /286+'),('-/' . 50%. /'$-%' $/2G0/286+'),(*' 06/%. ,(' /%1(*(2)+[8,''<G '$%' &*$')+%' 8*0)' 6'$)' ,$' . *)' %.),$%/2' ('0%0' *&' (*86*0,)%' . ')1$%' +%06/%%. 6$%0%.)0' '5*14/%' (+' . -%G-$*3)+0' , . ')+%' &* ,(/%0' 01(+' ('0%0')+%$%' 8 '2' 4%' ''/' $-%' , . ($%' 0%' , . ')+%' 06/%. ,(' 61/6' '0' , . ' 61$%' 06/%. ,(' /%1(*(2')+[8,' ' .' 01(+' ('0%0')+%$%' 8 '2' 4%' ''/' $-%' , . ($%' 0%' , . ')+%' 6'/%' (*$610(/%0' *&')+%' 4/**5 & ' G' +%' 5,'-. *0,0' *&' /%1(*(2')+[). ,''$%0)0' *. ')+%' %B,0)%. (%' *&' %. /'$-%8%.)' *&')+%' 06/%%. ' ' . 5' '' (*. 0,5%$' 4/%' %9(%00' *&' /%1(*(2)%0' , . ')+%' 4/**5' . ' '/' (' 0%0' *&' 06/%. ,(')18*1$')+%' 4/**5' 0+*1/5' 4%' %B' 8, . %5' ,&')+%' 6$*6*$),*. ' *&' 3+,)%' (*$610(/%0')*')+%' $%5' ,0' -$%')%$')+' . ' &')*' <H')+%' ('0%' ,0' (%$;)', . /2' *. %' *&' /%1%*(2)+&&,8,' ' 1)' ,&')+%' 6$*6*$),*. ' ,0' /%00')+' . ')+,0' /%1(*(2)+[8,'' (' . *)' 3,)+' (%$)', .)2' 4%' %B(/15%5' 4%('10%' ,)' ,0' 6$*4'4/%')+')' . ' '// ('0%0')+%' 06/%. ,(')18*7. ' 6$%(%5%0')+%' /%1(*(2)' /' %B(%00' ' . 5')+%' /'))%$' 8 '2' 4%' , . ' 6$*(%00' *&' 5%7%/*6; 8%.)' *' '0(%$)', +')+%' ' ()1' /0)%' *&')+%4/H*5 ,)' ,0' '/3'20' 5%0,$' 4/%')*' %. 18%$')%')+%(*$610(/%0' 3,)+')+%' +' 8'(2)*8%)%$' %' 6%')%5' %B' 8, . '),*. ')*' '0(%$)' . ')+')')+%' 6$*; 6*$),*. ' *&' 6' /%' %*$6),0(/%0' ,0' . *)' , . ($%'0, . -' ,0' . %(%00' $2' 4%&*$%' , 86%. 5, . -' /%1(*(2)+' 8, '

('.'4%%B(/15%5'.'('0%0',.'3+,(+'+%'/28;6+'),('-/'.50'%./'$-%%'$/2')+%'E1%0),*.''$,0%0'3+%)+%$')+%'('0%',0'*.%'*&'06/%.,('/%1(*(2)+%%8,''*$'*&'*5-9,.<0'5,0%'0%'.')+%'/'))%$'('0'>10)'0)')%5')+%'%./'$-%8%.)'*&')+%'06/%%.'5%6%.50'.*)'*.''.',.($%'0%'*&')+%'06/%.,('61/6'+1)'*.'*7%$-$*3)+'*&')+%'/;6,-+,'.'&*//,(/%0'H)+%'06/%.,('%./'$-%8%.)',0'/%00')+'.',.'/%1(*(2)+0%8,''.5',0'/%00'1.,;&*$8'.')+%'(*86*0,)%'%'0%0'//15%5')*'4*7%',.'3+,(+'3,)+'%./'$-%8%.)'*&')+%'-/'.50''.5'06/%.,('&*//,(/%0'A/286+'5%.*8'R')+%$%'%B,0)0'/0*'*7%$-$*3)+'*&')+%'06/%.,('61/6''.5''(*.0,5%$'4/%/%1(*(2)'/'%B(%00',.')+%'4/**5')*'8*$4,5'6$*(%00%0'$%(*.;>*,.%5''.5')+%'&&%(),*.'8'2'4%%)%$8%5'/28'6+'5%.*06/%.,('/%1(*(2)+%%8,''+%0%'('0%0'$%'5,0),.-1,0+%5'&$*8')+%'0,86/%'06/%.,('&&%(),*.'42')+8%%'$/2'%./'$-%8%.)'.5'&,$8;.%00'*&')+%'-/'.50'.'0,886/%06/%.,('/%1%*'(2)+0%8,'')+%'&&%(),*.'*&')+%'-/'.50',0'101''//2'/')%''.5'$'$%/2'(*.0,5%$'4/%'+%'5,'-.*0,0'*&')+%'5,0%'0%'&$*8'(*.5,),*.0',.'3+,(+''(*.;0,5%$'4/%%B(%00'*&'6'/%'(*$610(/%0'%B,0)0'3,),+;*1)'%./'$-%8%.)'*&')+%'06/%%.'.',0'101''//2'%'024%('10%'01(+'%B(%00',0')$'.0,%.)'0**.'6'00%0''3'2''.5',0'.*)''00*(,')%5'3,)+''06/%.,('),8*1$

G+%'6$*-.*0,0'*&''5,0%'0%'3+,(+'5%6%.50'*.''6$,8'$2''&&%(),*.'&')+%'4/**5&*$8,.-'*$-'.0',0'.%(%00'$,/2'8*0)'-$'7%'*'8%'.0'*&''$$%0),.-')+%'6$*-$%0'*&')+%'5%7%/*6%5'5,0%'0%'+'0'2%)'4%%&$'5,0;(*7%$%5'+%',88%5,')%'6$*-.*0,0',0'/%00'0%$,*10',.'6$*6*$),*.''0')+%'%7,5%.(%'*&'*$-'.,('(+'.-%0',.')+%'4/**5&*$8,.-'*$-'.0',0'0/,-+)''.5',.'6$*6*$),*.')*')+%'%'$/2'0)'-%*&')+%'=0%'0%'%,)+%$'-%'0%B'.*$'(=,10''),*.''&&*$50'6$*-.*0),(',.&*$8'),*.'+%-$%')%$')+%'.184%$'*&'3+,)%'(*$610(/%0''.5')+%'5%&,(,%.(2'*&'$%5''0''0(%$)',.%5'42'(*1.),.-')+%'3*$0%')+%'6$*-.*0,0'+%'0,C%*&')+%'06/%%.''/*.%''&&*$50'/,))/%',.&*$8';),*.''%8*$$+'-%0'$%'*&'-$'7%''1-1$2'41)'%6,0)'B,0'/%'0)'0*

! G+%'9.*3/%5-%&)+%'('10%0'*&'/%1(*(>$)+'08,''0/,-+)')+*1-+',)'0'01--%0)0',86*$)'.)'6$*6+2/'(),('8%'01$%0G)+%'6$%;7%.),*.''&'-6,%''.5')+%'('$%&1/')$%')8%.)'*&''//3+*'+'7%'4%%.'%B6*0%5')*'8'/'$,'/,.;&/1%.(%0'6/%.,('))18*1$0'$%01/),.-'&$*801(+'%B6*01$%0+*1/5'4%'020)%8'),('//2')$%')%5H)+%'014>%()0'*&')+%8'0+*1/5'%B%$(,0%-$%')'('$%')*'7*,5'%B6*01$%')*'(*/5',.>1$,%0''.5''('10%0'*&'6*$)'/('.-%0),*.'+%0%6$%('),*.'%0%6%(,'//2'.%(%00'$2',.'3*8%.')')+%'8%.0)$1'/6%$,*50H'.5',&'01(+'3*8%.'4%'$'(+,/5$%.')+%,$'0)')%'51$,.-'6$%-.'.(2''.5''&)%$'6')1,),*.'0+*1/5'4%'('$%&1//2016%$7,0%5''.5/'()',*.'6$*+,4,)%5'+%)+%$)+%$%',0'0,886/%'.0%8,''*$'/%1*(2)+0%8,''%7%$2'%&&*$)'0+*1/5'4%'8'5%')*'$%51(%')+%0,C%*&')+%'06/%.,('))18*1$'42'E1,..%'(*/5'&&10,*.''%$-*),.''.'5'%06%(,'//2'42'7*/)','(%/%()$,(,)2''8*0)'6*3%$&1/'-%.)'2'*4;)',.,.-'(*.)$'(),*.''*&')+%'06/%%.'%B6%//,.-',$%)',.%5'/%1(*(2)%0''.5'6%$+'60'0),81/'),.-'5,$%()/2',)0'&)8*),*.'/''(),*.'3%'$%.5%$',)0'(*.5,),*.'/%00'4.*$8'/''('('0%*&'.0%8,''06/%.,('',.*'$%8%5,%0',86$*7%5')+%'4/**5'0)')%'),/'+%'0=%%.'3'0'-'/7'.,0%53'+%.')+%$%5'(*$610(/%0''')'+.'(%'4%-'.')*',.($%'0%'%8%5,%0'3+,(+'5*'-**5',.'*$5,.'$2''.'%8,''+'7%'0/,-+)',.&/1%.(%'..')+,0'5,0%'0%'$*.',0''/8*0)'10%/%00H(*5/,7%$'*,/'+*3%7%$'+'0'0%%8%5')*'5*'0*8%'-**5'$0%.(''+'0'4%%.'/'$-%/2')$,%5'41)',.'6$*.*$8(%5'('0%0')0'1.5*14)%5'7'/1%',./28;6+'5%.*8''01--%0)0',)0'&1$)+%$')$,'/,.''%'$/2'('0%0H,)'0+*1/5'4%'-,7%.',.')+%'/'$-%0)'5*0%0')+')'('.'4%K>*8%'*0/%$''57,0%0',.>%(),*.'*&'*3/%$<0'*/1),*.',.)*')+%06/%%.H6$*7,5%5')+')')+%'*$-'.',0'&,$8'5%.0%''.5'(/*0%)*')+%'45*8,.'/'3''//')+')')+%$%',0'.*'+'%8*$$+'-,('))%.5%.(2''.5c.*'+,-+'5%-$%%'*&'('(+%B,'+*06+*$10'+'K0'4%%.'$%(*88%.5%5'41)',.'/8*0)'%7%$2'('0%'*&'6$*.*1.(%5'/%1(*(2)+%%8,'',)'+'0'4%%.'6*3%$/%00'&*$'-**5'%7%$)+%/%00',)0',.&/1%.(%'.','286+'5%.*8''3'$$'.)0'&1$;)+%$')$,'/.,')+%'%'$/2'0)'-%'&)+%'5,0%'0%'*5,5%0'4$*8,5%0''.5'8%$(1$2''$%'10%/%00'%86*$'$2',86$*7%8%.)'+'0'4%%.'*4)',.%542')+%'.+'/'),*.'*&/*Y2-%.')*')+%'%B)%.)'D'?!'+)$%0'5',/2'A,$.4%$-%$R'+'.-%*&',$8'2'0/,-+)/2',86$*7%1+%'6'),%.)<0')%'41)'+'0'.*',.&/1%.(%*.')+%'5,0%'0%'$'.0&10,*.'+'0'4%%.')$,%5'41)'+%'$%01/)0''$%'.*)'%.;(*1$'-,-'B(,0,*.''*&')+%'06/%%.'+'0'4%%.''))%86)%5'+%'*6%$'),*4'+'0'4%%.'6%$&*$8%5'3,)+'01((%00',.'('0%0'*&'8,''06/%.,('41)',.''()1'/%1(*(2)+0%8,'',)'+'0'4%%.',.7'$,;'4/2'&')'/G=,'8*0)'(%0'&$'8'1.(*.)$*//'4/%/*00'*&'4/**5')+%'$%01/)'*&'+%'+0%8*$$+'-,(%.5%.(2'1$)+%$')$,'/*&c,)',.'01(+'('0%0'5*%0'.*)'0%%8')*'4%'>10),&,'4/%'.'%'$/2'*'0%0'3+%$%'),0'.*'(*.0,5%$'4/%'=(%00'*&'6'/%(*$610(/%0''.5')+%'&%5''$%'.*)'$%;51(%5'4%/*3'D!'6%$(%.)'*&')+%.*8'/',)8,-+)'4%'01((%00&1/H41)',)',0'E1%0),*.'4/%3+%)+%$'.')+%0%'('0%0''.'1/),8')%'4'5',001%'3,)+*1)',.)%&%$%.(%',0'01&&,(,%.)/2'(%$)',.')*'>10),&2')+%'6%$&*$8'.(%'*&'0*'-$'7%''.'*6%$';),*.''&%(,'/'02286)*80'8'2'$%E1,$%')$%');8%.)'.8*$$+'-%'810)'4%(+%(9%5'42')+%'101'/8%)+*50''.5'($20)'/0'*&'6$(+/*,5%'*&',$*.'8'2'4%'66/,%5')*''((%00,4/%'6/'(%0'A%..%$R'*$'7*8,),..-''6*0)1$%'3+,(+'3,/'$%+%7%')+%'0)*8'(+'&$*.5'6$%001$%''.5'(*1.)%$''$$,)','),*.''$%'810)'4%'(%0'0+*1/5'4%'%86/*2%5'3,)+'(*1),*.'.5'2'1.5%$'.*'(,$(180)'.(%'0+*1/5')+%'2%//*3'),.)*'&)+%'09,.'/%'5')*')+%'10%'*&'8%$(1$,'/0'*$')+%'*%5%8''5,-,)''/,0''.5'*)+%$'5,1$%),(0'$%'4%0)'*$')+%'06/%.,('6',.'(*1.)%$,$$,)',),*.''%5'),7%/,..8%.0''.5'+26*5%$8,('..>%(),*.0'*&'8*$6+,.%'8'2'4%10%5'.'6$*6*$),*.')*')+%'.0%8,''6+20,('/'$%0',0',86*$).')+')')+%'5,8,.,0+%5'0166/2'*&'*B2-%.'8'2'.*)'4%$%.5%$%5',.'5%E1')%'&*$')+%'.%%5'*&')+%'),001%0'42'810(1/'$'%B%$),*.

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8*$%' *$' /%00' *6'E1%' '0' ,)' /,%0' 3,)+,1') +%' (%$7,(' /' (' . '/' ' . 5' 8 '2' 4%' 0%% .' *&' '' 2%//*3 ; ,0+' *$' -$%% . ,0+' *$' $%55,0+'),.)' ,.' 7'$,*10' ('0%0' +%' (/%' $' (%$7,(' /' /%1(*$$+(%'' ,0' 0%% .' 1.5%$')+%' 8 ,($*0(*6%')*' 4%' 8 '5%' 16' *&' '' 7,0(,5' 8 '-8 ' ' +'7, . -' % .)' . -/%5' , .' ,)' /'$-% . 84%$0' *&' (*/18 . '$' %6,)+%/,' /' (%//0' 3+,(+' +'7%' '')%. 5%. (2')*' '$$' . -% ')+%8 057%0' , .' $*30' +%0%' '$%' %'0,/2'0%% . ')*' 4%')+%' (,+')%5' %6,)+%/,' /' (%//0')+')' (*7%$')+%' . *$8' /' 81(*10' 8%84$' . %' 41)' 5%6$,7%5' &*$')+%' 8*0)' 6'$)' *&')+%,$' (,/,' ' +%2' $%' '((*86' . ,%5' 42'08 ' //%$$,,. 5%5' (%//0' /,9%' 81(*10' (*$610(/%0' *$ 3' . 5%$, . -' (%//0' 6' $)/2' 5%$,7%5' &$*8')+%' , .)%$,*$' *&')+%' ($26)0' ' . 5' 6' $)/2' 0+%5' &$*8')+%' -%. %$' /' 1$&'(%&$*8' 3+,(+')+%' %6,)+%/,18' +'0' 4%%. '$%8*7%5' .' '/8*0)' '// ('0%0' 0*8%' *&')+%' %6,)+%/,' /' (%//'' . 5' 81(*10' (*$610(/%0' '$(' (+'$-%5' 3,)+' ^))2' 6'$),(/%0' ' . 5' 01$; $*1.5%5' 3,)+' -$' . 1/%0' $%01/), . -' &$*8')+%' 4$%'9, . -' 5*3 . ' *&'0*8%' *&')9%,$' .184%$' +%' 8*$%')1$4,5')+%' 8*$%')+%' (%//0' $%&*1.5')*' +'7%' 1.5%$-*. %'01(+'5%-%. %$'), *. H ' . 5' 3+%$%')+%' 5,0(+'$-%' ,0' 6$*&10%' &/1,5' ' . 5' *&' 2%//*3,0+' (*/*1$',)' +'0' 8*$%')+%' (+'$'()%$0' *&' '' 61$1/%.)' &/1,5', . ' 3+,(+')+0K $%/'),7%/2' &%3' (2/, .5$,(' /' (%//0' '$%' (+' . -%5' , . ' &*$8' 4%(*8, . -' *7'/' *$' $*1.5%5' ' . 5' . %'$/2' '/' $%51(%5')*' '' (*86*1.5' -$' . 1/'$ 8 '00' +%' 8*$%' 5%%6/2'), .)%5' 5,0(+'$-%0' * %)+%,$' 5,0(+'$-%'),*. ')*')+%' '58,$)1$%' *& 4/**5')+%' $%5' (*$610(/%0' *&' 3+,(+' (' . '%' 0,/2' 4%' $%(*-. ,0%5' 6'$)' &$*8')+%' /%1 *$$+(%' 0' *&'06%(,&/(' *$,-, . ')+,0',0')+%' *8 8*. %0)'*&' '/')+%' 7'$,%),%0')' 8 '2'4%' &*1.5', . '&%8 '/%0' *&' ' . 2' . -%' 41)' 06%(,'//2' '&&%()0' 3*8%. ' 51$, . -')+%,$'$%6$*51(),7%+,0)*$2' ' . 5'8 *$%%06%(,'//2')+*0%' 3+*+'7%' 4%%. ' 8*)+%$0' %' (' . '1. ; 5%$0)' . 5')+%' 06%(,'/', '4,/,)2' *&')+%' (%$7,B')*' (')' $$+'/' &&%(),*. 0' +%. ' 3%' $%8%84%$')+')' '/', .)$' 1)%$, . %' 5,0(+'$-%0' 6' 00')+$*1-+' ' . 5' 8 '2', $$,)')%' ,)H)+')',)' , 0' %B6*0%5')*' 5' 8' -% 51$, . -')+%')$' . 0,)*&')+%' &*%)10' , . ' 6')$)1$,), *. H)+')' 7' -, . ' /' &%(), *. 0' %' 0, /2' 6' 00' , .)*' ,)' 42' (*.), . 1,)2'*&'0)$1()1$%H ' . 5'8 ')',)'8 ' 2'$%' 5, /2' 4%' , . >1$%5' 42' &*$%, -. ' 4*5, %0' , . ')+%' 7' -8 05' (' . '/' *$% %. '42'&$%)), . -' *&',)0' *$, &, (%' ' -', . 0)')+%' 7' -, . ' /' 3' //' , . ' (' 0%0' *&' 5,06/' (%8%.)' *$' %B(%00, 7%' 8*4, /,)2

' .)$' 1)%$, . %' , %1%*$$+*%' G %$6*1.5%5' *&' &/1,50' 5%$, 7%5' &$*6', 5, &&%$%.)' /0*)+%' 5,0(+'$-%' , 0')$' . 060 8%.)'/, 9%' 3+,)%' *&' %--' ' . 5' '/9'/, . %' , . ' ,)0' $%' (), *. ' 41)' ,)', 0' 8*$%' &/1,5')+' . ')+%' 0%(%), *. ' &$*8')+%' (%$7, ; ('/' (' . '/' . 5' 8 '2' %0('6%' '0' '' (/%' $' /, E1, 5' &$*8')+%' -%. ,)' /' &, 001$%' . ' ('0%0' *&' /*. -' 0)' . 5, $, -' 8*$%' 6')), (1/'$/2' 3+%$%')+%$%' %B, 0)0' 0*8%' *$-' . , (' 5, 0%' 0%' , . ')+%' 1)%$, . %' 6'$, %)%0')+%' &/1, 5' 4%(*8%0')1$4, 5' 61$1/%.)' ' . 5' 8*$%' &$%E1%.)/2')+' . ', . '' . 2'*)+%$'7'$, %)2' *&' /%1(*$$+(%'')8-%5' 3,)+' 4/**5' %7%. ' '/)%$; . '), . -' 3,)+' , $$%=))$' 5, 0(+'$-%0' *&' /, 9%' 3+,)%' *&' %--' ' . 5' '/9'/, . %' , . ' ,)0' $%' (), *. ' 41)' ,)', 0' 8*$%' &/1,5')+' . ')+%' 0%(%), *. ' &$*8')+%' (%$7, ; ('/' (' . '/'

0,8 6/%$' (')'$$+'/'/%1(*$$+*%'' .')+%'&*$8%$'
)+%$%' ,0' '' 7%$2' .*)'4/%')%.5%.(2')*' 06$%'5'
)+$*1-+' '//')+%' (*.),-1*10' 8 1(*10' 01$&'(%0'
)+*1-+')+%' 71/7'' 8'2' 4%' 6$%5*8,.'.)/2'
'&&%()%5' .' (+,/5$%.' 01&&%$,.-' &$*8')+%'
,.&%(),*10' 5,0(+'$-%') $'(%0' *&') +%' ,.>1$,%0'
)+'.)' '$%' 101'//2' ,.&/,()%5' '))+%' 6%$,*5' *&'
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2 .',.0),)1),.-'*1$')$%')8%.)'
&'/%1($$+*%'',)' ,0'*&')+%'&,$0)',86*$)'.(%')*'
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)+%'-%.%$'/0)'.5'$5' *&')+%'6'),%.)<0'+%'/)+'
42')+%' '58,.,0)$'),*.' *&' *.,(0' '.5')+%'
%.&*$(%8%.)' *&'' 01,)'4/%' 5,%)' '.5'$%-+.%.'
)',0'6'$)/2',.')+,0'3'2')+')'' (+'.-%'*&$%0,;
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(+'.-%',)' ,0'3%//'&*$')+%'6'),%.)')*'-*')*'
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(*.-%0),*.0'.5'(')'$$+0'*&')+%'6%/7,('7,0(%$''
.'2*1.-'3*8%.'*&'$%/'B%5'+'4,)'*&'4*52',)'
8'2'4%'%.*1-+')*'6$%0($,4%'E1,.,.%''.5',$*.'
$'$0%.,(''.5')+%'5',/2'10%'&''(*/5'2 0'
4')+H '.5',.',&'.),/%'/%1(*$$+(%''(*5/,7%$'
*,/''.5',$*.'0+*1/5'4%'58,.,0)%$%5
.')+%'-$%')'8'>*$,)2'*&'*'0%0'*&/%1%*$$+*0''
0*8%'9,.5'*&' ')$%')8%.)'4%(*8%0'.'
'40*/1)%'.%(%00,)2' *8%),8%0',)',0'%.*1-+'
)*'6'2'0)$,(')%).),*.')*'(/%'./,.%00'3'0+,.-'
)+%'615%.5'/'01$&'(%0'3,)+''0*&)'06*.-%'*$
02$,.-,.-')+%'7'-,.'/'('.'/3,)+')%6,5'3')%$H
'.5'%7%.'3+%.''0)$,.-%.)'66/,(''),*.0'%')*'
4%'8'5%')+%'01$&'(%0'0+*1/5'&,$0)'4%'014;
>%()%5')*''5%)%$-%.)'0)$%'8'*&'3')%$' +%$%'
)+%$%',0'8'$9%5'(*.-%0),*.'*&')+%'1)%$10',)',0'
4%0)')*' 8'9%')+%',.>%(),*.0'3,)+'+*)'3')%$'
.'5')*'9%%6')+%'0)$%'8'6'00,.-')+$*1-+')+%'
7'-,.''&*$' ')'/%'0)'&,7%'8,.1)%0')''),8%H
)+%',8 8%5,)'$%/'B'),*.'*&')+%'4/**5 7%00%/0'
'.5'+26%$0%8,''4%,.-'&*//*3%5'42'(*.)$'(),*.'
*&')+%,$'3'//0'3+,(+'&%7*1$0')+%'(%00'),*.'*&'
)+%'5,0(+'$-%' +%'0)$,.-%.)0'8*0)'0%$7,(%;
'4/%'&*$'(+%(9,.-')) '.5')0" '/%1'
(*$$+(%'0'%')'/18,.')%5',$*.''(%)')%'
&'/%'5'01/6+')%'&'(*66%$'01/6+')%'*&''',6%'
4*$'B''.5',.&10,*.0'*&'*'9 4'$9'8'),(*''.5'
*)+%$'7%-%)'4/0'(+'$-%5'3,)+')'...' +%2'
'$%'4%0)''66/,%5',.')+%'&*8$'*&''.',.>%(),*.'
3,)+''' ,--,.0 .<0'02$,.-%'+'7.-'''7'-,.'/
.*CC/%'')'(+%5')*',)H *$'*&''5*1(+%')+$*1-+'
''/*.-',.5,'$144%$')14%'3,)+''0)*6(*(9'&*$
$%-1/'),.-')+%'&/*3'&,))%5'(/*0%')*')+%'7'-,.'/
.*CC/%''.5')+%'*)+%$'%B)$%8,)2'*6%.,.-',.)*'
'3,&,(1/)2',.'10,.-')+%',.>%(),*.'''.5'3+%$%',)'
5,&&,(1/)2',.'10,.-')+%',.>%(),*.'''.5'3+%$%',)'
,0'5%0,$'4/%')*'9%%6'16'' 8*$%'6$*/*.-%5''6;
6/,(''),*.'*&')+%'8%5,('8%.)',)'8'2'4%',.)$*;
51(%5',.')*'-,.''.')+%'&*8$'*&'6%00'$,%0'
8=5%'3,)+'('(**41))%$'*$'3,)+'-%/'),.%'
> ('/'66/,(''),.0')*')+%'('./'*&')+%'(%$7,B'
'.5'6'7,)2'*&')+%'1)%$10'*1-+)'/3'20')*'4%'
8'5%/,')+$*1-+')+%'06%(1/18' '.5'3,)+*1)
01(+''66/,(''),*.0',)',0''+*6%/%00')'09')*'
1.5%$)'9%')+%'(1$%'*&') '/%1(*$$+(%''
%$%'8*$%'(*.(%.)$')%5'*$ 8*$%'6*3%$&,&/
'0)$,.-%.)0'*$'%0(+'$*),(0'4%(*8%'.%(%00'$2'
,)$')%'*&'0,/7%$',.')+%'&*8$'*&''0),(9'*&'
('10),(',0'%'0,/2''66/,%5'41)',)0'$%6%')%5''6;
6/,('),*.'8'2'/%'5')*'8,0(+,%&' V,.('/18'
5$,%5'01/6+')%'*&'C,.('01/6+')%'*&'(*66%$'
6%$*+/*$,5%'*&',$*.'*$')'.',.'8'2'4%',.)$*;
51(%5',.')+%'&*$8'*&'$*50'*$''$$*30'8'5%'
,)+'0)'$(+''.5'-18' &''')1)%$,.%0*1.5'*$
0),,%))%'4%'5,66%5',.'3')%$''.5''')+,.'&,/8'*&'
(*))*.'3'55,.-'3$'66%5'$*1.5')+%'6*,.')*'
)+%'/%.-)+'*&'4*1)'3*',.(+%0')+%'5+%$%.)'
81(10'('.'4%'(/%'$%5'3'2''.5')+%'0'8%'*$
'.*)+%$'0*,85'8*1.)%5' ,)+'3'55,.-''('.'
4%'(+'$-%5'3,)+'&'8,.-'.,)$,(''(,5')+%''(,5'
.,)$')%' *&' 8%$(1$2'0)$*.-' ('$4*/,(''(,5'
'' 0*/1),*.'*&' 6%$(+/*$,5%' *&',$*.'),.(;
)1$%' *&',*5,.%'*$' ,*5,0%5'6+%.*/' '.5'
('$$,%5')+$*1-+')+%' 06%(1/18'/*.-')+%'
(%$7,('/'('.'/' .'' '%1(*$$+*%''
,)'4%(*8%0'.%(%00'$2')*'('$$2')+%'66/,(',*.'
$,-+)'16',.')+%'0'8%'3'2')*')+%',.)%$,*$' *&'
)+%'1)%$10')',0'101'//2'4%0)')*'4%-,.'3,)+'
.%'&')+%'0)$*.-%$'/,E1,50''66/2',)'''&%3'
5'20'&)%$''8%.0)$1'/'6%$,*5'.'5'&*//*3',)'
16'3,)+'66/,(''),*.0'*&',*5,.%' *'/*.-''0'
)+%'0),,%))%' *$'0*1.5'3,)+')+%'5$2'3'55,.-'
6'00%0'%'0&/2')+$*1-+')+%'*0',.)%$.18',)',0'
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0*,.%3+')'/**0%'5%&,.,),*.'-,7%.'42')+%'*/5%$
3$,)%$0')*')+%'3*$5'06'61/%'<'(10%5')+%8')*'
,.(/15%'1.5%$)+%+%'5'*&'0 # '' 5,0%'0%0'*$
$')+%$'(*.5,),*.0'*&')+%'09,.'0*8%'*&'3+,(+'
4%/*.-')*' *)+%$'(')%-*$,%0' +10' ,//'.0'
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' ,(+%.' ,8 6/%B G +,0'(*.5,),*.',0'
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0+*$)')+%'6'61/'$'0)'-%'6$%(%5,.-')+%'7%0,(1;
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,0''.''&&%(),*.'3+,(+',0'5,&&%$%.)/2'('00%5'42'
'1)+*$0H ,)',0'%00%.),''//2''(+$*.,('(*.5,),*.'
(+'$')()%$, %5'42''+%'6,.-'16'*&'%6,5%$8,0'
,.' +*$.2'6'6$5%0'$*,85')+%' +',$ &* ,(/%0'
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$+%18'),(' &%7%$' 2%''$0' 6$%7,*10/2' ,&')+%' 6$*;
6*0%$" +'0' +,0' *)+%$" *$-'.0' +%'/)+2' '.5'5*%0'
.*)' %B(%%5')+,$)2 &,7%' 2%''$0' *&' '-%')+%.',)'
,0'0'&%')*' ((%6)' 01(+' '' +&%' 3,)+' '' (*.0,5%$;
'4/%''55,),*.')*')+%'6$%8,18' *$' 42'0%(1$,..-'
)+')' '/')+%' 6$%8,180' 0+*1/5' 4%' 6',5' 16'
,.' '%B+$)')%$8' *&' 2%'$0G0'2'%,-+)' *$')%.

)' $%8',..0')*' 0'2' *&' +%'$)' *'0%0')+')')+%'
8*0)' 5'.-%$*10' '$%')+*0%' ,.5,(''),.-' &',/1$%
_*& 810(1/'$'6*3%$'' .5')+')')+%' *$),(' ('0%0'
'$%' 8*$%' 6%$,/*10')+'.')+%' 8,)$'/' +%'
6$%0%.(%' *&' '/418%.' .')+%' 1$,.%' 0+*1/5'
'/3'20' 4%' /**9%5' &*$' ,.' (*..%B,*.' 3,)+'
5,0%'0%'*&')+%'+%'B)

6 G +%'&, %E.%.%2'*&')+%'+%'/)+2'61/0%'
7'$,%0' 3,)+')+%' (*.0),)1),*.' *&')+%' .%$7*10'
020)%8''.5')+%'6*0)1$%'0,)),..-'*$'0)'.5,..-'
*&')+%' ,.5,7,51'/')0' +%'/)+2'4%')' 8,.+)'
'7%$'-%' D!')*' M!H' 41)' ''/'$-%' $'.-%' 0+*1/5'
4%' ''//*3%5' &*$')%86%$'8%.)' '.5' %8*),*.'/
('10%0')+%' 7%$2' &'()' *&',)0' 4%,.-' %B'8,.%5'
-,7,..-' $,0%')*' ((%/%$'),*.' +%' 6+20,(,'.'
3,/')+%$%&*$%-,7%'),8%' &*$',)0' 0140,5%.(%'*$'
8'9%' '' &,%0+' %B'8,.'),*.'.*.''.*)+%$' 5'2'
'010)',.%5'&$%E1%.)'61/0%'8'2',.5,('')%'&%7%$I'
6+)+,0,0'*$'%8*6+)+'/8,(-.,)$%' +%'&1/.%00'
*$',.(*86$%00,4,/,)2' *&' '' 61/0%'.5' '(+';
$'()%$'*&'3,$,.%0'$85%$')+%'&,.-%$0'0+*1/5'4%
.*),(%5' +%'/')%$' 8'2',.^()%'0(/%*),('
(+'.-%0',)')+%'7%00%/0'3+%.')+%'(*.5,),*.'*&'
)+H')%86*$'/0' .5')+%$'$)%$,%0'0+*1/5''/0*'
4%'%B'8,.%5

?-'('$%&1/'%B'8,.'),*.'*&')+%'/1.-0'
0+*1/5'4%'8'5%'42'6'/6'),*.'6%$(100,*.''.5'
'10(1/)',*.')+%' 5$%00' 4%,.-'$%8*7%5' '.5'
8%'01$%8%.)0')'9%.'42'')'6%')')+%'/%7%/*&'
)+%'0,B)+'$,4' +40%'7'$2',.5,&&%$%.)',.5,;
7,51'/0''.5'&$*8'99')*'99',.(+%0'+'7%'4%%.'
-,7%.'42'5,&&%$%.)*40%$7%$0'0')+%'7%$'-%',.'
'51/)'8'/%0' +%'5,&&%$%.(%'4%)3%%.'%B)$%8%
,.06,$'),*.''.5'%B6,$'),*.'0+*1/5'.*)'4%'/%00'
)+'.')3*',.(+%0'%)')+%'/%7%/*&')+%' .,66/%'
)'8'2'4%')'9%.')+')')+%' # 3 '*&')+%'
(+%0',0'*&'8*$%',86*$)'.(%')+'.',)0'0,C%'
))%.),*.'0+*1/5'4%'6',5')*3'.2'1.51%&/');
)%..-'*&')+%'(+%0)3'//0'01(+'0'8'2'+'7%'
4%%.'('10%5'42'6+)+,0,0'*$'*/5'%&&10,*.0'
+*1/5''06,$*8%)%$'4%''7'./'4/%',)'3,/'4%'
&*1.5')+')''+%'/)+2'8'.'*&''7%$'-%'41 5'
0('.'%B6%/'&$*8'@!!')*'@F!'(14,(',.(+%0'*&',$'
3+,(+'$%6$%0%.)'+,0' '/%'7,.-'
0),//'4%+,.5''($%)',.''8*1.)'*&'$%0,51'/'',$'
3+,(+'(''.*)'4%'$%8*7%5'42'.2'%B6,$')*$2'
W%&&*$)H'.5'%7%$2',.(+',.'0)')1$%'4*7%'&,7%'
&%%)'0+*1/5'55'%,-+)'(14,(',.(+%0')*')+%'7,)'/
W('6'(,)2

6# # G +%'-$%')'6$%7'/%.(%'*&')+,0'
5,0%'0%'$%.5%$0',)0'0)152'&$*8'.',..01$'.(%'
W6*,.)'*&'7,%3'*&')+%'+,-+%0)'7'/1%' ((*$5;
,.-')*')+%' %-,0)$'$ %.%$'/'*.%'5%')+',.'
%7%$2'%,-+)',0'51%')*')+,0'('10%' %'.%%5'
.*)'53%/'+%$%*.')+%'8%)+*50'*&$%(*-.,0,.-'
W%B,0),.-'6+)+,0,0'42',)0'6+20,('/'0,-.0H' 41)',&'
)+%0%'/'))%$'$%' 1.5%.,'4/2'6$%0%.)')+%'/,&%
('..*)'4%'(*.0,5%$%5',.01$'4/%'1./%00'&*$
7%$2'0+*$)'6%$,*50''.5'%7%.')+%.'*.')%80

3+,(+'3*1/5'4%'$'$%/2''((%6)%5'42''' 6$*;
6*0%$' *3%7%$'''0'%7%$2'(*.5,),*.'*&'+%'/)+'
+'0',)0',.01$'.(%'6$,(%',&'3%'(*1/5''66$%(,'%'
,)0'6*00,4/%'&1)1$%'3,)+'.2)+,.-'&&$%'((1;
$'(2',)',0'3%/'')*'$%8%84%$')+')'(%$)',.'
&*$80'*&'6+)+,0,0'$%'.%(%00'$,/2'7%$2'(+$*.,(
&')+%0%'&,4$*,5'6+)+,0,0''.5''3%// 5%&,.%5'
0,.-/%'('7,)2',.'*.%/1.-'$%',//10)$')',*.0H'
41)',&',)'3%$%'6*00,4/%')*'((%6)')+%8'&*$
,.01$'.(%'61$6*0%0')+%,$'%+$*.,*,)2'0+*1/5'
+'7%'4%%.'/$%'52'0+*3.'42''/*.-'6$%7,*10'
+,0)*$2''.5')+%'()'/'0)')%'*&'6$*6*0%$'4%
3,)+*1)'%,)+%$'&%7%$'*$81(+'3')0),.-

P G +%$%',0'.*'E1%0,*.'8*$%'
&$%E1%.)/2'4%&*$%')+%'8%5,('/%B'8,.%$')+'.'
)+%',.&/1%.(%'*&'4/**5 06,)),..-'*.')+%'7'/1%'*&'
/,&%' %'+'7%'8%)'3,)&$')+%'&*//*3,.-'7'$,%;
),%0

^' &)%$' ''$1.'*$'0)$'),.',.')+/%),(0''0'
$*3,.-'*$/,&),..-'3%,-+)0''' 8*1)+&1/'*&'&/1,5'
4/**5'+'0'4%%.'4$*1-+)'16''' &%3'(/*)0'0*8%
+*1$0'*$' .%B)' 5'2' &)%$H' .5')+%.'')*)'/
(%00),*.'*&')+%' 02 8 6)*8'*((1$0' 3,)+*1)'
'.2'0140%E1%.)'5,0*$5%$'*&'+%')/)+

AXR' +%'6'),%.)'+'7,.-'+'5'(*/5'*$'(%1='
&*$''' %%9' *$')3*''' 0&%3'0)$%'90' &*&'4/**5'
8,B%5'3,)+'6+/%-8'+'7%'4%%.'4$*1-+)'16'*$
'' 06**.&,,/'*&'$%5'4/**5',.')+%' 8*$.,.-'*.'
3'9,.-''.5')+%'0J886)*8'+'0'$%(1$$%5''&)%$
''.',.)%$7'/'*&'5'20'*$'3%%90

A(R' ,)+*1)' (9.*3/%5-%5' 5,0*$5%$'*&
+%'/)+'*$'(*1-+'''$*410)'*$',)'8'2'4%'''
06'$%'6%$0*.'8'2'4$,.-'16''' 8*1)+&1/'*&
&/1,5'4/**5'5','9'*$',)'8'2'4%',.'(/*)0'&*$''
5'2'*$')3*'3+%.',)'(%'0%0'3,)+*1)''.2'
02 8 6)*8'*&',//.%00'41)'8'2'$%)1$.''.5'6$*4;
'4/2'3,/'$%)1$.'0*8%),8%'&)%$'0'3%%90'
$'8.)+0

A5R' (*6,*10'4/**5 06,)),..-'(16&1/'*$
6,.)'&/),,5''')'&,$0)')+%.'(/*))%5'6*00,4/2'$%'
6%')%5',.''5'2'*$')3*'3,)+*1)''.2'
8'.,&%0)'5,0*$5%$'*&'+%'/)+

1(+'$%')+%'8*0)'(*88*.'5%0($,6),*.0'*&'
4/**5 06,)),..-'3+,(+''$%'-,7%.'10'*$'//2'*$
$%'(+'10''0'8%5,('/'$%6*$)0'&$*8'%B'8,.%$0'
0'3%''$%'5%'/,.-'3,)+'$%6*$)0'*./2'3%'5*'
.*)'8%.),*.')&$%'02 8 6)*80'01(+''0'4*5,/2'
)%86%$')1$%'3+,(+'0+*1/5'-1,5%'10',&'3%'
+'5')+%'*66*$)1.),)2'*&'0%%,.-')+%'6'),%.)'')'
)+%'),8%

A'R' ,0')+%'101'/'0)*$2'*&'+'%8*6)20,0'&$*8'
0)$',.'*$',>1$2''.5'8'2'*((1$3,)+*1)'.2'
0140%E1%.)',%'/)+'')',0'(*88*.'')'8*.-'
)+%'2*1.-''.5'$*410)''.5',0''0,86/%'*7%$;
&/*3'$%01/),.-'&$*8'+,-+'6$%001$%'+*1/5'
'.',..)%$7'/'*&'8*.)+0'+'7%%/'60%5',.(%)+%'
*((1$$%.(%''.5')+%'+%'/)+'$%8',.'-**5''.5'
)+%''40%.(%'*&''.2'6+20,('/'0,-.0'*&'/1.-'*$
+%')5,0%'0%'4%'7%$,&,%5'42'%B'8,.'),*.'
01(+'/,7%0'8'2'4%''((%6)%5'3,)+''08'/'/
'55),)*')+%'6$%8,18'%06%(,'//2',&')+%'
'66/,('.)'+'7%'6'00%5')+,$)2'2%'$0'*&'-%'
&(*1$0%''.'40),.%*%'&$*8'*7%$%B=*.'
*&'.2'9,.5'0+*1/5'4%',.0,0)%5'*.

#',0')+%'(+'$')()%$,0),(' *&'(*88%.(,.-'
6+)+,0,0''.5''0-$'7%'5,0*$5%$0'*&'-%.%$'/

' . 5' ,&' '/f)$' (%0f *&f 01- '$ + ' 7% 5,0 '66% '$%5' &*$ 2%' $0 ' '' ('/(1/')%5' '55,),*.' 8 ,-+)' 4% 8 '5%")*')+% 6$% 8 ,1 8 ' .' -/2(*01$,'')+% E1' .),)2' *&' 1$% '' ,0f -% . % $' //2' ,. ($% '0%5 ' +,-+' 06% (,&,(' -$ ' 7,)2' %7% .' '4*7% ! "! ' ,0f . *' %7,5% . (% *&f 01- '$' ,. ')+% 1$,. % ' ,8 /%00f *' (+% 8 ,(' f % B' 8 ,. '),*.'+' 7% 6$*7%5' ,)0f %B,0); %. (% ' *$')+%)%0)0f &*$ 5%B)$*0% ' *$ -$' 6% 0. -'$ ' & +% %B(%00f *&' # # * ,. ')+% 1$,. % ' ,0f -% . %$' //2') % 8 6*$' $2' ' . 5' *&)% . '51%) *' ' . B,%)2' ' . 5' 3 '0)% *&' . % $7% 6*3%$ ')' ,0f $% (*- . ,0%5' 42' ' (/*15, . %00f *. ' 4*, /, . - ' 3 +,(+' ,0f % .),$%/2' (/% '$%5' 42')>,% ' 55,),*. ' *&' '' 5$*6' *$)3*' *&' . ,)$,(' *$ ' (%),(' (,5 ')' &*$ 8 0f . *' *40)' (/%')*')+% ' ((%6) ' . (% *&f '' /,&% ,0% '0% *&')+% ')14% $(1/'$' 0)$1 ' ,. *10 ' *$' 8 '/,- . ' .)' 5,0E1 '/,&,%0f &*$' 001$' . (% ' P ' '. 5') ' 8 '2' ' ' 4% $%- '$5% $' '0f + '$ 8/%00 . ' 0 G %)$,),0=) ' , . &/' 8 ; 8 '),*. ' *$ *7 '$,' . ' 5,0% '0% ' '$% 5*14) &1/ ('0% 0f &*$' ((%6) ' . (% ' *8 % . 3 +*' + ' 7% + ' 5' $% 6% ') % 5' '4*$),*. 0 ' 61% $6% $' f + ' % 8 *$$+ ' -% 0 ' % (/' 8 60,' ' *$' '' . % (%00,)2' &*$ *40)%) $,(' f *6% $ '),*. 0 ' '$% . *)' % /,-.,4/% ' ,8 /%00f)+% 8 % . *6 ' 10% + ' 0f 4% % . ' &' 7*1$ '4/2' 6 '00% 5' 1$,. -' '' ' 0" ' ,)' ,0f 3 % /f)*' 5% &% $' '001$' . (%),/f '&) % $' ' 0 ' &% (*. &,. % 8 % .) ' . ' ? M@@' ') + % 30f 1. ' . ' &*1. 5' *. % 5% ') +' , . ' % 7% $2' M H' . 5' , . ' @ DM ') + % $% ' 3 ' 0f *. % 5% ') +' , . ' % 7% $2' @?' ' ()'),*.' ,0f . *' 4 ' $)*' ' ((%6) ' . (% ' +% ' 7% $' -% 51$'),*. ' *&' /,&% ' , . ' 3 * 8 % . ' ,0f /* . -% $') + ' . ' , . ' 8 % . ' ' . 5' 42' / ') % 0)' $%) 1$. 0f ,0f 0 + * 3 . ') *' 4% ' , . ($% ' 0, . -/2' 0* N) ' G ,0% ' 0% 0f *&') +, 0f 020) % 8 ' ' 0f (% $% 4$' f 0*&) % . , . -' /* (* 8 *) *$' ') ' B2 ' + % 8 , ; 6/% -, ' ' 6 ' $' 6/% -, ' ' ' 6 + ' 0, ' ' 5,0E1 ' /,&2' '' 6 $*; 6*0% $' *(' f 6 ' $' /20,0f *&') + % ' 8 *) *$' 8 10 (/% 0f *&') + % % 2% 4 ' // ' ' . 5' 6) *0,0 ' 1 . /% 00f (*. -% . ,) ' / ' 3 * 1/5' /% ' 5') *' 0106, (,*. ' *&' 4$' , . 5,0% ' 0% ' ' . 5' 3 * 1/5' . *) ' 4% ' ((%6) ' 4/% ' 6 ' ' # ' ' ") ' A %// <0R ' 3 + % . ' 61$% /2' /* (' / ' ' . 5' &$% % ' &$* 8 ' (* 8 6/, ('), *. 0f 3,) +' 5,0% ' 0% ' *&') + % % '$' ' . 5' 5,0* $5% $' *&') + % ' &,&) +' *$' *) + % $' . % $7% ' . % % 5' . *) ' 5,0E1 ' /,&2' ' $' &2 8 ' &$* 8 ' /% ' 5 6*,0* . , . -' ,0f ' /3 ' 20f 0% $,*10 ' ' . 5') + % ' /, ' 4, /,) 2') *' 5, ' 4%) % 0f ' . 5' 5% % 6' 5,0* $5% $0f *&') + % ' . % $7*10f 020) % 8 ' 0 + * 1/5' . *) ' 4% ' &*$ - *)) % . ' ' $% (*- . ,), *. ' *&') + % 4/1% ' /, . % ' *. ') + % ' - 18 0f 3 * 1/5' /% ' 5' 10f)*' 5%; (/, . % ') + % ' /, &% ' N 0 ' *&' 4$' . (+% 0f *&') + % &,&) +' . % $7% ' 8 ' 2' . *) ' 5,0E1 ' /, &2' 1 . /% 00f) + % 2' 4% 00* (, ') % 5' 3,) +' (% $% 4$' f 02 8 6) * 8 0 ' *$' 4%) + % $% 01/) ' *&' 026 + , /, 0f *$' % B*0) *0,0 ' 8 0 ' *&' ' >0% 7% &% ' +, . 5 ' ' 00* (, ') % 5' 3,) +' 02 8 6) * 8 0f *&' " ' 5,0% ' 0% ' 3 * 1/5' 5,0E1 ' /, &2' H ' . 5' % 7% . ' ,) 0f 8 *$%) $' . 0, % .) ' &*$ 8 0 ' , &' *&) % . ' $% 6% ') % 5' *$ 00* (, ') % 5' 3,) +' -*1) ' 8 ' 2' 4% ' ' 4 ' $') *' ' ((%6); ' . (% ' "0' ' # ' # " ' 8 ' 2' ' $, 0% &$* 8 ') + % ' ' 410% *&') % ' ') *4 ' ((*' *$' '/(*+*/' &' &$* 8 ') + % ' / ')) % $' ('10% ' 3 % ' 8 ' 2' % B6% ( ) ') + %) *. -1% ') *' 4% ' '/0*') $% 8 1/*10 ' /) + * 1-+' ,) ' 8 ' 2' 4%) % 8 6*$' $2' ,) 0f 6$% 0% . (% ' 0 + * 1/5' ('10% -$ ' 7% ' 0106, (,*. ' '0f) *' + ' 4,) 0 + % ' 8 *$% ' 0% 7% $% ' &*$ 8 0f *&' ' 8 10) ' &*$ 4, 5' ((%6) ' . (% ' 1 . /% 00f) % . ' *$' &, &) % % . ' 2% ' $0 + ' 7% ' %/' 60% 5' 0, . (% ') + % ' /' 0) ' ')) ' (9 ' 3,) + ' . ' , .) % $7 ' /f *&' 6% $&% ( ) ' + % ' /) + ' . 5' % 7% . ') + % . ' . ' ' 55,), *. ' 0 + * 1/5' 4% ' 8 ' 5% ") *') + % ' 6$% 8 , 1 8 ' + % $% ' 0f ' ' 8 , /5' &*$ 8 ' ' 66% '$, . -', . ' % ' $/2' /, &% ' 3 +, (+' (' . ' -% . % $' //2' 4%) $' (% 5') *' 01 (+' (' 10% 0f ' 0f * 7% $3 * $9' *$') *' (/*0% ' 66/, ('), *. ') *' 0) 152 ' ' . 5' 3 + % $% ') + % ' + % $% 5,) 2' ,0f '40% .) H' ,&' 2% ' $0f + ' 7% ' %/' 60% 5' 3,) + * 1) ' ,) 0f $% (1$$% . (% ' ' . 5') + % ' 6$* 6* 0% $' + ' 0f 6 ' 00% 5') +, $) 2' ' . 5' + ' 0f % . - ' - % 5' , . ') + % ' ' (), 7% ' 3 * $9' * &' /, &% ' 3,) + * 1) ' 02 8 6) * 8 0f * &' . % $7 * 10f 5,0 * $5% $' ' . 5', 0f 0) $, ( ) /2') % 8 6% $') % ') + % ' /, &% ' 8 ' 2' 4%) + % $% 01/) ' *&' 6 +) + , 0, 0 ' 5, ' 4%) % 0 ' *$ 7 ' $, * 10f *) + % $' ' 0), . - ' 5, 0 * $5% $0 ' 5% 8 ' . 50f *' (' $%&, /f % B ' 8, . '), *. ' * 0) ' (* 8 6 ' ., % 0f + ' 7%) ' 4% 0f * &' $% / '), 7% ' + %, - +) 0f ' . 5' 3 %, - +) 0 ' 41) ' 3, 5% 8 ' $ -, . ' 8 10) ' 4% / % &) ' &*$ ' , . 5, 7,51 ' f 7' $, ' ;), * . 0 ' . % ' , 0f ' 66% . 5% 5' 3 + , (+') + % ' 3 $,) % $' + ' 0f &*1. 5' 01&&, (, % .) /2' ' ((1$ ') % 0 3! ' ' #! c 3! 0 3! ' ' #! L 3!

			+					+
R	K1	1	21				2G	Q
	K1 K		G				2G	1
	K2				2		2G	22
	KQ K		1		2		21	2
	KK		22		G			
	K	2	2		G		21	
	KK	2	Q		1		21	21
	KK,	2			1		2Q	1
	K ,	2	2		Q,		2Q	
	K ,K	2	2Q		Q,		2Q	22
	K1	22	1				2	
	K1	22					2	
	K	22	2		K,		2	
	K ,	2						

(* 8 6$%00' 7%00%/0' . 5' *)+%$' 0)$1 ()1$%0H *$' , . ' 0* 8 %' % '0%0' ,)' %7%. ' , .)%$&%$%0' 3 ,)+')+%' +%' $)<D' 8 *7% 8 %.)0 ' F ' 6 # ' 0" ' +%0%' , . 5, : (')%' % ./' $-% 8 %.)' *$ (* .)$' ()*. ' < &')+%' /, 7% $H (+' . -%0' , . ' 0,)1'),*. ' *$' 0+ ' 6 %H (+' . -%0' , . ' 6+20,(' /' (+' $' ()%$0' H ' . 5' $' $%/2' 61/0<' ;),* . ' L ' B " ' ' +%0%' 8 ' 2' 4% 8 *$%' *$' /%00' , . 5%6% . 5% .)' *& ')+%' +%6'),(' 5,0% '0% ')+,0' 4%, . -' 8 %$%/2' '' 6 ' $)' *&' '' -% . %$' / 8 ' /' 52 ' *$')+%' /, 7%$ '&&%(),*. ' 8 ' 2' -, 7%' $,0%')*' 62$%B, ' ' 3 ' 0), . -' ' . 5' *)+%$' 02 8 6)*8 0' '&&%(),. -') + %' 020)% 8 ' ')' / ' $-%' +%' '40% . (%' *&' ' . 2' 01(+' 6+% . * 8 %. '' ,0' , 8 6*$)' .)' , . ')+%' 5, ' -. *0,0' *&' (%$)', . ' '&&%(),*. 0' *&')+%' /, 7%$' %6'),(' 5%$' . -% 8 %.)0' '$%' 0166*0%5')*' *$, : -, . ')%' 8 ' . 2' -% . %$' / ' . 5' $% 8 *)% 02 8 6)* 8 0' . *)' *47, *10/2' (*. . %()%5' 3,)+')+, 0' *$-' . ' H ' . 5' 0* 8 %' '1)+*$,)%0' '))' (+' 8 1(+' , 8 6*$;)' . (%')*')+%0%' 5, 0*$5%$0' , . ')+%' 5%7%/*6 8 %.)' $-'/,)+%% 8 , '' ' . 5' -*1)' ' C %

+%' . . 5, 7, 51' / 5, 0% '0% 0' *&')+%' /, 7%$' 3 , /' $5' 4%' 5, 0(100%5' , . ' '/6+' 4%), (' / ' *$5%$

4 '5' ' * 0

U' 40(%00' *& G 21*,) ' %6'),(' 40(%00H $' & ' ' . ' %$' S # '

40(%00%0' *&')+%' /, 7%$' '$%' 5, 7, 0, 4/%' , .)*')3*' (/' 00%0' A8R')$*6, (' / ' 40(%00H A<R' *)+%$' &*$ 8 0' *&' '40(%00' , . (/15, . -')+*0%' $%01/), . -' &$* 8')+%' &* ' *3, ,=' 8 *$4,5' 0)')%0' 620%8, (' (*. 5,), *. 0' %06%(, '//2' 01(+' '0' '$, 0%' &$* 8')26+/,), 0' . 5' 01$-, (' / *6%$'), *. 0' *$' '&&%(), *. 0' '4*1)')+%' $%()1 8 H' /*41/'$' +%6'),), 0' '0' 5%; 0($, 4%5' 42' , $' , (+' $5' X1', . ' " ' 6 # ' ' S " ' 7*/', 7' ?F"RH' 01663$'), . -' +25 ', 5' (20)0' ' . 5' *)+%$' 6' $' 0,)%0H &*$ 8 0' *&')$' 1 8 '), 0 8 ' %06%(, '//2' 4/*3 0' *. ')+%' /, 7%$H' -' // 0)*. %0H' . 5' 62/%6+/%4,), 0' +%' /'))%$' (/' 00' &' //')*' 4%' (*. 0, 5%$%5', 8 5%$')+%, $' 66$*; 6$, ')%' +% '50' %$%',)' 8 ' 2' 4%' $% 8 '$9%5')+') ' /')+*1-+')+%, $' %), */*-2' . 5' 6')+*/*-2' '$% 3, 5%/2' 5, &&%$%.)' &$* 8')+*0%' *&')$*6, (' / ' 40(%00')+%, $' 5, '-. *0, 0' . 5')$%') 8 %.)' '$%' 6$' (), (' //2')+%' 0' 8 %' $*6, (' / ' 40(%00' '0' ,)0' . ' 8 %' , 8 6/, %0' 101' //2' *$, -, . ')%0', . ')$*6, (' / *$' 014;)$*6, (' / (/, 8 ')%0H)+%' *)+%$' &*$ 8 0' B%' . *)' 0*' $%0)$, ()%5

$*6, (' / 40(%00' *&')+%' , 7%$ G

= , *. *17 G +%' '00*(, '), *. ' *&' '40(%00' *&')+%' /, 7%$' 3,)+' 520%.)%$2' +' 0' /*. -' 4%%. ' $%(*-. , 0%5' ' . 5')+%' 8 *$%')+%' 014>%()' , 0' , . ; 7%0), -')%5')+%' 8 *$%' (*. 0)' .)' , 0') 8 0' '00*(, ' ;), *. ' &*1. 5')*' 4%' *' 8 1(+' , 0')+, 0')+%' ('0%')+')' 0* 8 %' $%(%.)' 3$,)%$0' , . (/, . %')*' $%-' $5')+%')%$ 8 0' 0)$*6, (' / '40(%00' < ' . 5' 0 520%.)%$, (' '40(%00' < *&')+%' /, 7%$' '0' 02. *. 2 8 *10' ,)+; *1)' -*, . -' E1,)%')+, 0' /%. -)+' ,)' 8 1 2' 0' &%/2' 4%' '00%$)%5')+')' , . ' MF' 6%$' (%.)' *&' ('0%0' *&' +%6'), (' '40(%00' '' +, 0)*$2' *&' 0* 8 %' 5%-$%%' *& 520%.)%$2 G . *)' . %(%00' $, /2' *&' '' 7%$2' 1$-%.)' (+' $' ()%$ G ' . '4%%/, (,)%5 ')' 8 10)' 4%' $%(*-; . , 0%5 ' +* 3 %7%$')+')' , . ')+, 0' '00*(, '), *. ')+%' *$5%$' *&' %7%.)0' , 0' . *)' '/3 ' 20')+%' 0' 8 %' 101' //2')+%' 520%.)%$2' , 0' ' .)%(%5%.)')*')+%' +%6'),), 0H 0* 8 %), 8 %0')+%' 5, 0%' 0%0' '$%' (*

, . (, 5%.)H 8 *$%' $' $%/2')+%' +%6'),), 0' 6$%(%5%0')+%' 520%.)%$2H' . 5', . ' . *)' '' &%3' *' 0%0')+%')3*' (*. 5,), *. 0' '/)%$. ')%' +%' '57*(')%0' *&')+%' 0%), */*-, (' / ,5%.),)2' *&')+%')3*' 5, 0%' 0%0' 01-; -%0)')+')' , . ' ' 6$*6*$), *. ' *&' ('0%0' , . ' 3+, (+' 520%.)%$2' , 0' . *)' ' &%')1)$%' %,)+%$' 4%&*$%' 51$, . -' *$' &)%$')+%' *((1$$%. (%' *&' 40(%00')+% 6')+*/*-, (' / 5$' 8 ' '+' 0' . *)' 4%%. ' 6/' 2%5' *1)' +%2' 1$-1%)+')' >10)' '0' 520%.)%$2' 8 ' 2' %B, 0)' W3,)+*1)' +%6'),), 0' +%6'),), 0' 8 ' 2' %B, 0)' 3,)+*1)' 520%.)%$2' +')%7%$' 8 ' 2' 4%')+%' %B'()' $%/'), *. 0+, 6' 4%)3%%. ')+%0%' 5, 0%' 0%0 G '' $%/';), *. 0+, 6' 01((, . ()/2' %B6$%00%5' 42')+%')%$8' 0+%6'), (' 520%.)%$2 < 5%7, 0%5' 42')+%' (/, . , (' / '(18%. ' *&' . . %0/%2' /*. -' 4%&*$%')+%$%' 3' 0' 8 1(+')+%*$, 0, . -', . ')+%' 8 *5%$. ' 0%. 0%G)' , 0' (%$)', . /2' '' 7%$2', .), 8 ')%' *. %' ' . 5' *. %' 3+, (+' 0+*1/5' '/3 ' 20' 4%' 4*$. %' , . ' 8 , . 5' , . ')+%' 5, '-. *0, 0' *&' +%6'), (' '40(%00' '0' 3%/' '0' , . ')+%' 6$*-. *0, 0' *&' 520%.)%$2H' . 5',)' 0+*1/5' '/0*' 4%' 4*$. %' , . ' 8 , . 5')+')')+%' '40(%00' 8 ' 2' . *)' 5%7%/*6', /' 8 *.)+0' '&)%$')+%' 520%.)%$2' +' 0' 4%%. ' $%(*7%$%5' &$*8 ' ' . 5') +%' 6')%.)' 6%$+' 60' +' 0' /%&)')+%' %. 5%8, (' '$%'

+%' 8 *0)' 6*)%.)' (, $(8 . 0)' . (%' , . ' 6$%5, 0; 6*0, . -')*' +%6'), (' '40(%00' , 0' $%0, 5%. (%' , . ' '' +*)' (/, 8 ')%' 8 *$%' %06%(, '//2' , &')+%' +%')' , 0' (*8 4, . %5' W35)+1 8, 5,)2' . 5' 8 '/' $, ' ' +%$%' '$%' %B(%), *. 0' 41)' 06%' 9, . -' -%. %$' //2' /, '; 4, /,)2')*')+, 0' &*$ 8 ' *&' '40(%00' , . ($%' 0%0' ' 3,)+')+%0%' (*. 5,), *. 0' .)%8 6$%' . (%' , . ' %'), . -' ' . 5' 5$, . 9, . -/' C 2' /1B1$, *10' +' 4,)0H 4' 5' &*' 5H +' $50+, 6' . 5' %B6*01$%' 01(+' 0' '$%' , . (, 5%.)')*' '' 0*/5, %$<0' /, &%', . '), 8 %' *&' 3' $H +*)' (/*0%' ' . 5' *7%$($*35%5' 4' $$' (90H' . 5' 1 . +2-, %, . (' (*. 5,), *. 0' , . ' -%. %$' / +' 7%' '' 8 ' $9%5')+*1-+' 0%(*. 5' $%/2' 6$%5, 06*0, . -', . ' && . %. (%' %. ' '$%' 8 *$%' 014>%()')*' ,)')+' . ' 3 * 8 %. ' '51/)0')+' . ' 2*1)+0H (+, /5$%. ' 0%% 8')*' %. >*2' /8 *0)' . ' '40*/1)%', 8 81. ,)2' '(%' +' 0' , 85*14)%5/2' 0* 8 %' , . &/1%. (%' 41)' +*3',)' *6%$')%0 G 3+%)+%$' , . ' (*. 0%E1%. (%' *& 6%(1; /, ' $,), %0' *&' +' 4,)' ' ((/, 8 '), 0'), *. ' *$' 06%(, &, ($' (, ' /, 5, *02. ($' 0, %0 G+' 0' . *)' 4%%. ' ' 5%E1')%/2' 5%)%$8, . %5')', 0' (%$)', . ')+')' /, 7%$' 40(%00' , 0' 8 1(+' 8 *$%' (*8 8 *. ', . ' 1$*6%' . 0' &$%E1%.); , . -' +*)' (/, 8 ')%0')+' . ', . ')+%' .) + %$')%*6, (0' ' $%' ' 4*7%' ' (+, //0' *&')+%' 01$&' (%' 01(+' 0' ' $, 0%' &$* 8' $' 6, 5' ' /)%$. '), *. 0' *&' +%')' ' . 5' (*/5' &$* 8' 0,)), . -', . ' 5$' 1-+)0', . ' 3%)' (/*)+%0' &$* 8' 4')+, . -', . ' (*/5 3')%$' *$' 0/%%6, . -' 3,)+*1)' '5%E1')%' (/*)+, . -' 3' 4/*3' *. ')+%' /, 7%$' '' 4*1)' *&' 5$, . 9, . -' *$ '' 01$&%,)' , 0' *&)%. ')+%' 0)' $), . - 6*, .)' *&')+%' 5, 0%' 0%

! ' ' ' ' ' :

G = $*6, (' / '40(%00' *&')+%' /, 7%$' 8 '2' 4% 0, . -/%' *$' 81/), 6/%' ' . 5',)' 8 '2' 7' $2', . ' 0, C% &$* 8' '' 8, . 1)%' (* %(), *. ' *&' 610')*' ' . % . *$ 8 *10' 0' (' (*.)', . , . -' 8 ' . 2' 6*1.50' *&' &/1, 5' ' . 5' *((162, . -' '' /' $-%' %B)%.)' *&')+%

/,7%$' +%.' '' 0%(),*.' *&' '' /,7%$' , .' '.' , . ; (,6,%.)' 0)'%* *&' 01661$'),*.' ,0' 8 '5%' *.%* *$' 8*$%' (,$(1/'$ 6')(+%0' -$%2,0+ 2%U*3' *$ *)+%$3,0%' /)%$%5' , .' (*/*1$' ' .5' 01$$*1.5%5' 42' .' '$%'' *&' (*. -%0),*. ' '$%' $%7%'/%5' 4; 0(%0Ø ,0' &*$8%5'42')+%' 4$%'9, .-'5*3.' *&' *.%* *&')+%0%' 6')(+%0' +E1%&%(),*.' (*./,.%.(,.-',.')+%' (%.)$%' $%E1%.)/2')3*' *$' 8*$%' .%,-+; 4*1$,..-'6')(+%0' (*'/%0(%' +%.')+%' '40(%0Ø ' +'0' '))',.%5' .2'0,C%',)0' 3''//0' '$%' &*1.5')*' 4%' 7%$2',$$%-1/'$')+%,$',..%$' 01$&'(%' 4%,.-' (*')%5' 101''//2' 3,)+' '' 2%//*3,0+')%.'(,*10' 61.$/%.)' 8')%$,'/ /2,..-'*.' '')+,.' C*.%' *& 8*$%' *$' /%00' ,.&,/)$')%5' /,7%$),001%' G')+%' '40(%00'0'(G3+,(+',.',)0')1$.,0'01$$*1.5%5' 42' '' +26%$'%8,(' C*.%Ĥ 4%2*.5')+,0')+%* +7%$'),001%' 8'2' 4%&',$/2'+%')/)+2' $*1.5' .5' 0*' ' 06%'9',.')+%' 3'//0' *&')+%' 6$,.(,6'/ &*(10' *&' 01661$'),*.' '' .184%$' *&' 8,.1)%' '40(%00%0' 8'2'&*$8' '.5',)',0'42')+%' 41$0),..' *&')+%0%',.)*')+%' 8',.'('7,)2' '.5')+%'.%($*0,0' *&' 6,%(%0' *&',.)%$7%.,.-',001%' '0'3%/' '0'42')+%' 0/*3%$' 6$*(%00' *&'61$1/%.)' .5'8*/%(1/'$ 5,0,.)%-$')*.' *&',)0' 3'//0')+')')+%' ('7,)2' %./'$-%0' +%' (*.)%.)0' 7'$2' (*.0,5%$'4/2' 101''//2')+%2''$%'*&' ''(+*(*/')% 4$*3.'(*/*1$' '.5'+'7%'')+,(9'-18 82'(*.0,0)%.(%')%.5,.-' 0)*'4%(*8%'-%/'),.*10'*.'(**+.-' +%'*5*1$')**' ,0' 6%(1 '$' *)',.&,$%E1%.)/2'/18 60' *& .%($*0%5' /,7%$),001%' *$' (/*)0' *&' 4/**5' '$% &*1.5'&/*'),.-',.')+%' &/1,5'3+,(+' 8'2'/0*' 4%' 0)$%'9%5' 3,)+' 4/**5'4,/%' *$' '' 2%//*3' 81(*,5/**9,.-'610'*&''6'/%$'(*/*1$' ((';0,*.'//2')+%' 610',0' 8*$%'&/1,5''.5' 8'2'+'7%')+%' '66%'$'.(%' *&' *$5,.'$2')*5'4/%' 610Ĥ $'$%/2',)',0')+,.' 3')%$2'*$' -$18*10')' &$%E1%.)/2'(*.)',.0' 8,($* *$-'.,080'41)',.' .*)' '' &%3',.0)'.(%0')+%' 4'()%$,'' *&'610' '$% '40%.)')',0' &1$)+%$' (+'$'()%$,0%5',.' '' (%$)',.'6$*6*$),*.' *&' ('0%0' 42')+%' 6$%0%.(%' *&' '' 6$*)*C*,(' *$-'.,08G)+%' # ' 3' +,0'6'$'0,)%' (*.0,0)0' *&' '' 8,.1)%' 8'00' *& 6/'0),(' 6$*)*6/'08'5,7,0,4/%',.)*' .',86%$; &%()/2'5%&,.%5' .5' -$'.1/'$'%.5*0'$(' .5' '+*8*-%.%*10'.5'7%$2'6%//1(,5'%()*0'$(')' /*3')%86%$')1$0')+%' 8*%4'(' (%')*' 8*7%' '.5' '00188 0' '' -/*41/'$' &*$8'+'7,.-'' 5,'; 8%)%$' %E1'/)*' '4*1)')+')' *&')+$%%' *$' &*1$ 4/**5 (*$610(/%0')')+%)%86%$')1$%'*&')+% 4*52',)' %B+,4,)0' '(),7%' .5' (+'$'()%$,0),(' '8*%4*,5'8*7%8%.)0' ,0'$%'5,/2'5%)%()%$5' 42' '' 8'-.,&2,.-'6*3%$' *&',*8'?!')*' / 5,'8%)%$0' %06%(,' 2',&')+%' '8*%4*,5'8*7%; 8%.)0' '$%'%.(*1$'-%5'42'0/,-+)/2'3'$8,.-')+%'0+5%' ' * +%.')+%' '40(%00' ,0' 0,.-/%',)0'8*0)'101'/ 0,)1'),*.',0')*3'$50')+%' 4'(9'6'$)' *&')+% $,-+)'/*4%'41)',)'8'2'*((162')+%'/%&)'/*4%'*$ '.2'*)+%$'6'$)'*&')+%'-/'.5' +%.''40(%00%0' '$%' .18%$*10')+%2''$%' 0('))%$%5')+$*1-+*1)')+%'/,7%$'%06%(,'//2'.%'$')+%' 6%$,)*.%'/ 01$; &'(%0

%')+' 8'2' *((8' 4%&*$%')+%' '40(%00' $16)1$%0Ĥ $'$%/2',)' 4%(*8%0' %.(20)%5' *$ '40*$4%5Ĥ 101''//2',)' 8'9%0',)0' 3'2')*')+% 01$&'(%' *&')+%' *$-'.' '.5' '&)%$' '5+%0,*.0 +'7%' 4%%.' &*$8%5' 4%)3%%.' *66*0,.-' 0%$*10' 01$&'(%0'*6%.0'*.')+%'01$&'(%'*&')+%'4*52'*$,.)*'0*8%'*&')+%'.%,-+4*1$,.-'7,0(%$'' +% 8*0)'101'/5,$%(),*.',.'3+,(+'$16)1$%'*((1$0' ,0',.)*')+%' $,-+)'/1.-'.%B)',.' &$%E1%.(2')+%' ,.)%0),.'/)$')'()'/%00'&$%E1%.)/2')+%'01$&'(%'*&)+% 4*52''.5'$%/2',.)*')+%'6/%1$'/*$%6%$,;)*.%'/(7,),%0'*$',.)*')+%'6%$,('$5,18'-'//; 4/'55%$',.&%$,*$'7%.''('7''*$'('/2B'*&')+% $,-+)'9,5.%2' 16)1$%',.)*')+%'6%$,('$5,8.' *$'7%.'' ('7'' ,0'.%(%00'$,/2'.5'06%%5,/2' &')'/'41)',.'' '(0%'$%(%.)/2'$%(*$5%'42' $' 1/9%'$%(*7%$2'&*//*3%5'01$-,('/,.)%$&%$%.(%' '&)%$'' +%6'),(' '40(%00' +'5'*6%.%5',.)*')+% 6%$,)*.%18' U%(*7%$2'8'2'06%%5,/2'%.0,/%' '&)%$'$16)1$%'*&')+%' '40(%00'8*$%'%06%(,'//2' ,&',)'*6%.0',.)*')+%'/1.-'*$,..)%0),.'/('.'/Ĥ 41)',.')+,0'%7%.)',.')+%'8'>*$,)2'*&',.0)'.(%0')+%'.%($*),(' 6$*(%00',0'.*)' '$%%0)%5''.5')+%' 6'),%.)'0,.90'&)%$'6%$+'60''' /*.-',//.%00' U%(*7%$2'&)%$'01$-,('/*6%$'),*.'%7%.',.')+%'('0%'*&'7%$2'/'$-%'40(%00',0'%&)%.:$%; 8'$9'4/2'$'6,5''' -$%')' (7,)2'*&'8'.2' *1.(%0'('6'(,)2'+%'/,.-'16'6%$+'60',.'' '3%%9' *$)3*

&')+%',.),8')%'6')+*/*-2'*&' +%6'),(' '40(%00',/,))/%',&'.2)+,.-',0'9.*3.' 2')+%'5,0(*7%$2'*&')+%'8*%4''(*/,.'(*..%B,([' 3,)+')+,0'5,0%'0%'.5'520%.)%$2')+%'E1%0),*.' 0%%8 0')*'+'7%'%.)%$%5'*.'' 6$*8,0,.-'&,%/5' '$)1+0'.5'8*$%'$%(%.)/2' 0,%$' *1.(,/; 8'.''.5' '&/%1$'+'7%'0+*3.')+')')+,0'6'$'; 0,)%',0'6$%0%.)',.'' &*$8'*&'520%.)%$2'(+'; $'(0%$,0%5'42',)0'6%(1/,'$' *40),.'(2' .5')%.5%.(2')*' $%/'60%'.5'3+,(+'+'0'4%%.' .'8%5' # ' " ' *$%*7%$')+%' /')0%$'*40%$7%$0'+'7%'0+*3.')+')'+%' '8*%4'' .*)' *./2'*((1$0',.')+%' 520%.)%$,(' .5'+%; 6'),(' 5,0(+'$-%0'41)' /0*' 6%.%)$')%0'5%%6' ,.)*')+%' 4'0%0'*&')+%' 520%.)%$,(' 1/(%$0'.5' ,.)*')+%',001%0'01$$*1.5,.-'+%6'),(' '40(%00' +%0%$,($(180)'.(%0')*' 0'2')+%' /%')0)' '$% 0,-..&,(.)' *$%*7%$')+%' '8*%4''+'0'4%%.' &*1.5',.' 520%.)%$2' .5',.'/,7%$ '40(%00',. 5,'' A %+,$R',.' &$,(.',.' 1$*6%'.5',. 8%$,(.' +')',0'*.')*',.7'$,'4/2'6')+*; -%.,(',0'6$*7%5'42',)0'4%,.-'0*8%),8%0'6$%0%.)' ,.')+%'+%'/)+2'&0%(%0'*&'66'$%.)/2'+%'/)+2' ,.5,7,51'/0'0*')+')',)'+'0'2%)')*'4%0+*3.')+')',)',0')+%'$%'/('10%'*&')+%0%'5,0%'0%0' '.5'.*)'8%$%/2'.'*((0,*./'%6,6+%.*' 8%.*.

,)+'$%&%$%.(%)*')+%'00*(,'),*.'*&'520%.;)%$2'.5'+%6'),(' '40(%00',)'*1-+)')*'4%'8%.;),*.%5')+')',.'0*8%'%6,5%8,(0'*&'520%.)%$2' '40(%00',0'*&'8*$%'&$%E1%.)'*((1$$%.(%')+'. ,.'*)+%$0'.5')+,0'+'0'4%%.'$%8'$9%5'.*)' *./2',.'%6,5%8,(0',.')+%')$*6,(0'41)',. %6,5%8,(0'*((1$$,.-',.'1$*6%'.'8'.2'*&)+%'/')%$'+%6'),(' '40(%00',0''/8*0)'1.9.*3. 41)',.'*)+%$0',)',0'.*)'0*$'%'0',.')+% 14/.' %6,5%8,(' *&' ? ?' .,&%0)/2')+%$%',0''' 06%(,&,(' %/%8%.)'(*88*.')*'(%$)',.')26%0'*& 520%.)%$2'.5'+%6'),(' '40(%00Ĥ 41)'3+')')+,0' ,0'.5'+*3',)'*6%$')%0'+'0'.*)'4%%.'5%)%$; 8,.%5')'*.%'),8%',)'3'0'+%/5')+')')+%

/ +%'/)+',0' '00*(,')%5'3,)+' '' /*3' 5%-$%%' *&' &%7%$'' .5'02826)*80G=.** 8'))%$'+*3')$,&/,.-' G$%&%$%5')*')+%' '45*8%.' 3+,(+' (' '.*)' 4%' $%'5,/2' ((*1.)%5' &*$' 0106%()' '40(%00' *&')+%'/,7%$'' .5' %B' 8,.%')+%' *$-'.' 5',/2' 3,)+')+,0'6*00,4,/,)2',.'7,%3' '.5',.E1,$%' ('$%&1//2' &*$' '+,0)*$2' *&'520%.)%$2')' 8 10)'4%'4*$.%' ,' 8,.5')**')+')')+%' 520%.)%$2' 8'2'+'7%' 4%%.' 7%$2')$,&/,.-' ('//%5'6%$+'60' ='$$+*%''.5')+')',)' 8'2'+'7%'*((1$$%5'0%7%$'/8*.)+0' 4%&*$%')+%'+%'/)+'4%-'.')*'4$%'9'5*3.' +%' 0,-.,&,(' .'/8%'0*'45*8%.'/$-%8%.)' *&')+%' /,7%$' /*('/,0%5'+%6'),('03%//,.-'6',.')%.5%$.%00''' &,B%5' .5' 8*),*./%00'45*8%.'$,-*$0'.5''' +%(),(')%86%$')1$%' &*//*3,.-'520%.)%$2'(' .' +'$5/2'4%'8,01.5%$0)**5' 1)',)',0'0%/5*8')+')',.')+%'%$/2'.5'8*$%'+*6%&1/0)'-%0'*&' '40(%00')+%',.5,(',)*.0' '$%'0*'1.%E1,7*('/H ,.5%%5',)'8'2'4%'.5'*&)%.',0'%.),$%/2'*7%$; /**9%5''.5'.*)'5,0(*7%$%5'1.)',)'+'0'41$0)' ,.)*'/1.-'*$4*3%/'*$1.),/,)',0'&*1.5'*.')+%' ')'4/%' +%'6$%0%.(%'*&'6.%1; 8*.,(' ($%6,)10''4*1)')+%'4'0%'*&')+%'/1.-',.' /,7%$'%'0%0',0'*&)%.'8,0,.)%$6$%)%5H $,-+)/2' 1.5%$0)**5',)',0''8*0)'7/1'4/%'(*.&,$8')*,2' 0,-.'%06%(,''//2',&',)',0'/1.,)%5')*''0 8'//' 6')(+' *8%),8%0')+%'6%$,*5,(,)2'*&')+%' &%7%$''.5')+%'0%7%$,)2'*&')+%'$,-*$0''.5' $%-1/'$'6$*(%00,*.'*&'62$%B,'' .5'5,'6+*$%0,0' ,.'+%6'),('40(%00'/%'5')*' '' 5,'-.*0,0'*&' '-1%H 41)')+%',86*)%.(%'*&'E1,.,.%')*'(1$%')+%&%7%$''.5')+%'40%.(%'*&')+%'6/'08*5,18' 8'/'$,0%',.')+%4/**5''.5'*&'06/%.,('%./'$-%; 8%.)G3+,(+',0'.%'$/2'/3'20'6$%0%.)'3+%.')+%'/,7%$',0''&&%()%5',.'8'/'$,'/+%6'),),0'5' 3+,(+'$'%/2',&'%7%$'%.50',.'40(%00'A %/0(+' .5' ,%.%$RG*1-+)')*' '3'9%' 0106,(,*.' +%.',.'' 8'/'$,'/014>%()'+%$%',0''+,0;)*$2'*&'520%.)%$2''.5'4*)+'/,7%$'.5'06/%%.' '$%'%./'$-%5'5,'-.*0,0',.')+%'%'$/2')'-%'*&' +%6'),(' 40(%00',0'.%'$/2',86*00,4/%'3,)+*1)')+%''',5'*&')+%'06,$')*$' .' .2'('0%'3+%$%' -$'7%'5*14)'%B,0)0'3+%$%'&%7%$',0'6%$0,0),.-' '.5')+%'6'),%.)',0'8'.,&%0)/2'/*0,.-'-$*1.5' %B6/*$'),*.'3,)+''' 8%5,18 0,C%5''06,$')*$' .%%5/%'8 10)'.*)'4%'5%/'2%5' +,0'$,&/,.-' *6%$'),*.',&''))%.5%5' ,)+'.2'$,09',0',.&,; .,)%/2'/%00'5'.-%$*10')+'.'6$*($'0),.'),*.' ,)+'6$*6%$'6$%('1),*.0',)',0'.*)''5'.-%$*10' 6$*(%%5,.-H 0*&'$&=*8'5*,.-'+'$8',)'+'0' *&)%.'''8'$9%5/2'(8'),7%'%&&%()',.'(' 0%0'*&' +%6'),),0'%7%.'3+%.')+%$%',0'3%// 8'$9%5' /*('/41/-,.-' 0'.'%.(*1$'-%8%.)')*'%'$/2' $%(*1$0%')*')+%'06,$'),.-'.%%5/%',)'*1-+)')*' 4%'4*$.%,.'8,.5')+')'+%(),(' 8'2'*((1$',.' +%6'),),0'4%&*$%')+%'&*$8'),*.'*&'610''.5' 7%.',1'('0%0',.'3+,(+'610'.%7%$'5*%0'&*$8H '.5')+%'3+*/%')$*14/%'3+,(+'*)+%$3,0%'8,-+)' +'7%'%.5%5',.''40(%00'8'2'$'6,5/2'0140,5% '&)%$'%B6/*$')*$2'.%%5/,.-' .'%B6/*$,.-')+% /,7%$'3,)+')+%'06,$')*$'.'.%%5/%',)'*1-+)')*' 4%'4*$.%,.'8,.5')+')'+%(),(' 8'2'*((1$',.' +%6'),),0'4%&*$%')+%'&*$8'),*.'*&'610''.5' 7%.',1'('0%0',.'3+,(+'610'.%7%$'5*%0'&*$8H '.5')+%'3+*/%')$*14/%'3+,(+'*)+%$3,0%'8,-+)' +'7%'%.5%5',.''40(%00'8'2'$'6,5/2'0140,5% '&)%$'%B6/*$')*$2'.%%5/,.-' .'%B6/*$,.-')+% /,7%$'3,)+')+%'06,$')*$',.')+%'40%.(%'*&' 5%&,.,)%'/*('/,0,.-',.5,(',*.0')+%'.%%5/%' *1-+)')*'4%'%.)%$%5',.')+%'&,$0)',.0)'.(%' '4*1)')+%'0%7%.)+'*$%,-+)+',.)%$06'(%',.')+%' .)%$,*$'B,//'$2',.%H ,&'610',0'.*)'&*1.5' +%$%''' 0%(*.5'.5')+,$5'6,8(0)1$%'0+*1/5'4% 8'5%')+%'.%%5/%'4%,..-'5$,7%.',.')*',)0'&1/' %B)%.)',&'.%(%00'$2',.'&,*.')>10)'4%/*3')+%' $,40''',))/%')*')+%',.0,5%'*&')+%',66/%+.%' '.5'-',.'4%+,.5',.''/,.%'3,)+')+%''.-/%'*&)+%'0('61/''3%//'4%/*)7')+%'%5-%'*&')+%'/1.- $ G=),0',86*00,4/%',.')+%'6$%0%.)' 0)')%'*&'8%5,('/9.*3/%5-%)*'0'2'+*3'520%.;)%$,(' +%6'),),0'8'2')%$8,.')%'3+%)+%$' ,.' $%0*/1),*.'*$'40(%00' +*1/5')+%'/')%$'&*$8' 6$*7,5%5',)'0'0,.-/%'.5'*6%.%5'0**.'.'.5' %&&%()1'//2'5$',.%5')+%'6$*-.*0,0'0'&',$/2' -**5H E1,)%'F!'6%$'(%.)'%(*7%$' &'/%&)')*** /*.-'*$'//*3%5')*'*6%.'*&',)0%/&')+%'6$*-.*0,0' 0'4'5')+*1-+'42'.*'8%'.0'+*6%/%00' &')3*' 8'8*$%'40(%00%0''$%'6$%0%.)')+%'(+'.(%0' &$%(*7%$2''$%'6$*6*$),*.')%/2'*&,8,.0+%5H''.5' ,&')+%$%' '$%' 8'.2'01661$'),.-'6*,.)0'0(');)%$%5')+$*1-+')+%'/,7%$'5%')+',0',.%7,)'4/%' &'0,&)%$'*6%$'),*.')+%')%86%$')1$%'E1,(9/2' 4%(*8%0'.*8051''.5'9%%60'0*'6$*-.*0,0',0' &'7*1$'4/%H 41)',&'*.')+%'*)+%$'+'.5'')&)%$' *6%$'),*.')+%$%'6$%

@?' U ' ' U ' ' '

+%(),(' 6%$0,0)0 ')+%' 5,0(+'$-% ,. ($%'0%0' *$ 5*%0' .*)'5,8,..0+'8')%$,' 2''.5')+%'6'),%.)' %*.),..%0')*' /*0%' -$*1.5' '57,0%' *6%$'),*.' &')+%$%' 4% 5*14)' '4*1)' 3+,(+' (*1$0%')*' '57,0%'$%(*8 8%.5'(+'.-%'*&' ,$'3+,(+' +'0' 0*8%),8%0' '' 3*.5%$&1/ ,.&/1%.(%' ,.'3'7%$; ,.-'('0%0',.',.51(,.-'+%'/,.-' +*1/5'&%7%$' '.5',// +%'/)+'6%$0,0)' '&)%$')+%' '40(%00' +'0' 4%%.' &$%%/2' 5$',.%5' '.5')+%' 5$',.')+*1-+' %&&%(),7%' -,7%' 7%.)')*' 7%$2' /,))/%' 5,0(+'$-%' 0106%()')+%' 6$%0%.(%' *&' '' 0%(*.5' '40(%00' '+5' '57,0%' &1$)+%$' %B6/*$'),*.' '.5G,&' 610' ,0' &*1.5G&'$)+%$' *6%$'),*.' U%(*7%$2' +'0' &*//*3%5' '&)%$' 0%7%$' /' '40(%00%0' +'7%' 4%%.'0*')$%')%5',.')+%' 0'8%',.5,7,51'/' &')+%')%8; 6%$')1$%' 9%%60' 16' '&)%$' ' ' '40(%00%0' +'7%' 4%%.' *6%.%5' '.5'5,0(+'$-%'&$*8')+%'(/$',.'-%)14%' ,0' 6$*&10%',)' ,0' .' ,.5,(','),*.')')+%' .%($*),('6$*(%00',0'0),/'-*,.-'*.',.')+%'/,7%$H)+%' 6$*-.*0,0' ,0')+%.' 8*0)' ,8&'7*1$'4/%' '.-$%.%' 0*8%),8%0' 0%)0' ,.' '$*1.5')+%' *6%$'),*. 3*1.5' '.5' ,0' '/8*0)' ,.7'$,'4/2' &')'/

+%.' 610' +'0' &*$8%5')+%' 5,%)' *1-+)')*' 4%' &',$/2'/,4%$'/H' 41)' *7%$&%%5,.-'' .5' *7%$' 0),81/'),*.' '$%' 1.5%$' j8d (,$(180)'.(%0')*' 4%' ('$%&)5/2''7*,5%5

' 5' ;

' /418,.*,5' ,0%'0%' *& , 21* ' 'B2' ,7%$H' '$5'(%*10' ,7%$H $'C 0 " ' & ' . ' H %$' & ' I " "0' 'S # & ?&')*%'0%' (+'$')%$,0%5'42' 6',./%00'8*$%' *$'/%00' (*.0,5%$'4/%'%./'$-%; 8%.)'*&')+%'/,7%$H 51%')*')+%'%B,0)%.(%',.'),0' 0)$1()1$%' *&' '' 6%(1/,'$'+*8*-%.%*10'014; 0)'.(%')+%' %B'()'.')1$%' *&'3+,(+',0'.*)' 9.*3.'41)' 3+,(+'+'0' '' 8'$9%5' $%/'),*.')*'(%$)',.'('(+%B,'0'.'5'(*.0),)1),*.'/'8'/'; 5,%0

$ G /418,.*,5' 5,0%'0%' *&')+%' /,7%$' *((1$0',.' '00*(,'),*.' 3,)+' (*.0),)1;),*.'/' 026+,/,0' .'5' 5,0%'0%0' '))%.5%5' 3,)+' 6$*)$'()%5' 01661$'),*.' *$' *)+%$' 6$*)$'()%5' %B+'10),.-'5,0(+'$-%0')'+'0'*((0,*.'//2' 4%%.'*1.5'3,)+'(+$*.,(' 4*.%5,0%'0%'8*$%' % 6%(,' 2'*&')+%' 06,.%'3,)+*1)'%7,5%.(%'*& '.2'5%E1')%'5,0(+'$-%H '.5',)',0'9.*3.')*' *((1$*((',0,*.'//2',.'.%3-$*3)+0'8*$%'6'$;),(1/'$/2',.')+%'+7%$')'+'0'4%%.'.*),(%5',.' (*..%B,*.'3,)+'(+$*.,(' 520%.)%$2'41)')+%' $%(*$50'*&')+%' %'8%.<0' *06,)'/'5*'.*)'(*.; &,$8'01(+''00*(,'),*.' .'8'.2'('0%0'*& (+$*.,(' -1%'3,)+'8'$9%5'('(+%B,''3+,(+' +'7%'4%%.''58,))%5',.)*')+%'+*06,)'/'>10)' .'8%5')+%$%'3'0'.'%./'$-%5'+'$5'/,7%$' 6*,.),..-')*'/418,.*,5'(+'.-%H'41)'+%$%'3'0' 6$*4'4/2',.')+%0%'('0%0')+%'016%$'55,),*.'*& 0=+,/,),(')',.)' U*9,)'.092'06%'90'*&')+%' 5,0%'0%' '0' (*.-%.,)'/' ,.' (+,/5%.'4*8'*& 026+,/,),('6'$%.)0

! ' $' " +%'/,7%$' +'0' ,)0'.*$8'/0+'6%H,0'8*$%'*$'/%00'%./'$-%5' 0*8%),8%0')*'01(+''.'%B)%.)'0')*'&, ')+%' -$%')%$'6'$)'*&')+%'45*8,.'/'(',)2H'.'5',0 &,$8'$%0,0)'.)''.5',.%/'0),(' 3,)+''' 08**)+' -+0)%.,.-' 01$&%(' +%' *$-'.' (1)0' /,9%' 4'(*.'+%.(%')+%' .'8%0/'$5'(%*10 +% (1)' 01$&'(%',0''')$'.0/1(%.)' -$%2'/,9%'-%/';),.%'*$'4*,/%5'0'-*'*$',.''57'.(%5'*'0%0''' 6%(1/,'$'01451%5'$%5'/,9%')+')'*&$'3'+'8H 41)'0*8%),8%0',0'2%//*3,0+'*$06%(9/%5')+%'/,7%$'4%,..-'.'%8,('.'5'*&)%.'&')2'/0*' $*8')+%',.(,0%5'7%,.0''/,))/%'6'/%4/**5' 101''//2'**C%0' +%''66/,(','.'*&'0*/1),*.' *&',* .%')*')+%'(1)'01$&'(%'(' 10%0'(+'.-% *&'(*/*1$'3+,(+'+'0'4%%.'5%0($,4%5''0'$%5; 5,0+4$*3.'8'+*-'.2 4$*3.'*$'3'/.1)'42' 5,&&%$%.)'*40%$7%$0' *$'8,($*0(*6,('/'%B; '8,.'),*.''3%'9'0*/1),*.'*&'8%)+2/''./,/..%' 7,*/%)',0''),*.(%' 5%/,(')%' '.5' 5,0),.(),7%' 166*0,.-''/*41/%'*&')+%'/,7%$')*'4%'5,7,5%5' ,.)*')+$%%'C*.%0')+%'(+'$'()%$,0,(',*5,.%'*$ *)+%$'0)',.'3,/'4%'0%%.',.'/%00''57'.(%5' 0)'-%0'*&')+%'5,0%'0%')*'4%'/,8,)%5')*'+)+% 8,55/%'C*.%'3+%$%')+%'+%6'),('$)%$2',0' 5,0)$,41)%5H)+%'7%00%/0''.5'(%//0'+%$%'4%,..-' 0 &,//%5'3,)+')+%'.%3'8')%$,'/'3+,(+'&)%$; 3'$50'8'2'%B)%.5'0*''0')*',86/,(')%')+%' %.),$%'/*41/%' +%'0)$1()1$%0',.7'5%5'42')+% .%3'8')%$,'/'+'7%',.''0%(),*.'%B'8,.%5' 8,($*0(*6,('//2''/10)$*10')$'.06'$%.)''.5' 0*8%3+')'03*//%.'66%'$'.(%' +%.')+% %.),$%'/*41/%',0''&&%()%5')+%'06%()',0'+*8*; -%.%*10' +%'66%'$'.(%'*&''.'/418,.*,5' /,7%$'8'2'4%'8*5,&,%5'42')+%'(*%B,0)%.(%'*& &'))2'(+'.-%'*$(,$$+*0,0''*$'026+,)%'5,0; %'0%' +%'06/%%.',0'-%.%$'//2''.5')+%'9,5; .%20'$%'.*)'8&$%E1%.)/2',86/,(')%5' Q ! (! G '/6'),*.',.'8'$9%5'('0%0'*& '/418,.*,5'5,0%'0%'*&')+%'/,7%$'3,/'$%'5,/2' 5%)%()''/'$-%'+'$5'$%0,0)'.)'18*1$'+'7,.-')+%'.*$8'/*1)/,.%0'*&)+,0'*$-'.H)+%'08**)+; .%00'*&',)0'01$&'(%H''.5')+%'%B)%.)')*'3+,(+' ,)'%.($*'(+%0'16*.')+%'45*8,.'/'('7,)2' $%001$%'5*L0'.*)'%/,(,)''.2')%.5%$.%00'.*$,0')+%$%'101'2'.2'6',.H')'8*0)',.'5; 7'.(%5'('0%0')+%$%',0'*./2''0%.0%'*&)%.0,*.' ''.5'&,5.%00''0',.'*)+%$'+%6'),(%./'$-%; 8%.)0' +%'6',./%00'.')1$%'*&')+%')18*1$,0'5,0),.(),7%' +%5,0%'0%'5*%0'.*)',.)%$&%$% 3,)+')+%'6*$)'/'(,$(1/').*.''.5'5*%0'.*))+%$%&*$%)*%()/2'('10%'0(,)%0' +%.')+,0' *((1$0',)',0')+%'$%01/)'*&'-%.%$'/'('(+%B,'' .51(%5'42')+%'(*.0),)1),*.'/'8'/'52''.5 6%$+'60'42''00*(,')%5'$%.'/'(*86/,(','),*.' +%'5$*602'-%.%$'//2''&&%()0')+%'/%-0',.')+% &,$0)',.0)'.(%''.5'&)%$3'$50')+%'0%$*10 ('7),)%0''.5',0'.*)''6$*8,.%.)'0286)*8' 1./%00')+%'9,5.%20'$%',86/,(')%5' .')+,0 ('0%')+%'1$,.%',0'101''//2'*&'/*3'06%(,&,(' -$*7,)2'.5'/418,.*10''.5')+%'.%8,'' 7%$2'8'$9%5' +%'020)%8'*&'4,/% 51()0'.*) 4%,.-'*40)$1()%5'42')+%'5,0%'0%')+%$%',0'.* >'1.5,(%H*$,&')+,0'*((1$'3+,(+',0''' $'$%% 7%.)',)',0'&$*8'6$%001$%'*.')+%' 51()' %B)%$.'//2'42'%./'$-%5'/J11.6+'),(' -/'.50' +%'%7'(1'),*.0''$%'+*3%7%$'&$%E1%.)/2' *&''6'/%'2%//*3''.5'')',8%0'*&''(/'2%2' (*/*1$'3+,(+'8'2'4%''((*1.)%5'&*$'42')+% %B)%.0,7%',86',$8%.)'*&'0%($%),.-'0)$1()1$%

)+%' (*.0%E1%.)' 0%($%),*.' *&' '' 6**$' (*/*1$/%0(4,/%' /'$5'(%*10(0)'%' *&')+%' 06/%%.' ,0('' &$%E1%.)' '((*86'.,8%.)' *&')+%' 7%$' '&&%(),*.' '.5' -,7%0($,0%')*' ,.($%'0%5' 7*/18%'.5'+'$5.%00*&')+%'*$-'.' *8,),.-' Q3,)+*1)')+%' 101'/',.5,(',*.0*&'-'0)$,(' 5%; $'.-%8%.)'01(+' 0&1$$%5')*.-1%' '.5'5,'$; $+*%'' '$%(0286)*80(.*)' .(*88*.' ,, '57'.(%5' %'0%0' '.5' '$%' 51%' '((*$5,.-')*' $%$,(+0')*')+%' ,86/,(','),*.' ,')+%' 5,0%'0%' *&')+%' 7%00%/0('.5'W7/''*&')+%' 0)*8'(+' '.5' ,.)%0),.%0

& G +%' 6%(1/,'$' &%')1$%0(*&')+%' W%./'$-%8%.)',)0' 6',8%00((+'$'()%$')+%'(*.; (1$$%.(%' *&')+%' (*.0),)1),*.' /' 8'/'5,%0(K' '/$%'52' .*),(%5' %06%(,'//2',&'Q3,)+' ,86 *'''),*.''*&'06/%%.' '.5'9,5.%20'W3/5,0),.-1,0+' '.' '/418,.*,5'/,7%$' &$*8' *)+%$' 9,.50' *&' +%6'),('%./'$-%8%.)' &')+%$%'4%' '00*(,')%5' W(,$$+*0,0(*$' 026+,/,),(' 5,0%'0%')+%' 5,'-.*0,0' 3,//' 4%' 5,&&,(1/)H 41)' '0' '84%$-%$'$%8'$90' '.' %$$*$' K3,// .*)' 4%' *&' 8*8%.)' '0' $%-'$50' 6$*-.*0,0' '.5')$%')8%.)

& % G +%' 5,0%'0%' 8'2'$1.' *.' &*$' 8*.)+0' *$' %7%.' 2%'$0' 41)' ,)' -%.%$'//2'6$*7%0' &')'/' %,)+%$' 42' ,.)%$' (1$$%.)' '&&%(),*.0' *$' 42' '.'%8,'' -%.%$'/ 5$*602' '.5' %B+'10),*.' 01(+' $%01/)' 4%,.-' 8*$%' $'6,5/2'5%)%$8,.%5' 3+%.')+%' 9,5.%20' '$%',.7*/7%5

! G)',0' 8*$%')+'.' 6$*4'4/%' &$*8')+%' $%(*$50'*&'('0%0'*&'/')%' 2%'$0')+')' ,&')+%' 5,0(+'$-%' 3+,(+' 6$*51(%0',)' (''.' 4%' '$$%0)%5G42')+%' $%8*7'/*&' 5,0%'0%5'4*.%' &*$' %B'8(%'*$')+%' 84',.'%'0%0'*&'>*,.)' 5,0%'0%G)+%' '4.*$8'/6$*51()',.'/'$5'(%*10' 5,0%'0%' 8'24%' $%'40*$4%5'.5')+%' 5,0%'0%' (1$%5' 1$-,('/8%'01$%0')+%$%&*$%'5,$%()%5')*3'$50')+%'(/*0,.-'*&'0,.10%0'*$')+%'0)*66'-%' *&'.2'5,0(+'$-%')+')' 8'2'4%'6$%0%.)'$%'*&')+%'&'0)',86*$)'.(%' 1)')+%$%' '$%' 8'.2' ('0%0G=,' '57'.(%5' 6+)+,0,0'&*$' %B'86/%' 3+%$%')+%'6*0,),*.'*&')+%'5,0%'0%',0''4'$')*')$%')8%.)'*$',.'026+, 0',.'3+,(+'3%'$%' '0' 2%)' E1,)%',.',-.*$'.(%'*&')+%'$%'0*.'*&')+% 6$*51(),*.'*&')+%' 8*$4,5' 5%6*0,)G3+%$%')+%'*./2')$%')8%.)')+')' (''.'7' '8 10)'4%' 5,$%()%5'%06%(,'//2')*')+%' '00*(,')%5'('(+%B,' +%)+%$')+,0' 4%' J$6+,/,),(' *$'0)$18*10')+%' 6$%6'$'),*.0'*&',*5,.%' '$%',.5,('%)5')+%' ,*5,5%'*&'6*)'00,18')+%'),.()1$%'*&',*5,.%'*$' 3+%$%')+%''.'%8,'',0'8'$9%5',* .%',.'(*8; 4,.'),*.'Q3,)+',$*.' +%' 02$16' *&',*5,5%'*&' ,$*.',.'5$'(+8'5*0%0')+$%%'),8%0'''5'2'+'0' 6$*7%5'10%&1/'&'.*)',.'$%51(,.-')+%')18*1$' ')'/%'0)',.',86$*7,.-')+%'-%.%$'/(*.),*.' *&')+%'6'),%.)' +%',*5,.%'8,.%$'/06$,.-0' '0' '**5+'//'6'' $%1C.'(+' 5%/+%,50E1%//%' ^(''$%',. (')%5''/)+*1-+')+%2'(*.)','41)' ,.&,.,)%0,8'/'5*0%0' *&',*5,.%'8.0' '5'4$*8,.%' +%'4')+0'*&' ,B/' +'6% %' 80''.5' %5' 4'(+'+'7%' %'(+' +'5',)0' 0166*$)%$0',.')+%')$%')8%.)'*&')+,0' 8'/'52' +/*$,5%*&''8; 8*.,18',.')%.')*)3%.)2'-$',.'5*0%0')+$%%'),8%0''5'2'(*.),.1%5'&*$0*8%'),8%'+'0'4%.' &*1.5')*'4%%&&,('(,*10',.'$%51(,.-'/'$-%'+'$5 7%$0'A 155' %-4,%')%3'$)R' +%'-%.%$'/')+%$'6%1),('/,. (''),*.0''$%'68%''',$H 6/',.' .*1$,0+,.-' %)H')+%'$%-1/')%5'10%'*&'/(*+*/,(' 0),81/'.)0H''.5''5%E1')%'6$*)%(),*.'*&')+% 09,.'42'3'$8'5*)+,..-''.5'*)+%$'8%'01$%0 (' '1 ' = ! ' 'C

U' 6*6/%B2'*& G 2')+,0',0' 8%'.)'+'%8*$$+'-%',.)*')+% 7%$',.')+%'&*$8' %,)+%$'*&',0*/')%5'6')(+%0'*&%B)$'7'0'),*.'*$' *&'-%.%$'/%&&10,*.')+%'3+*/%'*&')+%'6'),(' 6'$%.(+28''4%,.-'(*.7%$)%5',.)*''5'$9 $%5' 61/62' 8'00' +,0' '&&%(),*.',0'$'$%/2' 8%)' 3,)+',.'),.0'(*1.)$2'41)'+'0'4%%.'*&)%.'*4; 0%$7%5'4$*'5',.'3'$8'(8')%0''.5'8'/'$,*10' 0)$,()0''0''$%01/)'*&' 0%'0%'*&')+%'/,7%$'*$ 6$*/*..-%5'15',.)%.0%'(*.-%0),*.')'*((1$0' '/0*',.'0*8%'('0%0'*&'0(1$72')%$*$*8+,%' 4% %7%5')+')'+)+%' 61%$6%$'/'(*.),*.'6$%; 5,06*0%5')*'+%6'),(''6*6/%B2')'+'0'4%%.' *40%$7%5''/0*'/((*$5,.-')*' $%$,(+0'.'0*8%.%3 4*$.',.&'.)0''&)%$'/*.-'/'4*1$0'.5',)' ('0%0'*&'),0'9,.5',)',0'10.' 2'00*(,')%5'3,)+' 61/8*.'$2')%/%()'0,0' '$'6, 2'&')'/'('0%' *&'+%6'),('6*6/%B2'3'0'$%6*$)%5'42' '/' ,.' 3+,(+')+%$%' 3%$%'.*',.. (''),*.'*&'2' %&&,(,%.)' ('10%'*&')+%'+'%8*$$+'-% '3"' '"$5'%5')'1'6(' @FPR' B)$'7'0'),*.' *&'4/**5',.)*')+%'0140)'.(%'*&')+%' 7%$')*; -%)+%$'3,)+''61/62'(*.),*.'*&'8*$%'*$'/%0' *&')+%'6'$%.(+28''8'2'4%6$*51(%5'42')+% '66 %'),*.'*&'7,*/%.(%')*')+%6'),('$%-,*. !(! " +%'02836)*80')+')'+'7%'4%%.' *40%$7%5',.'('0%0'*&'+%6'),('6*6/%B2''$%'6',. ,.')+%'$,-+)'+TER*(+*. ,'('$%-,*.'.5'%B(%0; 0,7%')%.5%$.%00H>'1. (%H4,/,*10'7*8,),.-H 8%/'%.'H'' */5''.5'4/** %00'(*.),*.'*&')+%'09,.'*&')+%'&'(%''.5'/,840H''.5',.'-*8% %'0%0'02.(*6% +,0''&&%(),*.',0''/8*0)',.7'$,'4/2'&')'/ 3+%.''00*(,')%5'3,)+'6$% 7,*10' 0%'0%'*&')+% 7%$'*$'3,)+'%B)%.0,7%'/'(%$'),*. '= ' !

' *3 0 $' *3 ') ' ' $'& 'O '&0 ' '. H 5 '' /) ' %$'& '& # ' 'S & # " +,0',0'' -%.%$'/ 5,0%'0%' /,9%.%5' 42' $*100%'1')*' '' 62$%B,' ' +% >'1. (%'4%,.-'0*' 6$*8,.%.)' '' 0J .6)*8' &*$8%$/2'5$%3' '))%.),*.')*'' %B(/10,7%/2')*')+%' 7%$H41)'+%' 0'8%5%-%.%$'),*.' 3+,(+' 0%,C%0'16*.')+%' 7%$'/,9%3,0%' '))'(90''/')+%' -/'.51/'$'.5'810(1/'$'*$-'.0'*&')+%' 4*52' +%'8*$4,5'(+'.-%',0''6'$%.(+0'*10'5%; -%.%$'),*.'('%5'42',$(+*3''.5'+,0'0(+**/' '6'$%.(+28')*10',1&,'88'),*.')'(*.0,0)0' 8'''&,//,.-'*&')+%'(% 0'*&''-/'.5'Q3,)+'/41; 8,.*10'-$'.1/%0',.'01(+'.184$%0''0'/)*; -%)+%$')*'+,5%')+%'.1(/%10H)+%''/418,.*10' -$'.1/%0'E1,(9/2'5%-%.%$')%',.)*'*2'6'$),; (/%0''15'&'*60'+%0%'8*$4,5''66%'$'.(%0' '$%'&*1.5',.'6*,0*.,.-'42'6+*06+*$10''$0%.,(' '.),8*.2''/(*+*/''.5'*)+%$''-%.)0''.5',.' '//'&%7%$0')+*1-+',.''' /%0'5%-$%%')+'.',.' '(1)%'2%//*3''))$*6+2' 1+/3'0')+%'&,$0)')*

6*,.)' *1)')+ ')')+%' 62$%B,'ƒ (+' . -%0' 3 %$%')+%' 4%-. , . -0' *&' (1)%' 2%//*3' ')$*6+2 = ,*,,**$ G= (1)% 2% *3' ')$*6+2',0' 6%$; +'60')+%' $'$%0)' *&' '//')+%' 5,0%'0%0' *((1$$,. -' ,.')+,0'(/,8 ')%' &',)0'('10%0'. %B)')*' .*)+,. -' ,0'9.*3. ')'0%%80')*' 4%' 8 *$%' (*88*.',. ' ₭ 3*8%.')+' .',. ' 8 %. Ħ ' .5',. '6$%-. ' .)'3*8%.')+' .',. '*)+%$0)' +'0' 4%%.' 0+*3.')+')', . ' 6$%-. ' .)' ' .5' 01(9/,. -' E1'5$16%50' ' .5' /'2,. -' +%.0')+%' 7%$' ' .5'9,5. %20'*&)%.'0+*3'(%//0', . &,/)$')%5' 3,)+'&'()'3+,(+' 8 '2')+$*3'0*8%' /,-+)' .')+%' 5,06*0,),*.' *&' 6$%-. ' .)' 3*8%.')*' '(1)%' 2% *3' ')$*6+2' 8 *),*. '/' 5,0)1$4; ' . (%0' 01(+' '0' -$,%&' ' .5')$*14/%' ' .5' 4'5' +2-,%. ,(' (*.5,),*.0' +'7%' 4%%.')+*1-+)' 42' 0*8%')*' 6$%5,06*0%')*')+,0' 5,0%'0%')' ,0' *(('0,*. ''//2',.51(%5'42' '/(*+*/,08' ' .5' 8 '2' 016%$7%.%'16*.' (,$$+*0,0' *8%'4%/,%7%')+')' '//' *'0%0' 8 '2' 4%')$'(%5')*' 6+*06+*$10; 6*,0*.,. - ! ' $' ' G &)%$' 5%')+' ,)' ,0' .*)', 8 (*88*.')*'&,.5')+%' /,7%$'*&' .')1$'/ 0,C%'*$'%7%.' %./'$-%5',. ')+%' %'$/2'0)'-%0'*&' '(1)%' ')$*6+2' ')%$'*. ')+%'*$-'.'0+=90' 0*')+')', . ' %B)$%8%' ('0%0',)' 8 '2' 3%,-+' '0' /,))/%' '0' . ,. %)%%.' *1.(%0H' *$' %7%.' *./2')+,$)%%.' *1.(%0' '0',. ')+%' ('0%' *&' '' -,$/' *& 0%7%.)%%.' $%(*$5%5' 42' /%8%.)0')' 5%; ($'0%0',. ' '//' 5,'8%)%$0'41)')+%'/%&)'/*4%',0' %06%(,'//2'0+$1.9%.' +%' ('601/%',0' *&)%.' 3$,.9/%5' .' 0%(),*. ')+%$%',0' .*'/*. -%$' . 2' '66%'$'.(%' *&' /*41/%0' 41)' .' *(+$%' (*,*1$%5'01$&'(%' 3,)+*1)' 5%&,. ,)%' 0)$1()1$%' &)%.' ,.)%$06%$0%5' 3,)+' $%55%. %5' 6')(+%0' +%' -'// 4/'55%$' .'5' 4,/% 51()0' '$%' %,)+%$' %86)2'*$' (*.)', . ' '-$%2'81(0' +%'2%//*3' . 5'$%5'66%'$'.(%0'$%4/%.5%5' +%'2%//*3' $%6$%0%.)0')+%' %'$/2' .5' '(1)%' 0)'-%'*&')+%' 5,0%'0%' . 5',0')+%$%&*$%' 8*0)/2'6$%0%.)' , . ' '(1)%' ('0%0H')+%' $%5' $%6$%0%.)0')+%' /')%$' (+' .-%0' . ' 3+,(+' 8*0)' *&')+%' /,7%$ (%//0' +'7%' 5,0'66%'$%5')+%' (*/*1$' 4%,. -' 6')$)/2' 51%')*' 5,0)%.0,*.' *&' 4/**5 7%00%/0'),. 5%$')+%' 8,($*0(*6%')+%' /,7%$ (% 0' '$%' &*1.5',. ')+%' %'$/2' 0)'-%0')*' 4%' &,//%5' 3,)+' -$' .1/%0' 3+,(+' (*86%)%/2'+,5%')+%' .1(/%10' A0()(*152' 03%//,. -'<H' 6')$'*&')+%0%' -$' .1/%0' '$%' 0*/14/%' ,. ' '(%),(' '(,5' *)+%$0' '$%' +*)' %55,0+' 4$*3.' $+*84,(' ($20)'/0' $%0%84/,. -' +%%8' ')*,5,. ' +'7%' 4%%.' 5%0($,4%5' 42' $' *')0' '8*. -0)')+%' 5%$),)10' *&')+%' /,7%$ (%//0' '0' 3% '0' ($20)'/0' *&' /%1(,.' '. 5')2$*0,. ' ,. ' 3+,(+' +'7%' 4%%.'&*1.5'42'8*0)'*40%$7%$0'%06%(,'//2' 3+%.')+%' 7%$'+'0' 4%%.'9%6)'&*$'0*8)',8%' ')%$'*. ' '/')$'(%' *&' /,7%$ (%//0' 8 '2' 4%' /*0)' .*)+,. -' +1)' ' -$' .1/'$' .5' */,2'5%)$,)10' .5' 6,-8%.)' 4%,. -' 0%%.' 1.5%$')+%' 8,($*0(*6%' 3+,/0)')+%' 6*$)'/' ('.'/0' (*.)', . ' ' -$%')%$' *$ /%00' .18 4%$' *&' $.,-$')*$2' (%//0 ,($*(((,'+'7%' 4%%.'*40%$7%5',. ')+%' /,7%$' 42' '/5%2%$' /%40' ' .5' 66,. -%$' 41)')+%,$' 6')+*/*-,('/' 0,-.&,('.(%',0' 5*14)&1/ +%' 06/%%.',0' %./'$-%5' ' .5' 0*&)',. ')+%' -$%')' 8 '>*$,)2' *&' ('0%0' +%' 0)*8'(+' ' .5' ' ' 8%.)'B2'('.'/'6$%0%.)'5'$9 $%5'*$')'$$2'(*.;)%.)0')+%' *1)(*8%' *&'+0%8*$$+'-%H)+%')1; 41/'$' -/'.50' *&')+%' 0)*8'(+' '$%' &,//%5' 3,)+' &')),/2' 5%-%.%$')%5' %6,)+%+18 ' +%' 810; (1/'$'),001%*&')+%'+%'$)'0+*30'/,9%3,0%&')))2' 5%-%.%$'),*.H ' .5')+%')141/%0'*&')+%'9,5.%20' '$%'&,//%5'3,)+'%6,)+%+18',.'7'$,*10'0)'-%0'*&' &'))2'5%-%.%$'),*. ! (! G= (1)% 2%//*3' ')$*6+2',0' (*8; 8*./2'6$%(%5%5'&*$'0*8%'5'20'*$' 3%%90'42' ' 0,86%' >'1.5,(%',.' 3+,(+' .*)+,. -' 6%(1/,'$ (' .'4%'8'5%'*1)' %/,$,18' '.5'(*.71/0,*.0')+%.'0155%./2'0%)' ,. ' &'//*3%5'42'5%%6'(*8' ' 0)%$)*$*10' 4%%')+,. -' ' .5' 5,/')%5' 616,/0' 1$,. -')+%'&,$0)'6')$'*&')+%'5,0%'0%')+%'61/0%' ,0' .')1$'/*$'$%51(%5',.'&,$%E1%.*2'41)'3,)+')+%' '66%'$'.(%'*&')+%'(*.71/0,*.0' '.5'5%; /,$,18',)' $,0%0')*' @!'*$' "!' +%'09,.',0' '/3'20'2%//*3'$'$%/2'5%%6/2'(*/*1$%5' +%' 1$,.%',0' .')1$'/',.' E1'.),)2'4,+*10'(*.)', . ; , . -' /%1(,.' '.5')2$*0,.H')*3'$50')+%'%.5' *&')+%' 5,0*$5%$',)' /0*' (*.)',.0' .*' 1$%' ' (+/*; $,5%0' *$' 6+*06+')',%'%')+2'0')0H' '' 9,.5'*&' 6%6)*.%',0' 6$%0%.)' .' 0*8%' ('0%0',)' ,0' .%(%00'$2')*' %7'6*$')%')+%' 1$,.%')*' '' (*.; (%.)$')%5'(*.5,),*.')*' 5%)%()')+%' ($20)'/0'*&' /%1(,.' .5')2$*0,.' %' 'H ' .5' 3' +%$%',0' '/8*0)' '/3'20'(*.0),6'),*.H')+%' 0)**/0'4%,. -' ')' &,$0)'6'/%' '&)%$3'$50'4/'(9' &,*8' '58,B)1$%' *&'4/**5' *8,),. -',0'7%$2' (*.0)'.)/2'6$%0%.)H ')')+%' %.5' *&')+%' 5,0; %'0%'*&' '' 4/'(9'(*&%% -$*1.5'8'))%$' +%' $,-+)' +26*(+*.5$,'(' .5' %6,-0)$,('$%-,*.0' '$%'6',.&1/' .5')%.5%$' +%' /,7%$' ')' &,$0)' .')1$'/',. '0,C%'*$%7%.'/'$-%$')+'.' .')1$'/' 5%($%'0%0'5',/2',.' 5,8%.0,*.0' 0*')+')' ')' /'0)' 6%$(100,*.' 8'2' -,7%' .*' /,7%$ 51/.%00' ')' '//'*3,. -')*')+%'0*&)%.%$'(*.5,),*.'*&')+%' /,7%$' ('10,. -',)')*' 4%(*8%&*/5%5'*.' ,)0%/&')+%' ,.)%0),.%0' $,0,. -' 16')*')'9%' ,)0' 6/'(%' ,)+')+%' 5%($%'0%0'*&')+%' /,7%$')+%' 06/%%.' ,. ($%'0%0',.'0,C%' '+0%8*$$+'-,%' 5,')+%0,0' /,9%3,0%'0%)0',. ' '0'0+*3.'42'6%)%*+,0%'*.')+%' 09,. ' %6,0)'B,0'+0%8%0,0' '.5' 8%/0%.' ' +%')%86%$')1$%',0'(*88*./2'/*3'1.),/'>10)' 4%&*$%'5%')+ & G= +%5,'-.*0,0'*&')(1)%'2%//*3' ')$*6+2',0'7%$2'5,&&(1/)' .5' 8'2'$%8' ,. ' 5*14)& '&)%$'5%')+' +%'$'6,5'0+$,.9,. -' *&')+%'/,7%$' '0'%7,5%.(%5'42'5,8,.1),*.' *&')+%'+%6'),('51/.%00''00*(,')%5'3,)+')+%'5,0; (*7%$2'*&'/%1(,.' .5')2$*0,.' ,')+%'1$,.%')+%' *((1$$%.(%'*&'-$'7%'(%$%4$'/02806)*80' .5')+%'40%.(%'*&'-$'7%'(%$%4$'/02806)*80' .5' *&')(1)%' ')$*6+2' *,0*.,.-'42'6+*06+*$10' (' .'+'$5/2'4%'5,0),.-1,0+%5'&/$*8'(1)%'2%//*3' ')$*6+2' 1./%00')+%' 6'),%.)' *3.')*' +'7,.-')'9%.')+%'5$1-' +%'6$*5$*8'/0)'-%'(' .*)' 4%'5,0),.-1,0+%5'&$*8'(1)%'2%//*3' ')$*6+2' 1./%00')+%' 6'),%.)' *3.')*' +'7,.-')'9%.')+%'5$1-' +%'6$*5$*8'/0)'-%'(' .*)' 4%'5,0),.-1,0+%5'&$*8'0,86%'>'1.5,(% G= +% 6$*-.*0,0' ,0' %B)$%8%/2' 4'5H *./2' '' 7%$2' &%3' 0106%()%5' ('0%0' '$% 9.*3.')*' +'7%' $%(*7%$%5 ! G +%')$%')8%.)' 810)' 4%' (*.; 51()%5'16*.'-%.%$'ƒ6$,.(,6/%0' '&%3'('0%0' ,.'3+,(+')+%'5,'-.*0,0'*&')(1)%'2%//*3' ')$*6+2' +'0'4%%.')+*1-+)'>10),&,'4/%'+'7%' $%(*7%$%5' .5')+%0%' +'7%'4%%.')$%')%5'3,)+')+%' 8,.%$'/

)+ ')')+%' 6$*(%00' (* 8 8 %. (%0' , . ')+%'/,7%$ (%//0 '
+%0%' (+' . -%0' , . ')+%'/,7%$ (%//0' '$%' *&' (*1$0%'
4%0)' 0%%. ' ')')+%' 06*)' 3 +%$%')+%' /,7%$),001%'
' . 5')+%' (* . . %(),7%'),001%'>*, . ' .'$'$%' ('0%0'
'(6)%' 2%//*3' *$ $%5' ')$*6+2' 016%$7%. %0 ' .'
0* 8 %' *'0%0G %06%(, '//2',)' , 0' 0)'1%5', . ' ('0%0' *&'
+26%$)$*6 %'(,$$+*0,0G/, . %'$'$*3 0' *&' (14,('/
(%,/0' '$%' &*1. 5', . ')+%' 6*$)'/ (' . '/0' +%0%'
'$%' $%-'$5%5' 42' 0*8 %' '0' . %3/2' 5%7%/*6%5'
4,/,'$2' (' . '/,(1/,' 42' *)+%$0' '0' 5%-%. %$')%5'
/,7%$ (%//0

! (! G +%'&,$0)' '66$*' (+%0'*&' (,$$+*:
0,0' *&')+%'/,7%$' $%' (* 8 8 *. /2' 7%$2', . 0,5,*10'
&)%. ' * . %' *&')+%' %'$/,%0)' 02 8 6)* 8 0', 0' '' 51//
6', . ', . ')+%' . %,-+4*1$+**5' *&')+%'/,7%$' +,0'
,0' '((* 8 6' . ,05' 42' 0,- . 0' *&' (+$*. ,(' -'0)$,('
(')'$$+' *&' 3+,(+' 8 *$. , . -' 0,(9. %00' ,0 '&*$')+%'
5,'-. *0,0' *&' , .)%8 6%$' . (%' *&')+%' -$%')%0)'
,8 6*$)'. (%' *$. , . -' 5,'$$+*%'', 0' 0* 8 %), 8 %0'
' . ' %'$/2' 02 8 6)* 8 ' +%' 6'),%.)0' '$%' (* 8 ;
8 *. /2' *&' '' 0'//*3' *&)%. ' '/8 *0)' >'1. 5,(%5'
(* 8 6/%B,*. H')')+%' 0' 8 %'), 8 %')+%' 7%. 1/%0'
*&')+%' &' (%' *&)%. ' 5,0)%. 5%5' ' . 5' 7' $,;
(*0%' -,7, . -')+%' 6'),%.)0< (*). 6/%B,*. ' '
(*/* 8$' 3+,(+')*' 1. %51(')%5' %2%0', 0', . 5,(', 7%'
*&' +%' /)+' +%2' -$*3')+, . %$' ' . 5')+%,$'
0)$%. -)+' &', /0' * 8 %' 6'),%.)0' 01&&%$' &$* 8'
6, /%0H , . ' *)+%$0' 5,'$$+*%'' *((1$0' ')%$'
. ')+%' 4%//2' 4%-, . 0')' 03%//' ' . 5' '0(,)%0' '6;
6%' $0' H)+%' /%-0' 8 ' 2' 4%(* 8 %' *%5%8 ')*10'
&$* 8')+%' 6$%001$%' *&')+%' &/1,5', . ')+%' 4%//2' *.'
)+%' .)%$,*$' 3 '/' *&')+%' , . &%$,*$' 7%. '' ('7' '
+%' 1$, . %' ,0' +, -+ (*/*1$%5H *&)%. ' 5%6*0,)0'
1$')%0H ' . 5' 0* 8 %), 8 %0' (*.)', . 0' '/418%. '
&,$* 8' 6$%001$%' *&')+%' '0(,)%0' *. ')+%' $%. '/
7%, . 0' *$ '%*.)$'6)%5'9,5. %20

. ', 8 6*$)' .)'6*, .)', . ')+%' 5,'-. *0,0', 0')*'
5%)%$8, . %' 3+%)+%$')+%' /,7%$', 0' *&' 0 8 '//' 0,C%'
' . 5' -$*3, . -' 0 8 '//%$' +,0', 0' *&)%. ' 5,&&,(1/)'
*. ' '((*1.)' *&')+%' '0(,)%0H)+%' 5,&&,(1/)2' 8 '2'
0* 8 %), 8 %0' 4%' *7%$(* 8 %' 42'/' 2, . -')+%')' *. '+,0' /%&)' 0,5%' . ')+%' %'$/,%$' 0)'-%0')+%'
+'$5' %5-%' *&')+%'/,7%$' 8 '2')'), 8 %0' 4%' &%)'
' . 5' %7%. ')+*1-+')+%' '0(,)%0' 4%' -$%')' 42'
0155%. /2' 5%6$%00, . -')+%' 3 '//0' *&')+%' 4% 2'
3,)+')+%' &, . -%0' +%' 6%$(100,*. 51/. %00' *&'
)+%' ,/7%$', . ')+%' . ,66/% /, . %' 8 '2' 4%' $%51(%5'
)*')3*', . (+%0' *$%7%. '*. %', . (+', . '+%, -+)

/)+*1-+', . ')+%' . %3 &*$ 8 %5' (*. . %(),7%'
),001%' *&' (,$$+*0,0' &$%0+' 7%00%/0' &*$ 8')*')'1$0%
)+%' 6/'(%' *&')+*0%' *4/,)%$')%5' 2%)')+%0%' 42'
. *' 8 %' . 0' 01&&,(%')*' ('$$2' *. ')+%' (,$(1/'),*. '
)+$*1-+')+%'/,7%$' *$)'/ *40)$1(),*. ')+%$%;
&*$%' '$,0%0' 3+,(+' $%+ 7%0',)0%/&' , . '7' $,*10'
3 '20' ' 8 *0)' (* 8 8 *. /2' &/1,5', 0' 6*1$%5' *1)'
, .)*')+%' (' 7,)2' *&')+%' 6%$,)*. %1 8 '('10, . -' . '.'
'0(,)%0' *$' , .)*')+%' ('7,)2' *&')+%' , .)%0),1%0'
('10, . -' '' 5,'$$+*%' ' 3+,(+' 0+*1/5' . *)' 4%'
/, -+)/2' (+%(9%5' . ' *)+%$' %'0%0' ,)', 0' $%/,%7%5'
42' +'08')%8%0,0' *$' 42' +0%8 $$+*,5'/' 5,0;
(+'$-%' +')' 3+,(+' ,0' 8 *0)' &*$)1. ')%' &*$'
)+%' 6')%, .)' ,0')+%' &*$ 8 '), *. ' *&' '' 7'$,(*0%'
(* 8 8 1. , (', *. '4%)3%%. '0* 8 %' $'5,((%0' *&')+%'
6*$)'/ 020)%8' ' . 5')+%' -%. %$'/ 7%, . 0H '0' 4%;
)3%%. ')+%+0%8 *$$+*,5'/' . 5')+%' +26*-'0)$,('
)+%' 7%, . 0' *&')+%' 0)* 8 '(+' . 5')+%' (%0*6+'-%'/

0)' , 8 6$)' .)' *&' '//' +*3%7%$' ,0' '' 7%, . '
5,0(*7%$%5' 42' '66%2')' '$%' 0,0%' &,$* 8')+%'
/%&)' 4$' . (+' *&')+%' 6*$)'/ 7%, . ' ' . 5' 6'00%0' 16'
)+%' &*/(,&*$ 8'/, -' 8 %.)' (/*0%')*')+%'/, -' 8 %. '
)1 8')%$%0')*' >*, . ')+%' %6, -'0)$,(' ' . 5', .)%$. '/K
8 ' 8 8 '$2' 7%, . 0')', 0' 42' . *' 8 %' . 0')+%'
0' 8 %' '0')+%' */5' *4/,)%$')%5' 1 8 4,/,('/ 7%, . '
'/)+*1-+' 0*' . %'$')*',)' +%' 7%, . ' >10)' 8 %. ;
),*. %5' 3,// *&)%. ' 4%' &*1. 5' 5,/')%5' '&)%$'
5%')+

0' ''$1/%')+%'06/%%. ', 0' %. /'$-%5', . ', ($$+*0,0'
+%' %. /'$-%8 %.)' 8 '2' 4%' =' -$%')'41)')+%'
*$-' . ', 0' (* 8 8 *. /2' '4*1)')3, (%'*$)+$%%), 8 %0'
)+%' . ')1$'/ 0,C%' &)%$' 5%')+')+%' 06/%%. ', 0'
&*1. 5' *&' 0*&)%$' (*. 0,0)%. (%')+' . ' . ')1$'/'
0* 8 %), 8 %0' 61/62' +%' ('10%', 0' *40(1$%H)+%'
$%'0*. ' (* 8 8 *. /2' -, 7%. ', 0')+%' +, . 5$' . (%')*'
)+%' &/*3' *&' 4/**5')+$*1-+')+%'/,7%$' (), . -' *. '
)+%' 06/%. , ('7%, . ' +%' 06/%%. ' +*3%7%$' 5*%0'
. *)' '/3'20' 03%//' 3+%. ')+%$%' ,0' *40)$1(), *. '
)*')+%' 6*$)'/ (,$(1/'), *. G&*$' %B' 8 6/%' 8'
. 1)8 %-'/,7%$

0(,)%0', 0' '' 02 8 6)* 8' 3+,(+' 0** . %$' *$/')%$'
, 0' 01$%')*' (* 8 %' *. '41)'%B)$%8 %' (,$$+*0,0' 8 '2'
4%' 6$%0%.)' 3,)+*1)' '0(,)%0')' '66%' $0')*'
'$,0%' &,$* 8')+%' 7%. *10' 0)' 0,0', +,)+%' 0146%. '
)*. %'/'),001%0' /1()1'),*. ' ''. 5')+%' 8 *7%;
8 %.)' *&')+%' &/1,5' *. '(+' . -%' *&' 6*0)1$%' '$%'
7%$2' (/%'$' +%' &/1,5'/,9%' '//' *)+%$' 5$*60,;
('/' %&&,,0,*. 0' (*.)', . 0' /418%. '0'/)0' 0* 8 %;
), 8 %0' 1$%' '0* 8 %), 8 %0' 01-' $H' . 5', . '>'1. 5,(%'
4,/% 6,-8 %.)' &)%$')+%' '0(,)%0' +'0' 0%)' , . '
)+%' &%%)' 8 '2' 4%-, . ')*' 03%//'&,$* 8')+%' 6$%001$%'
*&')+%' &/1,5' *. ')+%' 7%. '' ('7' ' +%' 166%$
+8 40' . 5' &' (%' $%' &,$%%' &,$* 8' *%5%8 ' ' . ')+%'
+26%$)$*6+,(' &*$ 8' '0(,)%0', 0' -%. %$' //2' 3' .);
, . -' ' . 5')+%' 6'),%.)', 0' 5%%6/2'>'1. 5,(%5' .'
0* 8 %' %'0%0' (5418%. ', 0' 6$%0%.)' , . ')+%' 1$, . %'
&,$* 8' (*, . (,5%.)' $,-+)<0' 5,0%'0%

+%' 6')%.)0' *&)%. ' (* 8 6/', . ' -$%')/2' *&'
&/')1/%. (%'3+,(+' '550' 8 1(+')*')+%. $5,0)$%00'
' . 5' 5206. *%' ' 0%8 %)8 %0,0' ' . 5' 6,/%0' '$%'
*&' &$%E1%.)' *((1$$%. (%' ' . 5' *&)%. ' %6,0)'B,0'
((1$0' ,'$$+%'' 3+%. ',)' (* 8 %0' ,0' 0'/1;
)'$2' '0' '4*7%' 8 %.),*. %5' ' . 5' 0+*1/5' . *' 4%'
(+%(9%5'1. /%00' %B)$%8 %' +%' 1$, . %' -%0' , .)*')+%'
09, . ' %06%(, '//2' *&')+%' /*3%$' %B)$%8,),%0'
*((1$' *8%), 8 %0')+%' %. 5' ,0' 10+%$%5', . '
42' (%$%4$'/ 02 8 6)* 8 0H 0* 8 %), 8 %0',)', 0' 5%;
)%$8, . %5'42' +0%8 ')%8 %0,0

& G +%' 5,'-. *0,0' 5%6%. 50' 16*. '
)+%' +,0)*$2' *&' , .)%8 6%$' . (%H)+%' 0,C%' ' . 5'
(*. 0,0)%. (%' *&')+%' +7%$H)+%' 0,C%' *&')+%'
06/%%. H' . 5')+%' '66%'$' . (%' *&' '0(,)%0' ' . 5'
*)+%$' 5$*60,%0' &', 8 6*$)' . (%' '/0*' ,0')+%'
6%(1/,'$' 0'//*3' %'$)+2' (* 8 6/%B,*. H' . 5')+%'
((1$$%. (%' *&'+'%8 *$$+'-%0&$ 8')+%' 0)* 8 '(+

8 ', .)%*' . (%‘ *&‘ ' . ,8 ' /‘ +%') ‘ ' . 5‘) *‘) +%‘ . 1)$,),* . ‘ *&‘)+%‘ 4/**5‘ ' . 5‘),001%0H‘ A@R‘)+%‘ 5%0)$1(),$%‘ 8 %) ' 8 *$6+*0,0‘ *&‘ '/418,. *,5‘ 8 '))%$' ' . 5‘)+%‘ &*$ 8 '), * . ‘ *&‘ 1$%‘ ' ' . 5‘ *)+%$. ,)$A=%' *1‘‘ 6$*51()0‘ 3+,(+‘ ‘$%‘ 0140%E1%.)/2‘ %/, 8 , 8)%5‘ 42‘)+%‘ 9,5 . %20 ‘)+%0%‘ (+' . -%0‘ '/0*‘ 8 ', .) ', . , . -‘)+%‘ ' . , 8 '/‘ +%')H‘ A?R‘)+%‘ 0%($%), * . ‘ *&‘ 4,/%‘ ' ‘ /' $-%‘ 6*$), * . ‘ *&‘ 3+,(+‘ ,0‘ $%' 40*$4%5‘ '00,0), . -‘ , . ‘)+%‘ '00, 8 ,/'), * . ‘ *&‘ &')‘ +5‘ *)+%$‘ %/%8 %.)0H 3+,/0)‘ ‘ 6‘ $)‘ 6‘ 00, . -‘ 5*3 . 3‘ $50‘ 0), 8 1/')%0‘)+%‘ 6%$,0)‘ /),(' ‘ (),* . ‘ *&‘)+%‘ , .)%0), . %0‘ ' . 5‘ ' $%0)0‘ 5%(* 8 6*0,),* .

W +%. ‘ ,)‘ ,0‘ $%8 %8 4%$%5‘ +*3‘)+%‘ &1. (),* . 0‘ *&‘)+%‘ /,7%$‘ '$%‘ $%' 5,/2‘ , . &/1%. (%5‘ 42‘ 7 '$,*10‘ %B)%$. ' /‘ +. 5‘ , .)%$. ' /‘ +%. (,%0' ' . 5‘ +*3')+%2‘ '$%‘ (* . 0%E1%.)/2‘ 5%$' . -%5' ,)‘ 3 ,/‘ 4%‘ *&‘)+%‘ 1) 8 *0)‘ , 8 6*$)' . (%')*‘)+%‘ 6')+*/*-. ,0)‘ ' . 5‘)*‘)+%‘ (/, . ,(' /‘ 6+20,(, ' . ')*‘ 0)152‘)+%‘ (+' $' ()%$' . 5‘ %&&%()0‘ *&‘)+%0%‘ 5%$' . -%8 %.)0‘ +%2‘ 3%$%(/' 00,&,%5‘ 42‘ $' 1$(+,0*. ' 1. 5%$‘ . , . %‘ +%' 50‘ A R‘ 4. *$8 '/‘ . 1)$,),* . H‘ A@R‘ '4. *$8 '/‘ %/,8 , ; . '),* . H‘ A"R‘ '4. *$8 '/‘ 5,0, .)%-$'),* . H‘ A R‘ 5%; $' . -%8 %.)0‘ *&‘)+%‘ *$-' . 0‘ *&‘ 5, -%0),* . H‘ AFR‘ 5%$' . -%8 %.)0‘ *&‘)+%‘ . %$7*10‘ 020)% 8 H‘ ADR‘ 5%‘ >$' . -%8 %.)0‘ *&‘)+%‘ *$-' . 0‘ *&‘ *,$*. /' *. H AMR‘ 5%$' . -%8 %.)0‘ *&‘)+%‘ *$-' . 0‘ 6&‘ $%06,$' ;),* . H‘ A?R‘ 5%$' . -%8 %.)0‘ *&‘)+%‘ 1$, . '$2‘ *$-' . 0H APR‘ '4. *$8 '/‘ (* . 5,),* . 0‘ *&‘)+%‘ 08 . ' +%‘ '4*7%‘ +%' 50‘ +*3%7%$' $%6$%0%.)‘ &*$‘)+%‘ 8 *0)‘ 6' $)‘ &1. (), * . ' /‘ . 5‘ -%. %$' /0286)*8 0‘ $%01/); , . -‘ ^ *8' +%6'),(' 5,0*$5%$0‘ $')+%$‘)+' . ‘)+%‘ 5,0*$5%$0‘)+%8 0%/7%0‘ +%‘ '$$' . -%8 %.)‘ 1. 5%$‘)+$%%‘ +%' 50‘ $%6$%0%.),. -‘)+%‘)+$%%‘ 6$, . (8 '/‘ &1. (), * . 0‘ *&‘)+%‘ *$-' . ‘ *4*7%‘ 8 %. ;),* . %5‘ 3 ,/‘ 4%‘ ‘ 0$/&/ (,%.)/2‘ (* . 7%. ,%.)‘ &*$8‘ &*$‘)+%‘ (* . 0,5%$'),* . ‘ *&‘)+%0%‘ 5,0*$5%$0

= *) G)‘ ,0‘ 0(' $(%/2‘ . %(%00' $2‘)*‘ $%8 '$9‘)+')‘ &1. (),* . '/‘ 5,0*$5%$0‘ *&‘)+%‘ /,7%$' '$%‘ *&)%. ‘ 0%(* . 5' $2‘)*‘ *$' 00*(, ')%5‘ 3,)+‘ 5,0; *$5%$‘ *&‘ ,)‘ . %$7*10‘ ' . 5‘ 7 '0(1/' $ 020)%8 0‘ *$‘ 3,)+‘ 5,0%' 0%0‘ *&‘)+%‘)+*$' (,(' . 5‘ '45*; 8 , . '/‘ 7,0(%$' ‘ 3,)+‘ &%4$,/%‘ '&&%(),* . 0‘ 8 '; /' $, ' ‘ ' . 5‘ *)+%$‘ ('10%0')‘ ,0‘ * . /2‘ 3,)+‘)+%‘ ('10%0‘ 3+,(+‘ , . 51(%‘)+%0%‘ 5,0*$5%$0‘ 3+%. ‘ 6$,8 '$2‘)+')‘ 3%‘ '$%‘ +%$%‘ (* . (%$. %5‘ +%2‘ '$%G

‘ I ‘ "‘ D # ‘ 8 *0)‘ (* 8 8 * . ‘ *&‘)+%0%‘ '$%‘ ‘ + ,*‘ ' . 5‘ %06%(,' //2‘ , . 51/-%. (%‘ , . ‘ &')‘ ' . 5‘ &')2‘ '$),(/%0‘ *&‘ &**5‘ $,(+‘ 0*160‘ %.)$,%0‘ ' . 5‘ 6' 0)$2H)+%‘ 1. 51%10%‘ *&‘ 01-'$' +$‘ *&‘ &,0+‘ *$‘ &/%0+‘ (* .)‘ , . , . -‘ 8 1(+‘ *,/2‘ 8 '))%$' B(%00‘ , . ‘)+%‘ 10%‘ *&‘ '/(*+*/,(' 5$, . 90‘ ,0‘ ' . *)+%$‘ ('10%‘ , . ‘ &$%E1%.)‘ *6%$'), . ‘ . ')+,0‘ (*1.)$2‘ +%' (*84, . '), * . ‘ *&‘ 01-'$' 3,)+‘ '/(*+*/ 81(+I‘ %. +' . (%0‘)+%‘ 8 , 0(+, %&‘ *)'03%%)‘ -$*-H 03%%)‘ . %3'3, . %0H (+' 86' -. %‘ 1, , /%00‘ 5$2H '5%, $' H 0+%$$2H 6*$) 3, . %H 1$-1. 52H /, E1%1$0H)+%‘ 6%$0, 0;)%.)‘ 10%‘ *&‘ 8 '/)‘ /, E1*$0' 6' $), (1/' $/2‘ *&‘ 8 , /5‘ '/%0‘ ' . 5‘ 0)*1)‘ '$%‘ $%' 52‘ ('10%0‘ *&‘ +%6'), (‘ 5%$' . -%8 %.)

@‘ ‘ ‘ ‘ G' L ' .)‘ *&‘ %B%$(, 0%‘ 3+%)+%$‘)+%‘ $%01/)‘ *&‘ . %(%00,)2‘ *$‘ *&‘ , . 5*/%.)‘ +' 4,)0‘ , 0‘ ‘ ' (* 8 8 * . '%B(,). -‘ ('10%‘ *&‘ +%6'), (‘ &1. (), * . ‘ /‘ 5, 0*$5%$0‘ H ' . 5‘ ,)0‘ %&&%()‘ , 0‘ %B' -; -%$')%5‘ 3+%. ‘ ,)‘ , 0‘ ' 00*(, ')%5‘ 3,)+‘ %$$*$0‘ , .

5,%)‘ ,7, . -‘ +' 4,)1' //2‘ 8 ‘ ‘' +, -+‘)%8 6%$' ;)1$%‘ 3+%)+%$‘ , . ‘ ' ‘ 3 '$8‘ (/, 8 ')%‘ *$‘ , . ‘ *7%$; +%')%5‘ $** 80‘ , 0‘ ' . *)+%$‘ 0*1$(%‘ *&‘ +%6'), (‘ 5, 0*$5%$0' . 5‘), 0‘ , 0‘ , .)%. 0, &, %5‘ 3+%. ‘ , . ‘ (*. ; . %B, *. ‘ 3,)+‘)+%‘ ('10%0' /$%' 52‘ ' //15%5‘)*‘ =$%00, . -‘ 3*$$, %0‘ . %$7*10‘ ' . 5‘ %8*), * . '/‘ , . &/1%. (%0‘ 8 10)‘ . *)‘ 4%&*$-*))%. ‘ , . ‘ (*. 0, 5%$; , . -‘)+%‘ 0%), */*-2‘ *&‘)+%‘ 014>%()‘ " g' /, 9%3, 0%‘ (+, //0‘ ' . 5‘ %B6*01$%')*‘ 5$' 1-+)0‘ *&‘ (*/5‘ ', $‘ *$‘)*‘ 5' 86‘ ' . 5‘ 3%)

! (! ‘ M & G +%‘ 6+%. *; 8 %. ‘' 3+, (+‘ '$&% *40%$7%5‘ , . ‘ &1. (), * . '/‘ 5%; $' . -%8 %.)0‘ *&‘)+%‘ /, 7%$‘ ' . 5‘ 3+, (+‘ -, 7%‘ %7, 5%. (%‘ *&‘)+%‘ 6$%0%. (%‘ *&‘ 01(+‘ 5, 0*$5%$0‘ *$‘ 50$' . -%8 %.)0‘ 8 '2‘ 4%‘ , . ‘ ' ‘ -$%')‘ 8 %' ; 01$%‘ , . 5, (')%5‘ '((*$5, . -‘)*‘)+%‘ 6' $), (1/' $+%6'), (‘ &1. (), * . ‘ 3+, (+‘ , 0‘ '&&%()%5‘ . ' 8 %/2‘ A R‘)+%‘ 0# 0 H‘ A@R‘)+%‘ Q 3 ‘ ' . 5 A?R‘)+%‘ # 3

‘ , 0*$5%$0‘ *&‘)+%‘ X /2 (*-%. , (‘ 1. (;), * . G , 0*$5%$0‘ *&‘)+, 0‘ &1. (), * . ‘ *&‘)+%‘ /, 7%$‘ 3+%. ‘ 6%$0, 0)%.)‘ (* 8 %‘ , 85%$')+%‘ 014>%()‘ *&‘ 5, '4%)%0‘ ' . 5‘ $%E1, $%‘ *. /2‘)*‘ 4%‘ 8 %.), * . %5‘ +%$%‘ ‘ &‘ ‘ , %

1-'$‘ 8 '2‘ '/0*‘ 4%‘ &*1. 5‘ , . ‘)+%‘ 1$, . %‘ %(‘ ('0, * . '//2‘ . 5‘ , . ‘ 08 '/‘ E1' .),), %0' , . ‘ 0*8 %(‘ ('0%0‘ , . ‘ 3+, (+‘ ,)0‘ 6$%0%. (%‘ , 0‘ (/%‘ $/2‘ (* . ; . %()%5‘ 3,)+‘ 5, 0*$5%$%5‘ /, 7%$ &*. %), * . ‘) 8 '2‘ 4%‘ 6$%0%.)‘ 3,)+‘ 1$%‘ ' . ‘ %B(%00‘ *$‘ 3,)+‘ /418 %. ‘ %,)+%$‘ ')‘)+%‘ 0‘ 8 %‘), 8 %‘ *$‘ /)%$; . ')%/2

@‘ , 0*$5%$‘ ' *&‘)+%‘ %)‘ 4*/, (‘ 1. (;), * . G)‘ , 0‘ ‘ 8 '))%$‘ *&‘ -$%)‘ 6$' (), (/‘ , 8 ; 6*$)‘ . (%‘)*‘ *40%$7%‘)+')+%‘ 5%$' . -%8 %.)0‘ *&‘)+%‘ 8 %)‘ 4*/, (‘ &1. (), * . ‘ *&‘)+%‘ /, 7%$‘ '$%(*. 0)‘ .)/2‘ 8 '5%‘ %7, 5%.)‘ ' . 5‘ (' . ‘ 4%‘ $%(*-; . , 0%5‘ 42‘ (+' . -%0‘ , . ‘)+%‘ (* 86*0,), * . ‘ *&‘)+%‘ 1$, . %‘ +%0%‘ (+' . -%0‘)+%$%&*$%‘ %+*. /5‘ 4%‘ /**9%5‘ &*$' . ' . 5‘)+%‘ 1$, . %‘ *&‘ 6'), %.)0‘ %B' 8 ; , . %5‘ , . ‘ /8 *0)‘ %7%$2‘ ('0%‘)‘ , 0‘ . *)‘ 6*00, 4/%‘ +%$%‘)*‘ 5%0($, 4%‘ '/‘)+%‘ (+' . -%0‘ , . ‘)+%‘ (* 8 ; 6*0,), * . ‘ *&‘)+%‘ $, . %‘ 3+, (+‘ , . 5, (')%‘ &1. (;), * . '/‘ 5, 0)1$4' . (%‘ *&‘)+%‘ /, 7%$‘)‘ 3, //‘ 4%‘ 01&&, (, %.)‘)*‘ , . 5, (')%‘)+%‘ 8 *$%‘ , 86*$)' .)‘ *&‘)+%0%#G ')+%‘ /,)+')%0' . 5‘ /,)+, *‘ ' (, 5‘ ADR‘ 1$%' ‘ A(R‘ '/418 %. ‘ ' . 5‘ A5R‘ (*/*1$, , =‘ 8 '))%$

‘ S # ‘ ‘ # ‘ ' (, 5 G +%‘ 3$,)%$0‘ E1,)%‘ (* . (1$‘ 3,)+‘ ' . 5‘ 8 '2‘ (* . (, 0%/2‘ 0)')%‘)+%‘ 7, %30‘ '57' . (%5‘ * . ‘)+, 0‘ 014>%()‘ 42‘)+%‘ /')%‘ $' 1$(+, 0* . ‘ . %‘ *&‘)+%‘ , 8 8%5, ')%‘ $%01/)0‘ *&‘ 01(+‘ ^ 1/)2‘ &1. (), * . ‘ (*, 8 %()%5‘ 3,)+‘ 05418, . *10‘ 5, 0, .)%-$'), * . ‘ , 0‘)+%‘ . *. ‘ (* . 7%$0, * . ‘ *&‘ .), *-%. *10‘ 8 '))%$0‘ , .)*‘ 1$%' ' . 5‘)+%‘ 6$*51()‘ * . ‘ *&‘ /,)+')%0‘ ' . 5‘ +)+, (‘ (, 5‘ , . 51(, . -‘ ' ‘ (* . 5,), * . ‘ *&‘ 4/**5')*‘ 3+, (+‘ +%‘ &,)/2‘ '66/, %5')+%‘)%$8‘ F #! ‘ +, 0‘ /,)+0%8, ‘ 8 '2‘ 4%‘ $%/, %7%5‘ &*$‘ '), 8 %‘ 42‘ %/, 8, . '), * . ‘ 42‘)+%‘ 9, 5 . %20‘ 0+*3, . -‘ ,)0%/&‘ , . ‘ 5%6*0,)0‘ , . ')+%‘ 1$&*%' * . ‘ (**/, . -‘ *&‘ /,)+, *‘ ' (, 5‘ /,)+')%0‘ ' . 5‘ 6, -8%.)‘ $2‘ 8 '))%$' +%0%‘ 5%6*0,)0‘ '$%‘ . *)‘ , . &$%E1%.)‘ , . ‘ 6%$0*. 0‘ , . ‘ '66‘ $%.)/2‘ -**5‘ +%' /)+' %06%(, '//2‘ &)%$' ' . 2‘ %B(%00‘ *$‘ %$$*$‘ , . ‘ 5, %)‘ *$‘ %B6*01$%')*‘ (*/5H ' . 5‘)+%2‘ '$%‘ 8 *$%‘ *$‘ /%00‘ (*. 0)' .)‘ , . ‘ 014; >%()0‘ *&‘ -*1)2‘ +' 4,)‘ *&‘ 4*52‘ ' . ‘ . 5‘)+*0%‘ 3+*' $%‘ 6$%5, 06*0%5')*‘ +%6'), (‘ 5%$' . -%8 %.)

X +

"? U ' ' U U '

*$' 3+*' ,. 51(%' ,)' 42'+'4,)1'/' ,. 51/-%. (%' ,. ' *7%$ 0),8 1/'). .-' 5,%)' +%0%' 5%6*0,)0' 8 '2' (*.),. 1%' &*$' 2%'$0' 3,)+*1)' ('10,. -' 8 1(+' 5,0(*8&*$)'9 41)' '&)%$' ''),8%')+%' %B(%00,7%' E1' .),)2'*&'/,)+,(' '(,5' ' . 5'/,)+' ')%0' ('. . *)' 4%' %/,8,. ')%5' 42')+%' 9,5. %20Ĥ ' . 5')+%2' '((1; 8 1/')%' ('10,. -' 5,0%' 0%' *&')+%' 9,5. %20' '0' 3%/' '0' 5,0)1$4' . (%0' ,. ' 5,&&%$%.)' 6' $)0' *&')+%' 020)%8 ' ' . 5' -,7,. -' $,0%')*' 7' $,*10' 8 *$%' *$ /%00' 5,0)$%00,. -' J*. 6)*8 0' &')+%0%' 02 8 6;)*8 0')+%' 8 *$%' 6$*8,. %.)' '$%G%6,-'0)$,(')%. 5%$. %00' *. ' 6$%001$%' ' . 5' 0%. 0%' *&' *66$%0; 0,*. ' &/')1/%.)' 5,0)%. 0,*. ' *&' 0)*8 'D+' . ' 5' 4*3%/0' +%' $)41$. ' '(,5' %$1()'),*. 0' ' ' 0%. 0%' *&' 3%' $,. %00' ' . 5')%. 5%. (2')*' 0/%%6' '&)%$' 8 %' /0' &1$$%5')*. -1%' $8 6/%' 0' .)')' 0)%' ,. ')+%' 8 *1)+' %06%(,''//2' ,. ')+%' 8 *$. ,. -' '66%),)%' *&)%. ' -**5' 0*8%),8 %0')+%' (*.)$' $2' . ' %B; (%00,7%' 0%($%),*. ' *&' 7,0(,5' 8 1510' ,. ')+%' &'1(%0' ' . 5' 4' (9' *&')+%' . *0%' (*. 0),6'),*. ' . 5' ,),')%5' 0%($%),*. 0' '/6,)'),*. ' ,$$%; -1/' $'*$',.)%$8,)),. -'61/0%'&$*.)'/'+%'5'(+%' 7%$),. -'5%'&. %00' . 5' . *,0%0',. ')+%' %'$0'$%0); /%00. %00')' . ,-+)',$$,)'4,/,)2'*&')%86%$' . 5' +26*(+*. 5$,'0,0' '$%' *)+%$' 0286)*80')+')' '$%' 8 &%*$'/%00'(*. 0)' .)/2'6$%0%.)

1)' 3+%)+%$' *6%. /2' 8' . ,&%0)%5' /')%.)' *$',$$4-. /'$',0' '00(,')%5' 3,)+')+%' 0286)*80' >10)' 8%.),*. %5')',0' *. %' *&')+%' $%01/)0' *&' /,)+0%8,' ' . 5')+10' +'0',)0' *$,-,. '7%$2' &$%; E1%.)/2',. '&'1/)2'+%6'),(' &1. (),*.

$,. '$2' ('/(1/,' '$%' '/0*' ' $%01/)' *&'/,)+; 0%8,' ' ')' /'%7%.)0')+*0%' 3+,(+' (*. 0,0)' *&' /,)+,(' '(,5' *$',)0' 0'/)0' 3+,(+' '0' 3%'9. *3' '$%')+%' 8*0)' &$%E1%.)' &*$80' +10' '/0*',)' ,0')+')')+%' &*$8'),*. ' *&')+%0%' ('/(1/,'0+*1/5'4%' 6$%7%.)%5'42' $%8%5,%0' . 5' ' ' 0 ' ')*')+%' /'5. %20

F)£;' # #4 ' 5 ' ') 4 ' $-' ! / # 7) 3 * ' 7') '-) > 94 "' $# 7'5 !' '3$4 "' ! + '$-'+$7"' 7' L !' ! # # 7' 7 /$ ' 7' # #4

,)+0%8,'' 6$%5,06*0%0')*' /*('/',. &/' 8 8 ' ;),*. 0' . 5,7,51'/0'3+*' '$%'014>%()')*' 5%6*0,)0' *&'/,)+,(' '(,5' ' . 5' /,)+' ')%0' '$%' 8*$%' /,'4/%')+' .' *)+%$0')*' /*('/' ,. &/' 8 8 '),*. 0' ,. ' '' 0%7%$%' &*$8' Q . ' $%&%$%. (%')*')+,0' &'()' $' 1$(+,0*. ' 8 '5%')+%' 6$'(),('/' *40%$7'),*. ')+')' , . ' 01(+' 6%$0*. 0')+%' /,)+')%0' (%'0%')*' 4%' %/,8,. ')%5' *. ')+%' '57%.)' *&' '' /*('/' ,. &/' 8; 8 '),*. ' *$*$5,. '$2'&%4$,/%'(')'$$+')*'4%' -'. ' 5,0(+'$-%5' &$%%/2' *. ')+%' 0140,5%. (%' *&')+%' 62$%B,*. ' 01(+' ('0%0' +%' '55%5')+%' $%;)%.),*. ' *&'/,)+')%0',. ')+%' 020)%8'+'0'6$*4'4/2' 5%)%$8,. %5')+%' '))'(9

%$)',. ' 5,0%'0%0' *&')+%' 09,. ' 01(+' '0' %$2;)+%8 ' ' %(C%8 ' ' +%$6%0' 60*$,'0,0' /,(+%. ' ' . 5' 2%# $ % '$% 1. E1%0),*. '4/2' *&)%. ' . 51(%5' ' . 5' 8 ' ,.)',. %5' 42' +)+'%8,'' $%01/),. -' &$*8' +%6'),('5%$' . -%8%.)

)+%$' %&&%()0' *&')+,0' &1. (),*. '/' 5%$' . -%; 8%.)' '0' $' 1$(+,0*. ' $%8'$9%5' 042')+%' 6$*51(),*. ' *&'6%((' .)' 0140)' . (%0' 3+,(+' '$%' . *)' $%' 5,/2'%/,8,. ')%5' ' . 5' 3+,(+')+%$%&*$%' '((1818 1/')%' ,. ')+%' 020)%8' 8 ' 2' ,. ')+%' /*. -' $1. ' /%' 5')*' 8 ' . 2' *&')+%' 8 *0)')$*14/%0*8%', &

. *)' 0%$,*10' 8 '/' 5,%0' 4*)+' '(1)%' ' . 5' (+$*. ,(')*' 3+,(+' *1$'$' (%' ,0' 0140>%() <

ADR 3 G +,0' 0140)' . (%' 8 ' 2' 4% &*1.5' 5%&,(,%.)' ,. ')+%' 1$,. %Ĥ 41)' ,&' 0*' ,)' 3,/' 4% ,. ' (*. . %B,*. ' 3,)+' 0*8%' 0)$1(1)1$'/' (+' . -% ,. ' '0' (*.)$' 0)%5' 3,)+' &1. (),*. ' /' 5,0*$5%$0' *&')+%' /,7%$' 3+,(+' +'7%' >10)' 4%%. ')$%')%5' ' . 5',. ' 3+,(+' ,0' &*1.5' ' . ' %B(%00' *&')+,(' 014; 0)' . (%' +%. ' &*1.5' ,. ' 01(+' %B(%00' 3%' $% . *)' '4/%' '/3'20')*' 5%)%$8,. %' 3+%)+%$' ,)' ,0' 51%')*' ,)0' &*$8'),*. ' ,. ')+%' /,7%$' ,. ' %B(%00'),/')+,0' %B(%00,7%' %/,8,. '),*. ' 3+')%7%$' ,)0' 0*1$(%' ,0' '00*(,')%5' 3,)+' 0*8%' 6%(,' /' . 5 ,8 6*$)' .)' 0286)*80')*' 4%' 6$%0%.)/2' 5%; 0($,4%5' +%. ')+%' 3$,)%$0' 06%' 9' +%$%' *& %B(%00' *&' 1$%' ')+%2' 8 %' . ' 01(+' %B(%00' '0' ,0 0+*3. ' 42')+%' $*1-+ ' . 5 $%' 52' 8 %)+*5' *& 8,B,. -' 0'2' ''5$' (' *&' 1$,. %' 3,)+' '' /,9% E1' .),)2'*&' 61$%' .,)$,(' '(,5' ' . 5' 6/' (,. -')+%)14%' (*.)' ,. ,,='+%' 8,B)1$%' ,. ' (*/5' 3')%$' &)%$' 0*8%' 8,. 1)%0' *$' +*1$0' '' &%3' ($20)'/0' 8 '2' 4%' 5%6*0,)%5' *$' '' 8 '00' /8*0)' 0*+5' 8 '2' 4%' &*$8%5' +%. ')+%$%' ,0' '' &$%%' 5,0(+'$-%' *&'. $%' '6%$0*. 0' -%. %$' //2' (*86/',. '*&&%%/,. -' /' . -1,5' *&)%. ' %B)$%8%/2'0*' . 5' *&' ,. '4,/,)2')*' '((*86/,0+' . 2' 3*$9')+')' $%E1,$%0' 8%.)' /' $ 6+20,('/' %B%$),*. ' ' ('0%' 0*8%3+')' 1. ,E1%' 3,// ,//10)$')%' (%$)',. '6*,.)0' ,. ')0' '&&%(),*. ' +%' 3$,)%$' A 'X Ĥ 3'0' $%E1%0)%5')*' 0%%' 3,)+' $' A. *3' ,$' ,//,' 8 Ĥ '7*$2' '' -%.)/%8' . ' 3+*' (*86/',. %5' *&' %B(%%5,. -' /' . -1*$' 3+,(+' 0%%8%5' 1. '((*1.)'4/%' %/**9%5'3%/' . *1$,0+%5' . 5' 3'0' 01$*,85%5' 42'%7%$2'(*8&*$)' ,0' '45*8%. '3'0'&), ' . 5' +,0'/,7%$'0*8%3+')'%./'$-%5' %' 3'0' 40)%; 8,*10'/,7,. -' '/8*0)' %B(/10,7%/2'*. ' '' 7%-%;)'4/%' 5,%)' *3,. -')*' +,0' -$%')' 5,0/,9%')*' '// ' . ,8'/' &**5' %7'(1'),*. 0' 3%$%' 6'/%Ĥ ' . 5',. E1,$2'0+*3%5')+')'+%' 3'0'6'00,. -'0*8% 0,B)2'*1. (%0'*&' $,. %*$*8*$%' 5',/2')+%' 06%; (,&,('-$'7,)2'*&'3+,(+'3'0'*7%$' !"!' .')%0); ,. -'3,)+'. ,)$,('(,5''' 8 '00'*&'1$%''*((162,. -' 8*$%')+'. ')3*)+,$50'*&')+%' 8 ,B%5'&/1,5'3'0' 5%:#!0,)%5' /1%' 6,/' ' . 5' **/*(2.)+' -,7%. ')3,(%'*$')+$%%'),8%0' '' 3%%9'3'0' 3% ' 4*$. %Ĥ ' . 5' +%' '/0*')**9')'$'B'(18' 3,)+' ' .' '/9'/,' *$' ' . ' '(,5' +%' %B(%00'*&' 1$%'' . ,),8%' 5,0; '66%'$%5' ' . 5')+%' 6'),%.)' 5,5' 3%//' +% 3$,)%$'+'0')$%')%5' 8 ' . 2' ,9%' ('0%0' 41)' . *. % ,. ' 3+,(+')+%' 5,0(+'$-%'*&'1$,. %' ,. ' (*. .%B,*. ' 3,)+' 1$%' ' 3'0' 0*' /%Ĥ 0%' *&' ' 01(+' ('0%0' +%' E1' .),)2' *&' 1$,. %' ,0' /%00')+' . ' . *$8'/Ĥ +%' 0%. 0%' *&' /' . -1*$' . ' 5%6$%0; 0,*. ' . ' . ')+%0%' ('0%0' ,0' 01--%0),7%' *&' ')*. ,(*$' 0),8 1/' .)' 8%' *&')$%')8%.)' +,0' 5*%0' 8 *$%' +'$8')+' . ' -**5' +%' %/,8,. '), . -')$%')8%.)' '(),. -'*. ')+%' /,7%$' -%. %$' //2' 01(; (%%50' . ' 5' ,)' 8 '2' +%' &*//*3%5' 42')+%' 10%' *& 0*8%' 7%-%)' 4/%' 4,))%$')*. ,(

A(Ĥ & " G /418%. ' ,0' *&)%. ' &*1.5' ,. ')+%' 1$,. %' '0')+%' $%01/)' *&' 5,0*$5%$%5' /,7%$' &)8(),*. ')0' 6$%0%. (%' 8 '2' 4%' 8 %$%/2')%8

2 F)' 'B) '6H) '21 '5) ' !4 '$' ! ' 4+E #⅛∧ ' '/$ + ' $'4 ' ' '#) '7 3) ' ! '.) $ '$-' ! ' /) # / ' ' ! ' 4) '-$)' ! ' 7 3 $ '$-' * 7 '$-' ! ' .) N

>*$'$2' ,.' **. .%B,)''' 3,)+' '')%86*$'$2' +%; 6'),(' 5%$' . -%8%.)' 4$',)' 8 '2'4%8 *$%' *$'/%00' 6%$8 '. %.)' +%' 3 ')%$' 3 ')(+%5' 3,)+' ,.)%; $%0)')+%' ('0%' *&' '' = .)/%8 '.' .' 3+*0%' 1$,.%' '/418%.' 3 '0'65%0%.)' 8*$%' *$'/%00' (*.0)' .)/2' &*$' .%'$/2')+,$)2' 2%'$0' %' 5,5' 81(+' ' .5' 7%$2' $%06*.0,4/%' 4$',. 3*$9' ' .5' /,7%5' -%.%; $*10/2' +%' 1$,.%' +'5' /*3' 06%(,&,(' -$'7,)2' +*1-+' *&)%./**9%5' &*$' ('0)0' 3%$%' $'$%/2' &*1.5' +,0' -%.)/%8 '.' +,8 0%/&' $%(*-.,0%5')+%' 0+'$%' 3+,(+')+%' /,7%$'+''5', .')+%' 6$*51(;),*.'*&')+%' '/418%.' '.5'+%' $%-1/'$/2')**9' '0' +%' &%/)' *(('0,*.' '' -$',.' *&' (=*8%/*.(%' *$')3,(%' '' 3%%9' '0' '$%8%52

A_R $ " G +%' (*/*8,.-' 8 '))%$' *& 4,/%' 8 '2'4%' &*$8%5' ,.' %B(%00' ' .5' &*1.5',.')+%' 1$,.%' *.' '55,..-'.),$,(' (,5')0' 6$%0%.(% .5,(')%0' 0*8%' 5,0*$5%$%5'+7%$ &/*.(),*.' ' .5' ,0' 0*' &' $10%&1/' 8'+%/6,.-'5,'-.*0,0

" ' ,0*$5%$0' *&')+%' ,/,' $2' 1.),*. G= '7,.-')+10' 5%0($,4%5'0*8%' 06%(,'/ 5,0*$5%$0' *&'&1.(),*.' '0',.5,(')%5'42')+%' 6$%; 0%.(%' *&'06%(,'/' 8 ')%$,'/0'&*1.5',.')+%' $,.%' 3%' 8 '2'.*3'$%&%$')*' 5,0*$5%$0' *&')+%' 4,/,'$2' &1.(),*.'-%.$'//2' +%0%' 8 '2' 4%' 5,7,5%5' ,.)*' A'R')+*0%' 51%')*' /)' 0%($%),*.' H' '.5' ADR')+*0%' 51%')*' " ' 0%($%),*.')' ,0' 0('$(%/2'.%(%00'$2')*' '$$'.-%')+*0%' 51%')*') 3 ' 4,/%' 1.5%$' '' 0%6'$')%' 4%'5' '0')+%' 0%($%),*.'8'2'4%' 7,),')%5' 3+%)+%$' ,)' 4%' $%51.5'.)' *$' 5%&,(,%.)

^' I( ) ' 0%($%),*.' *&' 4,/%' ,0' (+'$'(;)%$,0%5' 42' 4,/,*10' 5,'$$+*%'G(*6,*10' &/1,5' 4,/,*10' %7'(1'),*.0H' .'10%' ' *$' .*)' ,.&,HD' *1%)/2'7*8,),.-H)3,0),..-' -$,6,.-'6',.0',.' 8%' '45*8%.H' '.5' 6%$+'60' 0*8%' &%4$,/%(0286)*80' +%'4,/%',.'0*8%' ('0%0'0%%80')*' 4%'6%(1/,'$/2'($,5''.5')*' '10%'81(+'08*$); ,.-' 3+%.' 7*,5%5' +%' 1$,.%',0' -%.%$'//2' +,-+ (*/*1%5' '.5' /*'5%5' 3,)+' /,)+')%0' +%$%' ,0' &, %E1%.)/2'+%'5'(+%' '.5'0/%%6/%00; .%00' 3,)+' %,)+%$' ,$$,)'4,/,)2' *&')%86%$' *$ 5%6$%00,*.' *&' 06,$,)0' ,0)1$4'.(%0' *&' (,$; (1/'),*.',.')+%'&*$8'*&',$$%-1/'$,)2'*&'61/0%' '.5'6/6,)'),*.'*'&')+%' +%'$)' '/0*' *(' 0,*.'//2'6$%0%.)' +,0' %B(%00,7%'0%($%),*.'*'&' 4,/%'3,)+')+%' ')%.5'.)'02 86)*80',0'101'//2')+%'$%01/)'*&'(*.-%0),*.'*'&')+%'/,7%$ Ap' C " ' 0%($%),*.' *&' 4,/%' ,0' (+'$'(;)%$,0%5'42'5206%6),('02 86)*80'01(+'0'& $$%5')*.-1%'$86/%'0'.)')'0)0%',')+%' 8*1)+'/*00'*& '66%),)%'' .5'&/')1/%.(%' +%' '(),*.' *&')+%' 4*3%/0' 8 '2'4%' ,$$%-1/'$'41)',0' 01'//2'(*0;),7%'H'.5')+%'%7'(1'),*.0'$%' *&'' 6'/%2%//*3' *$'5$'4'*$'3+,)0+'(*/*1$'' .5'*&)%.'*&'*&&%..; 0,7%*5*1$' +%'(*86/%B,*.',0'101'//2'0'//*3' '.5'.&&,8,(' .*)' *&)%.'>'1.5,(%5' ,0)1$4; '.(%0'*&')+%'(,$(1/'),*.',.')+%' &*$)),'*&'/'.; -1,5'*$' ,$$%-1/'$' 61/0%'*((1$' '.5',.')+% .%$7*10' 020)%8 '+%'5'(+%'/'.-1*$'5$*30,; .%00' '.5' +26*(+*.5$,'0,0' 4%,.-' &$%E1%.)' (*.(*8,)'.)0' ,/%0' '$%')$*14/%0*8%'41)' '&&*$5'$%/,%&'3+%.')+%2'4/%%5' +%' 1$,.%',0' -%.%$'//2'5'$9 (*/*1$%5')1$4,5H '.5'/*'5%5' 3,)+'/,)+')%0' +%$%' ,0' '/0*' ,.' (+$*.,(' ('0%0'/*00'*&' &/%0+' .5%%5')+%' '(),*.'*&)+%' 4,/%' ,.' 6$*8*),..-')+%' '00,8,/'),*.'*' &')' ,.' 0),81/'),..-')+%' 6%$,0)'/),(''(),*.'*&)+%' ,.)%0),.%0''.5' '0' .' '.),0%6),(',0' 3%// ,//10)$')%5' ,.')+%' 0286)*80' 3+,(+' '))%.5' 6$*)$'(0)%5' 5%&,(,%.(2'*&')+%'0%($%),*. ! G .*' (/'00' *&'5,0*$5%$0'5*' -%.%$'/'$%8%5,'/'*$'+2-,%.,(' '-%.)0' '()' 8*$%' 4%.%&,(,'//2')+'.' ,.' &1.(;),*.'/'5%$'.-%8%.)0'*&')+% 7%$' 1$%' ,$' %B%$(,0%'0)$,()' '))%.),*.')*')+%' &1.(),*.0' *&)+%' 09,.' '.5'01,)'4/%5,%)' '$%')+%' (1$'),7%' 8%'.0' *.' 3+,(+'3%' 810)' 8',./2'$%/2' ' ' %'0%0',)' ,0' *&' 8*8%.)')*' 6$*8*)%')+% +%'/)+2'(),*.'*&')+%' 09,.' '.5'/1.-0' +,0' ,0')*' 4% 5*.%'42'%B%$(,0%'*.'&**)'*$&%$'6&% ' &%$'4/2'*.'+*$0%4'(9' +%'/')%$',0'6%%1' +'$/2'57'.)'-%*10'(0',)'0),81/')%0'5,$%()/2' 42''0%$,%0'*&'01((100,*.0''.5'42'(*.)$'(),*.' *&')+%'45*8,.'/'810(/%0')+%/,7%$'.5',.)%0; (),.%0''.5'8'2'4%'+'5$%(*1$0%)*',.'8*5%$';),*.' 42')+*0%' 3+*' '$%' .*)' 7%$2'7,-*$*10' '/9,..-' 6$*8*)%0')+%' -%.%$'/' (,$(1/'),*.' %B(,)%0')+%' '(),*.'*&')+%' 09,.',.($%'0%0')+% &$%E1%.(2'.5'&)5.%00'*&')+%' $%06,$'),*.0' '.5',.5,$%)(2'.50'8')%$,''//2')*' 3%'$%/,%7%' '(*.-%0)%5'*$',.5*/%.)'0)')%' *&'/,7%$' +% '(),*.'*&')+%' 09,.'810)'/0*'4%'8',.)',.%5' 42'5%E1')%' (/*)+,..-',.' '//' 0%'0%80'*&')+% 2%'$'.5'42'5',/2'10%'*&')+%' 4')+'&*//*3%5' 42'.()7%&,5%),*.'*&')+%'.),$%'01$&'(%'*&')+% 4*52

8%5,%)'0+*1/5'4%'*&' '/,-+)'.*1$,0+,.-' (+'$'()%$H '.5'$,(+'-$'7,%0'0*160'8'5% 5,0+%0'0'1(%0'6'0)$2'$)=3'7%-%)'4/%0'.5' 01(+''$),(/%0'0+*1/5'4%'7*,5%5'*' .),)$*; -%.*10'&**50'01,)'4%0)'%06%(,'//2'3+%$%' +%$%' ''00*(,')%5'/,)+0%8,'H 0)'$(+2'.5'0'((+'; $,.%' '$),(/%0'4%,.-'8*$%' *$'/%00'*4>%(),*.; '4/%' %06%(,'//2'3+%.'01-'$' '66%'$0',.')+% 1$,.%' +%' 0)$*..-'06,$,)1*10'5$,.90''$%')*' 4%'7*,5%5H41)')+%/,-+)%$'3,.%0'3+%.'61$%' '0'(/'$%)'+*(9''.5',.-+)'5$2'0+%$$2'8'2'4%')'9%.''')'8%'/0',.'8*5%$'),*.'*'$'08'//E1'.;),),%0'*&'3+,092'*$'4$'.52',.'3')%$,.*.-')+%'8%5,(..'/$%8%5,%0'3+,(+'6$*; 8*)%')+%'(),*.'*&')+%'/,7%$'.5')+%'%B61/; 0,*.',&',.*)')+%' 0%($%),*.'*&'4,/%'8%$(1$2' .5',)0'6$%6'$'),*.0+*/5''6$*8,.%.)'6/'(%' *$'.*)3,)+0)'.5,..-')+%' $%01/)0' *&'%B6%$,; 8%.)0' 6*.'6,8'/0'&%3'6$'(),),*.%,0'3,// 4%'(*.)%.)'*'-,7%'16')+%'57'.)'-%0'3)+,(+)+%,$' (+.,('/'%B6%$,%.(%'+'0')'1-+)')+%8')*'%B6%()'&$*8')+%'>15,(,*10'10%'*&'8+,=' (1$2')'+'0'4%%.'0',5')+')+%'5$1-'8%$%/H= %&&%()0')+%'%B61/0,*.'*&)4%'4%H)+%'$01/)'f' +*3%7%$',0'8'.,&%0)'.5'1.E1%0),*.'4/%'.' %B(%00,7%'0%($%),*.'*&'4,/%''0,-/%&1/'5*0%' *&'('/*8%/'&*'*3%5',.''' &%3'+*'$0'42'N' 0'/,.%'5$'1-+)'3,/'('10%''&$%%'5*3.3'$5' 5,0(+'$-%H'.5',.')+%',)40%8,('(.*5),*.'.'&' 020)%8',.5,(')%5'42')1$4,5'1$,.%'(*.)',,' ,.-'(*6,*10'/,)+')%0')+%0'8%')$%')8%.)'3,' '&&*$5'$%'52'$%/,%&'.'08 //%$'5*0%0'$N 6%')%5')',.)%$7'/0''.5'(*84,.%5'3,)+'*)+_' '6%$,%.)0'01(+''0'(*/*%2.)+'*'$'+14'$4'8%,' W (1$2'3,//4%'&*//*3%5'42'4%.%&,(,'/'$%01/)0',& X + V

)$%84/,.-?# ' G3+,(+' ,0' &%/)' 3+%.')+%' 01$&'(%' ,0' (*86$%00%5' -%.)/2' 42')+$%%&,.-%$0'*&')+%'/%&)'+'.5''.5'0+'$6'6%$;(100,*.'8'5%'3,)+')+%' $,-+)' +'.5' *7%$')+%'8,55/%' &,.-%$' $%$,(+0' 5*%0' .*)' (*.0,5%$')+,0'0,-.'*&'81(+',86*$)'.(%',)' +'7,.-'4%%.'6$%0%.)',..'*./2'*.%+'/&'*&'+,0'('0%0' &')+%f)18*1$',0'0,)1')%5'4%+,.5')+%',7%$',)'3,//''0',)'5%7%/*60'610+')+,0'*$-'.'&*$3'$50'&/'))%.',)''.5',.($%'0%')+%''$%''*&'51/.%00'+%')18*1$'8'2'/'0)'&*$''(*.0,5%$'4/%'),8%''.5'-*'*.',..($%'0,.-')*'0*8%'%B)%.)''.5'2%)'+%'6'),%.)'$%,.',.'&/%%&$*8'(*.0),)1),*.'/5,0)1$4'.(%'6%$&*$8'/'+,0'&1.(),*.0''',.'0'$%-'$50'&/%0+'.5'9%%6',.'-**5'(*.5,),*.'0'$%-'$50'&/%0+'.5'0)$%.-)+' +%.'+*3%7%$',)'+'0''),'.%5''7%$2'/'$-%' ,C%',)'3,//-,7%'$,0%')*'7'$,*10'0286)*80G)*'''&%%/,.-'*&'),-+).%00''.5'5,0)%.0,*.H,&',)'6$%00'163'$50')*'%8;4'$$'00%5'4$%')+,.-'(*1-+'6*00,4/2'8*$%'*$/%00'51/.%00'3,)+'5,8,.,0+%5'$%06,$'),*.''')'+%'4'0%'*&'),-+)'/1.-''.5'6'/6,)'),*.H,&'16*.')+%''45*8,.'/7,0(%$''')*',.=$&%$%.(%'3,)+')+%,$'&1.(),*.0''.,.'0'$%)'//26$%0%.)'41)',.'0*8%'('0%0')+%$%',0''-.'3,.-'6',.'%,)+%$'')'+%'%6,-'0)$,18'*$%B)%.5,.-'&*$3'$50'&$*8')+%'/184'$'$%-,*.'A5%8''*&')+%'/*3%$'%B)$%8,),%0'8'2'*((1$'3+%.')+%)18*1$'6$%00%0'16*.')+%',.&%$,*$'('7''*$'0(,)%0'&$*8''0,8,/'$'%&&%()'*.')+%'6*$)'/7%,.'$%'/))%$',0'+*3%7%$'.*)'1./,9%/2')*'+'7%'0*8%'00*(,')%5'&%')1$%0')%.5,.-')*',.;5,(')%')+%'1.101'/.')1$%'*&')+%'%&&10,*.''.5')+%'*$,-,.'*&')+%'5,0%'0%

& " 25'),5')18*1$'*)&')+%'/,7%$',0'.*)''/3'20'%'0&/2'5,'-.*0%5H41)')+%'(+';$'()%$,0),(' &%')1$%0'/$%'52'.*),(%5''.5',)0'(*86'),4,/,)2'A,.'8'.2'('0%0'16')*''.''5;7'.(%5'0)'-%R'3,)+''-**5'0)')%'*&'+%'/)+'3,.'-%.%$'//2'6*,.')*',)0'.')1$%'40(%00'*&')+%'+7%$')7,//4%5,0),.-1,0+%5'42'/*('/'.5'$%8*)%'6',.H)+%'&$%A,1%.)''.)%(%5%.(%'*$%B,0)%.(%'*&'520%.)%$2H'.5'0%7%$%'(*.0),)1;),*.'/02886)*80'01(+''0'+%(),(' &%7%$'$,-*$0'^(')'810)'+*3%7%$'4%'$%884%$%5')+')'+25'),5'(20)0'$%/,'4/%')*'4%(*8%',.&/'8%5''.5')*'01661$')%'3+%.')+%'5,'-.*0,0'3,'.*)'4%'0*'$%'5,/2'8'5%H41)'%7%.'0*')+%'016;61$'),*.'*&''+25'),5'(20)',0'/%00'/,9%/2')*'4%'((*86'.,%5'42')+%''(1)%'6'$*Y208 '&%7%$0*'(+'$'()%$,0),(',&'6$%0%.)''*&'40(%00'*&')+%7%$' '.(%$'*&')+%'/,7%$'3,/'-%.%$'//2'4%8'$9%5'42',$%-1/'$,)2'$-'01$&'(%H)+%'6$%;0%.(%'*&'6',.H)+%'('(+%(),(''06%()H''.5')+%$'6,5,)2''*&'6$*-$%00' .%1$208'*&')+%'4;5*8,.'/''*$)''8'2&*$8''.%,-'0)$,(')'18*'0+'6%''.5'1.,&*$8'0,C%'''.5')+%'1018'('((*86'.,8%.)'*&'>'1.5,(%'3,/'5,0),.-1,0+'&$*8'+25'),5'5,0%'0%')+%')18*1$'('10%5'42''5,0)%.5%5'-'// 4/'55%$' $%$,(+0')+,.90')+')'+25'),5'5,0%'0%'*&')+%'/,7%$',0'8*$%&$%E1%.)/2'(*.;&*1.5%5'3,)+'/*('/,0%5'6/%1$,),(' %&&10,*.''')+%'4'0%'*&')+%'(+%0')+'.'3,)+''.2'*)+%$''&&%(),*.' %'$%8'$90')+')')+%'0'8%0,-.0G'51/.%00'*.'6%$(100,*.''40%.(%'*&'7*('/')+$,//',.)%$(*0)'/&/1()1'),*.G=3*1/5'4%'6$%0%.)'..'4*)+'('0%0' %'$%0)0')+%'5,'-.*0,0'*.')+%'&'()')+')')+%'/,.%'*&'51/.%00'3*1/5'6$%0%.)''(1$7%3+,(+'3*1/5'/**9'163'$50',.')+%'*.%'('0%'5*3.3'$50',.')+%'*)+%$' *')+,0'0,-.'*&'1.(%$)','.'6$%0%.(%'8'2'4%'55%5')+')')+%7*('/7,4$'),*.''.5'$%0*.'.(%''/)+*1-+'6%$;+'60'0*8%3+')'/%00%.%5''$%' .*)'101''//2'5'86%5'42'6$%001$%'&$*8'4%/*3')+%'5,';6+$'-8')*')+%'6/%1$'

! G 25'),5')18*1$'*&')+%'/,7%$'8'2'/'0)'&*$2%'$0''.54%'(*86'),4/%'3,)+''.''7%$'-%0)')%'*&'+%'/)+H*$'')''.'%'$/2'*$'57'.(%5'6%$,*5'*&',)0'%B,0);%.(%',)'8'2')%$8,.')%',.'*.%'*&')+%'&*//*3;..-'3'20' ')'8'2'&$*8',)0'41/9'.5'6*0,),*.'6$%00'16*.'.5',.)%$&%$%'3,)+')+%'&+.(),*.0'*&'5,&&%$%.)*$-'.0' $%001$%'*.')+%'/'$-%' %.*10')$1.90'8'2',.51(%'0(,)%0'.5'5$*602'*&')+%'/*3%$'%B)$%8,),%0H6$%001$%'16*.')+%'0)*8'(+'.5',.)%0),.'/'(''./'8'2'*40)$1()'&1.(),*.0'(*.-)%5'3,)+')+%'00,8,;/'),*.'*&'&**5''.5',.51(%'&',/1$%'*&'&/%0+'.5'0)$%.-)+''.5'1/),8')%/2'5%')+'&$*8'%B+'10;),*.'@'+%')18*1$'8'2'(*.)$'()'5+%0,*.0'3,)+')+%'5,'6+$'-8H1/(%$'),7%'().*)+$*1-+'),0'8'2'4%0%)'16''.5'%,)+%$'A1R5,0(+'$-%'*&')+%'(*.)%.)0'*&')+%'0'('8'2')'9%6/'(%',.)*'+%6/%1$''.5'&')'/6/%1$,),0'$%01/)H*$'K&1$)+%$'5+%0,*.0''.5'1/(%$'),*.'8'2'%&&%()'(*88,8,(','),*.'3,)+')+%'/1.-'6.%18*.,(02866)*80'%.01%''.5')+%(*.)%.)0'*&')+%'0'('8,B=')+')+%'6$*51()0'*&',.&/'88'),*.'4%%B6%()*$')%5'+%'(*.)%.)0''$%'0*8%),8%0'%B6%()*$')%5''.5')+%5,0%'0%'(1$%5'42'),0'8%'.0''''$'$%'$%01/)',0''5+%0,*.')*''.5'1/(%$'),*.',.)*')+%'6%$,('$5,18'3,)+')+%0('6%*&'(*.)%.)0''.5'$=,5/2'&')'/'$%01/)0''5;+%0,*.'8'2'4%'%&&%()%5'3,)+'0*8%'6'$)'*&')+%'/,8%.)'$2'('.'/''.5')+%'(*.)%.)0'*&')+%0'('4%'5,0(+'$-%5'42'78,),..-'*$2'0)*/F'16)1$%'*&')+%'0'('8'2'4%'(*10%5'42''4/*3'*$')+%$3,0%H)+%(*.)%.)0'4%5,0(+'$-%5',.)*')+%'6%$,)*.%18H'.5'&')'/'6%$,)*.,),0'$%01/)'D'+%')18*1$'8'2'(*.)$'()''5+%;0,*.0'3,)+')+%'6'$,%)%0H6*,.)'%B)%$.'//2H'.5'4%*6%.%5'*$%&&%()'.'*6%.,.-'42'.')1$'/6$*(%00',.&/'88'),*.'.''.5'01661$'),*.'+'7,.-'4%%.'6$%7,*10/2'0%)'16',.')+%'0'('M'155'.5'=%$,(+0'.*),(%''6*00,4/%'(1$%'&$*8')+%'*4/,)%$'),*.'*&')+%'0'('42')+%'&*$8'),*.'3,)+,.',)'*&''61))2/,9%'8'))%$')+%'(*84,.%5'$%01/)'*&'5%-%.%$'),*.'*&')+%'(20)'.5',)0'(*.)%.)0''.5'*&',.&/'88'),*.'*1)0,5%')+%'6'$%.)'(20)'+%0%'(*.5,),*.0''$%'42'.*'8%'.0'$'$%',.')+%5%'5+*10%''.5')+%2'$%&$%E1%.)/2''00*(,')%5'3,)+'('/('$%*10'*+=-%0',.')+%'(20)3'//''0'3%/'0'3,)+')+%5%6*0,),*.'*'%'$%'.-%4,/,'$2'6,-8%.)'*'-%.%$'//2',0'6,-8%.)'*&')+,0'9,.5'6$%0%.)'*&',.'7'$,*10'6')$0'*&')+%0%(1$%5'+25'),50')+')')+%$%',0'--**5'-$*1.5'&*$

8 *0)' &$%E1%.)'4%)3%%.')+%' '-%0' *&')3%.)2 ' &,7%' .5')+,$)2 &,7%' .5%6%.5%.)/2' *&')+%' ('0%0' ,.' 3+,(+' ,)' '66%'$0')*' 4%' (*..%()%5' 3,)+'520%.)%$2' 8 '.2' '1)+*$0' 4%/,%7%' +%6';),),0')*' 4%' ,.51(%5' 42')+%' 0'8%' ('10%0' '0')+*0%' 3+,(+'6$*51(%')$*6,('/'520%.)%$2' ''.5')$*6,('/'&%7%$0G,.'*)+%$'3*$50'42'8'/'$,*10' ,./1%.(%0' %6'),),0' *$' 6%$,+%6'),),0' ,0' 0*,))%),8%0'*(('0,*.%5'42'&'//0'*$'42'%B)%$.'/' 7,*/%.(%' 3+,(+' 8 '2' *6%$')%' ,.' 6$*51(,.-')+%8'%,)+%$' 5,$%()/2' *$' 0%(*.5'$,/2 % ! ' ' +%/7,%$'3+%.' ,./'8%5' ,0' 101''//2'$%6$%0%.)%5' '0' 0*&)%.%5' '.5'(*.-%0)%5'0*8%),8%0'+'7,.-'*'-$'.1/'$' 66%'$'.(%' +%.' (1)' ,.)*' 8*$%' 4/**5' &/*30'&$*8',)')+'.' 101'/'),0' 0*8%),8%0' ,./,/)$')%5'3,)+' 0%$*10' &/1,5'3,)+'/28 6+'*$ *((0,*.''//2'3,)+'08 ''//06*)0' *&'610' +,/%6*$),*.0' *&')+%'/,7%$' '$%' ,.7*/7%5',.'./.&/'8 I' 8 '),*.'*)+%$' 6*$),*.0' 8 '2' 4%' 1.'/)%$%5H +1)' 8*0)' -%.%$'//2',)',0',./&/'8%5' *$' (*.;-%0)%5')+$*1-+*1)' ,.' 0*8%' 6'$)0' ,.' $%5' 6')(+%0'3+,/%',.'*)+%$'6')0')+%$%'$%6')(+%0' *&''2%//*3,0+'(*/*1$' +%0%' 8 '2' 4%')$'(%5' ,.')+%,$' (+'.-%0' 1.),/')+%2' '$%' (*.7%$)%5' ,.)*''40(%00%0'3+,(+' 8 '2' 4%' 0,.-/%'*$'/%00' &$%E1%.)/2' 8 1/),6/%H 101''//2')+%0%' '$%' %.;(/*0%5',.''' (20)'3+,(+'7'$,%0'&$*8')+%')+,.; .%0)' +'/& &*$8%5' 8%84$'.%')*' '')*/%$'4/2')*1=+'*.%' &')+%$%' +'0' 4%%.' 81(+' 6%$,;+%6'),),0')+%' /,7%$' ,0' 7%$2' (*88*./2' '5;+%$%.)')*')+%'5,'6+$'-8'*$')*'),-+4*1$;,.-'7,0(%$'' 42' *$-'.,0%5'/28 6+'' '.5' ,)0' ('601/%',0')+,(9%.%5 ,)+' $%&%$%.(%')*')+%' 5,0)$,41),*.'*&',)0' 4/**5 7%00%/0',)' +'0' 4%%.' 6$%018%5')+')' (*.-%0),*.'*&')+%'/,7%$',0'8',./2'('10%5' 42' *40)$1(),*.')*')+%'+%6'),('7%,.0'(*.0%E1%.)' /'&&%(),*.0'*&')+%'+%')$' *$'/1.-0'*$' 42' 0*8%' *40)$1(),*.'*&')+%' 7%.'' 6*$)0%' *$' 8 4,5' '/)%$'),*.'*&')+%' 4/**5' 3+,(+',)' (*.7%20' .',./&/'88'),*.'+'-',')+%'('6,/;/'$,%0'*&')+%'+%6'),(''$)%$2''$%' 4%/,%7%5')*' 4%' 6$,8'$,/2'%.-*$-%5' 1)'+%0%' 8')))%$0' '$%'.*)' 7%$2'(%$)',.' 0' $%06%()0'01661$';),7%',./&/'88'),*.' 155' 8',.)',.%5' '.5' $,-+,/2''0'$%-'$50'8'.2'('0%0')+')',)',0')+%' $%01/)'*&' 61$1/%.)' 8')))%$')'9%.'16'&$*8' 1/('),.-'01$&'(%0'*&')+%' 4*3%/' '.5'(*.;7%2%5')*')+%'/,7%$'42')+%'7%.''6*$)0% G +%0%' 7'$2' 81(+' ,.')+%,$' 5%-$%%'*&''(1)%.%00' +%$%',0'&$%E1%.)/2',.')+%'(*88%.(%8%.)'(+&,/,.%00''*$%'7%.'0*8%' 0+,7%$,.-'&*//*3%5'42'&%7%$0' +%'66%),)%',0',86',$%5''.5')+%$%' 8'2' 4%'/*')+,.-'*&' &**5' +%')*.-1%',0'3+,)%''.5'101''//2'+'0' '')+,%9'3+,)%'(*')' +%' 4*3%/0'$%'0*8%;),8%0'(*.0),6')%5H 8*$%'&$%E1%.)/2')+%$%',0' 5,'$$+*%')' *8%),8%0')+%$%',0'-$%')')+,$0)' '/*.-'3,)+',$$,)'4,/,)2'*&')+%' 0)*8'(+'.'5' 4,/,*10'7*8,),.-' '(%$)',.'5%-$%%'*&'>'1.; 5,(%'+'0'4%%.'*&)%.'0%)'5*3.'0''02 86)*8' *&'+%6'),),0'41)' ,)',0'7%$2'1.101''/' +%$%' $,-+)'0+*1/5%$'41)' 42'.*'8%'.0''/3'20' +%$%',0'*&)%.'''0+*$)' 5$2'(*1-+' +%$%',0'-%.%$''//2'0*8%'&%7%$H)+%'61/0%',0'101''//2'&$*8'8HH')*'88H''.5')+%')%86%$')1$%'*&')+%'4*52',0',.(%'0%5')3*'*$')+$%%'5%-$%%0H 41)'+%$%',0'0%/5*8'6$%0%.)')+')'*8*1.)'*&',$$,)'),*.'3+,(+'*.%'3*1/5' %B6%()'*'&,.5'3+%.'.&/'88'),*.',0'0*' '(1%')+')',)'8'2'L.5',.'01661$'),*.' .' +%'$%-,*.'*&')+%'/,7%$')+%'02 86)*8 0' $%' 7'$,*10' *8%),8%0')+%$%',0'0+'$6'/'.(,.;'),.-'6',.'%06%(,'//2'3+%.')+%'(*.7%B'01$;&'(%',0'8*0)''&&%()%5H 8*$%'&$%E1%.)/2')+%$%',0' '' 51//'+%'72'6',.' 3+,(+',0',.($%'0%5' 3+%.')+%'6'),%.)'%.5%'7*1$0')*' +%'*.',0'/%&)'0,5%' +%$%',0'-%.%$'//2'6',.' ,.')+%' /,2%$'*.'6$%001$%' .'('$%&1/'%B'8,.'),*.')+%'7,0(10'3,//'*&)%.'4%&*1.5')*'4%',.($%'0%5' ,.'41/9'41)'42'.*'8%'.0''/3'20'0*')'8'2' 4%'%./'$-%5'163'$50' '.5'4'(93'$50' *$' 4%/*3')+%'%5-%'&')+%' $,40' *$')*3'$50')+%' %6,-'0)$,18' &')+%',.&/'88'),*.'4%' ')'//' '(1%')*$',&')+%$%'4%6%$,+%6'),),0'3+,(+'8'2' ,.7*/7%')+%'/*3%$'01$&'(%'*&')+%'5,'6+$'-8')+%$%'8'2'4%'0+*$)0'),.'5'3+,(+' ,0'*&)%.'7%$2'5,0)$%00,.-' +%' '(1)%.%00'*&' 01&&%$,..'5%6%.50'7%$2'81(+'*.'3+%)+%$')+%' 01$&'(%'*$')+%'5%%6%$'6*$),*.'*&')+%'*$-'.',0' 8*0)',.7*/7%5',.')+%' ,.&/'88'),*.' +%' 1$,.%',0'(*88*./2',+-+(*/*1$%5''.5'(*.;)',.0''.'%B(%00'*&'4,/%6,-8%.)' *8%),8%0' '/4188.',0'6$%0%.)'46)'*.')+%'3+*/%'.*)+,.-'7%$2'5%&,.,)%',0'9.*3.'*.')+,0'6*,.) & '$%-'$50')+%'51$'),*.''*&')+%'02 86)*80' ,&')+%$%' .'/2'4%'6$%,+%6'),),0',)+%2' 3,//'6$*4'4/2' 0140,5%',.')+$%%' *$' &*1$' 5'20' %%6 0%')%5'+%6'),),0'8'2'%.5',.''4*1)'%.' 5'20',.'$%0*/1),*.''*$',.')+%' &*$8'),*.''*&'40(%00',' E) 40(%00'*&RH' *$')+%' 5,0%'0%' 8'2'4%'6$*)$'()%5',.'''/%00''(1)%' &*$8'&*$' 3%%90'*$' 8*.)+0'6$*51(,.-'%.; /'$-%8%.)'*$'6'$),'/',.51$'),*.''*&')+%/,7%$' .'01(+'*'0%0''.5',.5%%5',.')+%'/%00''(1)%' &*$8'*&'+%6'),),0',)',0'*&)%.'5,&&,(1/)'*'5$'3' ''5,0),.(),*.'4%)3%%.'(+$*.,('(*.-%0),*.''.5' (+$*.,(',.&/'88'),*. & G %6'),),0',0',.*)'7%=' /,9%/2')*'4%'(*.&*1.5%5'3,)+'*)+%$' '&&%(),*.0' &')+%' 01$&'(%',0'6'$),(1/'$/2',.7*/7%5'3+%.')+%$%',0'81(+'0+*$).%00'*&'4$%')+''.5')+%' 6',.0''$%'/'.(,.'),.-',)'8'2'4%'(*.&*1.5%5' 3,)+'/*('/'6/%1$,02'*$'6.%18*.,''+%''10; (1/)')*$'0*1.50''0''/0*')+%'6*0,),*.'*&')+%' 6'),%.)'3/0+*3'3+%)+%$')+%'/1.-0''$%' '&&%()%5G&*$'3,)+'6.%18*.,''3,)+',.)%$; (*0)'/'.%1$'/-,''3,)+',.&/'88'),*.''*&')+%' 0)*8'(+'*$'3,)+')+%'6'00'-%'&'-'//0)*.%0' +%'3,/'.*)'/,%'*.')+%''&&%()%5'0,5%''0',.' +%6'),),0H .*$',0')+%$%',.')+%0%'5,0%'0%0')+% %B(%00,7%',$$,)'4,/,)2'*&0)*8'(+')')+%$%',0' ,.',.&/'88'),*.''*&')+%/,7%$'+%'6',.'*&' -'//0)*.%0'(*8%0'*.'8*$%'0155%./2',0'8*$%' '(1%')''.5'5,0'66%'$0'8*$%'$'6,5/2' *8%;),8%0'+%6'),),0'+'0'4%%.'(*.&*1.5%5'3,)+' %./'$-%8%.)'*&')+%'-'//4/'55%$'41)'101''//2')+%'62$,&*$8'0+'6%'.5'6$*8,.%.(%'*&')+')' *$-''.'3+%.'*7%$&/ %5'0+*1/5'4%'%.*1-+')* 5,0),.-80+',)' 0'&*$)+%'5,'-.*0,0'4%)3%%.'+%6')),),0''.5'6%$,+%6'),),0',)',0'(+,%&/2'*&

:#',.' F' '/&*$8 '),*.0' '.5' 8 '/6*0,),*.0'*&')+%' /,7%$' +'7%' 4%%.' 8,0)'9%.' &*$' ('.(%$*10' %./'$-%8%.)' %06%(,'//2',.' &%8'/%0' '4*1)')+%' 6%$,*5'*&'0(+'.-%'*&'/,&% <' L' ' /'$-%/2'5,0;)%.5%5' -'// 4/'55%$'+'0' 4%%.' 8,0)'9%.'&*$' '('.(%$*10'6$*>%(),*.'&$*8')+%'/,7%$H 41)')+%' 08**)+' *7'/' 03%//,.-' '.5')+%' 0,)%' %./'$-%8%.)' '$%'5,0),.(),7%' '.5' '0' $%$,(+0' 0'20' '' 6$'(),),*.%$'3+*' 8'5%' '.' %$$*.%*10'5,'-.*0,0',.'01(+' ('0%' 3*1/5'4%'3'.),.-',.')+%' ' M' '.(%$'*&')+%'*8%.;)18'3*1/5'6$%0%.)' ' 8*7'4/%)18*1$'0%6'$; '4/%'6$*4'4/2'&$*8')+%'/,7%$'42' '0/,-+)'$%'' *&')286'.,),(' $%0*.'.(%' ' '.(%$*10'5%; 6*0,)0',.')+%'/%&)'/*4%'*&')+%'/,7%$'8'2'4%' $%'5,/2'8,0)'9%.'&*$' ('.(%$*10' '&&%(),*.0'*&')+%'0)*8'(+ %'&* *3,.-'6*,.)0'3,/' '00,0)' ,.'5,'-.*0,0'A'R %$(100,*.',.')+%'-$%')%0)')+,(9%.,.-'*&')+%'3'//0'*&')+%'0)*8'(+'=7%0''')*/%$'4/2'(/%'$')286'.,),(' 0*1.5H,.'('.(%$' &)+%' /%&)' /*4%' *&')+%' /,7%$')+%' 0*1.5',0' 81(+'8*$%'5%'5%.%5''.5',0'*./2'0*8%3+')')2 8 6'.,),(' *.')$*.-%$' 6%$(100,*.0)$*9%H ALR ('$%&1/%B'8,.'),*.'*&')+%'/,7%$''.5'*&)+%'0)*8'(+'3+%.'&1/' '.5'3+%.'%86)2' 3,/' '/0*' /%'5')*' '' (*$%()' (*.(/10,*.H A(R %7%.'2$+%.')+%'/,7%$' '.5'0)*8'(+' '$%' 4*)+' '&%%()%5'('$%&1/%B'8,.'),*.'8'2'*&)%.' 8'9%' *1)')+%'4*1.5'$,%0'*&'5,0%'0%',.'%'(+' &)' '/,-.'.')')1.*1$'*&')+%'$,-+)'/*4%'8'2' 4%'8,0)'9%.'&*$'%./'$-%8%.)'*&')+%'$,-+)' 9,5.%2' 6%$(100,*.'3,/' -%.%$'//2' -,7%' ')286'.,),(' 0* .5'&$*8')+%'6$%0%.(%'*&',.;)%0),.%'4%)3%%.')+%'9,5.%2'.5' 7%$' +%' +%6'),(')18*1$',0' '/0*' 5,0),.-1,0+%5'&$*8')+,0' '.5'*)+%$' '45*8,.'/')18*1$0'42',0' &*//*3,.-')+%' 8*7%8%.)0'*&')+%' 5,'6+$'-8' ,.'$%06,$'),*.' 1)'3+=')+%'$%.'/%./'$-%; 8%.)',0' %$2'-$%')' 5,'-.*0,0',0'.*)' %'02 !' '/,-.'.)' 5,0%'0%' *&')+%' '0(%.5,.-'*$')$'.07%$0%'(*/*.'3,/' (*.0),)1)%' ' 8*7'4/%' '.5'-%.%'//2'0*8%3+')'286'.,),(' 03%//; ,.-H' '.5'&&%('/' ((181/'),*.0',.')+%'(*/*.' ''2'4%'$%8*7%5'41)'.*)' '/3'20'$%'5,/2'42' '6%$,%.)0' '.5',.>%(),*.0' %$(100,*.')** *&)%.' %/,(,)' '$%0*.'.)' 06'(%'4%)3%%.')+%'%./'$-%5',.)%0),.%' '.5')+%' 7%$ G +%'6$*-.*0,0',0''/3'20'1.; &'7*1$'4/%' +%' 5,0%'0%' 3+%.'*.(%'&*//2' 6$*.*1.(%5'$1.0',)0'(*1$0%'$'6,5/2')+%'&')8')%$8,.'),*.'4%,.-'0%/5*8'5%&%$$%5'4%2*.5''' 2%'$' (,$$+10'+'0'101' 2' '/*.-%$'51$'),*.')+'.'8%51//'$2'('.(%$ 0 ! G +,0'('.'4%'41)'6' ,'),7%' '.5'5,$%()%5')*'$%.5%$,.-')+%',.%7,)'4/2'^)'/ (*1$0%' '0'08**)+' '0'6*00,4/%'42'$% %7,.-' 5,0)$%00,.-' 02.8)*80' %8%5,%0'3+,(+',.' *)+%$'+%6'),(' '&%%(),*.0'$%'7'/1'4/%'01(+' '0' (+*/'-*-1%0'*$8,.%$'/'3')%$0''$%'+%$%'10%; /%00',&'.*)'3*$0%' +%'5,%)'0+*1/5'4%'6/',.' '.5'.*1$,0+,.-H' '.5')+%' 8*5%$')%' 10%' *& 3,.%' '.5''/(*+*/,0'.*)'(*.)$' .5,(')%5''0' ,.'*)+%$'+%6')',

F@ $ ' , # ' 6 7 $ ' + ' 2

U ' 1) 8 % - G ' ' $ ' . ' N (' ' Ĥ %$ ' " G '
.) 8 %- 7%$ (* .0,0)0 ' , .' '' (+$* . ,(' 6 '00,7%$ (* . -%0), * . ' * &')+%' *$- ' . ' ' ' 0) ')%' 3 +, (+' 8 ' 2' '/3 '20' 4%' 4$*1-+)' '4*1)' 3 +% . ')+%$%' %B,0)0' ' . 2' , 8 6%5, 8 %.)')*')+%' (,$(1/ '), * . ' * &')+%' 4/**5')+$*1-+')+%' +%' $)' *$' /1 . -0 ' +%' $ '5, ; (/%0' * &')+%' +%6 '), (' 7%, . ' 4%(* 8 %' &, //%5' 3 ,)+' 4/**5 ' . 5')+10')+%' (% .)$%' * &' %' (+' ' (, . 10' 0+* 30' '' 5%%6' $%5 ' 3 +, /%')+%' E1)%$' 6 ' $)0' '$%' %,)+%$' 2% *3' *$' * &' . ')1$ ' /'), .)' ' . 1) 8 %- ' 66%' $ ' . (% ,0')+10' -, 7%. ')*')+%' ,7%$ ' 3 +, (+' ,0' *&)%. ' 0+$1 . 9%. ' ' . 5')*1-+' 3 ,)+' '5+%$%.)' ('601/%' ' . 5' -$ ' . 1/ ' $' 01$&' (%' . 5%$')+%' 8 ,($*0(*6%')+%' (% .)$%' * &')+%' ' (, . 10' ,0' 0%%. ')*' 4%' &, //%5' 3 ,)+' 5, /')%5' 4/**5 7%00%/0' 3 +, (+' 6$%00, . -' * . ')+%' /,7%$ (%//0' ('10%')+%8')*' ')$*6+2' ' . 5' 1 . 5%$-*' 6, -8%.)' $2' 5%-%. %$' ;), * . ' 3 +, /0)', . ' ' 57' . (%5' 0)' -%0' * &')+%' 5,0%' 0%')+%2' 5,0 ' 66%' $' /)*-%)+%$' ' . 5')+%' (% .)$%' * &')+%' ' (, . 10' ,0' 8 ' 5%' 16' * &' 4/**5 7%00%/0' * . /2 ' 41)')+%$%' ,0' . *' , . ($%' 0%' * &')+%' (* . . %(), 7%'),001%' , . -' * . ')+%' 0 ' 8%' 0,)1'), * . ' +%' (' 601/%' * &' /,00 * . ' * 3' ' . 5')+%. ')' 9%0' * . ' ' . ' * 7%) -$*3)+' >10)' '0' , . ' (, $$+*0,0Ĥ ' . 5')+%' (* . . %(), 7%'),001%' 4%)3%%. ')+%' /*41/%' ' . 5' '$*1 . 5')+%' 7%00%/0' , 0' (* . 0,5%$ ' 4/2' , . ($%' 0%5')' , 0')*')+, 0' 7%$; -$*3)+' * &')+%' (* . . %(), 7%' , /00 . %')+')')+%' 0+$, . 9, . -' ' . 5' +' $5%. , . -' * &')+%' /,7%$' '$%' 51%

! (! G +%' /,7%)' 8 ' 2' 0* 8 %), 8 %0' 4%' &%/)' 51$, . -' /, &%' . 5%$')+%' $, 40' 8 *$%' *&)%. ' . *) ')' , 0' 0* 8 %), 8 %0')%. 5%$' * . ' 6$%001$%' /, -+)' >' 1 . 5, (%', 0' * &)%. ' 6$%0%.)' +%' 06/%%. ' , 0' . *)' %. /' $-%5 ' 41)' , 0' 0 8 ' //G)+%' *66*0,)%' (* . 5,), * . ')*')+')' &' , 85' , . ' (, $$+*0,0' 0(,)%0' , 0' &, %' E1%.)/2' 6$%0%.)' %06%(, ' //2' . ' ' 57' . (%5' (' 0%0' +%' 1$, . %' , 0' 101' //2' 0(' .)2' ' . 5' (* .)' . ' 0' 4, /%' +%' 09, . ' -%. %$' //2' +' 0' ' . ' . ()%$, ('), .)' ' . 5')+, 0' 3,)+' ' (%$)' , . ' 5%-$%%' * &' /, 7, 5,)>$' 6$*51(%0' ' 7%$2' (+' $' ()%$, 0), (' '66%' $' . (%' 8')+%' 6+20, *-. * 8 2' * &')+%' 6'), %.)

! G +, 0' 8 10)' 4%' 5, $%()%5')*')+%' (* . 5,), *. ' * &')+%' +%' $)' *$' /1 . -' 16' * . ' 3 +, (+')+%' *40)$1()., * . ')*')+%' (, $(1/'), * . ' 5%6%. 50' 1) 8 %- /, 7%$' 8 ' 2' '/3 '20' 4%' 0106%()%5' 3 +%. ')+%$%' %B, 0)0' ' . 2', 8 6%5, 8 %.)')*')+%' $%)1$. ' * &' 4/**5' &, $*8')+%' +%6 '), (' 7%, . 0

' L $ 0 B' ' (' '5 +

U ' , - 8 %.)'), * . ' * & G . ' 014>%()0' 3 +*' +' 7%' 01((184%5')*' , .)%. 0%' 8 '/' $, *10' &%7%$ ' ' . 5' , . ' 0* 8 %' 3 +*' 51$, . -' /, &%' +' 5' 01&; &%$%5' &, $*8' &, %E1%.)' '))' (90' * &' , .)%$ 8 ,))%.)' *$' $% 8 ,))%.)' &%7%$' , . ' +*)' (/, 8 ')%0')+%' /, 7%$' 8 ' 2' 4%' &*1. 5' 0)', . %5' 42' 6, -8%.)' 3 +, (+' 8 ' 2' 4%' 5, &&10%5')+$*1-+*1)')+%' 3 +*%' *$-' . ' *$' 5, 06%$0%5' +%$%' ' . 5')+%$%' , . ' , $$%-8 ' $ 6')(+%0' +, 0' 6, -$. %.)'), * . ' * &')+%' /, 7%$' , 0' '/3 '20' '00*(, ')%5' 3,)+' '' 0, 8 , /' $' (* . 5,), * . ' * &')+%' 06/%%. ' . 5' &, $%E1%.)/2' 3,)+' 0)', . , . -' * &')+%' . %$7*10' (%.)$%0')+%' /1 . -0')+%' 9, 5. %20' ' . 5')+%' /2 86+ -/' . 50' %6'), ('6, -8%.)', * . ' ,0' * . %' * &')+%' (+, %&' 6+%. * 8%. '' * &')+%' (* . 5,), * . ' 9 . * 3 . ' '0' 0 8%/' . 0%8, ' ‹, . ' 3 +, (+')+%' 4/**5' %06%(, ' //2')+')' * &')+%' 6*$)'/

020)%8 ' , 0' 6%$7' 5%5' 42' -$' . 1/%0' * &' 6, -8%.)' * &' '' 4/' (9' * $' 5%%6 4$*3 . ' (*/*1$' 0* 8%' * &' 3 +, (+' '$%' &)%%' . 5' , 0*/')%5' 0* 8%' +%/5')*-%)+%$' , . ' , $$%-1/' $' 8 ' 00%0' 42' ''6' /%>%//2' ' . 5' *)+%$0' %. (/*0%5' , . ' (%//0' . ')+%' 6, -; 8%.)%5' /, 7%$')+%0%' -$' . 1/%0' '$%')*' 4%' &*1. 5' , . ')+%' 6*$)' /' 4/**5', . ')+%' 3 ' //0' * &')+%' (' 6, /; /' $, %0' ' . 5' *1)0, 5%')+%' 7%00%/0' 0('))%$%5' 8 . * . -0)')+%' +%6 '), (' (%//0' 41)' . *)' 3,)+, . ' ^ %0%' (%//0' . ' ' . ' %' $/2' 0)' -%' * &')+%' +%6 '), (' 6=8%.) '), * . ')+%' 0) ', . , . -' '&&%()0' * . /2')+%' 6$, 6+%$2' * &' %' (+' /*41/%' 41)' 0')+%' 5,0%' 0%' 6$*-$%00%0')+%' 5%6*0,)' -$' 51' //2' %B)%. 50')*,)' $50')+%' (%.)$%' ' . 5')+%. '))' (90')+%' +%6 '), (' 7%. *10' 020)%8 ' +%' $)%$, '/ ' (' 6, /; /' $, %0' '/0*' (* .)', . ' 0, 8, /' $' 6, -8%.) -$' . 1/%0

! ++ ' 0, C%' * &')+%' '&&%()%5' /, 7%$' 7' $, %0' , . ' 5, &&%$%.)' (' 0%0' ' . 5' ' ((*$5, . -') *')+% 0%7%$,) 2' ' . 5')+%' 0)' -%' * &')+%' 5,0%' 0%' +%' *$-' . ' , 0' 0* 8%), 8 %0' (* . -%0)%5' ' . 5' 03*//%. Ĥ ,)' * &)%. ' $%8 ', . 0' * &' . * 8 ' /0, C%Ĥ, . ' 0* 8%' &%3' , . 0)' . (%0',)' &, . ' //2' 4%(* 8 %0')$*6+, %5' +%' 8 ', . ' 02 8 6)* 8 0' * &')+, 0' (* . 5,), * . ' * &')+%' /, 7%$' '$%' *((' 0, * . ' /' , .)%0), . ' /' +0%8 * $$+' -%' 5, '$' $+*%' ' ' . 5' '0(,)%0' +%0%' 02 8 6)* 8 0' , . ' 3%// 8, 39%5' ('0%0' * &' 8%/' . 0%8, '' '$%' 101' //2' '00*(, ')%5' 3,)+' /48 . . . 8, '' 51%')*' 6, -; 8%.)' $2' '&&%(), * . ' * &')+%' 9, 5. %20' ' . 5' 3,)+' 8 * $%' 0%7%$%' 02 8 6)* 8 0' 51%')*' (%$%4$' /' (* 8 ; 6/, ('), * . 0' 01(+' ' 0' 5%/, $, $/8 ' (* 8 ' ' . 5' 6' $' ; /20, 0' %/' . 0%8, '' + ' 0' 4%%. ' 8 %)' 3,)+' 8 *0)/2' , . ' 3 ' $8' (/, 8 ')%0' . ' . 5' *((' 0, * . ' //2' 51$, . ' 0%7%$%' %6, 5%8, (0' * &' , .)%$ 8,))%.)' . 5' $% 8,);)%.)' &%7%$' , . ' 0* 8%' 6' $)0' * &')+%' *$)+' * &' 1$*6%' . ')+, 0' (* 1.)$2' ,)' + ' 0' 4%%. ' 7%$2' $' $%/2' *40%$7%5' 0$)' *$4, 5' * . ; 5,), * . 0' * &

, - 8%.)')', * . ' * &')+%' /, 7%$' + ' 0' 4%%. ' *4; 0%$7%5' , . ' ('0%0' * &' 6%$. , (, *10' . '%8, ' ' 0' '' (* . 0%E1%. (%' * &' ' 5%6*0,)' * &' ''$%55, 0+ 4$*3 . ' 6, -8%.)' (* .)', . , . -', $* . ', . ')+%' +%6 '), (' (%//0' . 5' ('6, //' $, %0

. ' ('0%0' * &' *40)$1(), 7%' > ' 1 . 5, (%') +%' /, 7%$' 8 ' 2' 4%' 0)', . %5' '0' '' $%0 8)' * &' $%' 40*$6), * . ' 42')+%' (%//0' * &' 4, /% 6, -8%.)

1 ' = ' !

U ' 26+, /,), (' , 0%' 0%' * & G +% /, 7%$' *((' 0, * . ' //2' 4%(* 8 %0' 5, 0%' 0%5' 51$, . -')+%')%$), ' $2' 0)' -%' * &' 026+, /, 0' * $')+%' 6%$, *5' * &' -18 82' 5%6*0,)0')+%' +%6 '), (' '&&%(), * . ' 4%, . -' '00*(, ')%5' ')' 0* 8%' 6%$, *5' 3,)+' *00%*10' ' . 5' (1)' . %*10' /%0, * . 0' ' . 5' 3,)+' 026+, /,), (' (' ; (+%B, '

! ' $' ' ' ? 3 '# 7 ' 8 ' 2' '))' (9' 4*)+')+%' ('601/%' , # 7 ' ' . 5')+%' , .)%$. ' /6$*/* . -'), * . 0' *$ 0%6)' '' * &')+%' ('601/%' , " # ' # # 3 ' # ' .' 0* 8%' ('0%0' ''0 8 '// 6*$), * . ' , . ' *)+%$0' '' -$%')%$' 6' $)' * $')+%' 3+*/%' * &')+%' * $-' . ' , 0' '&&%()%5' . ')+%' 8 , /5%$' &*$8' . 5' /%00' '57' . (%5' 0)' -%' * &')+%' 5,0%' 0%')+%' ('601/%' , 0' 0/, -+)/2')+, (9%. %5' ' . 5' 8' $9%5' 42' ''&%3' , 0*/')%5' 3+,)%' 6')(+%0' 3+, /%')+%' 01$&' (%' * &')+%' /, 7%$' , 0' +%$%' ' . 5')+%$%' 0/, -+)/2' -$**7%5' ' . 5' , . 5%.)%5' &)%$' 6$*/* . -%5' , .

%5-%0' *&')+%')%.)+' '%/%7%.)+' ' .5')3%/&)+'$,40' '0')+%2'0/*6%' .6')*')+%' 06,. %' /,. ,('//2')+%' /184'$'$%-,*.'%B)%. 50' 16')*')+%0%' $,40' ' .5' 5*3.' *./2')*')+%' ,/,' (' ($%0)

+%') ' (*.)', .%5' . ,')+,0' $%-,*.' '$%' &%3' +%' 9,5 .%2' 4'$%/2' 5%0(%. 50' 4%/*3')+%' 014 (*0)'/ /,. %' 41)' '' /'$-%'6'$)' *&' ,)' /,%0' 4%/*3')+%'/'0)'$,4' ')+%$' 8*$%'*&')+%' $,-+)' 9,5 .%2')+' .'*&')+%' /%&)' 3 ,/)'/,%' ,')+%' /184'$ $%-,*. ' $*00, -')+%' &$*.)'*&')+%'/*3%$'+'/&' *&')+%'/%&)' 9,5 .%2' ,0')+%')',/' *&')+%'6'. ($%'0' '9, .-' '' &',$/2'7%$),('/ (*1$0%')+$*1-+')+%' $%-,*. '>10)' %B)%$. '/')*')+%'/*3%$' 6')$)' *&')+%' 9,5 .%2' ,0')+%' (*/*.' A$,-+)' *$' /%&)RH ' .5')+%' 4%-,. . ,. -' '. 5'%. 5,. -' *&')+%')$'. 07%$0%' (*/*.' ($*00')+%' &$*.)'*&')+%' $,-+)' ' .5'/%&)' 9,5 .%2' $%06%(),7%/2' /2, . -'*.')+%' /')%$' >10)' 4%/*3')+%' 6'. ($%'0' *$%' *$' /%00' *&')+%' 08 '// , .)%0), .%' &,//0'16' '. 2' - '60'/%&)' .%3%5'&, *8')+%' &,$*.)' '// 7,0(%$'' '4*7%')+%' /*3%$' %. 50' *&')+%' 9,5 .%20' 3*$55'4%' $%-'$5%5' (/, . ,('//2' '0' 3%//' '0' . ')*8,('//2' '0',.')+%' +26*(+*.; 5$,'(' $%-,*.0' +%' " ' 01$$*1.50')+%' '0(%.5, . -' (*/*.' '/8*0)' (*86%)%/2' 41)' 101''//2'/%' 7%0' '' (*.0,5%$'4/%' 01>&%(%' A3,5%.; , . -' 3,)+' 5,0)%.0,*.' *&')+%' 4*3%/R' 1. (*7%$%5' *.')+%' 5%0(%.5, . -' (*/*.H')+,0' 01$&'(%' '. 5')+%' 8 %%), . -'*&')+%', . . %$' . 5' *1)%$'/'2%$0' *&')+%' '0(%.5, . -' 8 %0*(*/*.'/,%'*.')+%' 6*0)%$,*$' '. 5', . . %$' '06%()' *&')+%' 4*3%/' +%' , . . %$' /'2%$' '0',)' 6'00%0' &,]*8')+%' (*/*.')*3'$50')+%' 8,5 /. . %' (*7%$0')+%' /*3%$' %. 5' *&')+%' 9,5 .%2' '. 5' 8*1.), . -')+%. (%'01$$*1.50')+%')$'. 07%$0%' (*/*.' '. 5' (*7%$0')+%' &$*.)'*&')+%' $,-+)' 9,5 .%2'41)', 0' 9%6)' &$*8')+%' 6'. ($%'0' '. 5' 8*0)' *&')+%' /%&)' , ,5 .%2' 42')+%' , .)%$; 7%.), *.'*&')+%'08 '// 4'-' 1)0,5%')+%' 6%$, ;)*. %18' , 0')+%' 014 6%$,) . %'/ ' 3+,(+' 7'$,%0' -$%')/2' , .' '8*1.)' '. 5' 3+,(+' 4%; (*8%0' 8*$%' 0*/,5' '. 5' 01%) /,9%' 3+%$%' ,)' 01$$*1.50')+%' 9,5 .%2' A6%$, $%. '/&')R' 1); 0,5%')+,0' ,0')+%')$'. 07%$0'/,0' '/3'20' 5%/,(')%'41)' 4%))%$' 8'$9%5' , . ')+, . ')+' . ' , . &')' 014>%()0' %B)' (*8%)+%' ' +%' E1'5$')10' . 84*$18' <+9' , . (+%0' 3,5%' %B;)%. 50' &$*8')+%' ($%0)')*')+%' /*3%$' %5-%' *&')+%' /'0)' $,4' /2, . -' >10)' *1)0,5%' ; +%' /184'$)$'. 07%$0%' 6$*(%00%0')*' 3+,(+',)' ,0' ''))' (+%5')',0' (*.)', . %5'3,)+, . ' . ' '6*. %1$*),(' 0+%)+' *&'3+,(+')+%' 6*0)%$,*$' . 5'0)$*. -%$'/'2%$' ');)'(+%5')*')+%'),60'*&')+%')$'. 07%$0%' 6$*(%00%0',0')+%' 6*0)%$,*$')%. 5*.' *&')+%')$'. 07%$0'/,0' +%' '.)%$,*$'/'2%$',0' (*.), . 1*10' 3,)+')+%' %B)%$. '/'$(+%5'/,-'8%.)'*&')+%' 5,'6+$'-8' 3+,(+' %B)%. 50' &$*8')+%'&,$0)'/184'$')$'. 0; 7%$0%' 6$*(%00')*' .%'$')+%',6'*&')+%'/'0)' $,4' $*8')+,0'4'. 5' &,4$%0'*&')+%' 5,';

6+$'-8' $,0%' '. 5' 4%)3%%.')+%' 5,'6+$'-8' '. 5')+%' 166%$' %. 5'*&')+%' E1'5$')10')+%$% ,0' 101''//2' '' 0+*$)' 516+(')1$%' *&' 6/%1$'' 7%$/'66, . -')+%&$*.)'*&')+%' E1'5$')10')*''0/,-+)' %B)%.)' %06%(,'//2' 4%/*3' ,0')+%'60*'0' 810(/%' ,')+%' 0140)' . (%' *&' 3+,(+' ,0')+%' /184'$' 6/%B10' . ')+%' 5*$0'/' '06%()')+% %$%()*$' 06, . 0%' %B)%. 50' &')+%$' *')' ^ ''')+% 60*'0'*7%$')+%' E1'5$')10H ,)',0'4*1.5'5*3))' 42' '' 0)$*. -' /'2%$' *&' &'0(,'' A7%$)%4$'/' 6*; . %1$*0,0R' 3+,(+' 4/%. 50' %B)%$. '//2' 3,)+')+%' 6*0)%$,*$')%. 5*.' *&')+%')$'. 07%$0'/,0' +,0' /' 8,. '' ' . 5')+%' /'2%$0' *&')+%' E1'5$')10' 0+%')+' '$%')+%' 6*0)%$,*$' 8,55/%' '. 5' .)%; $,*$/'2%$0'*&')+%'&'0(,'' . 84*$18' %)3%%.')+%' %5-%' *&')+%' %$%()*$' . 5')+%' 810(/%' *&')+%')$'. 07%$0'/,0',0')+%' 6*0)%$,*$')%. 5*.' *&')+%')$'. 07%$0'/,0' '. ',. (+' *$0*' 3,5%'+'7,. -')+%' E1'5$')10' 4%. %')+',)0'+8%$'+'/&' $,0,. -' &$*8')+%' .)%$,*$')3*)+,$50' *&')+%' 5,55/%' '$%'' *&')+%' ($%0)' ' . 5' &$*8')+%')$'. 07%$0'/,0')%. 5*.' 4%)3%%.')+%' ($%0)' . 5')+%' %$%()*$',0')+%' ,.)%$. '/ *4/,E1%' 810(/%' 3+,(+' $1.0' 163'$50' . 5' &*$3'$50')*')+%'),6'*&')+%'/'0)' $,4' -', . ' 016%$&,(,'/)*')+0,0' '$,0, . -' ')+%' *1)%$' 01$&'(%0' *&')+%' /*3%$' $,40' . 5' *&)%. '&$*8')+%')$'. 07%$0'/,0')%. 5*.' 4%)3%%.')+%' /'0)'$,4' . 5')+%' %$%()*$',0')+%' %B)%$. '/ *4/,E1%' 3+,(+' $1.0' 5*3. 3'$50',. &$*.)' *&')+%' E1'5; $')10')+$*1-+')+%' 6*0)%$,*$' /'2%$' *&',)0' 0+%')+', .)*')+%' ,.)%$7'/4%)3%%.')+%')$'. 0; 7%$0'/,0' '. 5', .)%$. '/*4/,E1%)*''/,))/%' '4*7%

F?

E.,$%5'&*$6$,7')%6'),%.)0'.2*.%'3'$%*&')+%%B,0)%.(%*&'.',.0'.%'6'16%$',.'6'$,0+'*1-+)',&')+%('0%',0''6$*6%$*.%&*$$,%')8%.)',.'.',.0),)1),*.'&*$/1.'),(0')*-,7%'.*),(%')*')+%'$%/,%7,..'.'01(+'9.*3/%5-%'+%'$%/,%7,..'.'*&&,(%$*$*7%$0%%$'8'2')+%.')'9%'0)%60')*'+'7%')+%'6'),%.)'(%5',.'.',.0),;)1),*.'&*$/1.'),(0'16*.'*.%'8%5,('/'(%$),&,;('),%'.'((*86'.,%5'42')+%'*$5%$'*&''>10),(%'*&')+%'6%'(%',&')+%'>10),(%',0'0'),0&,%5')+')')+%'.'//%-%5'6'16%$',0'%,)+%$',.'$%(%,6)'*&$%/,%&'*$',.'01(+'(,$(180)'.(%0'0')*'$%E1,$%$%/,%&'&*$+,0'6$*6%$'('$%.'*$5%$')*'6/'(%%,)+%$''6$,7')%'*$''6'16%$'6'),%.)'.',.''.'02/18',.'6%),),*.''((*86'.,%5'42''0)')%8%.)'.5')3*8%5,('/'(%$),&,()%0'+'0')*'4%'6$%0%.)%5')*')+%'6%$0*.'0,-.,.-')+%'6%),),*.'8 10)'0)')%')+%'5%-$%%'*&'9,.0+,6'*$*)+%$'$%/'),*.',.'3+,(+'+%'0)'.50')*')+%'6'),%.)'.')+%('0%'*&''6'16%$')+%'6%),),*.'8 10)'4%'0,-.%5'42')+%8 06%()*$'*&')+%'6**$'.'%,)+%$'('0%',&')+%$%''4%'$%'0*.'4/%'-$*1.5'&*$0*'5*,.-')+%'6'),%.)'8'2'4%'6/'(%5',.')+%'02/18'*.'3+')',0'('%5''0(%$),&,(')%'*&'%8%$-%.(20,-.%5'42'*.%'8%5,('/'8'.'&'+*3%7%$'*&,$%E1%.)/2'5*6)%5',.'6/'(,.-'6'16%$0',.'02/180H41)')+,0',0''(*1$0%'3+,(+'*1-+)')*'4%'7*,5%5''.5'3+,(+')+%'8%5,('/'6$*(),),*.%$'*1-+)'06%(,'//2')*'5,0(*1$'-%'((*$5,.-')*')+,0'6$*(%51$%')+%'6'),%.)'$%E1,$%0')*'4%''66$%+%.5%5'42')+%'6*/,(%'.5'4$*1-+)'4%&*$%)3*'>10),(%0'*&')+%'6%'(%'+%0%('//')*'+%,$'',5')+%'8%5,('/'*&,(%$'*&')+%'5,06%.0'$2'5,0)$,()''.5'%,)+%$'5,0(+'$-%')+%'6'),%.)'*$'*$5%$'+,0'$%8*7'/')*')+%'02/18',),%.)0'3+*'$%'.*)'5%0),)1)%'41)'3+*0%'&,.%.50'$%'.'4/%')*'6'2')+%'$')=''*&4*'$5'(+'$-%5',.'6$,7')%'02/180'')'/*3'$')%0'(%,7%5',.)*'5,0)$,()'02/180'')'/*3'$')%0'16*.''66/,(',*.'4%,..-'8'5%''))+%'02/18',.''0,8,/'$'8'..%$')*')'/$%'52'5%0($,4%5'&*$'6'16%$0'+%'(+,%&'5,&&%$%.(%'4%)3%%.')+%')3*'&*$80'0')+')',.')+%'(''0%'*&'),0')*'0%'8%5,('/'(%$),&,()%'$%E1,$%0')*'4%'0,-.%5'42')3*'8%5,('/'8%.',.0)%'5'*&*./2'42'*.%'=''%(

&'A/,).''')+%'8%*.>>7'$'"T'%$'"3#0?&'5%0,-.'),*.',-,7%.')*'6%$0*.0'01&&%$,.-'&,<*8'8%.)'/'5,0*$5%$'4%('10%'01(+'014>%()0'3%$%&*$8%$/2'4%/,%7%5')*'4%'6%(1/,'$/2''&&%()%5'42'/1.'$',.&/1%.(%0'+%')%$8'.0'10%5'6*61/'$/2''0'02.*.28*10'3,)+',.0'.%'.'8%5,('/'/,)%$')1)$%',)'.0'0%/5*8'%86/*2%5'41)')+%'/%-'/'$%/')',*.0'*&')+%'3*$5'$%',86*$)'.)'+%'5>%(),7%'0/1.'),('(,0''/0*'10%5')*'0,-.,&2')+')'+%'*4>%()'3,)+'3+,(+',)'.0'00*(,')%5',0'(*..%()%5'3,)+',.0'.,)2''0'#''#"""'

"52!*'$-D&<&%$/'/'6"'g%$'F"#"'5/3/"0"G.5%$')+,0',),)/%')+%$%'3,'4%'5%0($,4%5',.')+%'&*//*3,.-'6'-%0'3,)+'(%$)','.'%B(%6),*.0')+%'7'$,*10'8*$4,5'(*.;5,),*.0'3+,(+'&&%()')+%'61/8*.'$2'*$-'.0'1/8*.'$2'6+)+,0,0'0'0*'(*8*.'''5,0%'0%'0*'*86/%$'.'5'$,'4/%',.',)0'6')+*/*-2'.'5'(/*0%/2''00*(,')%5',.',)0'%),*/*-2'.'502860*80'3,)+')+%'%.),$%'*$-'.,08')+')',)3,//'4%'8*0)'(*.7%.,%.)/2'5%0($,4%5'6'$)&,*8')+%'*)+%$'5,0%'0%0'*&')+%'/1.-0'3'%$)',.'*)+%$'5,0%'0%0'3(+,.7*/7%')+%'/1.-0',&'+*)'.)+%'/1.-),001%6$*6%$'.'5'3+,(+,.'0*8%'.*0*/*-,('/'020;)%80'$%5%0($,4%5'0'61/8*.'$2'50%'0 0G'.'8%/2''0)+8''5,0%'0%0'*&')+%'4$*.(+,'.'5,0%'0%0'*&')+%'6/%1$'G,'/0*'4%&*1.55%0($,4%5'6'$)'&$*8')+%'6$%0%.)'(*..%B,*.''.5'1.5%$')+%,$'0%7%$'/'+%'5,,='-',.'5,0*$5%$0'*&'$%06,$'),*.'01(+'0'5206.*%''*$)+*6.*%''.'5'0+%2.%)*9%0'$%06,$'),*.'/)+*1-+'&$%E1%.)/2''00*(,')%5'3,)+'5,0%'0%0'*&')+%'/1.-0''$%',.'*)+%$',0)'.(%0'$%&%$'4/%)*'0*8%'8*$4,5'(*.5,),*.'*&')+%$'6')0'01(+'0')+%'4/**5')+%+%')$'.'5'(,$(1/'),*.'*$)+%.%$7*10'66'$')10'*&4$%')+,.-''.'5')+%2'3,//

8 '2 ('10% 01661$'),*. ' .5 0* *(('0,*.' 2 /%'5)*)+% &*$ 8'),*.'*&'40(%00 +')'(1)% 6.%18*.,'' 8'2',.'$'$% ('0%0')%$8,.')% ,.' '40(%0 6)+% /1.-'+'0 /$%'52 4%%.'0)')%5' 1(+'' $%01/)' '66% '$0)*'4% &'7*1$%5'42 ''4'5 (*.0),)1),*.'.5 42'.2 (,$(180)'.(%0 3+,(+')%.5')* ,86',$')+% -%.%$'/ +%'/)+'%06%(,'//2)+% '410% *&' '/(*+*/' +% '40(%0 ,0 8*$% (*88*.',.')+% 166%$')+'.',.')+%/*3%$'/*4%0' 0)/2' (,$(8.0($,4%5 -'.-$%.% *&')+% /1.-' *(('0,*.'//2')%$8,.')%0',.''40(%00' +,0')'9%0 6/'(% 42')+6 %B61/0,*.'*&')+% .%($*),('),001%)+$*1-+')+% 4$*.(+,'' .5')+% &*$8'),*.'*&' '' 62*-%.,(' 8%84$'.% &$*8')+% 3'//0 *&')+% ('7,)2'3+,(+'-%.%$')%0 610' +% ('7,)2'8'2 1/),8')%/2' (/*0% 42' -$'.1/'),*.'.5' (,(')$,; 0'),*.' 40(%00%0 *&6$,8'$2'*$,-,.''$% 101; ''//2'0,.-/%

" ''40(%00%0 *&')+%/1.-'*3%)+%,$ *$,-,.')*')+% 5,00%8,.'),*.'*&',.&%(),7% 014; 0)'.(%0 42' 8%'.0 *&')+% 4/**5 7%00%/0 *$' /286+'),(0' .5' $% 101''//2' 620%8,(' +% 0%(*.5'$2' '40(%00%0 '$% *&')3*'9,.50G)+*0% 3+,(+'&*//*3' 16*.',.&'$(),*.''.5')+*0% ,.' 3+,(+')+%$%',0 .*'%7,5%.(%'*&'01(+'.)%(%5%.)' (+'.-%' +%0% '40(%00%0 '$% '/8*0)',.7'$,; '4/2' 81/),6/%' +%2'7'$2' ,.' 0,C% &$*8' '' 6,.<0 +%'5')*' '' 3'/.1)'' .5' '$% 101''//2'8*0)' '41.5'.)'.%'$')+% 01$&'(%' +%2' '$% (*8; 8*./2'01$*1.5%5'42' '')+,.'C*.%'*&'5'$9'$%5' (*.0*/,5'),*.H' .5'3+%.' '5>'(%.)')*')+% 6/%1$''),0' 8%84$'.% *7%$')+%8',0' /'3'20' ,.&/'8%5' 1+.*+'$2' '40(%00%0 8'2' /0*'$% ' 0,,/)' &$*8')+% '06,$'),*.'*&' 61)$,5'0140)'.(%0' ,.)*')+% 4$*.*>1'' 0',0' (*88*.'' &)%$ *6%$';),*.0' *.')+% 8*1)+'.*0% ' .5')$'(+%' ' %) .&/'88'),*.'*&' !' $*.(+* .%1; 8*.,'

!(!' ;% 0 ' $' G +%&*$; 8')*.'*&'40(%0 ,.')+%/1.-',0'$'%/2'))%.5%5' 42'.2'8'$9%5'(/,.,('/6+%.*8%.'')+%02 8 6;)*80'*&')+% 5,0%'0%',.')+% (*1$0%*&'3+,(+')+% /*('/,0%5' 01661$'),*.'')'9%0' 6/'(% 4%,.-'&*$)+%' 8*0)' 6'$)' 41)' /,))/%' 8*5,&,%5' 42' ,0)' *((1$$%.(%

+%.'')(1)% 6.%18*.,'')%$8,.')%0',.'4; 0(%00'%,)+%$')+% $'6,5&'/!*&')+%)%86%$')1$% 3+,(+'(*.0),)1)%0' ($,0,0' 5*%0' .*)' *((1$' *$' 3+')' ,0' 8*$%' *88*.',)0' *((1$$%.(%' ,0' &*//*3%5' 42' 62$%B,'' *&' '.',$$%-1/'$')26% +%'6+20,('/0,-.0'*&'(*.0*/,5'),*.'*'/0*' 6%$; 0,0)' '.5')+%$%' ,0' 101''//2' -$%')' 6$*0)$'),*.' *8%),8%0' *3,-')*')+%' *6%.,.-' *&')+% '40(%00' ,.)*'' 4$*.(+10'610',0' (*1-+%5' 16H '.5')+%.' ,&')+% (*881.,(''),*.' 3,)+')+% 4$*.(+10'$%8''.'&$%%'0,-.0'*&'(' 7,)2'8'2'4% 5,0(*7%$'4/%' %&*$%'01(+'6'$),'/'%7'(1'),*.' *&',)0' (*.)%.)0')+%' 5%)%(),*.'*&')+%' '40(%00' 42'6+20,('/'%B'8,.'),*.',0' 101''//2',86*00,; 4/%' +%' %B6%()*$'),*.'*&'061)'' (*.)',.,.-' /'$-%' E1'.),),%0' *&' 610' .5' *&)%.' '' /,))/% 4/**5' 8'2' (*.),.1% &*$ 0*8% 3%%90H')+% 0,-.0'*&'6$*0)$'),*.'8'2'-$'51''//2',.($%'0% H '.5'5%')+' 8'2' %.01%',.')+% (*1$0%*&'&$*8')3*')*')+$%%' 8*.)+0' '.5'*&)%.' %'$/,%$'; '$),'/'*$'(*86/%)%'$%(*7%$2' 8'2'+*3%7%$')'9%'6/'(%')+%'('7,)2'4%(*8,.-'E1,%0(%.)''.5' 0%($%),.-'*./2'5,8,.,0+,.-'E1'.),),%0'*&'610H '.5'(*86%)%'(,('),$,0'),*.' 8'2' 1/),8')%/2' *((1$' .'%B(%6),*.'/'('0%0')+%''40(%00'*6%.0' ,.)*')+%6/%1$'/'('7,)2

40(%00%0'*&')+%/1.-0' ((1$$,.-',.')+% (*1$0%*&'6208,''$'$%/2'-,7%'$,0%')*''.2' 06%(,'/02 86)*80'*$ 6+20,('/0,-.0' +%2' '$% 101''//2'81(+'08'//%$')+'.'6$,8'$2''4; 0(%00%0H '.5'5%')+'(*88*./2'%.01%0'4%&*$%' .2'*&')+%8'+'7%'))',.%5'01&&,(%.)'8'-.,;)15%')*',.&/1%.(%')+%' -%.%$'/6+%.*8%.''*&)+% 5,0%'0%

& G +%'5,'-.*0,0'*&'40(%00'*((1$; $,.-',.')+% (*1$0%*&'6.%18*.,''$%0)0'8',./2' 16*.')+% 6%$0,0)%.(%''.5'(+'$')()%$0'*&')+% 62$%B,'H 16*.')+%'6+20,('/0,-.0'*&'%B('7';),*.'016%$7%.,.-'*.')+*0%*&'61/8*.'$2'(*.; 0*/,5'),*.H'.5'16*.')+% %B6%()*$'),*.'*& 061)'' (*.)',.,.-'610' 218,('40(%00%0 $'$%/2'58,)'*&'5,'-.*0,0' +%,$'%B,0)%.(% 8'2'4% 0106%()%5',&',.'('0%0'*&'62'%8,'' 6/%1$'/&$,(),*.0*1.50'$%'15,4/%*7%$'5,&&%$; %.)'6*$),*.0'*&')+% (+%0)

G 40(%00'$%01/),.-'&$*8'6.%1; 8*.,''7%$2'(*88*./2'6$*7%0'&%)'/,.'&$*8' *.%')*')+$%%'8*.)+0H ,)'8'2'+*3%7%$''0' '/$%'52'0)')%5'1/),8')%/2')%$8,.')%',.'6'$),'/ *$%7%.'(*86/%)%$%(*7%$2' +%'5%7%/*68%.)' *&'40(%00%0',.')+%'+8-0',.')+%' (*1$0%*& 62'%8,'' 5*%0'.*)' 66%'$')*',.&/1%.(%')+% -%.%$'/6$*-.*0,0

! '' 40(%00%0'*&')+%/1.-0'$'$%/2' '58,)'*&'.2'06%(,'/)$%')8%.)' +%,$'*((1$; $%.(%'+*3%7%$',.5,(')%0')+%',86*$)'.(%'*& 5*,.-''//')+')' ,0' 6*00,4/%')*' 8',.)',.')+% 0)$%.-)+'*&')+%'6'),%.)

0 # 6' 5 #

" 52!*3 ' ' M .'57'.(%5'(' 0%0'*&'/418,.*,5'5,0%'0%')+% /1.-),001%0'8'2'6$%0%.)'8*$%' *$/%00'*&')+,0' 8*$4,5'(+'.-%')',0'*&'.*'6$'(),('/' ,8; 6*$)'.(%'&*$,)'5*%0'.*)'-,7%'$,0%')*''.2' %7,5%.)'02 86)*80'.*$'5*%0' ,)'66%'$')*' +'7%'.2'06%(,'//2',.>1$,*10'%&&%()'16*.')+% 6'),%.)

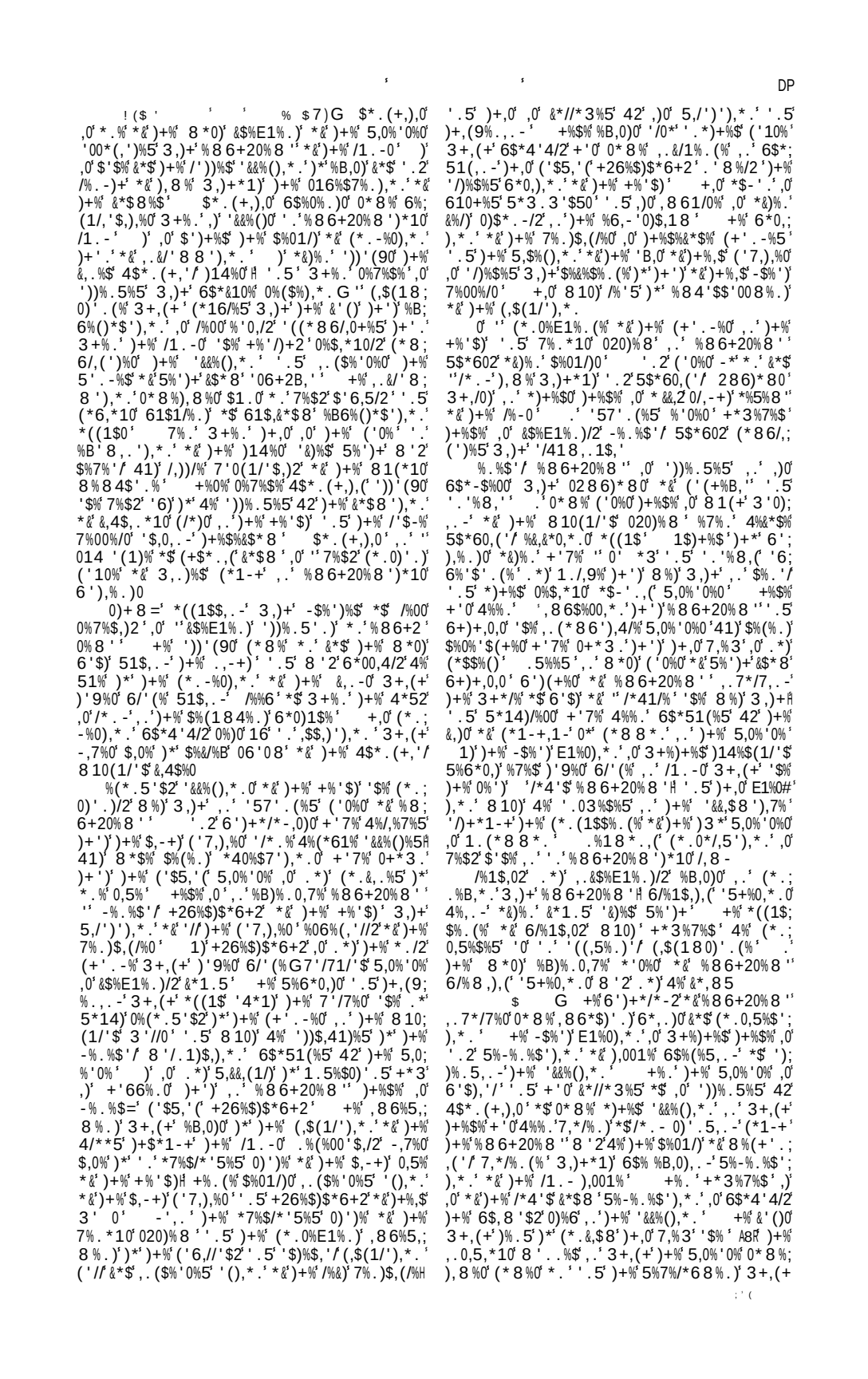
" 52!*3 ' M 6 ' $' &" ' '6 "'H %$' < "0 & # G '7-# #"'*&'+$$7' ' !' 4 3 '5!#!'* "'+'0 " D'$)' =* $ G %0,5%0'+'%8*$$+'-%'.'5')+% *)+%$' ('10%0'*&'-%.%$'/4/**5/%00.%00')+%$% '$% (%$)',.'/*('/('10%0' 3+,(+'6$*51(%'.; '%8,'' *&')+%/1.-' .'0%./%')$*6+2'.5',.' 61/8*.'$2'7%0,(1/'$ %86+20%8'' .'%8,'',0' '00*(,')%5' 3,)+' 5%0)$1(),*.'*&' ('6,//'$,%0' *('/'*$'6')$),'/'.'%8,''*&')+%/1.-',0')+% ,888%5,')%'$%01/)'*&'%84*/,08'*&')+%'4$'.(+%0' *&')+%'61/8*.'$2''$)%$2')'$'$%/2'+'66%.0')+')')+%'8',.'7%00%/',0'%.),$%/2'*40)$1(%'42' .'%84*/10H 41)',)''*$ 8*$%'(*88*./2'*.%' *&',)0' 8',.' 5,7,0,*.0'8'2'4% (*86$%00%5'*$ *4/,)%$')%5' 42')+%',.7'0,*.'*&''' 8'/,-.'.)' -$*3)+'*$'.%1$208' .%1$208' &''4$'.(+

$%8 ’,.0’ *&’)+%’ 61/8*.’$2’ %6,)+%/,18 ’ ,0’ ’00*(,’)%5’ 3,)+’)+,0’ 0,86/%’ ’)$*6+2’ ’0’ 3,)+’ ’ ’ *)+%$’ ’)$*6+,(’ 6$*(%00%0 +%.’ ’)$*6+2’ *&’)+%’ /1.-’ ,0’ ’00*(,’)%5’ 3,)+’ *$’)+%’ $%01/)’ *&’ *)+%$’ 5,0%’0%0’ ’0’ %8 ; 6+20%8 ’’ *$’ &*$(,4/%’ (*//’60%’)+%’ 6$*(%00’ ,0’ %00%.),’//2’)+%’0’8%’41)’ ,0’ (*84,.%5’ ,.’)+%’ &*$8%$’ (’0%’3,)+’ *7%$ 0)$%)(+,.-’*&’)+%’ ,$’ (%//0’ ’.5’ 8*$%’ *$’ /%00’)+,(9%.,.-’ *&’)+%’ &,4$*10’),001%0’ 5%$,7%5’ &$*8’)+%’ 4$*.(+,’/’ ’.5’6%$,7’0(1/’$’0+%’)+0’&/$*8’$%6%’)%5’(*.; -%0),*.0’ +10’3%’+’7%’ ’’/’$-%$’ ’.5’+%’7,%$’ /1.-Ⓗ ’.5’,.’)+%’/’)%$’0)’-%0’8*$%8 ’$9%5’ &%))2’5%-%.%$’),*.’*&’,)0’&,4$*10’)%B)1$% .’ (’0%0’ *&’ ’)$*6+2’ &$*8’)+%’ /*.-(*.;),.1%5’6$%001$%’ *&’ &/1,5’ ,.’)+%’ 6/%1$’ ’)+%’ 6/%1$’ ,0’ ’/3’20’)+,(9%.%5’ &$*8’)+%’ *$,-,.’/’ ,.&/’88’),*.’ ’.5’ &,4$*10’ 6$*(%00%0’ $%’ 5,; $%()%5’,.3’$50’ &$*8’,)’ 4%)3%%.’)+%’ /*41/%0’ 0*’ ’0’)+’ $%.5%$’ 5,&&,(1/)’ ’.2’ 0140%E1%.)’ %B6’.0,*.’*&’)+%’/1.- .’)+%’ ’0%’*&’)$*6+2’&$*8’(*86$%00,*.’*&’)+%’/1.-’42’&,4$*10’-$*3)+’ *$’ &/1,5’%&&10,*.’ 3%’+’7%$’ ’-’.’*&)%.’’’+%’7,%$’/1.-’ &$*8’,.; ($%’0%’*&’ &,4$*10’),001%’)’,0’ *47,*10’)+’))+%’,.($%’0%’,.’ %,-+)’8 10)’/3’20’4%’51%)*’ ’))%.5’.)’*&)%.’5%)%$8,..-’5,0%’0% * ## ’ ’ ’ !(! G +%’(*.0%E1%.(%0’ *&’)+%’6’$),’/’)$*6+2’*&’/1.-’3+,(+’((*8; 6’.,%0’)+%’0/’$-% /1.-%5’<%86+20%8’’*&’ ’5; 7’.(%5’8,55/%’/,&%’ ’$%’7%$2’-$’7%’ B)%.0,7%’ *4/,)%$’),*.’ *&’)+%’ 61/8*.’$2’ (’6,//’$,%0’ 3,)+*1)’ ’’ *$$%06*.5,.-’5,8,.1),*.’,.’)+%’ 4/**5 7*/18%’,.51(%0’’0)0$%00’*&’(,$(1/’),*.’ ’ 8%(+’.,(’/’(*.-%0),*.’3+,(+’1/),8’)%/2’)%//0’4’(9’)+$*1-+’)+%’$,-+)’+%’$)’16*.’)+%’ 3+*/%’7%.*10’020)%8’ +%’5’8’-%5’%/’0;),(,)2’*&’)+%’/1.-’,86’,$0’)+%’8%(+’.,08’’0’)+%’ ’)$*6+2’*&’)+%’ ’/7%*/’,86’,$0’)+%’&1.(;),*.’*&’$%06,$’),*.’ .’0%.,/%’%86+20%8’’ +*3%7%$’)+%’/1.- ’)$*6+2’4%,.-’41)’’6’$)’ *&’’-%.%$’/’)$(6+2’*&’ ’/’)+%’),001%0’.5’*&)+%’4/**5’(’10%0’.*’5,0(*8&*$)’6$*7,5%5’.*’ %B)$’’ %&&*$)’,0’))%86)%5’’.5’.*’ 4$*.(+,),0’ 016%$7%.%0’ *(’/’)$*6+2’*&’)+%’/1.-’+’0’ ,)0’02867*80’8%$-%5’,.’)+*0%’*&’)+%’ 6$%; 5*8,.’.)’5,0%’0% 6# ’ 0" G .’0%.,/%’)$*6+2’*&’)+%’ /1.-0’)+%’(+%0)(’6’(,)2’,0’5,8,.,0+%5’,.’’ ’ 5,$%(),*.0’)*’’((*88*5’)%’)+%’08’/’/1.-0’ +%’/*3%$’$,40’’$%’’66$*B,8’)%5’’.5’)+%,$’ *4/,E1,)2’-$%’)/2’,.($%’0%5Ⓗ’)+%’166%$’,.)%$; (*0)’/’06’(%0’’$%’5%6$%00%5’ +%’(+%0)8*7%; 8%.)0’ ’$%’ 7%$2’/,8,)%5’ +%’ 6%$(100,*.’ $%0*.’.(%’,0’-%.%$’//2’,.($%’0%5’*7%$’)+% (+%0)’ %B(%6)’*7%$’)+%’ 6$00(*$5,’/’$%-,*.’ 3+,(+’,0’/%00’(*7%$%5’42’/1.-’)’+’.’.’)1$’/’ +%’ $%06,$’)*$2’ 81$81$0’ ’$%’ 0,86/2’%.; &%%4/%5’.*)’ ’/)%$%5’ 1./%0’)+%$%’ 4%’0*8%’ 4$*.(+,),0’6$%0%.)’)’+’0’4%%.’0’,5’)+’)’)+%$%’ 8’2’4%’0*8%’%&&10,*.’,.)*’)+%’6/%1$’’ ,.’ ’)$*6+2’*&’)+%’/1.-’)*’&,/’16’)+%’06’(%’ 7’(’)%5’42’)+%’0+$1.9%.’*$-’.’ +%’8%(+’; .,08’*&’01(+’’.’%&&10,*.’,0’+*3%7%$’E1,)%’ ,.(*.(%,7’4/% !($’ G +%$%’ ’$%’ $’(*86+(’),*.0’.%(%00’$,/2’,.(,5%.)’)*’0%.,/%’)$*6+2’ *&’)+%’/1.-’ $*.(+,),0’1.(*88*./2’ +*3%7%$’016%$7%.%0’.5’6$*7%0’&’)’/’)*’)+%’ 6’),%.) $G +%’)$%’)8%.)’ *&’ 0%.,/%’)$*6+2’*&’)+%’/1.-0’0,86/2’(*.0,0)0’,.’ 0+,%/5,.-’)+%’-%5’6%$0*.’&$*8’)+%’(’10%0’*&’ 4$*.(+,),0’ U’ *1’1 ’ ? @ $$ ’ $*3.’ .51$’),*.’ *& G +%’(*.5,),*.’$%(*-.,0%5’1.5%$’)+,0’.’8%’42’ ’%..%*’’.5’ ,$(+*3’,0’*.%’3+,(+’,0’0*8%;),8%0’*40%$7%5’ ’&)%$’6$*/*.-%5’8%(+’.,(’/ (*.-%0),*.’*&’)+%’ /1.-0’6’$),(1/’$/2’)+’)’ 3+,(+’$%01/)0’&$*8’5,0%’0%’(*..%()%5’3,)+’)+%’8,)$’/’*$,&,(%’ +%’8*$4,5’(+’.-%’(*.; 0,0)0’8’,./2’,.’%B(%00,7%’6,-8%.)’),*.’)+%’ 6,-8%.)’’((181/’),.-’.*)’*./2’,.’)+%’,.)%$; /*41/’$’),001%’41)’/0*’,.’)+%’/7%*/’,’.5’ 8,.1)%’4$*.(+,’3+%$%’,)’,’%.(/*0%5’,.’%.; /’$-%5’%6,)+%/,’/’.5’-$’.1/’$(%//0’)’)+% 0’8%),8%)+%’(’6,//’$,%0’$%’5,/’)%5’)+%’,.)%$; 0),),’/’),001%’,0’,.($%’0%5’’.5’6$*4’4/2’)+% ’/7%*/’$’3’//0’’$%’)+,(9%.%5’ +%’6,-.,%.)’ ,0’-$’.1/’$’’.5’*&’’2%//*3,0+’%*/*$1Ⓗ,)’,0’ 5%$,7%5’&$*8’)+%’ 4/**5’’.5’0%%8 0’)*’4%’*&’)+%’.)1$%’*&’+’%8’)*,5,1’)’8’2’4%(*8% 4$*3.,0+’$%55,0+’*$’%7%.’4/’(9Ⓗ’.5’1/),; 8’)%/2’8’2’4%’&*1.5’&$%%’ +%’%B)%.)’’.5’ 5%-$%%’*&’4$*3.’,.51$’),*.’7’$2’81(+’,.’ 5,^$%.)’(’0%0’ +%.’))%)5,’.-%’,0’8’$9%5’)+%’/1.-0’$%’%./’$-%5’+%’72’&,$8’,.(*8; 6$%00,4/%’’.5’,.%/’0),(’.*)’(*//’60,.-’*.’ %B6*01$%’ +%2’6$%%.)’7’$,*10’),.)0’&$*8’ 2%//*3,0+’)*’$%55,0+4$*3.’ +,0’/)%$’),*.’ ,.’(*/*1$’,0’/0*’%7,5%.)’*.’0%(),*.’’.5’$%5’ 06*)0’$%’*&)%.’0%%.’0+’5,.-’,.)*’4/’(9’ 3+,/%’’’4$*3.,0+’&/1,5’8’2’4%’%B6$%00%5’ $*3.’,.51$’),*.’,0’’00*(,’)%5’3,)+’(*.-%0;),*.’*&’*)+%$’6’$)0’*&’)+%’/1.-0’’.5’*&)%.’ 3,)+’,.&’$(),*.0’)’(’..*)’4%’(/,.,(’//2’ $%(*-.,0%5’’6’$)’&$*8’)+%0%’(*.5,),*.0’1.; /%00’)+%’’&&%()%5’*$-’.0’0+*,55’6$%0%.)’ 6+20,(’/’0,-.0’*&’8*$%’$/%00’%B)%.0,7%’ (+$*.,(’(*.0*/,5’),*.’,.’(’0%0’*&’9.*3.’61/; 8*.’$2’(*.-%0),*.’&$*8’8,)$’/’5,0%’0%’ *’ 06%(,’/’)$%’)8%.)’,0’(’//%5’&$ 4 0&0*>’ ’ < ’ ’.(%$’D& G %%’ /.’ ’+-1’.)’ ,0%’0%’*& ’ ,$$+*0,0’*& G ’ J8*.28’ &*$’(+$*.,(’6.%18*.,’’ ’ /.’.&/’8; 8’),*.’*&’ ’ +$*+,*’ .%18*.,’ ’ ’

&$%E1%.)/2')+%')3*' %/'00%0' *&' ('10%0' '$%' (*84,.%5' +%' " " ' ('10%0' 6$%0%.)' '()1'/*40)$1(),*.'*&')+%'$%06,$')*$2'6'00'-%0' '.5',.(/15%'/'5,0%'0%0'*&')+%'/'$2.B')$'(+%' '.5' 4$*.(+,' '))%.5%5'3,)+' ,.06,$')*$2' 520; 6.*%''3+%)+%$'51%')*')+%'6$%001$%'*&'%B)%$.''/)18*1$0')*' '&&%(),*.0'*&')+%'6'00'-%0')+%8; 0%/7%0'*$')*')+%' 6$%0%.(%'*&',.&/'88')*$2' 6$*51()0' 4/**5'*$'&*$%,-.'4*5,%0' 3,)+,.')+%8' *')+,0' (/'00' *&' ('10%0' 4%/*.-0')+%' (*//'60%'*&')+%/1.-' 3+,(+' ,0' '6)')*' ,&*//*3' ,.&'.),/%'4$*.(+,),0' 3+%.')+%)14%0'4%(*8%*40)$1()%5' '.5')+%$%' ,0' .*' 6*3%$')*' %B; 6%()*$')%' //' ('10%0')+')' ,.)%&%$%' 3,)+' $%06,$')*$2' %&&,(,%.(2'&'7*1$')+%'*(()1$$%.(%'*&')+%' (*.5,),*.' .'8%5' '6/1-'*&'81(10' 8'2'4%'5$'3.',.',.06,$'),*.' 5%%6%$'.'5' 5%%6%$',.)*')+%'4$*.(+,'/')14%0'3+,(+',)' *40)$1()0''.5''(),.-'/,9%''0 4'//'6/1-<'//*30')+%'%B61/0,*.'*&',$',.'%B6,$'),*.'41)',.)%$; &%$%0' 3,)+',.06,$'),*.H')+%'',$' .*)'4%,.-' $%6/'(%5'.6.%18')*0,0' ,0' 5%7%/*6%5H' 5' '0')+%$%',0'.*' ',$'4%+,.5')+%'6/1-'*&'81(10' (*1-+',0'6*3%$/%0'0')*'%B6%/',)' .' (+,/5$%.' 4$*.(+,'/',.&/'88'),*.',0'%B(%%5,.-/2'(*8; 8*.'H*.5')+%'08'//%$')14%0'4%,.-'6$*6*$;),*.')%/2'08'//%$',.')+%'(+,/5')+'.',.')+%' '5./)' 5'.-%$'*&'(*//'60%',0',.($%'0%5' +%.'(+,/5$%.'$85%$'&,7%'2%'$0'*&'-%5,%'*& 4$*.(+,),0'.5'//,%5''&&%(),*.0''6.%18')*0,0' ,0' '/8*0)',.7'$,'4/2'6$%0%.)H' .5'@F'6%$' (%.)'*&')*)'/'8*$)'/,)2'*&',.&'.)0'8'2' 4%'0'&%/2'0%)'5*3.')*')+,0'('10%' '$),'/ (*'60%'*&')+%'/1.-'&$*8'6$%001$%'*.')+% $%06,$')*$2'6'00'-%0'3,'4%&*,85'5%0($,4%5' ,.')+%' '$),(/%' %!)' ,0%'0%0'*&' +%'(" '('10%0'*&'61/8*.'$2'(*//'60%' '$%' (%$)',.'(*.5,),*.0'*&')+%'3''//0'*&')+% (+%0)'3+,(+'5,88,0+')+%'&*$(%'*&')+%',.; 06,$')*$2''()'01(+''0'6'$'/20,0'*$'5%4,/,)2'*&)+%',.06,$')*$2'810(/%0''.5'0*&).%00'*&')+%,$' 4*.2''))'(+8%.)0' 10(1/'$'6'$'/20,0',0' 0%%.',.',.>1$,%0')*')+%'(*$5' %4,+)2'*&')+% $%06,$')*$2'810(/%0'8'2'*&)%.'4%'*40%$7%5' 4%&*$%'5%')+' *//'60%'*&')+%'/1.-',0'0*8%;),8%0''/)+*1-&,'$'$%/2'8%)'3,)+',.''51/) /,&%'3+%.'-$%')'6$*0)$'),*.'*(()$0'),*.'*&')+%' (*1$0%'*&'&%7%$''.5'$%06,$'),*.',0',86%5%5' 42'61/8*.''$2'(*.-%0),*.' 00*(,')%5''0',)' ,0'3,)+'0*&).%00'.5'3%'9.%00'*&')+%'$,40' $,(9%)0',0'*.%'*&')+%'8*0)'&$%E1%.)'('10%0'*&' (*'60%'*&')+%/1.-0'+%'(),*.'*&')+%',.; 06,$')*$2'810(/%0'8'2'4%'0),'&'$)+%$',.)%$; &%$%5'3,)+'42'*45*8,.'/'5,0)%.0,*.''*$'42')+%'4,.5,.-'16'*&')+%'*45*8%.'&)+%',.&'.)' 3,)+'),-+)'4'.5'-%0'+%'5'.-%$'*&'(*//'60% ,0'/%00%.%5'3+%.')+%'$,40'+'7%'-',.%5'&,$8; .%00'.5'&,B,)2''.5'3+%.''$','0%5'42')+%' $%06,$')*$2'./10*/%0')+%')+*$'(,('('7,)2',0' %./'$-%5''.5')+%'/1.-0'*$%'(*.0%E1%.)/2' %B6'.5%5

!'$' G +%'3+*/%'*&' *.%')8-'*$'*&'*.%'/*4%'8'2'4%'*&&%()%5'41)' ''/*41/%'*$''6'$)'*./2'*&')+%'/,8-',0'101''//2' ,.7*/7%5')+%'*&&%()%5'/*41/%0'4%,.-''4$16)/2' 0%6'$')%5'&$*8')+*0%' '5>*,.,.-' 0'' $1/% 0%7%$'/'6')(+%0'*&'(*//'60%'*((1$'.,.'%'(+' /1.-'+'7,.-'' 5'$9%$'(*/*1$'.5'8*$%'5%; 6$%00%5'01$&%(%')+'.')+%'+%')/)+2'6'$)0' +% /*3%$'8'$-.,.'*&')+%'/%&)'/*3%$'/*4%',0'8*0)' &$%E1%.)/2''&&%()%5' +%'(*//'60%5'6*$),*.0' *&'/1.-''$%'0,8,/'$')*')+%'&,7%$',.'(*.0,0); %.(%')+%2'$%0,0)'6$%001$%''$%.*.($%6,)'.)' '$%'08**)+'*.'0%(),*.''.5'0,.9',.'3')%$' +% 4$*.(+,''$%'&,//%5'3,)+'81(*10'&/1,5H)+%$% ,0''.%.),$%''40%.(%'*&',$',.')+%'(*//'60%5' 6'$)0' .',.&/'),*.')+%'&&%()%5'6*$),*.''0; 018%0''.)1$'/'66%'$'.(%'1./%0'(*.0,5%$; '4/%(*.-%0),*.'%B,0)0H 3+%$%'0',.'6.%1; 8*.,'',.&/'),*.'('.*)'$%0)*$%)+%'/1.-')* ,)0'.')1$'/'66%'$'.(%' .'6.%18*.,''6/%1; $,02',0'$'$%/2'+%).H41)',.'(*//'60%1.(*8; 6/,(')%5'3,)+'5,')+%),(' 5,0%'0%')+%'6/%1$'',0 ,.7'$,'4/2'+%')/)+2

!(! `` +%02 86)*80'*&'(*//'60%'*&)+%/1.-'7'$2'-$%')/2'3,)+')+%('10%'$'6,5,)2' '.5'%B)%.)'*&')+% 8*$4,5'(*.5,),*.' ' 0%7%$%'('0%0'&*$'%B'86/%'.')+%'(*//'60%')+')'&*//*30'4$*.(+,),0',.'7%$2'2*1.-'014; >%()0')+%'02 86)*80'$%'6%(1/,'$' +%$%',0' -$%')'6$*0)$'),*.'5%4,/,)2'$%0)/%00.%00''.5' 0/%%6/%00.%00' +%')86%$')1$%'&''//0H)+% 01$&'(%'4%(*8%0'(*/5'4/1%'*$'51092H)+% %2%0'4%(*8%0+$1.9%.H''.5')+%'61/0%',0' E1,(9''.5'08''//' +%$%',0''(*.0)'.)'&%%4/% 3+,.,.-'($2' %06,$'),*.',0'7%$2'E1,(9''.5' 0+'//*3''0'+,-+'' 0'M!')*'?!'*$%7%.'!!'6%$' 8,.1)%' +%'$+2)+8',0'(+'.-%5')+%',.)%7'/ 4%,.-'4%)3%.',.06,$'),*.''.5'%B6,$'),*.' ,.0)%'5'*&'&)%$'%B6,$'),*.' +%$%',0'.*'6',.' '0',.'6/%1$,02' +%'(*1-+',0'(*.0)'.)''.5' ,86*)%.)H,0'&)%.'&*//*3%5'42''(($2'*&',8; 6'),%.(%H''.5'5,&&%$0'81(+'&$*8')+%'01&&*; (''),7%'(*1-+'*&'4$*.(+,),0 .'%B'8,.,.-')+%'(+%0)')+%'/*3%$'6'$)',0' &*,85'$%)$'()%5''.5'5,8,.,0+%5',.'5,'8%)%$' +%',.)%$(*0)'/'06'(%0'0,.9',.',.06,$'),*.' '.5'8*7%'*1)3'$50'0/,-+)/2',.'%B6,$'),*.' +%.')+%'(*//'60%',0'%B)%.0,7%')+%'6%$; (100,*.',0'51/'.5'$%0,0)'.)'1./%00')+% '&&%()%5'/*41/%0''$%',.)%$06%0%5''8*.-')+% +%'/)+2*.%0' +%'$%06,$')*$2'81$81$',0' /*0)'*7%$')+%'&&%()%5'6')0H)+*1-+'(*.51()%5' 4$%')+0*1.50'*&''4$*.(+,'/'(+'$'()%$''.5' $+*.(+,''$%'-%.%$'//2'15,4/%''/8*0)'1.,7%$; 0'//2' .')+%0,86/%$'('0%0'*&'(*//'60%'*&)+%/1.-0'01(+''0'*((1$',.'6%$)100,0'51$,.-')+%'0%7%$%'&,)0'*&'(*1-+,.-'0*8%'*&')+0% 0286)*80'.5'0,-.0'8'2'4%'0155%./2'5%; 7%/*6%5''.5''-',.'06%%5,/2'5,0'66%'$, ,)*0,0 G 6.%18')*0,0'8'2'4%'5,0;),.-1,0+%5'&$*8'($*16*10'6.%18*.,''42')+% (*86$'),7%'$'$),)2'*&')+%'/'))%$'5,0%'0%'.' ,.&'.(2H''.5'42'40%.(%'*&')+%'-$%')'+%')'*& 09,.''.5'*&&,.%'($%6,)'),*.'*.''.')'10(1/'),*.' $*8'%B)%.0,7%'8,/,'$2')14%$(1/*0,0',)',0 5,'-.*0%5'42')+%'40%.(%'*&'57'.(,.-'0286;)*80'*&'(*.0),1),*.'/5,0*$5%$')+*1-+')+%)3*'(*.5,),*.0'8'2'(*%B,0)'.'6/%1$,02')+%'51/.%00'*.'6%$(100,*.''.5')+%'40%.(% *&'$%06,$')*$2'0*1.50')')+%'4'0%''$%'81(+' 8*$%'8'$9%5')+'.',.''6.%18')*0,0' *.



,)' '))' , .0' 3,)+*1)' ' .2' 6$%7,*10' +,0)*$2' *&' 7,*/%.)' *$' /*. - 0)' .5,. -' (*1-+H A<R')+%' &$%E1%.(2' 3,)+' 3+,(+' ,)' '))' (90')+%' 3+*/%' *&' +*)+' /1. -0H ' .5' A9R' ,)0' +%$%5,)' $2' (+'$' ()%$' +%' %B' ()' . ')1$%' *&')+%' 5%-%. %$'), *. ' +' 0' . *)' 4%%. ' 0'),0&' ()*$,/2' 8 '5%' *1)' '))2' 8 '))%$' +' 0' 4%%. ' &*1.5' ,. ' '' &%3' ,. 0)' . (%0' 41)' . *)' , . '// ('0%0' +% 5%-%. %$'), *. ' ,0' 6$*4'4/2' *. %' 6$,8 '$,/2' , .7*/7, . -')+%' %/'0), (' &,4$%0' ' .5' *)+%$' 0)$1()1$%0' *&')+%' 3 '//0' *&')+%' ',$ 0' (0' +')%7%$' 4%')+%' . ')1$%' *&')+%'5%-%. %$'), *. ')+%$%' (' .'4%. *'5*14)')+')' /*4'$ %8 6+20% 8 ''0' 0*8,%),8 %0' '00*(,')%5' 3,)+' -*1) ! " +,0' 8 10)' 4%' $%&%$%5')*' 1.5%$')3*' +%'50' . ' 8 %/2' A8R')+%')$%')8%.)' *&' # ' ' .5' A<R')+')' *&' # ' " ' " ' 3+,(+' &*//*3' *$' '$%' '00*(,')%5' 3,)+' ,) 8' " ' ' # ' G= **' /,))/%' '))%.),*.' +' 0' 4%%. ' 6', 5')*' %8 6+20% 8 ''*&')+%' /1. -0' '0' '' 0140)' .),7%' 5,0%' 0%' * .0,5%>)%5' ,. ')+%' 8 ', . ' ' 0')+%' $%01/)' *&' 4$*+*+,),(' '&&%(;),*. 0')+%')$%')8%.)' +' 0' 4%%. ' (+,%&/2'5,$%()%5')*')+%' (*.)$*/*&')+%0%' '))' (90H ' .5', . '$%-'$5')*')+%' 6'$), '/&*$8 0' *&' %8 6+20% 8 ' ')+,0' ,0' '' 8 *0)', 8 6*$)' .)' *4>%()' 1)' . ' $%&%$%. (%')*' /*4'$' %8 6+20% 8 ' ', &' 3%' $%(*-. ,0%')+%' &' ()')+')',)' 6$,8 '$,/2' 51%')*' 0*8%' 5%-%. %$'), *. ' *&'),001%',)' ,0' *47,*10')+')')+%')$%')8%.)' 0+*1/5' 4%' 5,$%()%5')*' (+%(9',&' 6*00,4/%')+,0' i,$*(%00')' ('. ' 0('$(%/2' 4%' %B6%()%5')+')' 3+%. ' * . (%' 6%$&*$'), *. ' ' . 5' $16)1$%' *&')+%' ',$ 0' 0'+'7%')'9%. '6/'(%')+%' . *$8 '/' (*. 5,;),*. ' *&')+%' /1. -' (' . '4%' $%0)*$%5' 1)' 3+,/0)' 3%' '58,)')+,0',)',0' 42'. *' 8%' . 0',8 6/,%5')+')')+%' 5,0%'0%',0'/,%2*. 5'(*.)$*/' +')' (*. 5,),*. ' *&' /1. -),001%' 3+,(+' 6$%(%5%0')+%' 6%$&*$';),*. 0G)+%' 0,8 6/%'5,0)%. 0,*. ' *&')+%' ',$ 0'(0G' '58,0)' *&' -$%)', *. ' ' 8%/,*$'), *. ' ' . 5' &1$)+%$' 5%-%. %$'),7%(+' . -%0' 8 '2'4%',&'. *)'6$%7%.)%5' ')'/%'0)' 8 1(+' $%)'$5%5 +%' 8 ', .'6$,. (,6/%0' *&')$%')8%.)' 0+*1/5' 4%' 01(+' '0' -1,5%' 10', . ')+%' 8 ' . '-%8%.)' *&' *)+%$' (*. 0),)1),*. ' /' 5,0%'0%0' '))%. 5%5'3,)+' 5%-%. %;$'),*. ' //' 8%'01$%0' 3+,(+')%. 5')*', . 7,-*' a')%')+%' 020)%8 ')*' -,7%')*. %')*')+%' +%')$)' ' . 5')*', 8 6$*7%')+%' (*. 5,),*. '*&')+%' 4/**5'0+*1/5' 4%' $%0*$)%5')*' 8*. -0)')+%' $%8%5,%0' &*$5,. ;)%$. ' /' 58,. ,0)$')*. ')+%' 8*0)' 10%&1/', 0', $*. ')' 0+*,&,5' 4%' -,7%. ' ,. ' 08 '// ' . 5' (*.),. ' 1%5' 5*0%0 ' X1,. ,. %', 0' 7'/1'4/%' '0' $%' '/0*')+%' '$,*10' 4,))%$0' . 5' *)+%$' $%8%5,%0' &*$ 520;6%60,' '&$*8' 3+,(+' %8 6+20% 8 ')*10' 6'),%.)0' *&)%.' 01&&%$' *5 /,7%$' *,/' ,0' 7%$2' 10%&1/', 0' ,$*. ' 0*8%' ('0%0')$2(+. ,. %' +'0' 4%%. ' $%(*8;8%. 5%5' 3,)+')+%' 7,%3' *&', 8 6$*7,. -')+%')*. %' *&')+%' 8 10(1/'$' &,4$%0' *&')+%' 4$*. (+,'/')14%0')'= 0' . *)' 4%%. ' &*1. 5' 10%&1/', . ')+,0' $%06%()H . *==%5' 3 *. 5%$')')+,0' &*$')+%' 5,0%'0%',0' *. %' 6$,8 '$,/2' *&')+%' ,$ 0'(0' ' . 5' . *)' *&')+%' 4$*. (+,'/')14%0' ' . 5',&')+%' 8 10(/%0' *&')+%' /'))%$' '$%' 0%(*. 5'$,/2' '&&%()%5',)' ,0' $')+%$' 3,)+' 06'08')+' . ' 6'$'/20,0' 8 '// 5*0%0' *&0)$2(+. , . %' -,7%. ' &*$' 5206%6),(' 02 8 6)*8 0' 8 '2' 4%' 10%&1/' . ' 0*8%' ('0%0' ,*5,5%' *&6*)'00,1 8' +'0' '66'$%.)/2' 4%%. ' 4%. %&,(,'/' $*4'4/2')+%0%' ('0%0' +'7%' 4%%. ' '00*(,')%5' 3,)+' -*1) $%')+, . -'(*8 6$%00%5' ,$'+'0' 4%%. '0)$*. -/2' '57*(')%5' '. 5' . *' 5*14)' ,)' +'0' '&&*$5%5' , . ' 0*8%' ('0%0' 5%(,5%5')%8 6*$'$2' $%/,%&' ' .5' -**5' %&&%()0' '$%' 0', 5')*' +'7%' &*//*3%5',)0' 10%' ' ' +%$'6%1),(0' *& +%' $%-1/'),*.'*&')+%' 5,%)' ' . 5')+%' -%. %$'/ 8' . '-%8%.)' *1$,0+, . -' ' . 5' ' ' 8*5%$')%' '8*1.)' *&' 0),8 1/' .)0' 0+*1/5' 4%' '//*3%5' +%' &**5 0+*1/5' 4%' %'02' *&'5,-%0),*. ' ' . 5' . 1)$,),*10', . ' 6$*6*$),*. ')*',)0' 41/9' +%' 0)*8 '(+' 0+*1/5' .%7%$' 4%' *7%$/*'5%5' 0')+')' (*. 5,),*. ' 3,// -,7%$,0%')*' 5206. *%' ' $$*$0' *&' 5,%)' 8,$0)' 4%' '7*,5%5' ' . 5')+%' &1. (),*. 0' *&')+%' 4*3%/0' 0+*1/5' 4%' ('$%&1//2' $%-1/')%5' . *)+%$' 6*,.)' ,0')*' -,7%')+%' /1. -0' '0'/,))/%' 3*$9' '0' 6*00,4/%' '. 5')*'/%)')+%' 6'),%.)' 4$%')+%' '' 61$%' ,$' // 7,*/%.)' %B%$(,0%'*$' 6+20,('/' %B%$),*. ' *&' . 2' 9,. 5'8 10)' 4%' 0)$,()/2' 6$*+,4,)%5H 8*5%$')%' %B%$(,0%' ,0' +*3%7%$')*' 4%' $%(*8 8%. 5%5' *5%$')%' 3' /9,. -' 2' (+),. -' ('$$,'-%' %B%$;(,0%'$,5,. -')' '' E1,%)' 6'(%' . 5' *. ' . ' %'02' +*$0%' '$%', 8 6*$)' .)' '5>17' .)0' , . ')+%' -%. %;$'/')$%')8%.)' *&' %8 6+20% 8 ' ' +%' (*. 5,),*. ' *&')+%' 09,. 0+*1/5' 4%' ('$%&)5/2' /**9%5')*H 3'$8' (/*)+,. -' 0+*1/5' 4%' (*. 0)' .)/2' 3*$. H ' . 5')+%' -$%')%0)' ('$%0+*1/5' 4%')'9%. ')*' 3'$5'*&&4$*. (+,'/',. &/' . 1. '),*. ' %0,5%. (%' 51$,. -')+%' 3,.)%$', . ' '' 3'$8' . 5'5$2'(/,8')%' ,0')*' 4%' $%(*8 8%. 5%5 @' " ' ' " ' G' 8*. -0)')+%' 8*0)', 8 6*$)' .)' *&')+%' '&&%(;),*. 0' 0%(*. 5'$2')*' %8 6+20% 8 '' ,0' 4$*. (+,),0' *' 5%6$%00,. -' 8%'01$%0' 0+*1/5' 4%' 10%5', . ')+,0' 5,0%'0%'41)' 01(+' '0' 3,//6$*8*)%' %B6%(;)*$'),*. ' ' . 5' (+%(9')+%' 0%($%),*. ' *&')+%' 4$*. (+,''/')14%0',&' '0' ,0' 7%$2' &$%E1%.)/2')+%' ('0%')+,0' 4%' %B(%00,7%' 8 8*. ,' ')+%'7'$,*10' 0),8 1/'), . -' %B6%()*$' .)0' ' . 5',$*. ' '$%')+%' 8*0)' 7'/1'4/%' $%8%5,%0')*-%)+%$' 3,)+' 8*5%; $')%' (*1.)%$,$$,)')*. ' A0%%' 0 5 ' ,0%'0%0' *&R' +%' 5206. *%'', 0' '/3'20', . ($%'0%5' 42')+%' 6$%0%. (%' *&' 4$*. (+,),0H 42')+%' 0)*8 '(+' *$' 4*3%/0' 4%, . -'*7%$/*'5%5H '. 5' 42')+%' -%. %$'/' *7%$ 5,0)%. 0,*. ' *&')+%' 7%. *10' 020)%8 ' 3+,(+' . %(%00'$,/2' %. 01%0' '0' '' (*. 0%; E1%. (%' *&')+%', 8 6%5,8%.)')*')+%' &/*3' *& 4/**5')+$*1-+')+%' /1. -0' '$%' 0+*1/5' 4%')'9%. ')*' 6$%7%.)' ' . 2' &/')1/%.)' 5,0)%. 0,*. ' *&')+%' 0)*8 '(+' *$', .)%0), . %0' ' . 5')*' 9%%6' 16' " -**5' '(), *. ' *&')+%' 4*3%/0' /,7%$' ' . 5' 9,5. %20' *$')+%' $%/,%&*&')+%' '0)+8 '' 3+,(+' &$%E1%.)/2' %B,0)0' , . ' (*. . %B,*. ' 3,)+' 8 6+20% 8 ' ' &*,/5*0%0' *&', *5,5%' *&' 6*)'00,1 8' '$%' *&)%. ' 10%&1/')$' 8*. ,1 8' 2' '/0*' 4%' 08*9%5' ' . 5' *)+%$' 8%'01$%0' 4%. %&,(,'/' , . ' *$5, . '$2' 06'08*5,(' 0)+8 '' 8 '2' 4%')$,%5' ' ! 3' . '$%%$

%.(%')*')+%')$%')8%.)' *&')+%' 5$*60,('/ 0286)*80'3+,(+' &*//*3' '0' '' 0%(*.5'$2'(*.; 0%E1%.(%'*&%86+20%8 ' ')+%'$%'5%$',0'$%&%$$%5')*')+%' '$),(/%0' & ('H '.5')' ,/')';),*.'*&

' .)%$/*41/'$' 86+20%8 ' G +,0' (*.5,),*.'.'3+,(+')+%' %B(%00' *&' ',$' ,')+%' /1.-0' ,0' (*.)',.%5'.*)' ,')+%' ',$ 0'(0' .5' '/7%*/,'41)',.')+%' (*..%(),7%'),001%'4%)3%%.')+%' /*41/%0',0' 5%0($,4%5'1.5%$')+%' +%'5' *&' *!(!)' % '% %)*' 3+,(+' $),(/%')+%' $%'5%$',0' $%&%$$%5

' ' ' 1

:&C ' '.-$%.%'*& G ' ' A)' B 0 "' 'O6 2" "H %$'S "0 "

& # G %')+' *&' '' 6*$),*.' *&')+%' 0140)'.(%'*&')+%'/1.-0

'.-$%.%'*&')+%' /1.-0' ,0' *&')3*' 150' .'8%/2' A8R' ',.' 3+,(+')+%' 3+*/%'*&' *.%'/*4%'*$'/1.-',0' '&&%()%5H'.5'k<R' ' ',.' 3+,(+' '' 6*$),*.' *./2'*&' '/*4% 1.5%$-*%0'-'.-$%.*10'(+'.-%

.* $ G '.-$%.%',0' 0*8%),8%0' '$%; 01/)'*&'(1)%6.%18*.,'')'+'0'4%%.'9.*3.')*' &*//*3')+%' ,.+'/'),*.' *&' .*B,*10' -'0%0' +%.',)'*((1$0',.5%6%.5%.)/2'*&')+%0%'('10%0' ,)',0' '.'%7,5%.(%'%,)+%$'*&' %B)$%8%'(*.0),)1;),*.'/' 5%6$%00,*.' *$' *&' 6$%001$%' ,.)%$&%$,.-' 3,)+')+%' (,$(1/'),*.' '.5' .1)$,),*.' *&')+%' /1.-' .'.%1$208' *$' 8%5,'0),.'/'-*3)+' 6$%00,.-'16*.')+%' 8 ',.' '$)%$,'/'7%.*10' '.5' .%$7*10')$1.90' ')')+%' $**)' *&')+%' /1.-' ,0' 6%$+'60')+%' 8*0)'(*88*.'('10%' *&' 5,&&10%5' -'.-$%.%H' 3+%$%'0')+%' 8*$%' (,$(180($,4%5' &*$8' *&')+%' 5,0%'0%',0' '' 0%E1%/'' *&' '(1)%' '.5' /,8,)%5' 6.%18*.,'' ('.(%$' 4$*.(+,%()'0,0' *$' $'6,5' 6+)+,0,0' ,.' '' 5%4,/,)')%5' 014>%()' .'61/8*.'$2' '6*6/%B2' -'.-$%.*10' (+'.-% 0*8%),8%0' *((1$0')+%' -'.-$%.%'4%,.-'/,8,)%5')*')+%' 6*$),*.' *&' /1.-',.7*/7%5',.')+%' *$,-.; .'),.-' %B)$'7'0'),*.' *&' 4/**5' .%18*.,'' ('10%5' 42' '' &*$%,-.'4*52',.')+%' ',$ 6'00'-%0' ,0' '6)')*'$1.'*.')*' -'.-$%.%' +%' 5,&&10%5' -'.-$%.%')+')' *((1$0',.'5$1.9'$5 0' .5'/1.';),(0' ,.' '0)+%.,(' &%7%$' 8%'0/%0' 08'// 6*B' '.5')26+10' %7,5%.(%0' %B(%00,7%' .%$7% 6$*; 0)$'),*.'.'.5'/*00' *&' .1)$,),7%'6*3%$' .'(+,/; 5$%.' -'.-$%.%' *&' /1.-' 0*8%),8%0' &*//*30' Q(' .($18' *$,0' '0' 3%/' '0')+%' %$16),7%' &%7%$0

! ' $' ' " +%' (*/*1$' *&' '' -'.-$%.*10' /1.-' ,0' 5'$9' 5,$)2' *+7%' *$' -$%%.,0+ 4$*3.' ')' ,0' 8*,0)' *$' %7%.'3%)H'.5' %,)+%$' *&')+%' (*.0,0)%.(%' *&' %.-*$-%5' /1.-' *$' 0*&)%$' .5' 8*$%' 5,&&/1%.)' +%' *5*1$',0')+')' *&' %B)%$.'/' -'.-$%.%' *$' 5%(*86*0%5' &/%0+'' .5',0' 5,0),.(),7%' 51$,.-'/,&%'$%.5%$,.-')+%' $**8',.' 3+,(+')+%' 6'),%.)' /,%0' +*$$,4/2' *&&%.0,7%' +%.' 0('))%$%5' 6')(+%0' *&' -'.; -$%.%' *((1$')+%$%',0' *&)%.',.'.%'6'$)' '0*/,5' 8'00' *&' -$%%.,0+/1.-),001%' .5',.'.*)+%$' '(%.)$'/ 0/*1-+2' *$' -'.-$%.*10' ('7,)2'01$; $*1.5%5' 42' '' 4$*'5' $,8' *&' 0*&)',.&,/)$')%5' /1.-' +%' 0%')' *&' (,$(180($,4%5'-'.-$%.%' ,0' 101'//2')+%' 6%$,6+%$2' *&')+%' /1.-' '.5')+%' /*3%$' /*4%0' &' '' 4$*.(+10' *6%.' ,.)*')+%

-'.-$%.*10'6')(+',.&/'88'),*.'*')+%' 4$*.; (+,'/' 8%84$'.%',0'0%)' 16' .')$'$%'('0%0')+% 6/%8'',0',.7*/7%5' '.5' 62* 6.%18*)+*$'B',0' ,.51(%5' *8%),8%0')+%' 61/8*.'$2' $)%$,%0' '$%'&*1.5' 6/1--%5''.5' 8*$%'*&)%.')+%' 4$*.' W (+,'/' $)%$,%0' .')+*0%'$'$%'('0%0',.'3+,(+' $%(*7%$2')'9%0' 6/'(%',.)%$0),),'/' 6.%18*.,'' ,0' 0%)' 16' /%'5,.-')*' %.('601/'),*.'*&')+%' -'.-$%.*10' 06*)H)+%' 0/*1-+0' $%' %>%()%5H '.5' (,(')$,0'),*.'&*//*30' '0',.' 61/8*.'$2' '40(%00

.'5,&&10%'-'.-$%.%')+%' 3+*/%'*&' *.%'/1.-' ,0' 0*8%),8%0' ,.7*/7%5' +%' 61/8*.'$2'),001%',0')+%.'(*.7%$)%5',.)*' '' 4/'(9'61)$,5' 0140)'.(%'0')1$')%5'3,)+' 4/'(9,0+' 61$1/%.)' &/1,5H *$')+%'-'.-$%.*10'6')$' 8%$-%0'-$*51' ' 2',.)*' *%5%8')*10'*$'+%6')',0%5',001%

84*/,08''$,0,.-'&$*8')+%',.)$*51(),*.'*'*& 61)$,5'8'))%$',.)*')+%' 7%,.0'.5'/%'5,.-')*' '40(%00',.'7'$,*10'*$-'.0'8'2'&*//*3'%,)+%$ &*$8'*&'-'.-$%.%' %(*.5'$2'-'.-$%.*10' (+'.-%',0'&,&%E1%.)/2'8%)'3,)+',.'*')+%$' 6'$)0' *&')+%' 0'8%*'$',.')+%' *66*0,)%/1.-

!(! G=)',0' 0%/5*8' 6*00,4/%')*' 5,';-.*0%*-'.-$%.%'*&')+%'/,8-'1.),/')+%' 61$1/%.)' 5,0(+'$-%'$%'(+%0'''4$*.(+10'.5',0'%>%()%5' +%.')+%'061)'' '$%'&*1.5')*'0%6'$')%' 06%%5,/2' ,.)*'/'2%$0G''016%$&,(,'/'&$*)+''',E1,5'8,55/%' /'2%$''.5'' /*3%$'0%5,8%.)' +%' 08%//*&')+%'061)'' .5'4$%')+',0'6')+*-.*8*.,(' 5206.*%'' .5'6$*0)$')',.'' '$%' 101' 2'-$%')' +%'6+20,('/0,-.0''$%')+*0%*&'0*&)%.,.-'' .5' %B('7'),*.'6%$(100,*.'4%,.-'%,)+%$'51/*$)286'.,),('' .5'/**0%'($%6,)'),*.'4%,.-'0**.' $%6/'(%5'42'-1$-+.-'' .5'6%$+'60'86+*$,(' 4$%')+,..' +%'6'00'-%*&')+%'(,$(180($,4%5' ,.)*')+%' 5,&&10%5'&*$8' 8'2'4%')$'(%5'42' 3')(+,.-')+%'6+20,('/0,-.0

& " 1661$'),7%'1/(%$'),*.'*&')+%' 4$*.(+,'/'('$)'-%0'.,7%0'$,0%')*' -$%')'&*%)*$ *&'4$%')+' *8%),8%0''' '.-$%.*10'*5*1$,.')+%' 4$%')+'*((1$0'3+%.')+%' 61)$%&,,(),7%' (+'.-%',0'/,8,)%5')*')+%' 0%($%),*.0H''.5',)' 8'2'4%' 6$%0%.)' '/0*' ,.' 62* 6.%18*)+*$'B' 3,)+',.)%$.'/'&,0)1/'' +%0%'0%7%$'/'5,0%'0%0' 810)'4%' %B(/15%5'42''' ('$%&1/' %0),8'),*.' *&')+%' +,0)*$2*'' .5')+%' 6+20,('/' 0,-.0' ' 0)' +%

G +%' 6$*-.*0,0' *&' 61/8*.'$2' -'.-$%.%',0' +*6%/%00',.')+%' 5,&&10%5'&*$8H' .5',)' 0+*1/5'4%'-,7%.'7%$2'('1),*10/2'%7%.' 3+%.')+%' 0286)*80'*$'0,-.0'6*,.)')*' ''/,8,;)'),*.'*&')+%' 8,0(+,%& ! ' G' 7%$2' '))%86)' 810)' 4% 8'5%')*' 0166*$')+%'0)$%.-)+2' 42' .*1)+0,.-' &**5' .'5' 0),81/'.)0H' 4'$9' .'5' '88*.,' E1,..%' .'5' '(,50',$*.' '.5' (*5/,7%$' */, 4%,.-',.5,(')%5' +%',.+'/'),*.'*&' ($%'0*)%' *$' ('$4*/,(' '(,5',.'06$'2'8'2'4%')$,%5'*$'*&)1$6%.),.%'-,7%.'*&&'&$*8'+*)'3')%$ +%.'' -'.-$%.*10' 40(%00'*&')+%' /1.-' %B,0)0'.5',)',0'%7,5%.)')+')')+%' 6'00'-%*& &*%),5'8')))%$0')+$*1-+')+%' 4$*.(+,',0' 0%)),.-' 16'5'.-%$*10',$$,)'),*.'/%'5,.-')*'%B+'10),.-' 5,0(+'$-%'*$')+$%')%.,.-')*' 6*,0*.')+%' 020;)%8')+%' E1%0),*.''*&')'66,.-')+%' -'.-$%.*10

Q'A'G

('7,)2'0+*1/5'4%%.)%$)',.%5' +%',.)$*51(;
),*.'*&' '5$',.'-%)14%0*8%),8%0' '&&*$50'
,88%5,')%$%/,%&',.'01(+' ('0%0' +%&*%)*$*&'
4$%')+' (%'0%0H)+%*&&%.0,7%0%($%),*.0'4%,.'
.*/*.-%$*/*(9%5'16',.')+%*/1.-'/*0%*)+%,$'
61)$%0(%.)'(+'$'()%$H''.5')+%$%/,%&')+*)+%
(*.0),)1),*.',0'-$%')' .')((1$')%'5,'-.*0,0'
,0',.'01(+'('0%0'%00%.),'/')+%'5'.-%$*&')+%
6%$'),*.'4%,.-'-$%')/2'%.+'.(%5',&')+%'41'
0(%00',0')'5,0)'.(%'&$*8')+%*(+%0)3'//'
'.5',&')+%'/1.-',0'.*)'5+%$%.)')+*)+%'(*0)'/
>5%1$''+%*%$1),*.'0+*1/5'*./2'4%6%$;
&*$8%5'3+%.')+%$%',0'41)'/,))/%'6$*06%()'*&'
$%(*7%$2'3,)+*1)',)'41)'810)'.*)'4%5%/'2%5'
.),/)+%*7,)'/'6*3%$0'$%')*+'$%51(%5')*+'//*3'
&1/),8')%'(.7'/%0(%.(%
%0,5%0')+%'-%.%$'/)$%')8%.)'3+,(+'(*;
%B,0),.-'5,0%'0%'8'2'$%E1,$%'06%(,'/'))%.;
),*.'8 10)'b4%-,7%.')+*)+%'$%8*7'/*&')+%'
-'.-$%.*1 0'*5*1$'&$*8')+%')8606+%$%*&'
)+%'$**8'&$*8')+%'061)''.5'&$*8')+%'
6')%.)'3+*',0'6)'+*'%B+'/%'&$*8')+%'09,.'
''0,8,/'$'*5*1$')+*')'-,7%.'*&&',.')+%'
4$%')+' 1/6+1$*10'(,5'('$4*/,('(,5'
(+/*$,5%'*&/,8%'&1/&,/0')+%'&,$0)',.5,(',*.H
.52<'&/1,5')+%'0%(.5H'.5')+,0'8'2'/0*'
3+%.'5,/1)%5'&*$8'' 10%&1/4*'3'0+*'$-'$-/%'
K +%'01/6+*('$4*/')%0'3+%.'58,.,0)%$%5'
&$%%/2'+'7%''5,0),.()'7'/1%',.'$%8*7,.-')+%'
&*%)*$&$*8')+%'09,.''.5'8'9,.-')+%'6'),%.)'
/%00'1.'66$*'(+'4/%

' ! ' !(

N_-!*% , '

B)$'7'0'),*.'*&' /**5',.)*')+% 1.-0'H 1/;
8*.'$2' 6*6/%B2'H $'P # 0 ' '
6) "H %$' * 2"0 "#8)"0
. '35' 3 % 2 G .')+%'$),(/%'
, ,0'3,//'4%'&*1.5'%.18%$')%5')+%'
('10%0'3+,(+'/%'5')*'61/8*.'$2'+)%8*$$+'-%'
.')+%'6$%0%.)'$),(/%'*./2')+*0%'%B)$'7'0';
),*.0'*&'4/**5',.)*')+%'/1.-0''%$%'/2'+'7%'
'5)*'8*$%*7%$'$%'.*)'6$*7,5%5'3,)+'7'/7%0'
+10'3+%.')+%'*.&/*3'*&'4/**5',0''$$%0)%5'
)+$*1-+')+%'*40)$1()%5'$)%$,'/4$'.(+'7%.*10'
$%-1$-,)'),*.')+$*1-+')+%' ('6,//'$,%0'&$*8'
(*//')%$'/6$%001$%'&,//0'16')+%'6$%(/15%5'
7'0(1/'$''$%'' 3,)+'0)'-.'),.-'4/**5''.5'
)+%',.)$''/7%*/'$'),001%0'4%(*8%'06%%5,/2'
((16,%5'3,)+',)0'%&&10%5'($610(/%0'.'
0*8%'('0%0')+%'7%00%/'8'2'.*)''),&,$0)'4%
'((1$')%/2'(/*0%5'42')+%'%84*/10H)+%'*.3'$5'
(1$$%.)',0')+%.'$%)'$5%5',.0)%'5''&'4%,.'
E1,)%''$$%0)%5H)+%'8%(+',08',0'+*3%7%$'
6$'(),('//2')+%'0'8%

! ' $' G '/1.-')+')',0'
)+%'0%')'*&')+,0'&*$8'*&'+'%8*$$+'-%',0'101'//2'
)*1-+%.%5''.5'+%'72' *8%'+'$5''.5'8*$%
*$'/%00'0E1'$%'&/')'01$&'(%0'8'2'4%&%/)'.5
0%%.'$',0%5'4*7%')+%'-%.%$'/01$&'(%'&)+%
/1.-'3+,(+'+'0'0+$)89'4%/*3')+%,$'/%7%/'
+%'6/%1$''(*7%$,.-'01(+'6')(+%',0'5'$9%.%5
,.'(*/*1$'.5'6$%0%.)0'&/'9%0'*$-$'.1'),*.0
&'/2 8 6+',86',$,.-',)0'$'0/1(%.*2''.5
0 8**)+.%00' .'8'9,.-''7%$),('/'0%(),*.'
)+$*1-+'*.%'*&')+%'01$&'(%0',)',0'&*1.5')*'
&*$8')+%'4'0%'*&''8*$%'*$'/%00'(*.,('/8'00

3%.%%5'.*)'+%$%'06%(,&2'61.(),&*$8'+'08*$'
$+'-%',.')+%'/1.-0',0'6*00,4/%H)+%'61$61$''
81(+'8*$%'&$%E1%.)/2'&&%()0'+*3%7%$')+%
6/%1$'/01$^(%'*$'4$*.(+,'/81(*10'8%8;
4$'.%' %(+'.,('/(*.-%0),*.'*&')+%/1.-0'
&$*8')+%'4*7%8%.),*.%5'&*$80'*&'+%'$)'
5,0%'0%',0'42'&'$')+%'8*0)'(*88*.'(*.5,),*.'
16*.'3+,(+')+,0'8,.1)%''.5',.)%$0),),'/&*$8'
&'+0%8$$+'-%016%$7%.%0',7,.-'$,0%')*'.*'
'55,),*.'/02 86)*80'41)'('10,.-'(*.0,5%$;
'4/%''.5'6%(1/,'$'6,-8%.)'),*.'*&')+%/1.-'
+%',.)%$0),,'//2')+,(9%.%5'/1.-0''(E1,$%
''4$*3.,0+',.)'&$*8')+%'40*$6),*.'*&')+%
4/**5 06*)0'/%'7,.-'+0%8'),.'4%+,.5H''.5'
)+%'66%'$'.(%+'0'-,7%.'$,0%')*')+%')%$8'
' "'*&')+%/1.-0' % '

$*3.' .51$'),*.'*&
51/'$' *$'(,$(1800($,4%5'61/8.'$2'
'6*6/%B2',0'*&)%.'00*(,')%5'3,)+')+%6%);
(+,'/+'%8*$$+'-%>10)'5%0($,4%5''.5'/,9%,)'
8*0)/2'016%$7%.%0'16*.')+%'8%(+'.,('/(*.;
-%0),*.'*&')+%'}8-0'$,0,.-'&$*8'+%')'
5,0%'0%' +%$%'$%')3*'3'20',.'3+,(+')+,0'
&*$8'*&'+'%8*$$+'-%'8'2'4%'6$*51(%5' +%'
&,$0)'3'2',0'42'$16)1$%'*&'('6,//'$,%0'*$'08'/'
7%,.0'1.5%$')+%'+%,-+)%.%5'6$%001$%'*&')+%'
61/8*6'$2',($(1/),*.' .'%&&10,*.'*&4/**5'
)+10'*((1$0'3+,(+'&,//0'16'*.%'*$'8*$%'
/*41/%0''.5'(*'-1/')%0')*'&*$8')+%'5'$9'&,$8'
.0/,5'),*.0*'(+'$')(%$,0),('*&')+%'/%0,*.'
$''4$'.(+'*&')+%'61/8*.'$2''$)%$2'4%(*8%0'
*40)$1()%5'42'.'%84*/10'&*$,.0)'.(%'42'
&$'-8%.)'*&'(*'-1/18'(*.7%2%5'&$*8')+%
$,-+)'1$,(/%'*$'&$*8'*.%'*&')+%'020)%8,('
7%,.0'A6+/%4,),0'7'$,(*0%'7%,.ORH''.5',)0'
)%$$,)*$2'4%(*8%0'')'*.(%'&,//%5'3,)+'4/**5'
,')+%'&*//*3,.-'8'..%$'+%'61/8*.'$2'
'$)%$,'/'7%00%/0'5*'.*)'(*881.,(')%'3,)+'
.%''.)+%$'%'(+'4$'.(+,.-'0%6'$')%/2')*'
,)0'('6,//'$2'5,0)$,41),*.H)+%'61/8*.'$2'
7%,.0'*.'')+%'(*.)$'$2',.*0(1/')%'&$%%/2'
'.5'8*$%*7%$'$%'.*)'6$*7,5%5'3,)+'7'/7%0'
+10'3+%.')+%'*.&/*3'*&'4/**5',0''$$%0)%5'
)+$*1-+')+%'*40)$1()%5'$)%$,'/4$'.(+'7%.*10'
$%-1$-,)'),*.')+$*1-+')+%'('6,//'$,%0'&$*8'
(*//')%$'/6$%001$%'&,//0'16')+%'6$%(/15%5'
7'0(1/'$''$%''3,)+'0)'-.'),.-'4/**5''.5'
)+%',.)$''/7%*/'$'),001%0'4%(*8%'06%%5,/2'
((16,%5'3,)+',)0'%&&10%5'($610(/%0'.'
0*8%'('0%0')+%'7%00%/'8'2'.*)''),&,$0)'4%
'((1$')%/2'(/*0%5'42')+%'%84*/10H)+%'*.3'$5'
(1$$%.)',0')+%.'$%)'$5%5',.0)%'5''&'4%,.'
E1,)%''$$%0)%5H)+%'8%(+',08',0'+*3%7%$'
6$'(),('//2')+%'0'8%

! ' $' G '/1.-')+')',0'
)+%'0%')'*&')+,0'&*$8'*&'+'%8*$$+'-%',0'101'//2'
)*1-+%.%5''.5'+%'72' *8%'+'$5''.5'8*$%
*$'/%00'0E1'$%'&/')'01$&'(%0'8'2'4%'&%/)'.5
0%%.'$',0%5'4*7%')+%'-%.%$'/01$&'(%'&)+%
/1.-'3+,(+'+'0'0+$)89'4%/*3')+%,$'/%7%/'
+%'6/%1$''(*7%$,.-'01(+'6')(+%',0'5'$9%.%5
,.'(*/*1$'.5'6$%0%.)0'&/'9%0'*$-$'.1'),*.0
&'/2 8 6+',86',$,.-',)0'$'0/1(%.*2''.5
0 8**)+.%00' .'8'9,.-''7%$),('/'0%(),*.'
)+$*1-+'*.%'*&')+%'01$&'(%0',)',0'&*1.5')*'
&*$8')+%'4'0%'*&''8*$%'*$'/%00'(*.,('/8'00

3+,(+'+'0' ''&,/8'5'80*. (+%%0% /,+%'0%(),*.'
'.5',0'0+'$6/2'5%&,.%5'&$*8')+%'01$$*1.5,.-'
),001%' .',)0' 'B,0',0'0%%.' ''4$'.(+'*&')+%'
61/8*.'$2' '$)%$2' *((16,%5' 42' 6'$),'//2'
'/)%$%5'(/*)' +%$%',0'101''//2'0*8%')',.,.-'
&')+%' 61/8.'$2'),001%' ,8 8%5,')%/2'01$;
$*1.5,.-')+%'*6*%(),(' .*5)5%'&$*8',84,4,;
),*.' 1(+'+0%8*$$+'-,(' .*51/%0'7'$2'-$%')/2'
,.'.184%$' .'5'0,C%H')+%$%' $%'101''//2'0%7%$'/
,.'%'(+'/1.-'*&'4*1')+%'0,C%'*&''3'/.1)H
41)'*.%'8'2'*((162'' 3+*/%'/*4%' +%2'
'/0*' 7'$2',.' '66%'$'.(%' '((*$5,.-')*')+%'
5')%'*&')+%,$'*((1$$%.(%H)+%,$'(*/*1$'')'&,$0)'
)+')'*&'5'$9 4/**5(/*)'6'00%0')+$*1-+'6'/%'
(+*(*/')%'*$'(')%(+1'),.)')*'2%//*3,0+ $%5'*$
6'/%'2%//*3''0')+%'(*/*1$,.-'8'))%$'4%(*8%0'
-$'51''//2' '40*$4%5' +%' 3+*/%'%B)$'7'0';
),*.'8'2'4%'-$'51''//2' '.5'(*86/%)%/2'4;
0*$4%5'/%'7,.-')+%' $%0)*$%5'/1.-'41)'/,))/%'
5'8'-%5H*$''0+$1.9%.'&,4$,.*10'5%6*0,),*.'
$'4/**5(20)'3,)+'01$$*1.5,.-'.51$'),.'
8*$%'$'$%/2''('/('$%*10'(%.)$%'8'2'8'$9'
)+%'0,)%'*&'&*$8%$'+'%8*$$+'-%')'0+*1/5'
4%''55%5')+')')+%0%'%B)$'7'0'),*.0''/)+*1-+'
-%.%$'//2'.%'$')+%' 6/%1$'/01$&'(%'*&')+%'
/,8-''$%'.*)''/3'20'0*'41)'8'2'*((1$'5%%6/2'
,.'),0'0'2140)'.(%H)+%2'*((1$'8*$%'&$%E1%.)/2',.'
)+%'$,-+)'/1.-''.5'-%.%$'//2',.')+%'166%$'/*4%

!(! " 8,50)')+%' 5,0)$%00,..-'0286;
)*80'3+,(+'+'$%''))%.5'.)'16*.')+%'(*.5,),*.0'
/%'5,.-')*'61/8*.'$2''6*6/%B2',)'3*1/5'4%'
5,&&,(1/)'*' 0,.-/%'*1)' .2'5,'-.*0),(''*&')+,0'
06%(,'/'/%0,*.' .'%B'(%$4'),*.''*&'5206.*%''
'/$%'52')%$$,4/%'%.*1-+''*$''' 0155%.'&',/1$%'
&'61/0%'8'2'6%$+'60'4%'.)%5' '$9'0(' .)2'
+0%8*6)20,0',0'+*3%7%$')+%'6')+*-.*8*.,('
0,-.')+%'&$*)+2'81(*10'%B6%()*$'),*.'(*.;
)',.,.-'0*8%'0)$%'90''*$'08'//'(/*)0'*&'5'$9'
(*'-1/')%5' 4/**5' *8%' (,$(180($,4%5'
6')(+%0'*&'51/.%00'3,)+'4$*.(+,'/4$%')+,.-'
'.5'.%,-+4*1$,.-'($%6,)','*.' 8'2'6%$+'60'
4%' 8'5%'*1)'%06%(,'//2',.')+%' 8'8 8'$2'
'.5'8,5'B,//'$2'$%-,*.0

! G +%0%'/%0,*.0'
'$%''8*.-')+*0%'3+,(+'*&)%.'(/*0%')+%'0(%.%'
,.')+%'+%*$) 5,0%'0%')*'3+,(+')+%2''$%''((%0;
0*$2H'.5''$%')+%$%&*$%',$$%8%5,'4/%' *8%;
),8%0'3+%.'&$*8'.2'('10%')+%,$'*((1$$%.(%'
'66%'$0')*'+'7%'4%%.'+1$$,%5'&*$3'$5H3+%.'
)+%'/,7,5,)2',0'-$%')')+%' 5206.(%'' 1$-%.)'
'.5'2%)')+%'5,0%'0%',0'.*)'*&'/*.-'51$'),*.'H
3%) (166,.-'*$'4/%%5,.-'&$*8')+%''$'8'3,'
(%$)',$52'-,7%'-$%')'%86*$'$2'$%/,%&'.'5'
6%$+'60''7%$)',88%5,')%'5'.-%$

U'& % $ ' @ $$

('0"7 7'$-' '' H)'
F ' T ' /'6 " ' %$'S2"'
0 " #/
& # G '5,0%'0%'51%')*')+%'6$%0%.(%'
*&'+25'),50',.')+%'/1.-0
* $ G 25'),5'(20)0',.')+%' /1.-0'
$'$%/2'*((1$',.')+,0'(*1.)$2''0''' 6$,8'$2'
5,0%'0%'*&')+%0%'*$-'.0'41)'')+%2''$%' .*)'
,.&$%E1%.)/2'8%)'3,)+' '0'.'%B)%.0,*.'*&'
5,0%'0%'&$*8')+%'/,7%$

+%'-%.%$'/('10%0'*&'+25'),5'5,0%'0%''$%'
%/0%3+%$%' 5,0(100%5'41)')+%'(,$(180)'.(%0'
3+,(+'5%)%$8,.%')+%'/*(/,0'),*.'*&')+%'
+25'),5''$%'.*)'(/%'$/2''0(%$)',.%5' .'
10)$'+''3+%$%')+%''&&%(),*.',0'7%$2'(*8;
8*.',)',0'8%)'3,)+'0*8%),8%0',.')+%'/1.-'
3,)+*1)'.2'*)+%$'*$-'.0'4%,.-'''&&%()%5H
'/)+*1-+',.'8'.2'('0%0',.'3+,(+')+%'/1.-0'
'$%'5,0%'0%5'%7,5%.(%'*&')+%'%B,0)%.(%'*&')+%'
0'8%'5,0*$5%$'%/0%3+%$%',0'.*)'3'.),..-' &'
8HH'('0%0')+%'/,7%$'3'0')+%'*$-'.''&&%()%5'
,.'M!')+%'/1.-',.'@' +%'-$%')'6$%7'/%.(%'
*&')+%'5,0%'0%',' %/4*1$.%,0'0',5')*'4%'51%'
)*'5$,.9,.-'&$*8'3')%$ +*/%0'&$%E1%.)%5'42'
0+%%6'.5'&$*8'%'),.-'3')%$($%00'*$'1.;
(**9%5'0'/'50'(*.)',.,.-')+%'*7''*&')+%'
6'$'0,)%

! ' $' ' G +%'-%.%$'/'.')*82'*&'+25'),5'5,0%'0%'3,'4%'&*1.5'
,.')+%' '$),(/%'5%0(,$,4,.-')+,0'6'$'0,)%'AO%%'
* + 3' ,.-/%'0'(0'*&''(%6+'/*(20)0'$%'
42'&'$ 8*0)'101''/'7'$2,.-',.'0,C%'&$*8'''
6,-%*.<0'%-.-')*''8'.<0'&,0)' *8%),8%0')+%'
166%$'.5'0*8%),8%0')+%'/*3%$'/*4%0'$%'
)+%'0%')*&')+%'(20)0' +%2''$%'5%7%/*6%5',.'
)+%',.)%$0),),'/61/8*.'$2',001%H'0'-$*3)+'
6$*(%%50')+%'.%,-+4*1$,.-'6'$%.(+28''0'
(*.7%$)%5',.)*&,4$*(% 1/'$),001%''.5'1.5%$;
-*%0'*40*/%0(%.(%' +%'6'$%.)'0'('(*.),',.,.-'
)+%'%(+,.*((,'0'5+%$%.)')*')+%'01$$*1.5;
,.-'),001%

&')+%'6'$%.)'0'('4%'5%0)$*2%5'42',.&/'8;
8'),*.'.5'(*.0%E1%.)'01661$'),*.'*''(*8;
81.,(''),*.',0'%0)'4/,0+%5'4%)3%%.')+%'('7,)2'
.5')+%'4$*.(+,')+$*1-+'3+,(+')+%'5'1-+)%$'
(20)0'$.'2'4%'%>%()%5H>10)'0'.'8*$%'(*8;
8*.',.0)'.(%0')+%2'8'2'%0('6%'&$*8')+%'
/,7%$'&)%$'6%$&*$'),.-')+%'5,'6+$'-8'.5'
/1.-'*)',.&$%E1%./2')+%'6,&/8*.'$2'0'('
(*881.,(')%0'3,)+''0,$.,/=' 0'(',.')+%'
/,7%$')',0'.')1$'/)*',.&%$',.'01(+'('0%0'
)+')')+%'5,0%'0%'*$,-,.')%5',.')+%'/,7%$'
.5%%5',)'+'0'4%%.'0)')%5')+')'6$,8'$2'
+25'),5'*&')+%'/1.-',0'$89.*3.

!(! ' ' $' G 25'),50'
8'2'%B,0',.')+%/1.-'&*$''(*.0,5%$'4/%'),8%'
3,)+*1)'-,7,.-'$,0%')*''.2'.*),(%'4/%'0286;
)*80H41)'0')+%)18*1$%./'$-%0'.5'6$%00%0'
16*.')+%' 01$$*1.5,.-'),001%0'+'8*6)20,0'
((1$0''0'/0*'4$.(+,),0'6.%18*.,''*$%7%.'
-'.-$%.%'<*8%),8%0')+%'(20)0'6%$&*$')%)+%'
6/%1$''.5'(*10%'6.%18*)+*$'B'*$'8'9%
)+%,$'3'2')+$*1-+')+%'5,'6+$'-8',.)*')+%'
'45*8,.'/'(*7,)2' +%'8*$%'101'/'(*1$0%',0'
)+%'(*.7%$0%'*&')+,0'.'8%/2')+')''+25'),5'
&')+%'/,7%$'%B,0)0'6%$+'60'&$'2%'$0H('10%0'
'45*8,.'/'5,0)%.0,*.H'.5'%7%.)1''//2'5,0;
(+'$-%0',)0'(*.)%.)0')+$*1-+')+%'5,'6+$'-8'
,.)*''+4$*.(+10H)+%.'%B6%()*$'),*.'*&'4/**5'
*((1$0'3,)+'-**0%4%$$2+9%'09,.0<7'$2,.-'
,.'0,C%'&$*8''.1)'A,.'3+,(+'('0%')+%'(20)'
8'2'4%'%B6%//%5'3+*/%R')*''.'*$'.-%A,.'3+,(+'
('0%')+%'0'(0'$%'0+$,7%//%5'.5'%86)2R''.5'
('10,.-'01&*('),.-'(*1-+'51$,.-'%B61/0,*.

&')+%'0,)%'*&')+%')18*1$'4%'016%$&,(,'/'
'/)%$%5'4$%')+0*1.50'.5'6%$(100,*..*)%

%)+%$'4'$9' '.5' E1,..'% '$%' *&')+%' -$%')%0)'
7'/1%H '.5'8109'0184 1/' '.5'/'7%.5%$' 8'2'
4%'10%&1/'5>1.()0
2' ;&+*74+'/.' C%$.*&.)'1' (' +, .
1.-0 G)&<&' %(+'.,('/' *.-%0),*.
& # G 26%$0%8,'' &$*8' *40)$1(;
),*.')*')+%' %0('6%'*&'4/**5' &$*8')+%'/1.-0'
%(+'.,('/(*.-%0),*.'*&')+%'/1.-0',0''(*.;
5,),*.'5,&&%$,.-'%00%.),'//2'&$*8'%,)+%$'*&')+%'
)3*'6$%(%5,.-
$ <(D ' ! ' $)3 ' $-' ! ' -$)*' $-'
!"/) * ' '/4) "' #$ 7)"' 7'* #! >
' 7' ' #47 7' ' ! '$-' !'/) *)"'
7 ' ! '$+)4# $' * "' + ' ' ! '
*) ' . ' ' ' *) ' $ ' $)') 34)>
3 $'%$) ' 3 ' ! '$+)4# $' * "' + '
! ' - .)# ' 5! ' ! '# . "' + '
7 7' 7' * /)-# "' * / 7' ' ' ! '
'7. # 7' 3 '$-'#$)# . '$)') 34)3 '
$) #7 ' dL! !)' !) ' + ' ' + $>
4 '))$5 3'$-' !'+$$7#! '+ 5 '
! '/4*$)"' 7' " * #-)#4 $ ' '
! ' ' ! '*) '$) -#'$)' ! '#$*>
* # * '$-' !' $) %$)'5! !)'-)$*'
)3 * '$-' !'*) '$)-#'$)'-)$*'
7 '$)' E4)"'$-' . .) 34)3 $'
+'/)* 7'$' !' #!#$)#$'$-' !'
)3!'.)# ' ' * ' 7'$//$ 7'*$) '$)'
'+"' '#$4)'4 !'$-'+$$7'-)$*'!' -'
.)# ' "'# ' 7' '*$) ' ' !'
#$*+ $'$-'5$'$)'*$)'$-'!' #4 '
' '#)' !' '/4*$)"'#)#4 $ '
$ "'3$'$' ' ' #) 7'/) * '+"' !'
#$)#$' $-' !')3!' .)#' + #$*>
3d*$)' . 3$)$4%' 7' ! !E)/)* '
*4')4'-)$*'!'7**3'+#'$-'!'
+$$7'!)$43!' !'/4*$)"'.
&')+%' ('10%0'.'8%5'8,)$'/(*.0)$,(,*.',0'
)+')'3+,(+'/%'50'8*0)'0,86/2')*'*40)$1(),7%'
0+26%$0%8,''*&')+%'/1.-0
! ' ' G=)',0'*47,*10'
)+')'*40)$1(),7%'+26%$0%8,'',0'*&'-%.%$'/
5,0)$,41),*.''&&%(),.-')+%'3+*/%'*&'4*)+'/1.-0'
+%'$%01/'*&')+%'+%,-+)%.%5'4/**5 6$%001$%'
2',.($%'0%5'&*$(%'*&',.>%(),*.''.)*')+%'
/1.-0')*'*7%$(*8%''.',86%5,8%.)')*')+%'
%0('6%'*&'4/**5'&$*8')+%8',0'8*0)'&%/)',.'
)+%'61/8*.''$2'('6,//'$,%0' +%0%'('6,//'$,%0'
-$'51'//2'4%(*8%'/%.-)+%.%5')*$)1*10''.'5'
5,/')%5'%7%.')*')+$%%'),8%0')+%,$'.*$8'/
5,8%.0,*.0'A ,.5&/%,0(+R' $*8'(+$*.,('%.;
-*$-%8%.)'*&')+%'/,8-0')+%'.1(/%,'*&')+%'
,.)%$/*41/'$'$%*/'$),001%''.5'&)+%'(*,8%('
),7%'),001%'08$*1.5,.-')+%'8,.1)%'7%00%/0'
'.5'4$*.(+,''.5'6%$7'5,.-')+%'6'$%.(+28''
6$*/,&%$')%' +%')+,(9%.%5''.5')*$)1*10'('6,/;
/'$,%0',.)$15%'16*.')+%'&$06'(0%H''.5')+%'
%/'0),(,)2'*&')+%'/1.-0'4%,.-''/0*',867,$%5'
)+%,$'7,)'/'('6'(,)2',0'5,8,.,0+%5' ,0'0)')%5'
)+')')+%'810(1/'$'&,4$%0'3+,(+'6$*(%%5'&$*8'
)+%'4$*.(+,''/')%$8,.'),*.0')*' &*$8'/**60'
16*.''.5'%.($(/%')+%','.&1.5,41/''4%(*8%'
+26%$)$*6+,%5'A ,.5&/%,0(+R')+10'6%$+'60'
(*86%.0'),.-'&*$''5,8,.1),*.',.')+%'8*$%'
8%(+'.,('/' %/'0),(' 6$*6%$)2'*&')+%'/1.-'
8%),8%0'8,.1)%'+'%8$$+'-%0')'9%'6/'(%

U '

,.)*')+%'6'$%.(+28''*&')+%'/1.-H 0*8%),8%0'
/'$-%$'%0('6%0'*&'4/**5'&,//')+%''/7%'/,'*&(,$;
(180($,4%5'6')(+%0'A61/8*.'$2'6*6/%B2R'
+%')*)'/'$%01/)'*&')+%',.),8')%'(+'.-%0'5%;
0($,4%5',0''.'1.,&*$8',.($%'0%',.')+%'0,C%'
'.5'3%,-+)'*&')+%'/1.-0'3,)+''.',.($%'0%5'
5%.0,)2''.5')*1-+.%00' .'0%(),*.')+%'/1.-0'
'$%'&*1.5')*'4%'8*$%'6,-8%.)%5''.5'0*/,5;
/**9,.-')+'.'.')1$'/'0*8%),8%0'*&'4$*3.,04'
+1%'A4$*3.',.51$'),*.RH)+%2''$%'+*3%7%$'
($%6,)'.)')+$*1-+*1)'%B(%6)'+%$%''.5')+%$%'
3+%$%')+%2'8'2'6$%0%.)')+%'&,$8'5'$9'
5'80*.(+%%0%/,9%'0%(),*.'^5,.-')*'4$*3.'
$%5'*&'$%(%.)'61/8*.'$2'6*6/%B2'+%$%'
8'2'4%'0*8%*%5%8'6$%0%.)' +%'61/;
8*.'$2')$%$,%0'.5'7%,.0''$%'%./'$-%5''.5'
(*.-%0)%5H''.5')+%'4$(8(+,'/'81(*10'8%8;
4$'.%',0'101'//2')+%'0%')'*&'(+$*.,(''()'$$+'
')(+%0'*&''))+%$*8'' '$%'&$%E1%.)/2')*'4%
0%%.',.')+%'/'$-%$'4$'.(+%0'*&')+%'61+.*.'$2'
'$)%$2
!(! G 206.*%'' '.5'(*1-+'4*)+'
4$*1-+)'*.'*$,.($%'0%5'42'%&&*$)'3,)+'6'/;
6,)'),*.''.5'*66$%00,*.'*$',-+).%00'101'//2'
$%&%$%5')*')+%'%6,-'0)$,18'('$%')+%'8*0)'
(*.0)'.)'0286)*80'*&'*40)$1(),7%+26%$a8,''
*&')+%'/1.-0'')%.)0'01&&%$,.-'&$*8')+,0'
(*.5,),*.'+'7%'$%6%')%5'))'(90'*&'4$*.(+,'/'
('))'$$+''.5'+%8*6)20,0',0'*&'(*88*.''((1$;
$%.(%' +%'+%8*6)20,0'8'2'4%'(*.0,5%$;
'4/%'41)'8*$%'101'//2')+%'%B6%()*$'),*.',0'
0)$%'9%5'3,)+'4/**5'*$'(*.)',.0'08'//'5'$9'
*'-1/'
+,0'&*$8'*&'+26%$%8,''(*88*./2'*((1$0'
4%&*$%'8,55/%'/,&%'51$,.-')+%'101'/'6%$,*5'*&'
8,)$'/'+%')5,0%'0%' +%'0,-.0'*&'+%')'
5,0%'0%''.5'8*0)'*&)%.'*&'(*.0)$,(),*.'+&')+%'
8,)$'/'7/7%''$%'6$%0%.)' +%'014>%()0'*&'
)+,0''&&%(),*.''$%'*&)%.'.5%$0,C%5''.5'4'5/2'
.*1$,0+%5H)+%'6,-%*.4$%')0%5')26%'*&'(+%)0'
4%,.-'(*88*.'%06%(,'//2',.')+*0%'('0%0',.'
3+,(+')+%'5,0%'0%'8'.,&%)0%'&'%'$/2',.'
/,&%' 8'//'&$%E1%.)'61/0%H8*$%'*$'/%00'
/,7,5,)2'*&'/,60H'.5')+%$'0,-.0''.5'0286;
)*80'*&')+%'('$5,'(' 5,0%'0%'*&'3+,(+')+%'
61/8*.'$2'(*.5,),*.',0')+%'(*.0%E1%.(%''$%'
)*'4%*40%$7%5' '&,.%',.06,$')*$2'($%6,)'.)'
' *7%$')+%'/1.-0'8'2'4%'+%'$5' 1$,.-'
)+%' $%6%')%5'4$*.(+,'/'('))$%+0'3,)+',.;
($%'0%5'61/8*.'$2'+26%$0%8,'')*'3+,(+'01(+'
6'),%.)0''$%'%06%(,'//2'6$*.%'' '//'0286)*80'
'$%'81(+'--$'7')%5
& G +%'%B,0)%.(%'*&'*40)$1(),7%
+%')5,0%'0%'01--%0)0')+%'6$%0%.(%'*&'(*$$%;
06*.5,..'+26%$0%8,''*&')+%'/,8-0' +%'&,.%
($%6,)'.)' '.5')+%'+0%8*$$+'-,('0286)*80'
'.5'0,-.0'8*$%'6*0,),7%/2'6*,.)',.')+%'0'8%
5,$%(),*.
U G< +%'6$*-.*0,0'$%0)0'(+,%&/2'
16*.')+%'+%')5*.5,),*.'6$%0%.)' .($%'0,.-'
&$%E1%.(2'*&'(')'$$+'/'(*86/,('),*.0''.5
%06%(,'//2'*&'+'%8*6)20,0'0+*30')+%')1$,.-'
&')+%'40/'.(%''-',.0)')+%'6'),%.)' +%%(.'
5,),*.'8'2',.'&'7*1$'4/%('0%0'(*.),..%'&*$
2%'$0'%06%(,''//2'3+%.'5%6%.5%.)'16*.'0,86/%'
(*.0)$,(),*.''*&')+%'8,)$'/'7'/7%

' . 5' 0)$* . -' 41)' 0** . ' 4%(* 8 %0' 0 8 ' //%$' ' . 5' % ' 0,/2' (* 8 6$%00,4/%')' 8 ' 2' 4%' ,$%-1/' $' , .)%$ 8 ,))% .) K' *$' 5,($*)*10' 4%' 0 8 ' // . %0 0' *&')+%' 61/0%' ,0' 6$*4 ' 4/2' 51%' 6 ' $)/2')*' 5, 8 , . ; ,0+%5' ('$5,' (' 6*3%$' ' . 5' 6 ' $)/2')*')+%' 5,; 8 , . ,0+%5' ' 8 *1 .)' *&' 4/**5' 3 +, (+' ,0' 6$*6%//%5' &$* 8')+%' /%&)' 7% .)$,(/%' *3 , . -')*')+%' *7%$; /* '5, . -' *&')+%' $,-+)' ('$5,' (' ('7,),%0' 3 +, (+' $%01/)0' &$* 8')+%' *40)$1()%5' (,$(1/'),*.' , . ')+%' /1 . -0

6 (G +%' 62$%B,'' *&' 6 . %1 8 *. , '' ,0' (* .), . 1*10' 3 ,)+' 0/, -+)' 8 *$. , . -' $% 8 ,00, * . 0' ' . 5' %7% . , . -' %B' (%$4'), * . 0' +%')% 8 6%$')1$%' 6,0%0' 7%$2' 0155% . /2' 3 ,)+')+%' , . 7 ' 0, * . ' * &')+%' 5,0%' 0%')*' &$* 8' !@g')*' !Fg' Ḥ ' . 5')+,0' +, -+')% 8 6%$')1$%' ,0' 101 ' //2' 8 ' , .)' , . %5' 1 .),f')+%' 6%$, *5' *&' ($,0,0' +,0' 0155% . ' $,0%' ' . 5' 8 ' , .)% . ' . (%' *&' '' +, -+')% 8 6%$')1$%' ,0' 7%$2' (+' $' ()%$,0),(' +%' ' 8 *1 .)' *&' %/%7'),*. ' 7' $, %0' , . ' 5, &&%$% .)' ('0%0' 0' '' $1/%',)' 5*%0' Q . *)' %B(%%5' '4*1)' ! g' *$' !Fg' ' 4')')% . /6%$')1$%0' *&' !Mg' +' 7%' 4%% . ' 9 . *3 . ')*')%$ 8 , .)%' &' 7*1$' 4/2' . ' &')' f' ('0%0' ,)' 8 ' 2' $%' (+' !Pg' 0+*$)/2' 4%&*$%' 5%')+' +%' 8 'B, ; 8 1 8')% 8 6%$')1$%' ,0' 101 ' //2' 8 %)' 3 ,)+' *. ')+%' 0%(*. 5' *$')+,$5' 5 ' 2' *&')+%' 5,0%' 0%' 41)' ,)' *(('0,*. ' //2' *((1$0' , 8 8%5, ')%/2' 4%&*$%')+%' ($,0,0' +%' 5 ' ,/2' 7 ' $, '), *. 0' '$%' 101 ' //2' '0' &*//*3 0' +%')% 8 6%$')1$%' ,0' /*3%0)' *4*1)' M' *$' 9' ' . ')+%' &*$%. **. ' *$' 0* 8 %3+')' /')%$' ,)' (* 8 8%. (%0')*' $,0%' ' . 5' '))' . , 0' ,)0' 8 'B, 8 1 8' +, ')+%' 62' %7% . , . -')')+%. '&' //0' 41)' '' 0/, -+)' %B' (%$4')., * . ' *(('0,*. ' //2' *((1$0' '-', . ' ')' 8 ,5 . , -+)' ' &)%$' 3 +, (+' ,)' -$' 51' //2' &' //0' ' +%' 5,&&%$%. (%' 4%)3%%. ')+%' +, -+%0)' ' . 5' /* 3%0)')% 8 6%$')1$%0' ,0' 101 ' //2' . *)' 8 *$%')+' . ' g' ' +%' 62$%B,'' $1 . 0' &*$')+%' 8 *0)' 6')$)' '' 1 . &*$8' (*1$0% 1 .),f')+%' 6%$, *5' *&' ($,0,0' 3+%. ')+%')% 8 6%$')1$%' &' //0' $' 6,5/2' , . ')+%' 8 ' . %$')*' 4%' +%$%' &)%$' 5%0($,4%5Ḥ 41)' , . ' %B(%6), *. ' f' ('0%0')+%' (*1$0%*&')+%' &%7%$' ,0' 8 1(+' 8 *$%',$$%-1/'$

N) ' G= %'5'(+%' $%0)/%00 . %00' ' . 5' 0/%%6/%00 . %00' '$%' '/8*0)' /3'20' 6$*8 , ; . %.)' 02 8 6)*8 0' , . ' 6 . %1 8 *. , ' ' /, -+)' 5%; /, $, 1 8' ,0' '/0*' (* 8 8*. ' %06%(, '//2')*3'$50' %7% . , . -'3+%. ')+%' 62$%B, '', 0' ')' ,)0' 8 'B, 8 1 8' * 8 %), 8 %0')+%' 5%+$, 1 8', 0' 8 *$%' 8 '$9%5' ' . 5' 7, *'%.)') ' (*. 0),)1)%0' '' 8 *$%' 6$*8, . %.)' 02 8 6)*8' , . ')+%' */5' ' . 5' , . ')+%' 5%4, /,)')%5' ' . 5' , .)% 8 6%$')%' . ' 5$1.9'$50' ,)' , 0' (*. ; 0)' .)/2' 6$%0%.)' ' . 5' +%$%',)' *&)%. ' '0018%0')+%' (+' $' ()%$' *&' 5%/, $, 1 8')$% 8 %. 0' *. 71/; 0, *. 0' '$%' (* 8 8*. ' , . ' (+, /5$%. ' %06%(, '//2')')+%' 6%$, *5' *&'W. 7 ' 0, *. ' +%2' '$%' $' $%' , . ')+%' '51/)' +%0%' . %$7*10' 02 8 6)*8 0' '$%' * 8 %), 8 %0' 0*' 6$* 8, . %.)' '0')*' 8 '09')+%' . ')1$%' *&')+%' 5,0%' 0%

0) ' 0 " G +%' 02 8 6)*8 0' *&' 6 . %1; 8 *. , '' $%&%$' 4/%')*')+%' 5, -%0), 7%' 020)% 8 ' '$%' 0, 8 , /' $')*')+*0%' 8 %)' 3 ,)+' , . ' *)+%$' 0%7%$%' &%4$, /%' 5,0%' 0%0' +%$%', 0')+, $0)' 3 ,)+' /*0 0' *&' '66%),)%' +%')*. -1%', 0' 8 *$%' *$' /%00')+, (9/2' (*')%5' 3 ,)+' ''3+,)%' &1$' ' . 5',)')%. 50', . ' 0%7%$%' ('0%0')*' 4%(*8%' 5$2' ' . 5' 4$*3 . ' %$6%0' 101 ' //2' 8 '9%0',)0' '66%'$' . (%' '4*1)')+%' +60

' . 5' 0* 8 %), 8 %0' *. '*)+%$' 6' $)0 ' &$* 8')+%' 0%(*. 5')*')+%' &* 8)+' 5' 2' *&')+%' 5,0%' 0%' *8 ,), . -' 3 +, (+' ,0' '' (* 8 8*. ' 02 8 6)* 8' *&' , . ' 0, *. ' , 0' ' . ' *((' 0, *. ' f' (* 8 6/, (',). ' '0' ,0' '/0*' 5, '$; $+*%'' Ḥ (*. 0), 6'), *. ' +*3%7%$' ,0')+%' $1/%' * 8 %), 8 %0')+%$%', 0' 0 -+)' > ' 1 . 5, (%

O " G +%' E1' .),)2' *&' 1$, . %', 0' (*. 0, 5%$; '4/2' 5, 8 , . , 0+%5' ' . 5' ,)0' 06%(, &, (' -$' 7,)2' , . ; ($%' 0%5' 0*')+')' 41 . 5' .)' 1$')%0' '$%' 5%6*0,)%5' +%' %B($%), *. ' *&' 1$%'', 0' -$%')/2', . ($%' 0%5' ' . 5' ,)' 8 ' 2' ' 8 *1 .)')*' '0' 8 1(+' '0' 0%7%.)2 &, 7%' -$' 8 8%0' , . ')+%')3%.)2 &*1$' +*1$0' +%' 1$, (' (, 5' , 0' /, 9%3, 0%' '1-8%.)%5' +%' (+/*$, 5%0' '$%' 8 1(+' 5, 8, . , 0+%5' ' . 5' 51$, . -')+%' +%, -+)' *&')+%' 5, 0%' 0%' 8 ' 2' %.), $%/2' 5, 0' 66%' $' /, -+)')% 8 6*$' $2' '/41 8 . , 1$, '' , 0' 6%$+' 60' 8 *$%' (*8; 8 *. ' , ' 6 . %18 *. , '')+' . ' , . ' '/8*0)' ' . 2' *)+%$' (1)%' &%4$, /%' '&&%(), *. ' +%' ' 8 *1 .)' , 0' 101 ' //2' , . ' 5, $%()' 6$*6*$), *. ')*')+%' 0%7%$,)2' *&')+%' 5, 0; %' 0%' ,/% 6, -8%.)' , 0' *((' 0, *. ' //2' 8 %)' 3,)+

H O ' G= +%' %' $+%0)' 6+20, ('f 0, -. 0' *&' 6 . %18 *. , '' '$%' 101 ' //2' 5, 0(*7%$' 4/%' 3 ,)+, . ' &*$)2 %, -+)' +*1$0' *&')+%' , . 7 ' 0, *. ' *&')4%' 5, 0%' 0%' +%2' *&)%. ' '66%' $' 3 ,)+, . ')3%/7%' *$')3%.)2 &*1$' +*1$0Ḥ 41)' *(('0, *. ' //2' 3+%. ')+%' /*('f/%0, *. ' , 0' 5%%6/2' 0%')%5' . *)+, . -' '4; . *$ 8 'f, 0')*' 4%' 5%)%()%5' 1 .),f)+%')+, $5' *$ &*1$)+' 5' 2')' 3, //' 4%' 3%/f)*' 5%0($, 4%)+%8' , . ')+%' *$5%$' . ' 3+, (+')+%2' (* 8 8*. /2' 8 '9%')+%, $' '66%' $' . (%' +%'), 8 %' *((16, %5', . ')+%, $ %7*/1), *. ' 3, //' 7' $2' '((*$5, . -')*')+%' $' 6, 5,)2' 3 ,)+' 3, 8 %' +, ')+%' 0%7%$' f 0)' -%0' *&')+%' 6 . %1; 8 *. , (' 6$*(%00' 01((%%5' *. %' ' . *)+%$Ḥ ' . 5' ,)' 8 10)' 4%' $%8%84%$%5')+')' *. /2' 0*8%' *&')+%8' '$%' 01 ' //2' *40%$7%5' , . ' 6$' (), (%' . ' '' f' $-%' . 184%$' *&' ('0%0' 4$*. (+, 'f4$%')+, . -'' . 5' 0*8%' , 86', $%5' $%0*. ' . (%' A)+%')3*' 0, -. 0' 8 *0)' &$%; E1%.)/2' 8 %)' 3,)+Ḥ '$%')+%' *. /2' '4. *$8 'f 0, -. 0' 5, 0(*7%$' 4/%

+%' %' $/, %0)' '4. *$8 'f 6+20, ('f 0, -. 0' '$%' 51%')*')+%' 6', . ' ('10%5' 42')+%' 8 *7%8%.)' *&')+%' '&&%()%5' 0, 5%Ḥ)*')+%' +26%$0%8, '' *&')+%' 61/8*. ' $2' ('6, //' $, %0Ḥ . 5')*')+%' (* 8 8%. ; (, . -' %B15'), *. ' , .)*')+%' ', $ 7%0, (/%0' +%' $%06, $')*$2' 8*7%8%.)0' *&')+%' 0, 5%' $%' 8*$%' *$' /%00', 8 6', $%5' +, 0', 0' 6')/2' *3, . -')*' 6', . ' . 5' 6')/2')*' 5, 8, . , 0+%5' %/'0), (,)2' *&')+%' /1 .), 001%' +%' 4$%')+0*7850' $%' 101 ' //2' 0*8%3+')' 3%' 9' ' . 5' +' $0+' 41)' . *)' 5, 0)' .)Ḥ '/)+*1-+' '0' 0)')%5' 42')*9%0')+%2' '$%' *(('0, *. ' //2', . ')+%' %' $/, %0)' 0)' -%+' $0+%$' . 5' /*15%$')+' . ' . ')$' '/' $%(100, *. ' 51$, . -')+, 0' 0)' -%', 0' 101 ' //2' . *)' 8 '$9%5/2' /)%$%5' +%' $%0*. ' . (%'+*3%7%$', . ')+%' 166%$' 6*$), *. 0' *&')+%' (+%0)', 0' 0*8%), 8 %0' 66$%, (' 4/2')2 8 ; 6' . ,), (', . ' E1')2' +%' 7*('f&$%8,)10', 0', . ; ($%' 0%5' +%' 8 *0)', 8 6*$)' .)0, -. ' +*3%7%$' *&')+%' (*. -%0), 7%$0)' -%', 0' " ' " ' +, 0' ' (*. 0, 0)0' *&' ' . 184%$' *&' &, . %' 5$2' ($' (9/, . -' 0*1. 50' &*//*3, . -' *. %' ' . *)+%$', . ' $' 6, 5' 01((%00, *. ' 3+, (+' 3%$%' 6)/2' (* 86' $%5' 42')+%' /')%' $' ' ' ' ,//, ' 8 0')*')+%' 0*1. 50' 6$*51(%5' 42' $144, . -')+%' +', $' 4%)3%%. ')+%' &, . -%$0' (/*0%')*')+%' %' $')' *((1$0' 51$, . -')+%' /')%$' 6%$, *5' *&')+, 0' 0)' -%' 3+%. ')+%' 6$*(%00' *&' %B15'), *. ' &$*8')+%' 61/8*. ' $2' ('6, //' $, %0', 0

?

5,0%'0%' 8 '2' /0*')%$8 , . '0 "0 " ' *&')+%' /1 . -Ĥ , .' 61/8 * . '$2' Ĥ *$' , .' # " ' " " ' +%0%' 0%7%$ 'ſ 8 *5%0' *&')%$8 , ; . '), *. ' 8 10)' 4%' (* . 0,5%$%5' 0%6 '$ ')%/2 ') G +,0' ,0')+%' 8 *0)' (* 8 ; 8 *. ')%$8 , . '), * . ' *&' 6 . %1 8 * . , '. ' , . ' 2 *1 . -' ' . 5' +%' /)+2' '51/)0' ' . 5')+%' , 8 6$*7%8 %.)' 101 ' //2' 4%-, . 0' 3,)+')+%' ' +%'), 8%' ')' 3+, (+')+, 0' ($,0,0')' 9%0' 6/ '('%' '0' , . 5, (')%5' 42')+%' 0155%. ' &' //ſ *&')%8 6%$ ')1$%' 7 '$, %0' &$* 8 ')+%')+, $5')*')+%') 3%/&)+' 5 '2 ' . ')+%' 8 '>*$,)2' *&' ('0%0' ,)' , 0' * . ')+%' &, &)+' 0, B)+' *$ 0%7%.)+' 5 ' 2Ĥ *(('0, *. ' //2' '0' %5$/2' '0')+%')+, $5' 5 ' 2Ĥ ' . 5' 0* 8 %), 8 %0' ,)', 0' 6$*/*. -%5', .)*')+%' 8 , 55/%' *&')+%' 0%(* . 5' 3%%9 +%' 016%$7%.), *. ' *&')+%' ($,0,0', . '6 . %1 8 * . , '' , 0' 0* 8 %), 8 %0' , . 5, (')%5' 42' '' (+' . -%' , . ')+%' 61/0%' 3+, (+' 4%(* 8 %0' 0*&)%$ ' . 5' 0* 8 %3+')' , $$%-1/' $' , . ' &*$(%' . 5' $+2)+ 8 ' +%' 8 *0)' 8 '$9%5' 6+%. * 8 %. *. ' '))%. 5, . -' ,)', 0')+%' '4$16)&' &' //ſ *&')+%' 4*52')%8 6%$ ')1$%' . +, 0' &' //ſ 101 ' //2' 4%-, . 0' / ')%' , . ')+%' '&)%$. **. ' *$ %7%. , . -Ĥ . 5')+%')%8 6%$ ')1$%' 7%$2' *&)%. ' $%' (+%0')+%' . *$ 8 ' ſ 0)' . 5' $5' , . ' &$* 8 ' 0, B)%%. ')' ')3%.)2 &*1$' +*1$0' 101 ' //2' 3,)+, . ' &*$)2' %, -+)' +*1$0Ĥ)+%' 8 *$. , . -' $%8, 00, *. ' . 5' %7%. , . -' %B' (%$4'), *. ' *((1$$, . -' 51$, . -')+%' 6%$, *5' *&' 5%&%$7%0(%. (%' +%')%8 6%$ ')1$%' . *)' , . &$%E1%.)/2' &' 0' g' *$' @g' *4%/*3' . *$; 8 '/' . 5' 8 '2' $%8 ', . ' 0*' &*$')3*' *$')+$%%' 5' 20' ((' 0, *. ' //2' '' 8 '$9%5' , . ($%' 0%' , . ')+%' 62$%B, '' , 0' *40%$7%5' , 8 8%5, ')%/2' 4%&*$%')+%' (* 8 8 %. (%8%.)' *&' 5%&%$7%0(%. (% ,)+')+%' &' //ſ *&')%8 6%$ ')1$%' '//ſ)+%' 02 8 6;)* 8 0' $' 6,5/2' , 8 6$*7%' +%' 09, . ' 4%(* 8 %0' 8 *, 0)' . 5' *&)%. ' 6%$06, $%0' 6$*&10%/2' +%' ' 8 *1.)' *&' 1$, . %' , . ($%' 0%0' +%' $%06, $'), *. ' &' //0' , . ' &$%E1%. (2Ĥ . 5')*' '' /%00' %B)%.)')+%' 61/0%' +%' (*1-+' 4%(* 8 %0' /**0%$' . 5')+%' %B6%()*$'), *. ' 8 *$%' (*6, *10' +%' 061)'' -$' ; 51' //2' /*0%')+%, $')%. ' (,)2' . 5' $10)2' (*/*1$' . 5' 4%(* 8 %' 8 *$%' 4$*. (+,), (' , ' (+' $')%$Ĥ)+%2' $%' . *3' 101 ' //2' 8, . -/%5' 3,)+' 8 *$%' *$' /%00' 4/' (9' 6, -8%.)' . ' , 8 6$*7%8%.)' . ')+%' 6+20, ('ſ 0, -. 0' , 0' 0* 8 %), 8 %0' *40%$7%5' ')')+%' 0' 8 %'), 8 %Ĥ 8 *$%' (* 8 8 *. /2' +*3%7%$')+, 0' 5*%0' . *)')9%6/' (%'), /ſ *. %' *$')3*'5' 20' /')%$' +%'6'), %.)' *&)%. '&' //0' , .)*' ''5%%6' 0/%%6' ' . 5' *. ' 3' 9, . -' 3,)+')+%' %B(%6), *. ' *&' -$%')' 3%' 9. %00' 5%(/' $%0' +, 8 0%/&' 6$%))2' 3%//' ' . 5' 4%-, . 0')*' '09' &*$' &**5' . ' 0* 8 %' ('0%0' +*3%7%$')+%' ' 8 *1.)' *&' 6$*0)$'), *. ' &*//*3, . -')+%' ($,0,0', 0' 0*' -$%')')+')')+%' $%)1$. ')*' +%' /)+' , 0' 8 *$%' -$' 51' /Ĥ ' . 5' ' ' (*. 5,), *. ' *&' (*//' 60%' 8 '2' %. 01%' 3+, (+' *&)%. ')%$8 , . ')%0' , . ' 5%')+' +%$%' , 0' ' '+' 4, /,)2')*' 5, '$$+*%' ')')+, 0' 6%$, *5' 3+, (+' ,)' , 0' '// , 8 ; 6*$)' .)')*' 4%' $' , . ' 8 , . 5 ') +%' 8 '>*$,)2' *&' ('0%0' 6 . %1 8 * . , ' ')%$8 , . ')%0' '4$16)/2' , . ')+%' 8 ' . . %$' '4*7%' 5%0($, 4%5' *8%), 8 %0' +*3%7%$')+%')%8 ; 6%$')1$%' &' //0' 8 *$%' -$' 51' //2 G42' Ĥ ' . 5' $%(*7%$2' , 0' 8 *$%' 6$*)$' ()%5' %&%$7%0(%. (%' 8 '2' . *)' 4%' (* 8 6/%)%'), /ſ)+%' %. 5' *&')+%' 0%(*. 5' 3%%9' +%' ($,), ('ſ &' //ſ *&')%8 6%$' ;)1$%', 0' *((' 0, *. ' //2' , .)%$$16)%5' 42' 8 *$%' *$' /%00' 8 '$9%5' %B' (%$4'), *. 0' 51%' %,)+%$')*')+%

, 8 6/, ('), *. ' *&' &$%0+' 6*$), *. 0' *&')+%' /, 8 -' *$)*')+%' 016%$7%.), *. ' *&' *. %' *&')+%' (* 8 6/, (' ;), *. 0')*' 4%' +%$%' &)%$' ' //15%5')* . ' 0* 8 %' %' 0%0' ' &)%$')+%' *((1$$%. (%' *&($, 0, 0')+%$%' , 0' '' 0/, -+)' $%)1$. ' *&' &%7%$' *&' +%(), (')26%' +, 0', $$%-1/' $' &%7%$' 3+, (+' 8 '2' / ' 0)' &$* 8 ')+$%%' *$' &*1$' 5 ' 20')*' '' &*$). , -+)' , 0' 6$*4 ' 4/2' 51%)*')+%' (*.)' 8, . '), *. ' *&')+%' 4/**5' 42')+%' '40*$4%5' 6. %1 8 *. , (' 6$*51(0' A '$9%0R' 0)/2' ''5, 0), . ()' $%/' 60%' 8 '2' *((, 1$ '&)%$')+%' (* 8 6/%), *. ' *&' ($, 0, 0Ĥ 41)')+%' $%/' 60%, 0', . ' 8 *0)' ('0%0' 0+*$)%$' . 5' /%00' 0%7%$%')+' . ')+%' 6$, 8 '$2'))' (9' C # G = +%. ' 6. %1 8 *. , '')%$8 , . ')%0' &')' //2' ,)' 101 ' //2' 5*%0' 0*')*3' $50')+%' %. 5' *&')+%' &, $0)' *$' E1,)%' ')')+%' 4%-, . , . -' *&')+%' 0%(*. 5' 3%%9' . 5' *&)%. ' ($, 0, 0' %')+' , 0' (* 8 8 *. /2' 51%' 8 ', . /2')*' &', /1$%' *&' ('$5, '(6*3%$' . 5' 6')$)/2')*' '6. *%' ' 6. *0' ', 0')+%' /%' 0)' , 8 6*$)' .)' %/% 8 %.)' , . ')+%' ('10'), *. ' *&' , 00*/.), *. ' +%' 5' . -%$' &$* 8 ' ,)' , . ($%' 0%0' 3,)+')+%' %B)%.)' *&' /1. -' , . 7*/7%5' . 5' ,)', 0' (*. 0%E1%.)/2' 101 ' //2' -$%')%$' , . ' 5*14/%')+' . ' , . ' 1. , /')%$' ſ 5, 0%' 0%' ' , /1$%' *&' ('$5, '(6*3%$' , 0' 1. 5*14)%5/2')+%' 8 *0)' , 8 6*$)' .)' 8%' . 0' 42' 3+, (+' 6. %1 8 *. , '' 5%0)$*20' +&%' +%$%' '$%' 0%7%$' ſ (*. 5,), *. 0' , . ')+%' 5, 0%' 0%3+, (+')%. 5')*' 5' 8 '-%')+%' (*.)$' (), /%' 6*3%$' *&')+%' +%' $)' ,$0)' . 5' &*$%8 *0)' *&')+%0%' , 0')+')' 5' 8 '-%')*')+%'), 001%0' -%. %$' //2' 3+, (+' *((1$0' , . ' //ſ ' (1)%' &%4$, /%' . 5' %06%(, '//2' , . '(1)%' , . &%(), 7%' 5, 0%' 0%0' +, 0' 5' 8 '-%' , 0' 6$*8, . %.)' , . ' 6. %)1. *. , ' ' 3+, (+' ')+*1-+' ' ' 5, 0%' 0%' *&' 0+*$)' 51$'), *. ' , 0' 0%7%$%' 3+, /0)' ,)' / ' 0)0' +%. ' '-', . ')+%' (*. 5,), *. ' *&')+%' /1. -' ,)0%/&' (*. 0),)1)%0' '. *)+%$' %/%8%.)')%. 5, . -')*' 5' 8 '-%')+%' (*.)$' (), /%' 6*3%$' *&')+%' +%')$)' . 5' %06%(, '//2' *&')+%' $, -+)' 7%.)$, (/%A 1%$' -%. 0%. R' +%' /1. - (*. 0*+5'), *. ' . *)' *. /2' 6$%0%.)0' 8 *$%' *$' /%00' *40)$1(), *. ')*')+%' 61/; 8 *. '$2' (, $(1/'), *. ' . 5' +%. (%' . %(00,)')%0' , . ($%' 0%5' '(), *. ' *. ')+%' 6' $)' *&')+%' $, -+)' 7%.)$, (/%ſ 41)' *3, . -')*')+%' 5, 8, . , 0+%5' $%; 06, $')*$2' 01$&' (%')+, 0' 7%.)$, (/%' , 0' *4/, -%5')*' 5*' 8 *$%' 3*$9' , . ' *$5%$')+')')+%' 6$*6%$' , .)%$(+' . -%' *&' -' 0%0' 8 '2' 4%' %&&%()%5' , . ')+%' /1. -0 1(+' 4%, . -')+%' 8 *5%0' 42' 3+, (+' 6. %1 8 *. , ')%. 50')*' 5%0)$*2' /, &%',)' 3 , // 4%' $%' 5, /2' 1. 5%$; 0)**5')+')')+%' %' $+%0)' . 5' 8 *0)' , 8 6*$)' .)' 0, -. 0' *&' , 8 &' 7*1$' 4/%' '1-1$2' '$%' *. ')+%' 0, 5%' *&')+%' (, $(1/'), *. ' +%' 61/0%' 4%(* 8 %0' 8 *$%' &$%E1%.) ' 0 8 '// ' , $$%-1/' $' . 5' *&)%. ' 5, ($*)*10' +%' &$%E1%. (2' *&')+%' $%06, $'), *. ')+%' 5206. *%' ' . 5')+%' (2' . *0, 0' , . ($%' 0%' +%' (*1-+' 4%(* 8 %0' &%%4/%' . 5', . %&&%()1'/' 3, . -')*')+%' %. -*$-%8%.)' . 5' &', /1$%' *&' 6*3%$' *&')+%' $, -+)' 7%.)$, (/%' -%. %$' ſ 61/8 *. '$2' *%5%8 '' 101 ' //2' 016%$7%. %0' 0*')+')' 8 *, 0)' ' '$%' '15, 4/%' ')' 4*)+' 4 ' 0%0' +%' %B;)$%8,), %0' 4%(* 8 %' (*/5' . 5')+%$%' , 0' *&)%. ' 6$*&10%' 6%$06, $'), *. ' +%' 8, . 5' 3 . 5%$0' . 5' '' (*. 5,), *. ' *&' 6' $), ' ſ (* 8 '' 016%$7%. %0' 4%&*$%')+%' (/*0%' . ' 0* 8 %' ('0%0' ''$' 6, 5' $, 0%' *&')%8 6%$')1$%')' 9%0' 6/' (%' 4%&*$%')+%' &')' ſ)%$8, . '), *. ' 3+, /0)' , . ' *)+%$0')+%$%' 8 '2' 4%

'' (*.0,5%$'4/% &'/f ,.')+%')+%$8*8%)%$' .')+*0%' %B(%6),*. '/f ('0%0' ,.' 3+,(+'6.%18*.,'')%.50')*' 4%(*8% 8*$%' *$' /%00' (+$*..,('5%')+' 8'2'*((1$'51$,.-') +%')+,$5' *$ &*1$)+' 3%%9' %')+',.'2' '/0*' $%01/)' &$*8')+%' (*86/,(';),*.0

 B "0 " G +,0',0'E1,)%'$'$%')',0'8*0)' (*88*.',.'(+$*.,('5$1.9'$50'' .5',.')+*0%' *&' 5%4,/,)')%5' (*.0),)1),*.')0' *((1$$%.(%' '66%'$0')*'4%'51%6'$)/2')*'4/*(9,.-'*&'7%00%/0' '.5'6'$)/2')*')+%',.&/1%.(%'*&'0%6),(',.&/'8; 8')*$2'6$*51()0')',0'101''//2',/8,)%5')*' '' 08''/f '$%'' *&')+%' 6,&418*.,(' /1.-H' '.5',0' %,)+%$'5,&&10%'*$' 4%(*8%0' /,8,)%5'42' ''C*.%' *&',.&/'8%5'),001%')'(*88*./2'016%$7%.%0' /')%' ,.')+%' 5,0%'0%H' .5')+%' 8*0)' $%+'4/%' 0,-.0' *&',)0' *((1$$%.(%' '$%' 8'$9%5'&*%)*$*&')+%'4$%')+' .5')+%' %B6%()*$'),*.'' .5'-$%')' 6$*0)$'),*.' *$),*.0'*&'/1.-),001%''$%*(('; 0,*.''//2'&*1.5',.')+%' 061)' '.-$%.%',0' '/8*0)' ,.7'$,'4/2'41)' .*)'.%(%00'$,/2'&')'/' ' % ' .-$%.%'*&

 &# G +,0',0' '/0*' 7%$2' $'$%' ') 40(%00'*&

 # " ' " " G (1)%' 6.%18*.,'' ,.'7%$2'%B(%6),*.'/f ('0%0'4%(*8%0'(+$*.,(' .5'/%'50')*',.51$'),*.'*&')+%'+8-

 E G +%' (/,.,('/f 6+%.*8%.'' *&' 6.%18*.,'' '$%'*((' 0,*.''//2'0*8%3+')'5,&&%$; %.)' &$*8')+*0%' 3+,(+'+'7%'4%%.'5%0($,4%5' '$,'),*.0' '$%' 8%)' 3,)+' $%01/),.-' &$*8' 5,&&%$%.(%0' ,.')+%' ,.5,7,51''/' '.5',.')+%' 0%),*/*-,('/f &')()*$0'(*.(%$.%5',.')+%' 5,0%'0%' +%'&*//*3,.-'7'$,%),%0'810)'4%' '//15%5')*' G

 ^'S " ' " G .%18*.,'' +'0' 4%%.')%$85%5' " ' 3+%.')+%' (+'$'()%$,0),(' 0286)*80'*&')+%' 5,0%'0%' '$%' '40%.)'*$'41)' /,))/%'6$*.*1.(%5H *$'3+%.')+%2' '$%' 8'09%5' 42'0*8%' *)+%$' (/,.,('/f 6+%.*8%.'')',0' ,.')+%' 6.%18*.,'' *&')+%' 0 ')+')' 8'$9%5' /')%.(2',0'0*'*&)%.'*40%$7%5' %$%',.7'0,*.' 8'2'4%',8'))%.5%5'42',-*$*$ *)+%$' 6$*; 8,.%.)' 0286)*80' +%' %/%7'),*.'*&')%8; 6%$'1)$%',0'81(+'/%00')+'.',.'51/)0' *1-+' %B6%()*$'),*.'6',.'.'5' 5206.*%'' 8'2'4%' (*86/%)%/2'3'.),.-' &'(*1-+'4%' 6$%0%.)')+%' 061)'' *&)%.'5* .*)' 6$%0%.)')+%' $10)2'),.-%'41)' '$%' 0,86/2')$'.06'$%.)'*$' 81(*; 61$1/%.)' /,-+)'62$%B,''3,)+'0*8%',.($%'0%5' &$%E1%.(2'*&'4$%')+,.-'.5'6$*0)$'),*.'8'2' 4%')+%'*./2'0>86)*80'6$%0%.)' +,0'/')%.)' (*1$0%'*&'6.%18*.,'',)',0',86*$)'.')*'4%'$' ,.'8,.5'0',)',.5,(')%0')+%' .%(%00,)2'*&' 8'9,.-''8*0)'('$%&1/6+20,('/f%B'8,.')',*.' *&')+%' (+%0)',.''//'&%4$,/%' ,//.%00%0'*&')+%' '-%5' .')+%'6.%18*.,'' *&'5$1.9'$50'.5' *,& 2*1.-'(+,/(&$%.''/0*')+%' '((*86'.2,.-' .%$7*10'6+%.*8%.'' 8'2'4%' 0*' 6$*8,.%.)' '0')*' 8'09'')+%'.')1$%*&')+%'5,0%'0% AX?& # " ', # ' " G +%.' 6.%18*.,'' *((1$0',.')+*0%' 3+*' '$%'5%4,/,;)')%5'42'6$%7,*10'5,0%'0%' 42')+%' '410%*&' '/(*+*/'42'-%'42'6$,7'),*.' *$*')+%$'('10%0')+%'6+%.*8%.'' *&',.7'0,*.' '$%' 101''//2'.*)' 6$*.*1.(%5' '.5'0286)*80'*&',.)%.0%'6$*; 0)$'),*.'*((1$'%'$/2' .' 8 '.2'$%06%()0')+% (*1$0%'*&')+%' 5,0%'0%' (/*0%/2'$%0%84%0')+')' 3+,(+'+'0'4%%.'>10)'5%0($,4%5''0'0*' (*88*.' ,.')+%' 0,5%' '$%' *&)%.'*40%$7%5'H 41)' (*1-+',0' 0/,-+)H' .5')+%'%B6%()*$'),*.',.0)%'5'*&')+% $10)2 4$*3.')',.)'8'2'6$%0%.)' ''5,$)2 4$*3.' *$*6$1.%>1,(%' '66%'$'.(%' '$,*10'0286;)*80'*&'.' '0)+%.,(')26%'0**.'4%(*8%'6$*; 8,.%.)'H)+%' 8*0)',86*$)'.')*&' 3+,(+' '$%' /*3'5%/,$,18'' /)%$.'),.-'3,)+'0)16*$H)$%; 8*$0'H ''.5'6'$'/20,0'&')+%'06+,.()%$0' +%')*.-1%',0'4$*3.''.5'5$2H 0*$5%0'&*$8'*.')+%)%%)+H)+%' 61/0%',0' %B(%%5,.-/2'$'6,5' '.5' &%%4/%H ''.5')+%$%''$%*&)%.'0+-+)'>'1.5,(%''.5' '/418,.1$,'' %')+'101''//2'016%$7%.%0'0*8%;),8%51$,.-')+%' 0%(*.5'3%%9'*&')+%'5,0%'0%' &)%$'5%')+')+%' /1.-',0'101''//2'&*,85')*'4% /%00'&,$8/2'(*.0*/,5')%5''.5'/%00'-$'.1/'$')+'.',.'0)+%.,(' &*$80'*&'6.%18*.,'' +%' 0)'-%'*&'-$%2'+%6'),0'),*.',.'0*8%'('0%0',0' %B(%%5,.-/2''57'.(%5'(*.0),)1),.-'3+')'+'0' 4%%.')%$8%5'0101661$'),*.'<'*&')+%' /1.-' A)1$-%OR

 A(? 5" " ' " " G .',.)%$; 8,))%.)'7'$,%)2'*&'6.%18*.,'',0'0*8%),8%0' 8%)'3,)+',.'8'/'$,'/f 5,0)$,()0'3+,(+''66%'$0')*'4%'*.%*&')+%'$%01/)0'*&'8'/'$,'/f,.&%(),*.' ((*$5,.-')*' $,0*//%,')*((1$0',.',.)%$8,))%.)' .5'$%8,))%.)'&*$80' +%'&*$8%$',0'(+'$'(;)%$,0%5'8',./2'42')+%'(*86/%)%',.)%$8,00,*.0' 3+,(+'*((1$',.')+%'62$%B,'' +%)%86%$')1$%' &'//0' 0155%./2'')')+%' %.5' *&')3%.)2&*1$' +*1$0H 6$*&10%' 03%'),.-'*((1$0H ''.5')+% 6+20,('/f 0,-.0'*&')+%'6.%18*.,''*'/8*0)'%.;),$%/2'5,0'66%'$' ' $%)1$.'*&')+%' 62$%B,'' '.5'6+20,('/f 0,-.0')'9%0'6/'(%'')')+%'%B6,$';),*.'*&')3%.)2&*1$' *$'&*$)2%,-+)'+*1$0' &*//*3%5'42''.*)+%$',.)%$8,00,*.''.5')+,0' 42''')+,$5'*$'&*1$)+')+%'5,0%'0%' 6$%0%.),.-' %,)+%$''E1*),5,'.'*$''')%$),''.')26%' *)+' /1.-0'$%'/,'4/%')*'4%',.7*/7%5' .')+%' $%; 8,))%.)'&*$8')+%$%',0''81(+'/%00'(*86/%)% 5,0'66%'$'.(%'*&')+%'6+20,('/f 0,-.0'51$,.-')+%'$%8,00,*.

 ,'6 # 0 " " G +,0')%$8'+'0' 4%%.'66/,%5')*'(%$)','('0%0'*&'6.%18*.,'' ,.'3+,(+'0%3%$ -'0'%8'.'),*.0'66%'$')*'4% (*.(%$.%5',.')+%' ('10'),*.'*&')+%' 5,0%'0%' 1(+'('0%0'$%'0',5')*'4%'(+'$'()%$,0%5'42' '' 8*$%' 6$*/*.-%5'.'5'&/1()1'),.-'62$%B,'' A *1-/'0' *3%//R' *8%*&')+%'('0%0')+10' 5%0($,4%5''$%'6$*4'4/2'620%8,(!($' G6 2 'G' /%1$,02'*& 0/,-+)' ,.)%.0,)2'.'5'1.'((*86'..,5'42' %&$'0,*.',0''('/$%'52'0)')%5''/8*0)',.7'$,; '4/2'8%)'3,)+',.'6.%18*.,''*7%$')+*0%'6*$;),*.0'*&')+%'/1.-'3+,(+'$%' (*.0*/,5')%5' +,0',0'.')1$'/)*')+%' 5,0%'0%'.'5'('.*)'),$5'*$'&*1$)+'5'2'*& -$%')%$',.)%.0,)2''.5'))%.5%5'42'%&&10,*.' *((1$0'.'&$*8'F')*' F'6%$'(%.)'*&')+% ('0%0' ,-.0'*&%&&10,*.''$%' .*)'101''//2'5,0; (*7%$'4/%'4%&*$%')+%')+,$5'*$'&*1$)+'5'2'*&)+%'5,0%'0%' +%' 8*1.)'*&'/,E1,5'7'$,%0' 3,)+')+%$%B)%.)'*&')+%'/1.-(*.0*/,5'),*.' +%.')+,0',0'(*.0,5%$'4/%',.7*/7,.-'.%'$/2

)+%' 3+*/%' /1 . - ')+%$%' ,0' 41)' /,))/%' $** 8' &*$' %&&10,* . ' +%' 016%$7% .),* . ' *&' 6/%1$,02' 5*%0' . *)' (* 8 8 * . /2' 8 ')%$, ' //2' 8 *5,&2')+%' (*1$0%' *&')+%' 5,0%'0%')' 8 '2 ' +* 3%7%$ ' 6$*)$' ()')+%' 6%$,*5' *&' 5%&%$7%0(% . (%')0' , . &/1% . (%' , . ' ,.)%$&%$, . -' 3,)+')+%' 5,0 '66%'$' . (%' *&')+%' 6+20,(' /' 0,- . 0' + '0' 4%% . ' '/$%' 52' ''//15%5')* ' +%. ' 6/%1$,02' *((1$0' * . ')+%' 0,5%' *66*0,)%')*')+%' 6 . %1 8 * . ,'' ,)' (* . 0),)1)%0' '' 8 *$%' 5' . -%$*10' (* 8 6/,(',* .

$ " # G +,0' ,0' '/0*' '' (* 8 8 * . ' (* 8 ; 6/,(',* . '%06%(, '//2' , . ')+%' ' -%5' . 5' , . ' 2*1 . -' (+,/5$%. ' ' . 2' ('0%0' +* 3%7%$' 3+,(+' +' 7%' 4%%. ' 5%0($,4%5' ' 0' 6 . %1 8 * . , ' ' '00*(, ')%5' 3,)+' 4$* . (+,),0' + ' 7%' 5*14)/%00' 4%%. ' ('0%0' *&' 4$* . (+,0' '/8 *0)' , . 7 '$, '4/2' ' &&%()0' 4*)+' /1 . -0')0' 016%$7% . ;),* . ' , 0' '))%. 5%5' 42' ' . ' , . ($%'0%' , . ')+%' (*1-+' ' . 5' , . ')+%' ' 8 *1 .)' *&' %B6%()*$'),* . ' +%. ' ,)' , . 7*/7%0')+%' 0 8 '//%$')14%0' ,)' (* . 0),)1)%0' '' 0%$,*10' (* 8 6/,(',* .

6 ? # ' ,0' 8 1(+' /%00' &$%E1%.)')' 8 '2' $%01/)' &$* 8')+%' 5,$%()' %B)%. 0,* . ' *&')+%' , . &/' 8 8 ')*$2' 6$*(%00' &$* 8')+%' 6/%1$' ' +%. ' %B)%. 0,7%' ,)' ,0' '' -$' 7%' (* 8 6/,(',* . ' ' . 5' -$%')/2' , . ($%'0%0')+%' 8 *$)'/,)2

O 2" ? F' 0/,-+)' 2%//*3,0+'),. -%' *&')+%' (* . >1 . (),7' ' ' . 5' %7%. ' *&')+%' 09,. ' ,0' . *)' , . ; &$%E1%.)' , . ' 6 . %1 8 * . , ' ' ' . 5' + '0' a*' (/, . ,(' /' 0,-. ,&,(' . (%')' ,0' 6$*4'4/2' , . ' 8 *0)' ('0%0' *3, . -')*')+%' (* . -%0), * . ' *&')+%' +7%$' 3+,(+' $%01/)0' &$* 8')+%' , 8 6%5%5' 61/8 * . '$2' (,$(1; /'),* . G)+%' 5,0)%. 5%5' 6*$)' /' 7%,. 0' 6$%00, . -' 16*. ')+%' 4,/% 51()0' 1(+' 8 *$%' %B)%. 0,7%' >'1 . 5,(%' ,0' '/0*' *((' 0,* . '//2' 8 %)' 3,)+' 3+,(+' '66%' $0' 101''//2')*' 4%' 51%')*' 51*5%. ' /' (')' $$+' ' . 5' ,0' '))%. 5%5' 42' -' 0)$,(' 02 8 6)* 8 0' . ')+%$' ('0%0' %06%(,'//2' , . ' '0)+%. ,(' &*$ 8 0' *&'),/%' 5,0%'0%' ' . * . *40)$1(),7%' >', 8 5,(%' 0* 8 %;), 8 %0' *((1$0' $%01/), . -' &$* 8' (+' . -%0' , . ')+%' $%5' 4/**5 (*$610(/%0' +,0' ,0' (* 8 8 * . /2' '00*(, ')%5' 3,)+' . %$7*10' 02 8 6)* 8 0' 01(+' '0' 0)16*$' 5%/,$,18 ' ' . 5' ' ')%. 5%. (2')*' (*//'60%' 3+,(+' '$%' *&' -$' 7%' 6$*-. *0),(' ,86*$)' ' = % ('

6 G +,0' ,0' ' ' 7%$2' $' $%' ' . 5' %B(%%5; , . -/2' 0%$,*10' (* 8 6/,(',* . ' ((*$5,. -')*' $,0*//%' ,)' ,0' 101''//2')8 ')%$' /Ĥ)+%' , . &/' 8 ; 8 ')*$2' 6$*(%00' ,0' 7%$2' ' (1)%Ĥ ' . 5' (* 8 8 * . /2' /%' 50')*' 01661$'),* . ' *$* -' . -$%. %

& " +%' 5,' - . *0,0' *&' 6 . %1 8 * . , ' ' 101''//2' %'02' ,0' 0* 8%), 8 %0' '))%. 5%5' 3,)+' 5,&&,(1/)2' /)+*1-+' ,)' (' . *)' 4%' 8 '5%' 3,)+' '40*/1)%' (%$)' , .)2' 6$,*$')*')+%' '66%' $' . (%' *&' 6+20,(' /' 0,-. 0' *&' 61/8 * . ' $2' (* . 0*/,5')' , . ')+%' 8 '>*$,)2' *&' %'0%0' '' 7%$2' (* . &,5%.)' *6, . ' . *. ' (' . ' 4%' &*$ 8%5' '0')*')+%' . ')1$%' *&')+%' ,// . %00' , . ')+%' %' $/,%0)' 0)' -%0' 4%&*$%' 01(+' 0, - . 0' '$%' 5,0(*7%$' 4/%' +%' 6+%. * 8 %. '' 3+,(+' '$%' *&')+%' 8 *0)' 5,' - . *0),(' 7' /1%' ')')+,0' %' $/2' 0)' -%' *&')+%' 5,0%'0%' '$%')+%' 62$%B,' ')+%' /)%$%5' 61/0% $%06,$'),* . ' $')*')+%' 6 ' , . ')+%' 0,5%' ' . 5')+%' (*1-+' +%' 0155%. ' . 5' $' 6,5' $,0%' *&')+%' 4*5,/2')%8 6%$')1$%' 3+,(+' 101''//2' $%' (+%0' ,)0' 8 'B, 8 1 8' , . ' &*$)2 %,-+)' +*1$0' ,0' 7%$2' (+' $' ()%$,0),(Ĥ 01(+' '' $' 6,5 '))' , . 8 %.)' ' . 5' 8 ' , .)%. ' . (%' *&' '' +,-+')%8 ; 6%$')1$%' 4%,. -' 6%$+'60' 8 *$%' (* 8 8 * . ' , . ' 6 . %1 8 * . , '')+' . ' , . ' ' . 2' *)+%$' 5,0%'0%' Ĥ ,/0* . ' *BR' &')+%' *)+%$' 02 8 6)* 8 0')+%' , . ($%'0%5' &$%E1%. (2' *&' $%06,$'), * . ' ' . 5' %06%(, '//2')+%' '/)%$'), * . ' , . ')+%' 61/0% $%06,$'), * . ' $'), *' '$%' *&')+%' 8 *0)' 7'/1'4/%' 5,' - . *0),(' ,86*$)' +%. ' 6+20,(' /' 0,-. 0' *&' 61/8 * . ' $2' (* . 0*/,; 5'), * . ' '$%' 5,0(*7%$' 4/%' 3+,(+')+%2' 101''//2' '$(' 3,)+, . ' &*$)2 %,-+)' +*1$0')+%' 5,' - . *0,0' 4%(* 8 %0' (%$)' , .

,&&,(1/),%0' , . ' 5,' - . *0,0' 8 '2' '$,0%' , . ')+*0%' ('0%0' , . ' 3+,(+')+%' /*('/' 6$*(%00' , . ')0' %'$+%$' 0)' - %0' ,0' 5%%6/2' 0%')%5' %$%' (+'$')()%$,0),(' 6+20,(' /' 0,-. 0' 8 '2' 4%' 3' .), . -' &*$' &*1$' *$ &,7%' 5' 20' 51$, . -' 3+,(+'), 8 %' 0* 8 %' 5*14)' 8 '2' %B,0)' '0')*')+%' . ')1$%' *&')+%' 5,0%'0%' . ')+% ' -%5')+%' 5,0%'0%' 0*' *&)%. ' $1 . 0' '' /')%.)' (*1$0%')+')' ,)0' %B,0)%. (%' 8 '2' 4%' %' 0,/2' *7%$/**9%5' 1 . /%00' '' ('$%&1/' %B' 8, . '), * . ' 4%' 8 '5%' *&')+%' (+%0)' +%. ' '-', . ' . ')+%' , .)%8 6%$')%' ,)0' . ')1$%' 8 '2' 4%' 8 '09%5' 42' 5%/,$,18 ' ' . 5' *)+%$' . %$7*10' 02 8 6)* 8 0

+%' 5,' - . *0,0' *&' 6 . %1 8 * . , '' &$* 8' *)+%$' 5,0%'0%0' *&')+%/1 . -0' ,0' $' $%/2' 5,&&,(1/)' +%' 5,0%'0%' 3,)+' 3+,(+' ,)' ,0' 8 *0)' /, '4/%')*' 4%' (* . ; &*1 . 5%5' ,0' 6/%8 ,02Ĥ ' . 5' 3+%. ' '' 6%1$' /' %&&,,0,* . ' (* 8 6/,(')%0' 6 . %1 8 * . , ' ' 0* 8%' ('$% 8 '2' 4%' $%E1,$%5')*' '7*,5' %$$*$' . ' 6/%1$,02' +* 3%7%$')+%$%' ,0' . *)' '0' '' $1/%'01(+' '' 0155%. ' . 5' $' 6,5'))' , . 8 %.)' *&' '' +,-+')%8 6%$')1$%' '0' , . ' 6 . %1 8 * . , 'Ĥ ' . 5' 3+%. ' %&&10,* . ' +' 0')' 9%. ' 6/' (%)+%' 6+20,(' /' 0,-. 0' '$%' , . ' 8 *0)' ('0%0' 01&&,(,%.)/2' 5,0),. (),7%' . ' 6/%1$' /' %&&10,* . ')+%' 5,06/' (%8 %.)' *&')+%' +%' $)Ĥ)+%' '40*/1)%' 51/ . %00' . 5' 0%. 0%' *&' $%0,0)' . (%' *. ' 6%$(100,* . Ĥ)+%' 3%' 9' . 5' 5,0)' .)' (+' $' (0%$' *&')+%' $%06,$'), * . Ĥ . 5')+%' 5,8 , . ,0+%5' 7*(' /' &$%8 ,)10' . 5' $%0* . ' . (%' (* .)$')0' 3,)+')+%' 0,-. 0' *&' 61/8 * . ' $2' (* . 0*/,5'), * .

. *)+%$' 5,0%'0%' 3,)+' 3+,(+' 6 . %1 8 * . , '' 8 '2' 4%' (* . &*1 . 5%5' ,0')+')' 0* 8 %3+')' $' $%' &*$ 8' *&' 7%$2' ' (1)%' 6+)+,0,0' , . ' 3+,(+' '' /' $-%' '$%' '' *&')+%' /1 . -' 4%(* 8 %0' $' 6,5/2' (* . 0*/,5')%5' G)+%' (* . 0*/,5'), * . ' 4%,. -' *&)%. ' , . ')+%' 8 ' , . ' , . 5,0), . -1,0+' 4/%' +,0)*/*-, (' //2' &$* 8')+')' 8%)' 3,)+' , . ' 6 . %8 . * . , ' ' %$%' +* 3%7%$' ' /)+*1-+')+%' 3+*/%' /1 . -' 8 '2' 4%' , . 7*/7%5')+%' 5,0%'0%' 101''//2' (* 8 8%. (%0' , . ')+%' 166%$' /*4%0' 0*')+')' 4 . *$ 8 ' /' 6+20,(' /' 0,-. 0' '$%' 8 *$%' 8 '$9%5' ')')+%' '6%B' +%' * . 0%)' *&')+%' 5,0%'0%' '/0*' ,0' (* 8 8 * . /2' 8 1(+' /%00' 0155%. ' ' . 5' ,)0' (*1$0%' ,0' 8 *$%' 6$*)$' ()%5' +%. ' ' -', . ')+%' $' 6,5' (* . ; 0*/,5'), * . ' *&')+%' /*3%$' 6*$),* . 0' *&')+%' /1 . -0' 3+,(+' 0* 8 %),8 %0' 016%$7% . %0' , . ' 8 *$%' (+$*. ,(' &*$ 8 0' *&' 6+)+,0,0' 8 ,-+)' 4%' 8 ,0)' 9%. ' &*$')+%' (* . 0*/,5'), * . ' *&' (1)%' 6 . %8 . * . ,' 41)')+%' +,0)*$2' *&')+%' ('0%' '' ('$%&1/' %B' 8, . '), * . ' *&')+%' 166%$' /*4%0' *&')+%' /1 . -0')+%' ,$$%-1/'$' (*1$0%' *&')+%' 62$%B, ' ' . 5')+%' 6$*)$' ()%5' 51$'), * . ' *&')+%' 5,0%'0%' 3, ' %' 0,/2' 0%$7%')* 5,0), . -1,0+')+%8 ')' 8 '2' 4%' 0)')%5' -%. %$''//2')+')' , . ' '//' (1)%' (* . 0*/,5'), * . 0' *&')+%' /1 . -' ' 6$*)$' ()%5' (*1$0%' *&')+%' 62$%B, ' ' . 5')+%' *((1$$%. (%' *&' 8 '$9%5' %B' (%$4'), * . 0' ' . 5' *&' $%8 ,00, * . 0' *&')+%' &%7%$' ')' ,$$%-1/'$' , .)%$7'/0

)+')'5'8'-%)*')+%'),001%0' -%.%$'//2'3+,(+' *4)',.0' ,.' ' ' '(1)%' 06%(,&,(' 5,0%'0%0' ' .5' ,.)%$&%$%.(%' 3,)+')+%' $%06,$')*$2' &1.(),*.' 51%')*')+%'/1.-(*.0*/,5'),*.' &')+%0%')+% &*$8%$',0' 81(+')+%' 8*$%' ,86*$)'.)' '.5' 1.6',$%5' ('$5,'(' 6*3%$',0',)0' 8*0)' 0%$,*10' (*.0%E1%.(%' +%' .')1$'/' (*1$0%' *&')+% 5,0%'0%0',0' '/0*')*' 4%' $%8%84%$%5' .')+% 0)$*-'.5'$*410)'6.%18*.,''101''//2')%$8,; .')%0',.' +%')/)+')',0',.')+*0%' 3+*' '$% 5%4,+)')%5' 42' '-%'6$,7'),*.' 8*5%' *&'/,&%' '410%' *&'/(*+*/' *$' 6$%%B,0),.-'5,0%'0%')+')'01(+'-$%')' 8*$)'/,)2'))%.50',)')',0''' E1%0),*.' *&')+%',.)%.0,)2'*&')+%' 5,0%'0%' *.')+%' *.%' +'.5' '.5' *&')+%' $%0,0),.-'6*3%$ *&')+%',.5,7,51'/*.')+%' *)+%$' 1(+'(*.; 0,5%$'),*.0' '0')+%0%',.5,(')%')+%',86*$)'.(% *)' *./2' *&' 5*,.-' '/')+')',0' 6*00,4/%')*' +104'.5' '.5' 0166*$)')+%' 0)$%.-)+' *&')+% 6')%,%.)'41)'/0*'*&'.*)',.)%$&%$,.-')*'(),7%/2' 3,)+')+%' 5,0%'0%'1./%00' (,$(180)'.(%0''$,0% 3+,(+',&' 1.,.&/1%.(%5'42')$%')8%.)'3*1/5')%.5')*'6$*7%$'6,5/2'&')/

1(+' 4%,.-')+%' -%.%$'/' 6$,.(,6/%0' 3+,(+' 0+*1/5' -1,5%' 10',.')+%')$%')8%.)'*&''(1)% 6.%18*.,''')+%' 8'..%$',.' 3+,(+')+%2''$%)*'4%'4%0)'('$$,%5'*1)'8'2'.*3'4%',.5,(')%5

7%$2)+,..-'0+*1/5'4%'5*.%')*'+104'.5')+% 0)$%.-)+'*&')+%'6'),%.)''.5')+%'0%$7,(%0'*&''. '%&&,(,%.)'.1$0%'$%' ,86*$)'.)')*3'$50')+% '))',.8%.)'*&')+,0'*4>%()' %$&%()'$%0)'8 10)' 4%'%.>*,.%5''.5''/' ..%(%00'$2'06%'9,..-'4%' &*$4,55%.' +%'6'),%.)'0+*1/5'4%'9%6)',.'4%5' +%'$**8'0+*1/5'4%'/'$-%'.5',$2H''.5')+%)%86%$')1$%''4*1)'D!g')*'D@g' ')'0+*1/5' 4%'3%// 7%.),/')%5''6/%.),&1/'0166/2'*&'&$%0+' ',$',0'8*0)',86*$)'.)''$>5''/)+*1-+'51%'('$% 0+*1/5'4%'%B%$(,0%5',.')+%'7%.),/'),*.')+%$% ,0'.*)')+%'0'8%.%(%00,)2')*'9%%6')+%'6'),%.) 0($161/*10/2'6$*)%()%5<&$*8'5$'1-+)0''0',.')+%')8%.)'*&''(1)%'4$*.(+,),0

+%'5,%)'0+*1/5'4%'('$%&1//2'$%-1/')%5' .1)$),*10''.5'%'0,/2'5,-%0),4/%'(*.0,0),..-' *&'8 9'8,/9'3,)+'%--'4%%&)%''81))*.'*$ (+,(9%.'4$*)+'8%')%00%.(%0''.5'01(+ +9%' '$),(/%0'-,7%.',.'7'$2,.-'E1'.),),%0''.5''))' 7'$2,..-',.)%$7'/0'((*$5,..-')*')+%'(*.5,),*.' *&')+%'6'),%.)'.)+')+%'*4>%()'*&'0),81/'); ,.-')+%'0%($%),*.'*&'0'/,7''.5'6$*8*),..-')+% '66%),)%',)'3%//')*'9%%6')+%'8*1)+'/(%'.0%5' 3,)+'-/2(%$,.%''.5'/%8*.>1,(%' *8%'(,5' .5'4,))%$'5$.9'0'*.%'8'5%'3,)+'+25$*; (+/*$,('(,5''.5'*$'.-%6%%/'8'2'/0*'4% -,7%.

&',')+%'%'$/,%0)'0)'-%'*&'6.%18*.,'')+%$% ,0'-$%')'(*.0),6'),*.'/*'5%5')*.-1%'.'10%' '*$')+%$'-'0)$,(*02866)*80';%'58,.,0)$'),*.' *&''08'//*5*0%'*&'('/*8%/''*$'*&'4/1%'6,''.5' (*/**2.)+',0'*&)%.'&*//*3%5'42'8'$9%5',8; 6$*7%8%.)'4*)+',.')+%'6*3%$')*')'9%'&**5' '.5',.')+%'-%.%$'/(*.5,),*.'*&')+%'6'),%.)' +%'%B+,4,)*.'*&'61$-'),7%0'+*3%7%$'$%; E1,$%0'-$%')'('$%'0')+%2'*((*0,*.'//2'0%)'16' '')'$$+'/(*.5,),*.'*&')+%',.)%0),.%'.5' (*.0%E1%.)'5,'$$+*%''3+,(+'8'2'6$*7%'8*$% *$/%0'6%$0,0)%.)')',0',86*$)'.)')+%$%&*$%

%B(%6)',.'01(+'('0%0''0')+*0%'4*7%',.5,(')%5')*'6$*(1$%'//'.%(%00'$2'%7'(1').*.'*&')+% 4*3%/0'42''08'//'5*0%%,)+%$'*&'('0)*$*,/' *$'*&'(*/*(2.)+''.5'+2*0(2'810'*$'42'0,86/% %.%8')' ,)+')+%'*4>%()'*&'6$*8*),.-' %/,8,.'),*.'42')+%'09,.''.5'9,5.%20'0*8% 0*/1),*.'*'*&'(%)')%'*&'88*.,18'3,)+'(,)$')% *&'6*)'00,18'8'2'101''//2'4%'6$%0($,4%5'3,)+' '57'.)'-%',.')+%'%'$+%$'0)'-%0'*&')+%',//.%00

+%$%' '$%')3*' (,$(180)'.(%0'3+,(+'*&)%.')%.5'-$%')/2')*',.)%$&%$%'3,)+')+%'0'),0&'(0*$2' 6$*-.$%00'*&'6.%18*.,'G)+%'6',.5,0%' '.5')+%' (*1-+' +%' &*$8%$'*&')+%0%' 8'2' 101''//2'4%'$%/,%7%5'42')+%''66/,(',*.'*&'/'$-% +*)'/,.0%%5'6*1/),(%0'*$'*&'+*)'&*8%.)',*.0')*')+%' 0,5%' +%0%' 810)' 4%' &$%E1%.)/2' (+'.-%5''.5'-$%')'('$%'0+*1/5'4%'%B%$(,0%5' ,.')+%,$'$%.%3'/'.*)'*' 5,0)1$4'*$',.(*.; 7%.,%.(%')+%'6'),%.)' &')+%0%'8%'.0'5*'.*)' 01((%%5''108'//'4/,0)%$'@42'@',.(+%0'*$')+$%% *$'&*1$'/%%(+%0'8'2'4%'66/,%5')*')+%'0%')' *&')+%'6',.'.5')+%'*)'66/,(',*.0'+%.' $%6%3%5' .'%B(%6),*./'('0%0'08'//'5*0%0' *&'8*$6+,.%'+26*5%$8,('//2'8'2'4%'.%(%0; 0'$2')*'$%/,%7%')+,0'02886)*8' +%',.&/1%.(% *&')+%'%B)%$.'/'66/,(',*.'*&'(*/5',3,//4% ''//15%5')*'0140%E1%.)/2' *1-+',0'.*)'101''//2' ')$*14/%0*8%'02866)*8''.5'1./%00',)'-$%')/2' 5,0)1$40')+%'6'),%.)',)',0'4%))%$'.*)')*',.)%$; &%$%'3,)+',)' &'.%(%00'$2''/,.()10'(*.)',.; ,.-'&$*8')3*')*'&*1$'8,.,80'*&'0*/1),*.'*& +25$*(+/*$')%'*&'8*$6+,.%'3,)+''0,8,/'$ E1'.),)2'*&'06,$,)'*&'(+/*$*&*$8'.5',6%('(1; ''.+''3,.%'-,7%.'*((''0,*.''//2',0'*&)%.'4%.%; &,(,'/' 2'8%'.0'*&')+%')8%.)'4*7% ,.5,(')%5''.5'42'9%%6,.-')+%'$**8'E1,%)' '.5'5'$9%.%5')+%'6'),%.)'3,//*&)%.'6$*(1$% ''01&&,(,%.)''8*1.)'*&'0/%%6'+,0'('.'7%$2' &$%E1%.)/2'4%'6$*8*)%5'42'('$%&,,2'06*.-,.-')+%'3+*/%'01$&'(%'*&')+%'4*52''6*$),*.'')' ''),8%'3,)+')%6,5'*$'(*/5'3')%$')+%'/'0)'+,.-' ')'.,-+)'+*1/5',)'4%.%(%00'$2'0*8%'+26; .*),('810)'/0*'4%'58,.,0)%$%5'41)'3,)+' -$%')'('1),*.'0*''0'.*)'*',.)%$&%$%'3,)+'&$%%; 5*8'*&'%B6%()*$'),*.H''.5',)'0+*1/5'*./2'4% +'5'$%(*1$0%')*'3+%.'*)+%$'8%'.0'+'7% &'./%5''.5',.')+%'40%.(%'*&('*.)$',.5,(';),*.0' 2*0(2'810''.5'4$*8,5%'*&'6*)'0;0,18'8'2'4%'0'&%/2'10%5'&*$')+,0'61$6*0%H' '.5'0+*1/5')+%0%'&',/'*6,18'8'2'4%'-,7%.' +,0'0+*1/5'4%'6$%0($,4%5',.''0 11&&,(,%.)/2' /'$-%'5*0%')*'%.01$%'0/%%6'.'.5',0'4%0)'5; 8,.,0)%$%5'+26*5%$8,('//2''0''(%)')%'*& 8*$6+,.%'+/*$'/'+25$')%',0'101''//2'(*.)$'; ,.5,(')%5''*.'((*,8)'*&',)0'5%6$%00,.-'%&&%()' 16*.')+%'($(1/'),*.

'/'$-%'.,1.4%$'*&'('0%0''&'6.%18*.,'')%$8,.')%',.'+%')/)+'3,)+*1)')+%'.%(%00,)2'*& '.2'&1$)+%$',.)%$&%$%.(%'*.')+%'6'$)'*&')+% 6+20,(,'.')+'.'+'0'4%%.'5%0($,4%5'$%; E1%.)/2'*.')+%')+%$'+'.5'(,$(180)'.(%0' '$,0%',.5,(')7%'*&'5'.-%$'3+,(+'$%E1,$%')* 4%'8%)'42'8*$%'(),7%')$%')8%.)'.')+*0% 3+*0%'7,)'/,)2',0',86',$%5'42''-%'+'4,)0' *$')+%$'('10%0''.5',.'3+*8'6$*-.*0,0 ,0'/%00'&'7*1$'4/%'06%(,'/'('$%'.5'3')(+

&1/.%00‘ 0+*1/5‘ 4%‘ %B%$(,0%5‘ ,.‘ ‘ .),(,6‘),*.‘ *&‘ ‘ .2‘ 1.&‘7*1$‘4/%‘ 02 8 6)* 8 0‘ +%‘ (+,%& 0*1$%‘ *&‘ 5‘.-%$‘ ‘0‘ ‘/$%‘52‘ 0)‘)%5‘,0‘&‘,/1$%‘ *&‘()*5,‘(‘ 6*3%$‘‘.5‘ (*.0%E1%.)/2‘ ‘//‘02 8 6;)*8 0‘*&‘01(+‘&‘,/1$%‘ 8 10)‘4%‘ (‘$%&1//2‘3‘)(+%5‘ &*$

.2‘ 0,-.‘*&‘ (‘$5,‘(‘&‘,/1$%‘3,/‘,.‘)+%‘&,$0)‘ 6/‘(%‘01--%0)‘)+%‘‘57,0‘4,/,)2‘*&‘‘58,.,0)%$,..-‘ ‘/(*+*/‘ +%‘ %B+,4,),*.‘ *&‘ 0 8‘ ‘//‘E1‘.),),%0‘ *&‘3,.%‘ 3,)+‘ &**5‘ ,0‘ 0*8%),8 %0‘ 10%&1/‘,.‘ 0),8,5‘),.-‘)+%‘ ‘66%),)%‘ ‘.5‘ ‘00,0),.-‘5,-%0;),*.‘,.‘(‘0%0‘3+%$%‘)+%$%‘ ‘$%‘ .*‘ 02 8 6)* 8 0‘ *&‘ ‘0)+%.,‘Ĥ 41)‘3+%.‘01(+‘02 8 6)* 8 0‘ ‘$,0%‘ ‘/(*+*/‘ 8 10)‘4%‘ %8 6/*2%5‘,.‘ /‘$-%$‘E1‘.),;),%0‘)‘8‘2‘4%0)‘)%5‘-%.%$‘//2‘)+‘)‘‘‘61/0%‘ *&‘ *7%$‘ @!‘ (‘//0‘ &*$‘)+%‘ %8 6/*2 8 %.)‘ *&‘ 0),8 1/‘.)0‘ $‘.52‘66%‘$0‘,.‘ 8 *0)‘ (‘0%0‘)*‘ ‘.03%$‘4%0)‘ +%‘ ‘8*1.)‘‘58,..0)%$%5‘ 8 10)‘5%6%.5‘ 6*.‘,)0‘ %&&%()0Ĥ ‘.5‘‘/)+*1-+‘ ,.‘ 8 *0)‘*‘0%0‘&$*8‘&*1$‘)*‘ %,-+)‘*1.(%0‘,.‘)+%‘)3%.)2 &*8‘+*1$0‘3,‘ 4%‘01&&,(,%.)‘,&‘)+%‘ ‘0)+%..,‘‘ 6%$0,0)‘ ,)‘ 8 10)‘4%‘ 5,0%‘0%‘ ,0‘*.%‘ *&‘(*86‘$‘),7%/2‘0+*$)‘51$‘),*.‘.‘‘.5‘)+%$%‘ ,0‘6%$+‘60‘.*‘*)+%$‘ ‘(1)%‘ ,//.%00‘ ,.‘3+,(+‘)+%‘ &$%%‘%B+,4,),*.‘*&‘‘/(*+*/‘3+%.‘,.5,(‘)%5‘,0‘ 8*$%‘/,9%/2‘)*‘ 4%‘ ‘57‘.)‘-%*10‘ ‘$9‘‘.5‘ ‘8 8*.,‘‘‘$%‘,.‘0*8%‘(‘0%0‘10%&1/‘,.‘‘55,),*.‘)*‘)+%‘‘/(*+*/Ĥ‘.5‘5,-,)‘/,0‘,.‘8%5,18‘5*0%0‘ ‘0‘‘‘8%‘.0‘*&‘8‘,.)‘,.,.-‘)/H%‘+%‘$)‘‘.5‘(,$; (1/‘),*.‘,0‘*&‘)%.)‘*&‘1.5*14)%5‘7‘/1%

.‘)+%‘)$%‘)8%.)‘*&‘&‘,/1$%‘*&‘(‘$5,‘(‘6*3%$‘+*3%7%$‘,)‘,0‘,86*$)‘.)‘)*‘‘))%86)‘)*‘ 8*5,&2‘‘0‘&‘$‘‘0‘6*00,4/%‘)+*0%‘(*.5,),*.0‘ 16*.‘3+,(+‘01(+‘&‘,/1$%‘6$,.(,6‘//2‘5%6%.50‘ +%‘8*0)‘,86*$)‘.)‘*&‘)+%0%‘6$*4‘4/2‘,0‘)+%‘ 62$%B,‘

+%‘$%8%5,%0‘&*$8%$/2‘%86/*2%5‘3,)+‘)+%‘ *4>%()‘*&‘5,8,.,0+,..-‘62$%B,‘G‘(*.,)%‘)‘$)‘$ %8%),(‘‘.5‘7%$‘)$18G+‘7%‘01(+‘‘‘5%6$%00; ,.-‘%&&%()‘16*.‘)+%‘+%‘$)‘.5‘(,$(1/‘),*.‘)+‘))+%,$‘10%‘+‘0‘/*.-‘4%%.‘‘4‘.5*.%5‘ +%‘ $%(%.)‘.),62$%),(0G‘.),&%4$,.‘.5‘.),62$,.‘ G‘$%‘*6%.)‘)*‘)+%‘0‘8%‘*4>%(),*.‘.5‘)+%2‘ *((‘0,*.‘//2‘(‘10%‘0*‘ 8 1(+‘6$*0)$‘),*.‘.5‘ (*//‘60%)+‘)‘),,%2‘8 10)‘(%$)‘+,/24%‘$%-‘$5%5‘ ‘0‘5‘.-%$*10‘$%8%5,0%‘.5‘‘0‘$%E1,$,.-‘-$%)‘ (‘1),*.‘,.‘)+%,$‘%86/*28%.)‘ /)+*1-+‘‘ 8 1(+‘8*$%‘%B)%.0,7%‘%B6%$,%.(%‘,0‘.%(%00‘$2‘)‘6$%0%.)‘)+%‘1),/,)2‘*&‘)+%0%‘5$1-0‘,.‘)+%‘)$%)8%.)‘*&6.%18*.,‘‘,0‘%B)$%8%/2‘5*14)&1/

‘$%8%52‘*&‘8 1(+‘-$%‘)%$‘7‘/1%‘)+‘.‘)+%‘ 6$%(%5,.-‘,0‘E1,..%‘ .‘*$5%$‘+*3%7%$‘)*‘ 6$*51(%‘‘.2‘8‘$9%5‘,.&/1%.(%‘16*.‘)+%‘62; $%B,‘‘)+,0‘5$1-‘8 10)‘4%‘-,7%.‘,.‘5*0%0‘*& &$*8‘)3%.)2‘)*‘)+,$)2‘-$‘,.0Ĥ ‘.5‘,.‘08 1(+‘ ‘0‘%7%.‘01(+‘/‘$-%‘5*0%0‘ ‘$%‘ $‘$%/2‘&*//*3%5‘ 42‘‘‘$%51(),*.‘,.‘)+%‘)%86%$‘)1$%‘*&‘8*$%‘)+‘.‘ g‘*$‘@g‘ ‘‘.5‘‘$%‘‘6)‘)*‘(‘10%‘.‘10%‘‘ 7*8,),.-‘‘.5*)+%$‘1.&‘7*1$‘4/%‘02 8 6)*8 0‘)+,0‘8%)+*5‘*&‘10,.-‘)+%‘5$1-‘,0‘.*)‘-%.%; $‘//2‘)*‘4%‘$%(*8 8.5%5‘)‘,0‘,.‘08‘//%$‘ 5*0%0‘*&‘)+$%%‘)*‘&,7%‘-$‘,.0‘)+‘)‘E1,..%‘,0‘ *&‘$85*14)%5‘10%‘ +10‘-,7%.‘)+$%%‘*$‘&*1$‘),8 0‘,.‘)+%‘)3%.)2 &*1$‘+*1,$0‘A6%$+‘60‘4%0)‘ 0106%.5%5‘,.‘.+/9R‘,)‘‘66%‘$0‘)*‘0)%‘52‘)+%

.%$7*10‘020)%8‘‘.5‘010)‘,.‘)+%‘6‘),%.)‘‘/;)+*1-+‘,)‘8‘2‘+‘7%‘+)))/%‘*$‘.*‘,.&/1%.(% 16*.‘)+%‘)%86%$‘)1$%‘(+‘$)

‘81(+‘8*$%‘%&&,(,%.)‘8%‘.0‘*&‘5,8,..0+; ,.-‘)+%‘62$%B,‘)+‘.‘42‘,.)%$.‘/‘$%8%5,%0‘,0‘ 42‘)+%‘%B)%$.‘/‘‘66/,(‘),*.‘*&‘(*/5‘ +,0‘$%; 51(%0‘)%86%$‘)1$%‘.*)‘*./2‘42‘‘40)$‘(),.-‘ +%‘)‘41)‘/0*‘42‘0),81/‘),.-‘)+%‘.%$7*10‘ (%.)$%0‘(*.(%$.%5‘,.‘)+%‘$%-1/‘),*.‘.‘.5‘(*.;)$*/‘*&‘+%‘)6$*51(),*.‘.‘.5‘+%‘)/*00Ĥ‘.5‘ ,)0‘‘5*6),*.‘,.‘0*8%‘&*$8‘,0‘,.‘8*0)‘(‘0%0‘ 10%&1/

+%‘)$%‘)8%.)‘*&6.%18*.,‘‘42‘)+%‘%B;)%$.‘/‘‘66/,(‘),*.‘*&‘(*/5‘+‘0‘4%%.‘81(+‘ 8*$%‘%B)%.0,7%/2‘%86/*2%5‘,.‘ %$8‘.2‘)+‘.‘ ,.‘)+,0‘(*,8)$2‘ +%‘‘66/,(‘),*.‘*&‘&$%; E1%./2‘$%.%3%5‘(*/5‘3%)‘(*86$%00%0‘)*‘)+%‘ =%0)‘ ‘0‘‘57*(‘)%5‘42‘ ,%8%2%$‘)3%.)2‘ 2%‘$0‘‘-*‘3+*‘0)‘)%5‘)+‘)‘,.‘)+%‘8‘>*$,)2‘*& *‘0%0‘)+10‘)$%‘)%5‘6‘,.‘5206.*%‘‘.5‘62‘ $%B,‘/‘02 8 6)*8 0‘ 3%$%‘ 8‘$9%5/2‘ $%+%7%5‘ ‘.5‘)+%‘51$‘),*.‘*&‘)+%‘ 5,0%‘0%‘ 3‘0‘*&)%.‘ 0+*$)%.%5

+%‘10%‘*&‘)+%‘(*/5‘4‘)+‘,0‘‘57*(‘)%5‘42‘ 1%$-%.0%.‘,.‘)+%‘%‘$/,%$0)‘-%0‘*&‘)+%‘5,0%‘0%‘ 4%&*$%‘)+%‘+%‘$)‘+‘0‘4%(*8%‘%.&%%4/%5Ĥ 41)‘)+%‘5,&&,(1/),%0‘)%.5,.-‘01(+‘)$%‘)8%.)‘‘.5‘)+%‘6$%>15,(%‘-‘,.0)‘,)‘‘$%‘01(+‘)+‘)‘81(+‘ 8*$%‘(*.(/10,7%‘%7,5%.(%‘*&‘,)0‘1),/,)2‘,0‘ .%(%00‘$2‘4%&*$%‘,)0‘‘5*6),*.‘,0‘)*‘4%‘$%(*8; 8%.5%5‘,.‘‘.2‘%B(%6)‘6%$+‘60‘)+*0%‘E1,)%‘ %B(%6),*.‘/‘(‘0%0‘,.‘3+,(+‘)+%‘)%86%$‘)1$%‘ $%‘(+%0‘!D[‘*$‘!Mg‘‘A+26%62%B,‘R

6*.-,.-‘)+%‘3+*/%‘01$&‘(%‘*&‘)+%‘4*52‘ 3,)+‘(*/5‘*$‘)%6,5‘3‘)%$‘+‘0‘‘/$%‘52‘4%%.‘ ‘//15%5‘)*‘‘0‘‘‘10%&1/‘8%‘.0‘*&‘6$*8*),.-‘ 0/%%6‘ +,0‘.‘%‘02‘8%)+*5‘*&‘(**/,.-‘)+% 6‘),%.)‘.‘.5‘8‘2‘*&)%.‘4%‘6$‘(),0%5‘0%7%$‘/),8%0‘‘‘5‘2‘ ,)+‘5,0),.()‘‘57‘.)‘-%‘ ‘(9,.-‘ ,.‘‘‘3%)‘0+%%)G‘‘81(+‘8*)%‘%&&,(,%.)‘8%‘.0‘ G,0‘*&)%.‘10%&1/‘%06%(,‘//2‘,.‘*‘0%0‘))%.5%5‘ 3,)+‘6$*8,.%.)‘.%$7*10‘02 8 6)*8 0

+%‘8*0)‘$%(%.)‘8%)+*5‘*&‘)$%‘),.-‘6.%1; 8*.,‘‘42‘(*/5‘,0‘42‘)+%‘‘66/,(‘),*.‘*&‘‘.‘ ,(%4‘-‘)*‘)+%‘(+%0)‘*7%$‘)+%‘,.&/‘8%5‘/1.-‘ +,0‘)$%‘)8%.)‘3+,(+‘+‘0‘4%%.‘)%0)%5‘%06%; (,‘//2‘42‘$‘%%0‘,0‘.*)‘*./2‘‘‘7%$2‘%&&,(%.)‘ 8%‘.0‘*&‘$%51(,.-‘)+%‘)%86%$‘)1$%‘41)‘,)‘ ‘66%‘$0‘‘/0*‘)*‘(*.)$*/)+%/1.-,.&/‘88‘),*.‘ $‘%%0‘0‘20‘)+%‘)$%‘)8%.)‘,0‘101‘//2‘6/%‘; 0‘.)‘)*‘)+%‘6‘),%.)Ĥ‘,.‘)+%‘-$%‘)‘8‘>*$,)2‘*& (‘0%0‘‘$%8‘$9‘4/%‘,86$*7%8%.)‘&*//*30‘)+% ‘66+(‘),*.‘*&‘)+%‘,(%Ĥ‘‘$%51(),*.‘*&‘)%86%$‘;)1$%‘101‘//2‘*((1$0‘‘)‘*.(%‘*&)%.‘‘8*1.); ,.-‘)*‘‘‘g‘*$‘ g‘ Ĥ‘,&‘‘‘0140%E1%.)‘$,0%‘ *((1$0‘,)‘101‘//2‘$‘6,5/2‘2,%/50‘)*‘‘0%(*.5‘ ‘66/,(‘),*.Ĥ‘.5‘)+%‘,86$*7%8%.)‘,0‘.*)‘(*.; &,.%5‘)*‘‘‘8%$%‘$%51(),*.‘*&‘)%86%$‘)1$%‘41)‘ ,.‘8‘.2‘(‘0%0‘)+%$%‘,0‘.‘‘$$%0)‘,.‘)+%‘5%; 7%/*68%.)‘*&‘)+%‘6+20,(‘/‘0,-.0‘ +%‘$%01/)0‘ *4)‘,.%5‘42‘ $‘ %%0‘>10),&2‘)+%‘+*6%‘)+‘)‘)+%‘,(%4‘-‘10%5‘3,)+‘6$*6%$‘6$%(‘1),*.0‘ 8‘2‘6$*7%‘‘7‘/1‘4/%‘,5‘,.‘)+%‘)$%‘)8%.)‘*& 6.%18*.,‘‘Ĥ‘.5‘,)‘,0‘(%$)‘,./2‘5%0%$7,.-‘*& ‘‘8*$%‘%B)%.5%5‘)$,‘/

/)+*1-+‘&‘,/1$%‘*&‘(‘$5,‘(‘6*3%$‘,0‘)+%

(+,%&'0*1$(%'*&'5'.-%$',.'6.%18*.,''5206.*%''
,0'*((-0,*.''//2''' 8*0)'-$'7%'0286)*8'%06%;
(,'//2',.')+*0%'('0%0',.'3+,(+'4*)+'/1.-0'
4%(*8%'%B)%.0,7%/2',.7*/7%5'+,0'5206.*%''
,0'51%'6'$)/2')*')+%'/1.-(*.0*/,5'),*.'''.5'
6'$)/2')*')+%'62$%B,'H+%.(%',)'3,/'4%'*./2'
6'$),'//2'$%/,%7%5'42'.2)+,.-'3+,(+'$%51(%0'
)+%')%86%$')1$%'')'+'0'/*.-'4%%.'9.*3.'
)+')')+%'5206.*%''*&'6.%18*.,'',0'5,8,.,0+%5'
)%86*$'$,/2'42'7%.%0%(),*.'''.5'')')+%'6$%0%.)'
5'2')+,0',0'6$*4'4/2')+%'*./2'0286)*8',.'
)+,0'5,0%'0%'&*$')+%'$%/,%&'*&'3+,(+')+%'6$'(;
),(%'*&'4/%%5,.-'3*1/5'4%'$%-'$5%5''0''')''//
>10),&,'4/%'.'(*.0,5%$,.-')+%''57,0'4,/,)2'*&'
$%8*7,.-'4/**5',.')+*0%'('0%0',.'3+,(+'520;
6.*%''(*.0),)1)%0''.'1$-%.)'0286)*8',)'8 10)'
+*3%7%$'4%'+*8%',.5'.*)'*./2')+')+%'
$%/,%&',0'8%$%/2')86*$'$2'41)+')')+%'/*00'
*&'4/**5'8 10)'%.5'8*$%'*$'/%00')*'3%'9%.'
)+%'6'),%.)''.5'+%.(%')*'&'7*1$')+')'(*.;
5,),*.'*&''0)+%.,''3+,(+',0'*&''//')+,.-0')+%'
8*0)'*'4%'&%'$5'/%%5,.-',0'(%$)'+.)'./2')+')*'4%'
)*'4%')+*1-+)'*&'3+%.')+%'5206.*%''*$%')%.0'
/,&%''.5'3+%.'')')+%'0'8%'),8%')+%'0)$%.-)+'
'0',.5,(')%5'42')+%'61/0%',0'-**5H'.5',)'
0+*1/5'.*)'%B(%%5')+%'$%8*7'/*&%,-+)'*$')%.'
1.(%0'&'4/**5'1(+'('0%0'$%'(%$)','./2'
.*)'(*888*.',.'6.%,1.*.,''%B(%6)',.')+*0%'3+*'
+'7%'4%%.',.)%86%$')%'+%.'8'$9%5',)',0'
'/3'20',.5,(''),7%'*&'5'.-%$'.',)0'8'.'-%;
8%.)')+%'6$'(),),*.%$'8 10)'4%'-1,5%5'42')+%'
-%.%$'/'(*.5,),*.'*&')+%'6'),%.)H41)'06%'9;
,.-'-%.%$'//2',)'('//0'&*$)+%'&,%%B+,4,),*.'*&'
'/(*+*/'.'5')+%'%B)%$.'/'66/,(',*.'*&'(*/5'
*/5''66/,%5',.'0*8%'*&')+%'3'20'!/$%'52'
,.5,('))%5',0'*&%06%(,'/7'/1%',.')+%0%'('0%0'
.*)'*./2'$%51(,.-')+%')%86%$')1$%'41)'E1,%);
,.-')+%'6'),%.)''.5'*&)%.'6$*51(,,=$%&,$%0+,.-'
0/%%6'+%',&/1%.(%'*&'.'%B6%$,%.(%5'.1$0%'
,0''//,86*$)'.)'.'0*8%'('0%0',)'8'2'4%'
'57,0'4/%')*'58,.,0)0%$'.'*6,')%'+,0'
0+*1/5'*./2'4%'5*.%'+*3%7%$'0''''/'0)'$%;
0*1$(%H'.'5'3+%.')+%$%',0'8'$9%5'0)+%.,'),'
,0',8'57,0'4/%'+%'*6,')%'0+*1/5'4%'-,7%.'
,.'*.%'&1//5*0%'01&&,(,%.)')*'6$*(1$%'0/%%6'
*$6+,.%'58,.,0)%$%5'+26*5%$8,('//2',0')+%'
4%0)'&*$8'*&%B+,4,),.-',)
&')+%'8'.'-%8%.)'*&'*)+%$'(*86/,(','*.0'
*((1$$,.-'.'.')+%'(*1$0%'*&'6.%8.*.,''')+%$%
H,0'.*)+,.-'06%(,'/)*'4%'$%8'$9%5H)+%2'8 10)'
4%')$%')%5'*.'-%.%$'/'6$,.(,6/%0'+%'%B,0);
%.(%'*&'4$*.(+,'/(')'$$+'*&)%.'$%E1,$%0'
08'//'5*0%0'*&',6%('(1'.+''3,)+'('$4*.')%'*&'
'88*.,18''.5'0'/,.%0'.'$$+*%''.5'-'0;
)$,('0286)*80'('$%')*'4%'8%)'42'('$%&1/&&,%)'
,.-'(+'/9'4,081)+''.5',&'.%(%00'$2''*)+%$'
'0)$,.-%.)'$%8%5,%0'.'6.%18*.,''''0',.'
)+%$'(1)%'5,0%'0%0')+%''58,.,0)$'),.'*&'
''.'*6,')%'%.%8''0''.'%&&,(,%.)''.5'0'&%'
8%'.0'*&'(+%(9,.-'5,'$$+*0''%$,('$5,),0'
$'$%/2'58,)0'*&''.2'06%(,'/,.)%$&%$%.(%
'')'' G 1$,.-')+%'6%$,*5'3+,(+'
,888%5,')%/2'01((%%50')+%'($,0,0')+%'1)8*0)
('$%',0'$%E1,$%5')*'0166*$)')+%'6'),%.)''.5')*'
6$%7%.)''.2'0%$,*10''8*,8)'*&'6$*0)$')*.'
3+,(+''')+,0',)8%0*'*&)%.'016%$7%.%0'
),81/'.)0''$%'101'//2'$%E1,$%5'&*$'0*8%
5'20''&)%$')+%')%86%$')1$%'+'0'))',.%5')+%
.*$8'/'0)'.5'$5'*.7'/%0(%.(%',.'8*0)'
('0%0',0'E1,(9/2'%0)'4/,0+%5'*+5'5,%)',0'
0**.'5%0,$%5''.5'8'2'4%'0'&%/2'-,7%.'*.,(0'
G01(+''0'E1,..%',$*.''.5'(*5/,7%$'*,/G'
'.5'(+'.-%'*&',$'$%'10%&1/',.''00,0),.-')+%'
$%0)*$'),*.')*'+%'/)+

'%(*.5'$2'.%),8*.,'G& # 2
G%(*.5'$2'6.%18*.,''',0''.',.&/'8;
8'),*.'*&')+%'/1.-'*((1$$,.-',.')+*0%'3+*'
'$%')+%'014>%()0''*&'0*8%*)+%$'5,0%'0%H)+%
6.%18*.,('6$*(%00')'.5,.-','8*$%'*$'/%00'
('10'/'$%/'),*.')*')+%'5,0%'0%',.')+%'(*1$0%'
*&'3+,(+',)'016%$7%.%0
5" / " " " 'G'%&*$%'6$*;
(%%5,.-')*'(*.0,5%$'0%(*.5'$2'6.%18*.,''''0'
)+10'5%&,.%5'%'+'7%')*'$%8'$9')+')'*$;
5,.'$2'6.%18*.,''*((')0,*.''//2'*((1$0'.'
)+%'(*1$0%'*&')+%$'5,0%'0%0''0''.' "
(*86/,('),*.'1(+'6.%18*.,'0'8'2'4%'
)%$8%5' "/" ''.5')+%2''$%')*'4%'5,0;
),.-1,0+%5'&$*8')+%'0%(*.5'$2'&&%(),*.0'
+%2'101'//2'(/*0%/2'$%0%84/%',.')+%,$'(/,.,('/
&%')1$%0')+%'(1)%'5,0%'0%''0',)'+'0'4%%.'
'/$%'52'5%0($,4%5'H'/)+*1-+',.'0*8%'*'0%0'
)+%2''$%'8*$%'*$'/%00'8*5,&,%5'42')+%'5,0%'0%'
,.')+%'(*1$0%'*&'3+,(+')+%2'016%$7%.%
P ' " " G +%$%',0'/0*'
('00'*&'(*.0*/,5'),*.0'*&')+%/1.-'7%$2'(*8;
8*.',.')+*0%'3+*'$%')+%'014>%()0''*&'*)+%$
5,0%'0%0'3+,(+'$%'*&)%.'5%0($,4%5'0'0%(*.;
5'$2'6.%18*.,'0')+*1-+'$%'/2'&*$')+%'8*0)'
6'$)'.*.,.&/'88')*$2',.')+%,$'.')1$%H41)'
)+%2'8'2'4%'(*.7%.,%.)/2'//15%5')*',.')+%'
6$%0%.)''$),(/%'+%0%'$%')+%'(*.0*/,5'),*.0'
0*'*&)%.'8%)'3,)+')')+%'4'0%0''.5'8*$%'5%;
6%.5%.)'6*$),*.0'*&')+%/1.-0'.')+%'(*1$0%'
&'4)+'(+$*.,('.5'(1)%'5,0%'0%0''.5'/0*'
.')+%'-%5'+%2'+'7%'4%%.')%$8%5'#
/''" " '.5'(*.0,0)'..')+%'8',.'
&'(//'60%'+26%$0%8,''.5'*%5%8''*&')+%
/1.-),001%'$%01/),.-'&$*8'3%'9',.06,$')*$2'
6*3%$'&%%4/%'(,$(1/'),*.''.5'-$'7,)',*.'
+%'(*.0*/,5'),*.')+10'8%(+'.,('//2',.51(%5'
,0'8($%'0%5'42'8*$%'*$'/%00'%B15'),*.'*&'
/,E1*$'0'.-1,.,0'.5'4/**5(*$610(/%0',.)*'
)+%''/7%*/,H3+,(+'%B15'),*.',0'51%')*')+%'
5'8'-%')*')+%'3'//0'*&')+%'(6,//'$,%0'('10%5'
42')+%'4/**50)'0,0'+%$%',0'/0*'0*8%03%//;
,.-''.5'0+%55,.-'*&')+%'/7%*/'$'%6,)+%;
/,18

--$$(D G %(*.5'$2'6.%18*.,'0''0'
'/$%'52'0)')%5'4%'$''('10'/'$%/'),*.')*')+%
5,0%'0%',.')+%'(*1$0%'*&'3+,(+')+%2'016%$;
7%.%'+%2'3*$55'0%%8')*'*3%')+%,$'*$,-,.'
'/8*0)'%B(/10,7%/2')*'0*8%'4.*$8'/'(*.;
5,),*.'3+,(+')+%'6$%%B,0),.-'5,0%'0%'+'0',.;
51(%5'+%2'*((1$',.')+%'(*1$0%'*&'8'.2'
5,0%'0%0''.5'0*8%),8%0''66%'$')*'(*.0),)1)%
)+%''(1)%''&&%(),*.'3+,(+'5%)%$88%0'5,00*/1;
),*.'.'$,-+)<0'5,0%'0%')+%2''$%')+%'8*0)

,.&/'88'),*.'*&')+%'',$ %0,(/%0' .&/'88';),*.'*&')+%'4$*.(+,'/81(*10'8%84$'.%'8'2'-,7%' $,0%')*' 4$*.(+*6.%18*.,'' ,')3*'3'20' A R' 42' ('10,.-',.')+%'&,$0)'6/'(%'(*//'60%'*&')+%'/1.-),001%H' .5' A@R' 42')+%'W5,$%()'%B)%.0,*.'*&')+%',.&/'88'),*.'&$*8')+%'4$*.(+,')*')+,$7%0,(/%0' +%'6.%18*.,()'6$*(%00' 4%,.-')+%' $%01/)'*&')+%'4$*.(+,),0'/8*0)',.7'$,'4/2',.7*/7%0'4*)+'/1.-0

A R' $ " " 2 " ' ") ' '

(* *60% G *//'60%'*&')+%'/1.-),001%'-$%')/2'&'7*1$0)+%*((1$$%.(%'*&'4$*.(+*6.%18*.,''.5'101'//2')+%'6.%18*.,('6$*(%00',0'6$,.(,;6'//2'(*.&,.%5')*')+*0%'6*$),*.0'*&')+%'/1.-'3+,(+'(*//'60%'+'0')=%.'6/'(%' +,0',0'6'$),(1/'$/2')+%' ('0%' ,.' 2*1.-' (+,/5$%.''/)+*1-+',)'3*1/5'4%'4%2*.5')+%'0('6%'*&')+%'6$%0%.)'$),(/%')*'5,0(100'')'/%.-)+')+%'$%/':),*.'3+,(+'0140,0)0'4%)3%.'4$*.(+,'/('()'$$+'.5'61/8*.'$2'(*//'60%')+%'8*5%'*&'6$*51(;),*.'*&')+%'/'))%$'8'2'4%'4$,%&/2',.5,(')%5'+%$%' '$%')3*' (,$(180)'.(%0'6$,.(,6'//2'(*.(%$.%5',.')+%':#$*51(),*.'*&')+%'(*//'60%'3+,(+',0'(*.0%(1),7%')*'4$*.(+,),0G)+%'.'$;$*3,.-'*&')+%'4$*.(+,'/)14%0'.5')+%'3%'9;.%00'*&')+%',.06,$')*$2'6*3%$'+%'81(*10'8%84$'+%'*&')+%'4$*.(+,'4%(*8%0'(*.0,5%$;'4/2'3*//%.'0')+%'$%01/)'*&')+%',.&/'88')*$2'6$*(%00'*&)%.'4%,.-')+$*3.',.)*'&*/50H'.5',)0'01$&'(%',0'(*7%$%5'3,)+')+,(9')%.'(,*10'81(10'+%0%'(*.5,),*.0'8'2'(*10%0*81(+'.'$$*3,.-'*&')+%'08'//%$')14%0''0')*'$%.5%$'+%'%.)$'.(%'*&',$'%B(%%5,.-/2'5,&&,(1/)'.5'+%2'8'2'%7%.'(*86/%)%/2'6$%7%.)',)'.'55,),*.')+%'4$*.(+,'/'.'$$*3,.-')+%'6*3%$'*&',.&/'),.-')+%'/1.-0',0'101'//2'5,8,.;,0+%5'+,0',0'51%'6')$)/2')*')+%'-%.%$'/'5%4,/,)2'3+,(+'0*'*&)%.'%B,0)0'6$,*$')*')+%'4$*.(+,),0''.5'6')$)/2')*')+%'5'8'-%')*')+%'$%06,$')*$2'810((%0'('10%5'42')+%'&%4$,/%6$*;(%00'+%'016%$&,(,'/(+'$')(%$*&')+%'$%06,;$')*.'51%')*')+%'&%7%$'/0*',50',.')+%'6$*;51(),*.'*&')+%'(*//'60%''0'5*%0'/0*''.23%'9.%00'&')+%'*00%*10'0)$1()1$%0'&')+%'W)+*$'B'01(+'0'%B,0)0',.$,(9%)0'+%'(*//'60%'+10',.51(%5',0'%06%(,'//2'&$%E1%.)',.')+%'6*0)%$,*$'.5',.&%$,*$'6*$),*.0'*&')+%'/,8-0G'+*0%'6*$),*.0',.'3+,(+'.*$8'//2')+%',.&/'),*.'*&')+%'/1.-',0')+%'/%'0)'(*86/%)%'*88%.(;,.-'+%$%'')+%'6$*(%00'8'2'-$'51'2'%B)%.5'163'$50',/'/'$-%''$%'0'*&'4*)+'78-0'4%;(*8%',.7*/7%5'.')*)+%$'('0%0''*3,.-')*''8*$%',$$%-1/'$5,0)$,41),*.'*&')+%4$*.(+,'/*40)$1(),*.')+%'(*//'60%',0'/,8,)%5')*'08'//,0*/')%5'6*$),*.0'*&')+%/1.-'+%0%'6*$),*.0'*&')+%'/1.-'+%'6$*(%00'8'2'-$'51'2'%B)%.5'7'$2',.'0,C%'&$*8''+%86 0%%5')*''3'/.1)'+%2''$%'(*888*./2'8*,H%'*$'/%00'3%5-%'0+'6%5'3,)+')+%,$''6,(%0')*3'$50')+%'4$*.(+,0'/%'5,.-')*')+$%'')+%'6$*(%00'8'2'-$'51'2'%B)%.5'7'$,*10'5%-$%%0'*&'(*.-%0),*.'' .5%86+20%8'+%')%.5%.(2'*&')+%'6.%18*.,('6$*(%00')*W*((1$,.')+%'(*//'60%'56'6*$),*.0'*&')+%')8-',051%'6'$)/2')*')+%'+26%$0%8,''3+,(+',0',.51(%5'42')+%'(*//'60%''.5'6')$)/2')*')+%',$$,)'),*.'*&'=/%5'4$*.(+,'/0%($%),*.'*//'60%'*&')+%/1.-),001%',.7'$,'4/2',.51(%0'8*$%'*$'/%00'(*.-%0),*.'+,0',0'*3,.-')*')+%'40%.(%'*/)+%'%B6'.0,*.''.5'(*.)$')(),*.'*&')+%',$'7%0,(/%0'3+,(+'.*$8''//2',5')+%'61/8*.'$2'(,$(1/'),*.''.5'/0*')*')+%',86%5,8%.)')*)+%'4/**5&/*3'$%01/),.-'&$*8',86%$&%()'%$'),*.'+10'$%01/)0'8*$%'*$'/%00'5'8'-%')*')+%'7%00%/3'//0''.5'(*.0%E1%.)'%0('6%'*&0*8%'*&')+%'(*.0),)1%.)0'*&')+%'4/**5'+%'(*.-%0),*.',0'E1,(9/2'&*//*3%5'42'*%5%8''.5')+%'4/1,0+61$6/%'(*//'60%56*$),*.0'*&')+%/1.-'4%(*8%'5%%6%$',.'(*/*1$'/%00'$%0,0)'.)''.58*$%'&,.'4/%',.'(*.0,0)%.(%Q .*)+%$'($(180)'.(%'3+,(+'*&)%.''66%'$0)*'6/'2''6$*8,.%.)'6')$)',.')+%'('10'),*.''*&')+%'6.%18*.,('6$*(%00',0')+%'6$%0%.(*3,)+,.')+%''/7%*/,'*&')+%',.&/'88')*$2'6$*51(0')0'*&)+%'4$*.(+,'/'81(*10'8%84$'.%'1(+'6$*;51(0)0'$%'&$%E1%.)/2'&*1.5',.')+%'/1.-0',.'('0%0'*&'4$*.(+*6.%18*.,''+%2'*((1$',.5'0(''))%$%5'-$*160'*&',$7%0,(/%0''.5'$%%7,'5%.)/2',.+'/%5'+%2''$%&*1.5'4*)+',.')+%',$(*.)',.,.-''.5',.')+%'(*//'60%5'6*$),*.0'*&')+%'/1.-'41)'%06%(,'//2',.')+%'/'))%$')+%'6$%0%.(%'*&'(*//'60%'.%(%00'$,/2',.)%$&%$,.-'3,)+')+%,$'$%8')*$2'6*3%$'+%'81(*10'8%84$'+%'*&')+%'4$*.(+,'4%(*8%0'(*.0,5%$;'4/2'3*//%.'0')+%'$%01/)'*&')+%',.&/'88')*$2'6$*(%00'*&)%.'4%,.-')+$*3.',.)*'&*/50H'.5',)0'01$&'(%',0'(*7%$%5'3,)+')+,(9')%.'(,*10'81(10'+%0%'(*.5,),*.0'8'2'(*10%0*81(+'.'$$*3,.-')*

( ),0' 3,)+'6%$+'60' '' /,))/%' 62$%B,' '6$%(%5%' &*$' ''7'$2,. -'/%. -)+' *&'),8 %')+%' 02 8 6)* 8 0' 51%')*')+%', 8 6+*'),*.''*&')+%'/1. -),001% ' +%' %'$/,%0)' 02 8 6)* 8 0' *&')+%' 6. %1 8 *. ,(' 6$*(%00' '$%' 42' .** 8%' .0' 3%// 5%&,. %5 ' '. 5' (*. 0%; E1%.)/2')+%'),8 %' ')' 3+,(+')+%' /1. -' 4%(*8 %0' ,. 7*/7%5' ('. .*)' 4%' &,B%5' 3,)+' (%$)', .)2' ,-*$0' (*. 71/0,*. ' '. 5' 7*8,),. -' '$%' 41)' $'$%/2' *40%$7%5' 01'//2' .', . ($%'0%', .')+%' '((%/%$'),*.' *&')+%' $%06,$'),*.' *$' ,.')+%' 5206. *%' ' '. 5' '' 8 '$9%5' $,0%' *&')%8 6%$')1$%' '$%')+%' &,$0)' 0,-. 0' *&')+%' 61/8 *. '$2', 8 6/,(';),*. ' +%' 4$%')+,. -' 4%(*8 %0' 7%$2' $'6,5' '. 5' (*8 8*./2' ('10%0' 8 1(+' 5,0)$%00')+%' (+,/5')*00,. -' '4*1)' '. 5' 4%,. -' %B(%%5,. -/2' $%0)/%00' +,0' 5206. *%'' ,0' 8 *$%' 8 '$9%5' ')' 0*$. %'),8 %0')+' .'')' *)+%$0' '. 5',0' *(('0,*. '//2' 8 *$%' *$' /%00' 5,0),. ()/2' 6'$*B208'/' +%' $%06,$'),*.' ,0' 016%$&,(,'/' ,. 06,$'),*.' 4%,. -' 0+*$)' '. 5')+%' %B6' .0,*.''*&')+%')+*$'B', 8 6%$; &%()' +%$%',0' 8 '$9%5''(),*.''*&')+%''((%00*$2' $%06,$')*$2' 8 10(/%0''. 5',0' *(('

),00.%' A+26*0)'),(' 6.%18*.,'R' +,0' +26*;
0)'),(' (*.0*/,5'),*.' 8'2' %B,0)' E1,)%' ,.5%;
6%.5%.)/2' *&' 4$*.(+,'/' (')'$$+'H 41)' 3+%.'
01(+' (')'$$+' *((1$0' ,.')+%' '-%5' '.5' &%%4/%'
-$'7,)','),*.'*&)%.'5%)%$8,.%0')+%'016%$7%.),*.'
&')+%'6.%18.,('6$*(%00'3+,(+'1.5%$' 01(+'
(,$())80)'.(%0' ,0' (*.0%E1%.)/2' .*)' ,.&$%;
E1%.)/2'1.,/')%$'/

+%.')+%' 8*$%' '(1)%'7'$,%),%0' *&'4$*.(+*;
6.%18*.,'')%$8,.')%'&')'//2')+%2'101'//2'5*'
0*'&$*8')+%')%.)+')*')+%' &*1$)%%.)+'5'2'*&'
)+%'5,0%'0%' %')+' ./,9%')+')' &$*8'(1)%'
6.%18*.,''.,0'8',./2'51%')*')+%',.)%&%$%.(%'
3,)+')+%'$%06,$')*$2'&1.(),*.''.5')*''81(+'
/%00'%B)%.)')*'&',/,1%'*&'($5,'(6*3%$' +%'
,.)%$&%$%.(%'3,)+')+%' $%06,$'),*.',0' 81(+'
-$%')%$')+'.',.'(1)%'6.%18*.,''&*$',.'5;
5,),*.')*')+%'5,8,.1),*.'*&')+%' $%06,$')*$2'
'$%''51%')*')+%'61/8*.'$2'(*.0*/,5'),*.'
'.5' *//'60%')+%$%',0')+%'81(+'8*$%',86*$;
)'.)' ('10%'*&',.)%$&%$%.(%G.'8%/2')+%',8;
6%5,8%.)')*')+%%.)$'.(%'*&',$'('10%5'42')+%'
03%//,.-'*&')+%'4$*.(+,'/81(*10'8%84$'.%'
'.5')+%' ((181/'),*.'*&'0%($%),*.',.')+%'
4$*.(+,'/')14%0' +%0%',.)%$&%$%.(%0'3,)+'
$%06,$'),*.'.%(%00,)'%',.(%'0%5'(),*.'*&'
)+%'$%06,$')*$2'810(/%0H 41)'3,)+')+%'6$*;
-$%00'*&')+%'5,0%'0%')+%0%'810(/%0'4%(*8%'
3%'9%.%5'6')$)/2'42')+%'&%7%$'.5'6')$)/2'
&$*8')+%',86%&$%()'0166/2'*&'*B2-%.'= ,)+'
)+,0'&',/1$%'*&'$%06,$')*$2'6*3%$')+%',.(*8;
6/%)%.%00'*&'*B2-%.'),*.'.%(%00'$,/2',.($%'0%0'
1.),/')+%'0166/2'*&'*B2-%.'8'2'4%(*8%'0*'
08'//'0')*'/%'5')*'(*86/%)%'810(1/'$
6'$'/20,0' +%'5'8'-%')+%'+%')$)'0',.
'(1)%'6.%18*.,''',0'51%'6')$)/2')*')+%'
5,8,.,0+%5'$%06,$')*$2''$%'' '.5'6')$)/2')*'
)+%'&%7%$H 41)')+,0'5'8'-%',0''' 81(+'/%00'
,86*$)'.)'%/%8%.)',.')+%'('10'),*.'*&'5,0;
0*/1),*.',.'+%'6.%18*.,'')+','),0',.
')+%'(1)%'5,0%'0%' .')+%'8*$%'(+$*.,('
&*$80'*&'4$*.(+*6.%18*.,''5%')+'8'2'.*)'
((1$'&$0*8%'8*.)+0''.5')+%.',)'$%01/)0'
'0'81(+'&$*8'-%.%$'/&',/1$%'*&'0)$%.-)+'('0
&$*8',.)%$&%$%.(%'3,)+')+%'$%06,$')*$2'&1.('
),*$/

+%.')+%'5,0%'0%'5*%0'.*)'%$8,.')%',.'
5%')+' ,86$*7%8%.)' ,.')+%'0286)*80'
'/3'20'-$'51'/' +%)%86%$')1$%'&'//0'0/*3/2'
0%7%$'/'5'20'.5'*(('0,*.'//2'0*8%'3%%90'
4%,.-'*((16,%5',.')+%'(*86/%),*.'*'&'5%&%$'
7%%*%.(%H''.5')+,0'-$'51'/'5%(/,.%',0'101'//2'
,.)%$$16)%5'42'8*$%'*$'/%00'8'$9%5''.5'&$%;
E1%.)' %B'(%$4'),*.0'.5'$%8,00,*.0'*&')+%'
&%7%$' +%'(*1-+' .5'5206.*%''5,88,0+'
'.5')+%' '66%),)%' -$'51''//2'$%)1$.]H 41)'
$%0)*$'),*.')*' +%'/)+',0''/3'20'6$*)$'()%5H
'.5')+%'(+,/5'$%8',.0)'&*$'0*8%',8%'%06%(,;
'//2'/,'4/%')*' $%6%),),*.'*&')+%' 4$*.(+,'/
0286)*80

*8%),8%0' $%(*7%$2'&$*8')+%' 4$*.(+*;
6.%18*.,''',0'.*)'(*86/%)%''.5')+%'5,0%'0%
/%'50')*',.51$'),*.'*&')+%'/1.-'3,)+'5,/')';
),*.''*&')+%' 4$*.(+,' 86+20%8''.5'61/;
8*.'$2')14%$(1/*0,0'$%'*(('0,*.'/0%E1%/'%
6# ' 0" G=+% 6+20,('/ 0,-.0'*&

4$*.(+*6.%18*.,''$%',.')+%'8',.')+*0%'*&
('6,//'$2'4$*.(+,),0' 86%$&%()'%B6'.0,*.'*&'
)+%')+*$'B'%/%7'),*.''*&')+%'166%$'6*$),*.0'
'.5'$%(%00,*.'*&')+%'/*3%$'51$,.-')+%',.;
06,$')*$2''()H 8*,0)''.5'5$2' '15,4/%'
7%$'4)+'0,5%0'H '.5')+%'40%.(%'*&'.2'
8'$9%5''/)%$'),*.0',.'6%$(100,*.$%0*.'.(%'
'$%')+%'6$,.(,6'/0,-.0'*40%$7'4/%'.*)'*./2',.'
)+%'%'$/,%$'0)'-%0''1)')+$*1-+*1)')+%'3+*/%'
(*1$0%'*&')+%'5,0%'0%' +%'$%(%00,*.''*&')+%'
(+%0)3'//0',0',.($%'0%5'42<(*//'60%' +%'
61/8*.'$2',86/,(''),*.',0',.5,(')%5'$')+%$'42'
)+%'0286)*80G,.($%'0%',.')+%'62$%B,'''.5'
,.')+%'5206.*%'G)+'.'42'.2'8'$9%5''/)%$;
'),*.',.')+%'6+20,('/0,-.0' +%'5,&^(1/)2'
&'5%)%(),.-')+%'/1.-(.0*/,5'),*.',0'51%
)*',)0'101'//2'4%,.-'/,8,)%5',.')+%'%'$/,%$
0)'-%0''')''//'%7%.)0')*'08'/'$%'0'3+,(+'
'$%'01$$*1.5%5'42'+%'/)+2'*'$%$.6+20%8'$&'
)*10'/1.-'0*')+')'$%0*.''.(%'*.'6%$(100,*.'
,0'41)'/,))/%',86',$%5')',0'*./2'3+%.')+%0%'
08'//'$%'0'+7%'(*'/%0(%5',.)*'/'$-%$'$%'0'
&'(.0*/,5'),*.')+')''.2'8'$9%5''/)%$'),*.0'
,.'6%$(100,*.$%0*.'.(%'$%'5,0(*7%$'4/%'
+%',86',$%5'$%0*.'.(%'51%')*'(*//'60%',0'
.*)')*'4%'5,0),.-1,0+%5'&$*8')+')'51%')*'
6.%18*.,('(*.0*/,5'),*.'H'.5',.'081(+'10'
)+%'(*//'60%',0'0*'*&)%.'0288%)$,('/',..;
7*/7,..-'4*)+'4'0%0'6*0)%$,*$/2')+%'5,&&,(1/)2'
&'66$%(,'),.-',)',0',.($%'0%5'1(+'8$%'
7'/1'4/%',5',.'6+20,('/5,'-.*0,0',0',.'8*0)'
'0%0')'4%'*4)',.%5'&$*8''10(1/)'),*.'7%$'
)+*0%'6*$),*.0'*&')+%'/1.-'3+%$%'(*.0*/,5';
),*.'+'0')'9%.'6/'(%')+%'8*,0)'4$*.(+,),('
')%.5')*'0018%''0*8%3+')'8%)'//,('
E1'/,)2H)+%2'/0*'4%(*8%&,.%$')+*1-+'.*)'
0*'&,.%''0')$1%'6.%18*.,('(%6,)',.H'),5'
)+%2'$%'8*$%016%$&,(,'/' +%'5%)%(),*.'*&'
+%0%'016%$&,(,'/'0*8%3+')'8%)'//,('&,.%'
8*,0)' '+%'$5'3,)+',.06,$')*.''.5'.*)'
5,06%//%5'42'(*1-+'*7%$'08'//'$%'0'*&')+%'
/1.-0'%06%(,'//2')')+%'6*0)%$,*$'4'0%0',0''
8*0)'7'/1'4/%''.5'*&)%.')+%'*./2'6+20,('/
0,-.'*&')+%'61/8*.'$2',86/,(''),*.' &'/'$-%$
'$%'0'4%(*8%'(*.0*/,5)%5')+%$%'8'2'4%',.'
'55,),*.'0*8%')141/'$'4$%')+,.-''.5'0*8%
,86',..%1)'*&'$%0*.''.(%*.'6%$(100,*.H''.5'
3+%.''3+*/%/*4%',0',.7*/7%5')+%'6+20,('/
0,-.0'4%(*8%',.($%'0,.-/2'6$*.*1.(%5''.5'
,.')+%' (+,/5''' 4$*.(+*6+*.,*'($2',0'*&)%.'
8'$9%5'*.''10(1/)',*.
!($' G /%1$,02',0'/%00'(*88*.'
)+''.',.''(1)%'6.%18*.,' /,-+)',.&/'88';
),*.'*&')+%'6/%1$''0'+3%7%$'101'//2'&*1.5'
' '*7%$')+*0%'6*$),*.0'*&')+%'/1.-'
3+,(+'$%'(*.0*/,5')%5' /%1$,),('%&&10,*.'.0'
$'$%' .)%0),..'/'(')'$$+',0''7%$2',86*$)'.)'
'.5'(*88*.'(*86/,('),*.' +%'/,'4,/,)2')*'
)+,0',.')+%'(+,/5'.5')9%' 8%(+'.,('/(*.;
-%0),*.'$%01/),.-'&$*8')+%'*40)$1()%5'61/;
8*.'$2'(,$(1/'),*.'810)'4%'4*$.%,.'8,.5'
,.'%B6/',...-',)'&$%E1%.(2

.71/0,.0'*((0,*.'//2'*((1$''.5''$%'*&'
1.&'7*1$'4/%''1-1$2' +%.%$7*10'6+%.*;
8%.''',.'0*8%&%3'('0%0'+'7%4%%.'5%0($,4%5'
'0'0,8&&,'),.-')+*0%'*&')14%$(1/'$'8%.,.-,)&%

')'$$+'/ /'$2 .-,),0' '00*(,')%5' 3,)+' 81(+' 06'08' .'5' /'$2 .-%'/ 0)%.*0,0' ,0' 0*8%),8%0' *40%$7%5' %06%(,'//2' &)%$' 8%'0/%0

& G +%' 5,'-.*0,0' *&' 4$*.(+*; 6.%18*.,'' ,0' *((' 0,*.'//2' 5,&&,(1/)' +,0' 5,&&,(1/)2',0' 8',./2'*3,.-')*')+%' (*%B,0)%.(%' *&' ('6,//'$2' 4$*.(+,),0' +%' $%(*-.,),*.'*&')+%'61/8*.'$2',86/,('),*.',.'),)0'%'$/,%$'0)'-%0' ,0'*&)%.',86*00,4/%' +%',.(%'0%5' 62$%B,'' 'a5'&$%E1%.(2'*&'$%06,$'),*.'*&')+%' 0286;)*80'*&')+%'8*0)' 5,'-.*0),('7'/1%' 3,.-')*')+%'08'//' $%'0'*&'/1.-'',.7*/7%5'3,.'2' '/)%$'),*.',.')+%'6+20,('/0,-.0'*&')+%'('6,/;/'$2' 4$*.(+,),0' 8'2' 4%'%.),$%/2' 3'.),.-' +%'*((1$$%.(%'*&'%B)%.0,7%'(*//'60%',.')+%'$/,%$' 0)'-%0' -,7%0' 8*$%' 8'$9%5'6+20,('/0,-.0'*&('*.0*/,5'),*.'' .5'+%.(%'$%.5%$0')+%'5,'-.*0,0'8*$%'%'02')',0'*/8*0)',86*00,4/%)*'5,'-.*0%'(%$)','./2'%,)+%$'42'0286)*80'*$'42'6+20,('/0,-.0'4%)3%%.')+%'(*//'60%' .'5')+%'6.%18*.,('*.0*/,5'),*.' +,0' +*3; %7%$',0'*&'41)'/,))/%'6$'(),('/,86*$)'.(%',.;'0818(+' '0')+%'(*//'60%',0'101''//2''00*(,')%5'3,)+''.5'*&)%.')+%',8 8%5,')%'6$%(1$0*$'<-')+%'6.%18*.,('6$*(%00

+%'5,'-.*0,0'*&'4$*.(+* 6.%18*.,''&$*8'K)+%'61/8*.'$2'(*.0*/,5'),*.'*&'(1)%'6.%1; 8*.,'' 8'2'*((' 0,*.'//2'4%'5,&&,(1/)',.')+*0%'('0%0'*&')+%'&*$8%$',.'3+,(+'.'%B)%.0,7%'$%'' *&')+%'/1.-'+'0'4%(*8%'(*.0*/,5')%5'+%',0)*$2'*&')+%'('0%'.'5'%06%(,'//2')+%'(*1$0%'*&')+%'62$%B,''3,//'101'//2'01&&,(%')*'5,0),.-1,0+')+%8

+%'5,0),.(),*.'&$*8'61/8*.'$2')14%$(1;/*0,0'0*8%),8%0'6$%0%.)0'81(+'5,&&,(1/)2''0'5*%0''/0*')+%'$%(*-.,),*.'*&')14%$(1/*0,0'.'5'6+),0,0''0'.'*((''0,*.'/$%01/)*&')+%'5,0%'0%''('$%&1/(*.0,5%$'),*.'*&')+%'%'$/,%$'02 86;)*80'.'5')+%'%B,0)%.(%'*$'.*)'*&'8'$9%5'6$%5,06*0,),*.''$%'+%$%'8*0)',86*$)'.')'/,-+)'.'5',$$%-1/'$'62$%B,''%B,0),.-'4%&*$%')+%'016%$7%.),*.'*&/1.-0286)*80',0'-$%')/2',.'&'7*1$'*&')14%$(1/*0,0'.'0*8%('0%0'+*3%7%$')+%'6+%.*8%.''*&')+%0%'5,0%'0%0''$%'0*''.'/4-*10')+')''(%$)',.'5,'-.*0,0',0',86*00,4/%

G +%')3*(,$(180)'.(%0'3+,(+'+'7%'.'.'%06%(,'/,.&/1%.(%'16*.'6$*-.*0,0',.'4$*.(+*6.%18*.,''$%')+%'-%*&')+%'6'),%.)''.5')+%'-%.%$'/+%'/)+' %&*$%'614%$)2')+%'2*1.-%$')+%'6'),%.)')+%'-$'7%$')+%'6$*-.*0,0'.'(+,/5$%.'1.5%$'&,7%'2%'$0')+%'8*$)'/,)2',0'%B(%%5,.-/2'-$%')'A6$*4'4/2''4*1')'@!'6%$(%.)R +%'5,0%'0%',0''/0*'%06%(,''//2'&')'/,.'3%' 2'(+ &&,%.'.'5',.'5','/')+*0%'3+*'$%'(*.;0),)1),*.''//2'&%%4/%'*$'5%4,/,)')%5'42'6$%7,*10',//.%00' +%'B,0)%.(%'*&'$,(9%)0'8')%$,''//2',.($%'0%0'+%'-$'7,)2'*&'6$*-.*0,0''+%'5'.-%$'/0*',.($%'0%0'-$%')/2'3,)+')+%'%B)%.)'*&'/1.-',.7*/7%5'81(+'8*$%'0*')+'.',0')+%'('0%',.''(1)%'6.%18*.,''&'7'/1%'*&')+%'0%7%$'/'0286)*,60''0',.&/1%.(,.-'6$*;-.*0,0''&)%$')+%'5%0($,6),*.'3+,(+',+'0'4%%.'-,7%.''*&')+%'5,0%'0%''.'5'*&')+%'8*5%0',.'3+,(+',)')%.50')*'('10%'5%')+',)',0'+'$5/2'.%(%00'$2')*'06%'9'&'$)+%$'a286)*80'*&,86%$&%()'%$'),*.'*&')+%'4/**5''$%')+*0%8*0)')*'4%'&%'$%5

! G .')+%')$%')8%.)'*&'4$*.(+*;6.%18*.,''),',0',86*$)''.)')*'4%'$',.'8,.5'&,$0)')+')+%'5,0%'0%',0'-%.%$''//2''00*(,')%5'3,)+''.5',0',.')+%'8',.',.51(%5'42'4$*.(+,'/('')'$$+''.5'42',)0'0*'&$%E1%.)/2''))%.5'.)(*//'60%H 0%(*.5')+')',)0'*((1$$%.(%',0'%06%;(,'//2'&'7*1$%5'42'%7%$2)+,.-')+')'3%'9%.0')+%'6'),%.)H'.5')+,$5')+')',)')%.50')*'5%0)$*2/,&%'6,5.(,6'//2'42',.)%$&%$,.-'3,)+')+%'&1.(;),*.'*&'$%06,$'),*.'3+,(+',.)%$&%$%.(%'.%(%0;0'$,/2',.($%'0%0'3,)+')+%'(*.0%E1%.)'3%'9%.,.-'*&')+%'$%06,$')*$2'6*3%$'1(+'4%,.-')+%*&'()0',)'*47,*10')+')'+%'8',.'*4>%()'*&)$%')8%.)'3,//'4%'&,$0)')*'(*.)$*/'4$*.(+,'/(')'$$+''.5'%.5%'7*1$'0*')*'8*5,&2',)'0')*'6$%7%.)'+%'*((1$$%.(%'*&'(*//'60%H'.5'0%(*.5/2')*'0166*$)'0'81(+'0'6*00,4/%')+%0)$%.-)+'*&')+%'6'),%.)'3,)+')+%'*4>%()'*&6$%7%.),.-')*'.//2'(*//'60%'41)'/0*')+'),.($%'0%5',.)%$&%$%.(%'3,)+'&&,%'&1.(),*.'*&$%06,$'),*.'3+,(+'$%01/)0'&$*8'3%'9%.,.-'*&')+%'$%06,$')*$2'810(/%0

)'3*1/5'4%'*1)'*&'6/'(%',.')+%'6$%0%.)'$),(/%')*'%.)%$',.)*'''5%)'./%5'5%0($,6),*.'*&')+%'8'.'-%8%.)'*&'(1)%'4$*.(+,),0'A0%%o ' ,0%'0%0'*&R')'3,//'4%'01&&,(,%.)'*',.5,(')%')+%'8*$%',86*$)'.)'8%'.0'*&(*.)$*//,.-')+%'5,0%'0%'3,)+'%06%(,'/'$%&%$%.(%)*')+%'6$%7%.),.*.'*&')+%0*'&$%E1%.)/2'))%.5;'.)'(*//'60%+%'6'),%.)'0+*1/5'4%'9%6)',.''3'$8'$**8')+%)%86%$')1$%'*&'3+,(+'0+*1/5'.%7%$'4%''//*3%5')*'&'//'4%/*3'D@g' +%'$**8'0+*1/5'4%'3%//'41)'('$%&1//'7%.),/')%5H'.5'6$*)%().'.)G=81(+'8*$%'0*')+'.',.')+%')$%')8%.)'*&'(1)%'6.%1;8*.,''')',0''/0*'57,0'4/%')*'9%%6')+%','$'8*,0)'42'8%'.0'*&''0)%'8 9%))/%'0')+%%B+'/'),*.'*&'3')%$'&$*8')+%'/1.-0',0')+10'5,8,.,0+0%5'.'5')+%'4$*.(+,'/0%($%),*.'(*.0%E1%.)/2'$%.5%$%5'/%0O')%.'(,*10''.'58*$%'%'0,/2'$%8*7%5'42'(*1-+' '/,))/%'('$4*/,('(,5G'.'D!G8'2'4%'55%5')*')+%'3')%$' +%'5,%)'3+,(+'810)'4%'$%-1;/')%5''((*$5,.-')*')+%'-%'*&')+%'6'),%.)'0+*1/5'4%'.1)$,),*10''.5'%'0,/2'5,-%0),4/%')+%',86*$)'.(%'*&'0166*$),.-')+%'0)$%.-)+'4%,.-'9%6)',.'8,.5'+%.')+%'5,0%'0%'&*//*30'8%'0/%0')+%'/,'4,/,)2')*')%0),.'/('')'$$+'810)'*)'4%&*$-*)%.'8'//'5*0%0'*&,6%('(1'.+''3,.%'3,)+'%'+.%0''.5''/,))/%('$4*.')%'*&''88*.,18'+,0'8'2'4%%,)+%$'(*84,.%5'3,)+')+%',6%('(1'.+''.5'0'/,.%'8,B)1$%'*$-,7%.'0%6'$')%/2',.''/,)))%'8,/9' %.%-'

'0' '.' ,.&10,*.' ' .5' (+/*$,5%' *&' '8 8*.,18' 8 '2' '/0*' 4%' -,7%.' 3,)+')+%' 0'8 %' *4>%()' +%' /'0) .'8 %5' 5$1-' '66%'$0')*' +'7%')+%' %&&%()' .*)' *.'2' *&'$%.5%$,.-')+%' 0%($%),*.'/%00')%.'(,*10' '.5' 8*$%' %'0,/2' $%8*7'4/%' 41)' '/0*' *&' 5,8,.,0+,.-',)0' &*$8'),*.' .' *(;
('0,*.'/' %8%),(' 5*0%' *&',6%('(1'.+'' *&)%.' 8')%$,'//2' $%/,%7%0')+%' 6'),%.)' 3+%.' .1;
8%$*10' '15,4/%' *7%$')+%' (+%0)' '.5'
,.($%'0%5'5206.*%' ',.5,('))%' '.' '((181/'),*.'
&')+%' %B+,4,),.' +%' %B+,4,),*.' *&' *6,')%0'
,0' *47,*10/2' (*.)$' ,.5,('))%5
.')+%' '(1)%&*$80'*&')+%'5,0%'0%'0'*' (*88*.'
,.'%'$/2'+&%'81(+' 8'2'4%'5*.%'42')+%'%B)%$.'/'
'66/,('),*.' *' &' (*/5' +,0' .*)' *.'/2' $%51(%0'
)+%')%86%$')1$%'41)' '66%'$0')*' 4%'%06%(,'//2'
7'/1'4/%',.' ,.($%'0,.-')+%' 5%6)+' '.5' &*$(%'
&' $%06,$'),.' '.5')+10' ,.' 6$%7%.),.-')+%'
*((1$$%.(%' *&' (*//'60%')0' 1),/,)2' +'0' 4%%.'
0)$*.-/2' '57*'(')%5' 42' 4*)+' '$)%/0' '.5'
V,%80 0%.' 3+*' $%(*88%.5')+%' &$%E1%.)/2'
$%.%3%5' '66+(')*.' *&' (/5'3%)' (*86$%00%0'
)*')+%' (+%0)' +%' 10%' *&')%6,5'4')+0' 3,)+'
(*/5' '&& 0,*+0' ,0' '' 8*$%' %&&,(,%.)' 3'2' *&'
*4)',.,.-')+%' 0'8%' $%01/)' +%' (+,/5',0'
6/'(%5',.' '' 4')+' *&' &$*8' 9Lg')*' P!g'
'.5' 3+,/0)',88%$0%5')+%' +%'5'4'(9' '.5'
(+%0)' '$%' E1,(9/2'06*.-%5' 3,)+' (*/5' 3')%$'
+,0' $%6%')%5' *(('0,*.'//2' 3,)+' 51%' 6$%;
('1),*.0' ,0' *&)%.' &*//*3%5' 42' $%51(),*.' *&'
)%86%$')1$%' '' 5,8,.1),*.' ,.')+%' &$%E1%.(2'
'.5' '.' ,.($%'0%' ,.')+%' 5%6)+' *&')+%' $%06,;
$')*.0' '.5' *)+%$' 0,-.0' *&' ,86$*7%8%.)'
+%' '66+(')*.' *&' ,(% 4'-0' *$' ,(% 6*1/),(%0'
)*')+%' (+%0)' *&)%.' 2,%/50' -**5' $%01/)0' +%'
%&&%()0' 6$*51(%5'42')+%' (*/5' $%E1,$%' ,.' '//
('0%0')*' 4%' ('$%&1//2' 3')(+%5' '.5' '.2' 5%;
6$%00,*.' ('10%5'0+*1/5'4%' 8%)' 42')+%'),8%/2'
%B+,4,),*.' *&' 0),81/' .)0
n +,/0)')+%0%' 7'$,*10' 8%'.0' '$%' 4%,.-'
%86/*2%5',)',0' '// ,86*$)'.)')*' 0166*$)')+%'
0)$%.-)+'*&')+%'6'),%.)' $'.52',0'+%$%'8*0)'
7'/1'4/%' '.5',)',0')*' 4%' $%8%84%$%5')+')'
(+,/5$%.'+%'$'0),81/'),*.'3%' +%'4$'.52'
,0'4%0')'-,7%.',' 8,/9'*$3,)+'2*/9'*&%-')+%'
E1'.),)2'4%,.-'6$*6*$),*.%5')*')+%'-%'*&')+%'
6'),%.)' .',.&'.)'812'4%-,.'3,)+'&$*8'&,7%'
)*')%.'5$*60%7%$2')3*'*$)+$%%'+*1$0' .5%$'
,)0',.&/1%.(%')+%' 61/0%' 101'//2',86$*7%0')+%'
$%06,$'),*.0'4%(*8%'/%00'&$%E1%.)'.'.5')+%'
5,0)$%00'.'.5'(2'.*0,0'5,8,.,0+' +%'58,.;
,0)$')',*.'*&'4$'.52',0'101'//2''57,0'4/%'4%&*$%'
'.5'51$,.-')+%')$%')8%.)'42'(*/5' L +%.'
6$*0)$')',*.',0'%B)$%8%'*$5%-/1),),*.'5,&&,(1/)'
4*)+')+%'4$'.52'.5*)+%$'.1)$,,.%.)'8'2'4%'
'58,.,0)%$%5'42')+%'$%()18
.')+%'8*$%'(+$*.,(' &*$80'*&'4$*.(+*;
6.%18*.,'')+%0%'(),7%'8%)+*50'*&')$%')8%.)'
'$%'41)'$'$%/2'('//%5'&*$' %$%''))%.),*.')*'
0)$%.-)+' '.5'.1)$,),*.',0'8*0)'&,86*$)'.)'
'.5'08'//'5*0%0'*&'(*5/,7%$'*,' .')+%'/')%$'
0)'-%0'%7%.'4%&*$%')+%' (*86/%)%' 5,0'66%'$;
'.(%'*&')+%'62$%B,''')$%'*&)%.'10%&1/' K=%.'
)+%'5,0%'0%'/%'50')*' .,51$'),*.'*&')+%' /1.-0'
'.5'5,/')',*.'*&')+%' 4$*.(+,')+%'(%$'.,
'(+'.-%'*&''.$',0'%06%(,'//2'7'/1'4/%

F ' & ' " ' g'
+$*.,(' .&/'88'),*.'*&')+%' 1.-0'H ,$;
$+*0,0'*&')+%' 1.-H $'6" 2 " '5" '
H %$'S 0 " #
& # G +$*.,(' 6.%18*.,'' ,0' ''
(*86$'),7%/2'$'$%' 5,0%'0%'(+'$')(%$,0%5'42'
'' -$'51'/',.($%'0%',.')+%'(*.%(),7%'),001%'*&'
)+%'/1.-'3+,(+'/%'50')*' '.',.51$'),*.'*&')+%'
61/8*.'$2')%B)1$%' '.5')*' 6$*-$%00,7%'*4/,;
)%$'),*.'*&')+%' '/7%*/'$'('7,),%0' ' ,0'(*8;
8*.2' '00*(,')%5'3,)+' (')'$$+' .5'5,/')',*.'
&')+%' 4$*.(+,''.5'*&)%.'3,)+' 1/(%$'),.'*&'
)+%' 4$*.(+,'/'3'//0''.5'%B('7'),*.'*&')+%'
,.51$')%5'/1.-' *1-+'%B6%()*$'),*.G*&)%.'
'41.5'.)'41)'7'$2,.-'3,)+')+%' 4$*.(+,'/'
(')'$$+G5206.*%''-$'51'/',86',$8%.)'*&'
.1)$,),*.'.''.5'*(('0,*.'/''((%00,*.0'*&'0/,-+)'
62$%B,''' '$%')+%' 8*0)' 6$*8,.%.)'(/,.,('/'
6+%.*8%.''('(*86'.2,.-')+%'5,0%'0%'3+,(+'
$1.0' '.' %B(%%5,.-/2'(+$*.,(' (*1$0%' *&)%.'
014>%()')*' /*.-' 6%$,*5'0' 42' E1,%0(%.(%'41)'
)%.5,.-')*')%$8,.')%' &')'//2',.' &$*8' &,7%')*'
&,&)%%.'2%'$0
+$*.,(' 6.%18*.,'',0'/0*'9.*3.''0' " 7
'6.%18*.,'' .')0' 8*0)' 8'$9%5'&*$8'
,)'(*.0),)1)%0')+%'5,0%'0%'3+,(+'$%(%,7%5'&$*8'
$$,-''.')+%'.'8%'&' # ' +%')%$8'
0&,4$*,5'6+)+,0,0<3+,(+',0'0*8%),8%0'66/,%5'
)*',)',0'=)*-%)+%$',.'66/,('4/%
' $ 42)',0'5*14)&1/
,&'(+$*.,(' 6.%18*.,'',0'%7%$' '' 6$,8'$2'.5'
,.5%6%.5%.)'5,0%'0%' ')'6$*4'4/2',.''//'('0%0'
3%0',)0'$,-,.')*'0*8%' 8*$%' '(1)%' ,.&/'8;
8'),*.'*&')+%' 61/8*.'$2'*$' 4$*.(+,'/')%B;
)1$%0'*$' *&')+%' 6/%1$'' '/)+*1-+' ('0%0' '$%
0*8%),8%0' 8%)' 3+,(+' .*'+,0+)*$2'*&'
'.2'01(+''.)%(%5%.)''&&%(),*.',0'5,0(*7%$'4/%'
)' 8'2'4%' 0)')%5'-%.%$'//2')+')'/'.,&/'8;
8')*$2'6$*(%00%0',.')+%' /1.-0''0',.'*)+%$'
$-'.0'3+,(+'4%(*8%'(+$.,('/%'5')*'.',.;
($%'0%'*&')+%'(*.%(),7%),001%'%'%.)0''.5'
(*.0%E1%.)/2')*' &,4$*,5',.51$'),*.'*&')+4'
*$-'.' .')+%'/1.-0'42'&'$')+%'8*0)'(*88*.'
('10%'*&'01(+',.58'),*.',0'(+$*.,('61/8*.'$2'
)14%$(1/*0,0' .'//'('0%0'*&'6+)+,0,0'%B(%6);
,.-')+*0%'3+,(+'$%')+%'8*0)' '(1)%')+%$%',0'
8*$%'*$'/%00'&,4$*,5'-$*3)+H '.5')+%'%B)%.)'
*&'),0'-$*3)+',0'&*$')+%'8*0)'6')',.'5,$%()'
6$*6*$),*.')*' (+$*.,*,)2'*&')+%'5,0%'0%'
+*0%'&*$80'*&'6+)+,0,0'3+,(+' '$%')+%'8*0)'
(+$*.,(' .'.5',.'3+,(+'+%'&&4$*0,0'$%'(+%0'
,)0'8'B,818'+'7%'4%%.')%$8%5'0&,4$*,5'
6+)+,0,0<+%'8*0)'(/1*.,('('0%0'*&'6+)+,0,0'
'$%',)'8 10)'4%'58,))%5'0*8%3+')'(/*0%/2'
'//,%5')*'0*8%'&*$80'*&'(+$*.,('6.%18*.,''
+%')3*'5,0%'0%'+*3%7%$'5,&&%$'6')+*/*-,'
('//2,.)+,0$%06%()G)+')3+%$%'0'81(+*&')+%

*.7'/%0(%.(%',)'810)'4%' $%8%84%$%5',0'
'/3'20'0/*3''.5')+%$%',0''')%.5%.(2')*' $%;
/'60%' $%')'('$%',0'(*.0%E1%.)/2'$%E1,0,)%'
51$,.-')+,0'6%$,*5' '('10%0'*&'(')'$$+'
810)'4%'('$%&1//2'-1'$5%5''-',.0)H '.5')+%'
$%0)*$'),*.')*' +%'/)+' '00,0)%5'42' .1)$,),*10'
5,%)'(*5/,7%$'*,/''.5'6$%6'$'),*.0'*&',$*.'
'(+'.-%'*&''.$',0'%06%(,'//2'7'/1'4/%

F ' & ' " ' g'
+$*.,(' .&/'88'),*.'*&')+%' 1.-0'H ,$;
$+*0,0'*&')+%' 1.-H $'6" 2 " '5" '
H %$'S 0 " #
& # G +$*.,(' 6.%18*.,'' ,0' ''
(*86'$'),7%/2'$'$%' 5,0%'0%'(+'$')(%$,0%5'42'
'' -$'51'/',.($%'0%',.')+%'(*.%(),7%'),001%'*&'
)+%'/1.-'3+,(+'/%'50')*' '.',.51$'),*.'*&')+%'
61/8*.'$2')%B)1$%' '.5')*' 6$*-$%00,7%'*4/,;
)%$'),*.'*&')+%' '/7%*/'$'('7,),%0' ' ,0'(*8;
8*.2' '00*(,')%5'3,)+' (')'$$+' .5'5,/')',*.'
&')+%' 4$*.(+,''.5'*&)%.'3,)+' 1/(%$'),.'*&'
)+%' 4$*.(+,'/'3'//0''.5'%B('7'),*.'*&')+%'
,.51$')%5'/1.-' *1-+'%B6%()*$'),*.G*&)%.'
'41.5'.)'41)'7'$2,.-'3,)+')+%' 4$*.(+,'/'
(')'$$+G5206.*%''-$'51'/',86',$8%.)'*&'
.1)$,),*.'.''.5'*(('0,*.'/''((%00,*.0'*&'0/,-+)'
62$%B,''' '$%')+%' 8*0)' 6$*8,.%.)'(/,.,('/'
6+%.*8%.''('(*86'.2,.-')+%'5,0%'0%'3+,(+'
$1.0' '.' %B(%%5,.-/2'(+$*.,(' (*1$0%' *&)%.'
014>%()')*' /*.-' 6%$,*5'0' 42' E1,%0(%.(%'41)'
)%.5,.-')*')%$8,.')%' &')'//2',.' &$*8' &,7%')*'
&,&)%%.'2%'$0
+$*.,(' 6.%18*.,'',0'/0*'9.*3.''0' " 7
'6.%18*.,'' .')0' 8*0)' 8'$9%5'&*$8'
,)'(*.0),)1)%0')+%'5,0%'0%'3+,(+'$%(%,7%5'&$*8'
*$$,-''.')+%' .'8%' *&' # ' +%')%$8'
0&,4$*,5'6+)+,0,0<3+,(+',0'0*8%),8%0'66/,%5'
)*',)',0'=)*-%)+%$',.'66/,('4/%
' $ 42)',0'5*14)&1/
,&'(+$*.,(' 6.%18*.,'',0'%7%$' '' 6$,8'$2'.5'
,.5%6%.5%.)'5,0%'0%' ')'6$*4'4/2',.''//'('0%0'
3%0',)0'$,-,.')*'0*8%' 8*$%' '(1)%' ,.&/'8;
8'),*.'*&')+%' 61/8*.'$2'*$' 4$*.(+,'/')%B;
)1$%0'*$' *&')+%' 6/%1$'' '/)+*1-+' ('0%0' '$%
0*8%),8%0' 8%)' 3+,(+' .*'+,0+)*$2'*&'
'.2'01(+''.)%(%5%.)''&&%(),*.',0'5,0(*7%$'4/%'
)' 8'2'4%' 0)')%5'-%.%$'//2')+')'/'.,&/'8;
8')*$2'6$*(%00%0',.')+%' /1.-0''0',.'*)+%$'
$-'.0'3+,(+'4%(*8%'(+$.,('/%'5')*'.',.;
($%'0%'*&')+%'(*.%(),7%),001%'%'%.)0''.5'
(*.0%E1%.)/2')*' &,4$*,5',.51$'),*.'*&')+4'
*$-'.' .')+%'/1.-0'42'&'$')+%'8*0)'(*88*.'
('10%'*&'01(+',.58'),*.',0'(+$*.,('61/8*.'$2'
)14%$(1/*0,0' .'//'('0%0'*&'6+)+,0,0'%B(%6);
,.-')+*0%'3+,(+'$%')+%'8*0)' '(1)%')+%$%',0'
8*$%'*$'/%00'&,4$*,5'-$*3)+H '.5')+%'%B)%.)'
*&'),0'-$*3)+',0'&*$')+%'8*0)'6')',.'5,$%()'
6$*6*$),*.')*' (+$*.,*,)2'*&')+%'5,0%'0%'
+*0%'&*$80'*&'6+)+,0,0'3+,(+' '$%')+%'8*0)'
(+$*.,(' .'.5',.'3+,(+'+%'&&4$*0,0'$%'(+%0'
,)0'8'B,818'+'7%'4%%.')%$8%5'0&,4$*,5'
6+)+,0,0<+%'8*0)'(/1*.,('('0%0'*&'6+)+,0,0'
'$%',)'8 10)'4%'58,))%5'0*8%3+')'(/*0%/2'
'//,%5')*'0*8%'&*$80'*&'(+$*.,('6.%18*.,''
+%')3*'5,0%'0%'+*3%7%$'5,&&%$'6')+*/*-,'
('//2,.)+,0$%06%()G)+')3+%$%'0'81(+*&')+%

(*1-+' +% *66*0,)% /1 . -' ,0' 101''//2' %. ; /'$-%5' +26%$ $%0* . ' .)' ' . 5')+%' $%06,$'),*.

& G +%'5,' - . *0,0'*&'(+$*.,('6.%1; 8*. ,'' $%0)0' 8 ', /2' *.')+%' 6+20,(' /' 0,- .0' +% 5,0%'0%0' 3,)+' 3+,(+' ,)' ,0' 8*0)' /,'4/%')*' 4% (*.&*1.5%5' '$%' (+$*.,(' A)14%$(1/*10R' 6+)+,0,0 ' ' . 5' $%)$'(),*.' &$*8' 6/%1$,02' .')+%' 8*0)' (+$*.,(' &*$80' *&' 6+)+,0,0 ' 3+%$%')+%' &,4$*0,0' *&')+%' /1 . -' ,0' (*.0,5%$'4/%')+%' 5,'- . *0,0' &$*8' . *.)14%$(1/*10' (*.0*/,5'),*.' 8 '2' 6$%0%.)' 0*8%' 5,&&,(1/)2' +,0' 5,&&,(1/)2' +*3%7%$'$'$%/2' %B,0)0' %B(%6)' , .')+*0%' E1,)%' %B(%6),*. ' /' (' 0%0' , .' 3+,(+')+%' (+$*.,('6.%1; 8*. ,'' , .7*/7%0' *./2')+%' 166%$' 6*$),*.0' *&)+%' /1 . -' %$%')+%' 0,)1'),*.' *&')+%' (*. ; 0*/,5'),*.' ,0' 7%$2' -$%'')/2' , .' &'7*1$' *& ,)0')14%$(1/*10' . ')1$%' +,0' 6$*4'4,/,)2' ,0' , .&, . ,)%/2' , . ($%'0%5' ,&')+%' *)+%$' /1 . -' 4%' '&&%()%5' .' ,/')%$'/ 4'0,(' 5.0%'0%' . '5' , .' . 51$'),*.' *&')+%' 3+*/%' *&' *. %' /1 . -')+%' *)+%$' /1 . -' 4%, . -' +%'/)+2')+%')14%$(1/*10' . ')1$%' *&')+%' 5,0%'0%',0' 8 1(+' /%00' 6$*4'4/%H' /)+*1-+')+%' *((' 0,*.' /' 016%$7%.),*.' *&' ')14%$(1/*0,0' , ')+%0%' ('0%0' 0+*1/5' 4%' 4*$.%' . ' 8 , . 5' .' %B' 8 , . '),*.' *&')+%' 061)18'&*$)+%' 4'(,//10' *&')14%$(/%' ,0' 101''//2')+%' *./2' 8 %' . 0' *& 0%))/, . -')+%' 5,'- . *0,0' ,0%'0%' *&)+%'/'$2 . B' ,0' , .' &'7*1$' *&')+%')14%$(1/*10 (&8),5,)2' *&')+%' 061)'' *&')+%' . *.)14%$(1/*10' . ')1$%' *&')+%' (*.0*+5'),*.

+%' $%)$'(),*.' $%0,5),. -' &$*8' (+$*.,('6/% ,$,02'8'2''/0*'4%' (*.&*)85%5'3,)+'(+$*.,('6.%18*. , ' %$%' +*3%7%$')+%$%' '$%$'$%/2' 6+20,(' /' 0,- .0' *& 5,/')'),*.' *&')+%' 4$*.(+,' $%06,$'),*.' ,0' 3%'9' . 5' 5,0)' .)' ' . 5')+%' 7*('/ &$%8,)10' ,0' 5,8,. ,0+%5' +%' 6$%; 0%.(%' *&' '41.5'.)' &*%),5' 061)' ' *& 62$%B,' ' %8'(,'), *. ' ^*$, ' (+$*.,(' 6.%18*. , ''3+%.' ,)/' '/0*' , .' 8*0)' ('0%0' $%.5%$')+%' 5,'- . *0,0' %'02

" +$*.,(' 6.%18*. , ' ' 3+%.' ,)' , .7*/7%0' '' (*.0,5%$'4/%' '$%'' *&')+%' /,8- ' 101''//2')%.50' 1/),8')%/2')*')%$8, . ')%' , . ' 5%')+' '/)+*1-+' 1.5%$' &'7*1$'4/%' (,($(18; 0)' . (%0',&%'8'2'4%'6$*/*. -%5'&*$8' . 2'2%'$0' +%.')+%' 5,0%'0%' ,0' /,8,)%5' . 5' $%8', . 0' E1,%0(%.)')+%' -%.%$'/ +%' /)+' . 5' 51$'), *. ') , . ' *&' /,&%' 8'2'0*8%),8%0'4%' 41)' +))/%' '&&%()%5' +%' 8*0)' , 86*$)' .)' %/%8%.)', . ')+%' 6$*-. *0,0' ,0')+%' (*.5,), *.' *&')+%' 4$*. (+,' +%' %B,0)%. (%' *&' 4$*. (+,'/5,/')',*. ' '0' %7,5%. (%5' 42'6$*; &10%' ' . 5' *&)%. '&*%),5'%B6%()*$'),*. ' ,0' /3'20' 1.&'7*1$'4/%' '0' ,)' . *)' *. /2' 3%'9%.0')+%' 6'),%.)' 41)' ,0' 101''//2' '))%. 5%5' 42'%B)%. 0,*. ' *&')+%' , .51$'),*. ' ' . 5' 1/),8')%/2' /%' 50' , . ')+%'5,/')%5')14%0')*'1/(%$'),*.'*&)+%'4$*. (+,'/ 3''//0' . 5'01$$*1.5, . -'),001%' ' . 5' *((' 0,*.''//2')*' -' . -$%.%' 2$%B,' ' '0' . *)+%$'%7,5%. (%' *&, . &/' 8 8 '),*.' *&')+%' 4$*. (+,' . 5', . 51$')%5' /1 . -' ,0' /,9%3,0%' 1.&'7*1$'4/%' '0',0' '/0*' +%8*6)20,0' +%' /')%$', . 5,(')%0' 5%%6' 1/; (%$'),*. ' . ' . 5' ,)' 8'2' , . ' %B(%6),*. ' /' (' 0%0' %. 5' . -%$'/,&%' +%' -%. %$'/(*.5,),*.' *&')+%' 6'),%.)' 8 10)' /0*' 4%')' 9%. ' , .)*' '((1.)' , . ' 8 '9, . -' '' 6$*-. *0,0' ',/1$%' *& 0)$%. -)+

' . 5' *&' 5,-%0),7%'6*3%$'5,'$$+*%' ' ' . 5' 5$*602' '$%' ' ' *&' 1.&'7*1$'4/%' '1-1$2

! G .'(*.0,5%$,. -')+%')$%')8%.)' *&' (+$*.,(' 6.%18*.,' ',)', 0', . ')+%' &,$0)' 6/'(% ,86*$)' .))*' 4%' $, . ' 8, . 5')+')')+%' 101' /*$,-, . ' *&')+%' 5,0%'0%', 0'0*8%' 8*$%' '(1)%' 61/; 8*. '$2', . &/' 8 8 '),*. ' %.(%')+%' . %(%00,)2' &*$')+%' 8*0)' ('$%&1/ 8 ' . '-%8%.)' . 5' 016%$; 7,0,*. ' *&' 01(+' , . &/' 8 8 '),*.0' , ')+%,$' /')%$' 0)' -%0' 3,)+')+' *4>%()' *&' 6$*(1$, . -', &' 6*0; 0,4/%' '' (*86/%)%' $%0*/1),*. ' *&')+%' 6.%18*. ,(' 6$*51()0

+%.')+%' &,4$*0,0' *&')+%' /1 . -' ,0' %0)'4' +0+%5',)', 0' +'$5/2' . %(%00'$2')*' $%8'$9')+')')+%' . %3 -$*3)+', 0', . ('6'4/%' *&' $%8*7'/' . 5' 42')$%')8%.)' 3%' (' . ' *. /2' +*6%')*' , . &/1%. (%)+%' %B)%. 0,*. ' *&')+%' 5,0%'0%' . 5' (*.)$*/')+%' 4$*. (+,'/ (')0,$$+' 3,)+' 3+,(+' ,)' ,0' 0*' &$%; E1%.)/2' '00*(,')%5' +%' &$%E1%. (2' . 5' -$'7,)2'*&'4$*. (+,'/('),'$$+' +'0'4%%. ' '/$%'52' , . 0,0)%5' 16*. H' . 5',)0' 8 ' . '-%8%.) ' , . ')+%' 8 '>*$,)2' *&'('0%0'(*. 0),)1)%0'42'&'$')+%' 8*0)' , 86*$)' .)' %/%8%.)' , . ')+%')$%')8%.) K 1$' *4>%()' 8 10)'4%)*' 6$%7%.)' . 5' (*.)$*/ ,)H)*' 6$*8*)%' %B6%()*$'),*. ' ' . 5')*' 6$%7%.)')+')' 5%(*86*0,), *. ' *&')+%0%($%),*. '3+,(+',0'*' 6)')*' $%01/'&$*8',)0'$%)%.),*. ' %$%')+%' E1%0),*. ' *&'(/,8')%'3,// . %(%00'$,/2'6$%0%.)',)0%/&' ' . 5' 7%$2'81(+'8'2'101''//2'4%'5*.%'42'$%0,5%. (%' ')' 0*8%'01,)'4/%'0)'),*. ' . %' . *)' 014>%()' *' 7,(,00,)15%0'*&')%86%$')1%$' ' . 5' ')')+%' 0'8%),8%' 5$2' . 5' 8*5%$')%/2' 4$'(,. -' ,0' 8*0)' /,9%/2')*' 4%' 4%. %&,(,'/' +%' 6'),%.)' 0+*1/5' 4%' 3'$8/2'5'5' . 5' %7%$2)/=-' 0+*1/5' 4%' 5*. %' 42' 8%' . 0' *& 5,%)' . 5' 8%5,(,. %')*' ,86$*7%')+%' -%. %$'/ +%')/+' , . '0 8 1(+' '0')+%' 4%))%$')+%' 0)')%' & . 1)$,),*. ')+%' /%00',0')+%' /,'4,+)2')*' 4$*. (+,'/ , . &/' 8 8 '),*. ' *5 +7%$' ,/' . 5', $*. ' '$%' *&)%. ' 0%&1/ &*$')+,0' 61$6*0%' & ' . ' '))'(9' *&' (1)% 4$*. (+,'/ (')'$$+' 016%$7%. %0' ,)' 0+*1/5' 4%')$%')%5' ')' *. (%' . 5')+%' ,86*$)' . (%' *&' E1,(9/2' (*.)$*//, . -',)' 0+*1/5' . *)' 4% &*$; -*))%.

. ')+%')$%')8%.)' *&')+%' 8*$%'(+$*.,(' (')'$; $+'/ 6$*(%00' 3+,(+' ,0' 0*' *&)%. ' '00*(,')%5' 3,)+'6$*&10% 0%($%),*. ' 81(+' 8'2'101''//2'4%' -', . %5'42')+%'10%'*&'0),81/'), . -' . 5' .),0%),('), . +'/'),*.0'*&'3+,(+'($%'0*)%'%1('/26)10' . 5' ('$4*+%' ('(,5' '$%'6%$+'60')+%' 8*0)' -%. %$'//2' 10%&1/' +%0%' . *)' . /2')%. 5')*' 5,8, . ,0+')+%' ' 8*1.)' *&'0%($%),*. ' . 5')*' 6$%7%.)' ,)0' 61)$%' &%(),*. '41)', . 51(%'(*1-+, . -' . 5' 0*' '00,0)', . ,)0' %7'(1'),*. ' +%0%' 0140)' . (%0' 8'2' 4%' '58, . ,0)0%$%5', .)%$. '//2' 3,)+')+%' 0' 8%' *4; >%()' *,8)%$,$),'),*. ' %06%(, '//2' 6', .),. -' 3,)+', *5, . %' '66%'$0' 0*8%),8%0')*' 4%' 0%$; 7,(%'4/%' '0)$,(' 5,0)1$4'. (%' 5,'$$+*%''+0%8*6)20,0' ^(' 810)' 4%')$%')%5' '0')+%2' '$,0%' *. ' -%. %$'/6$, . (,6/%0

. ' ('0%0' *&' /*('/,0 5' 4'0,(' 5,0%'0%' 3+%. ' *)+%$')$%')8%.)' &',/0')+%' E1%0),*. ' *&' 6'$'(%.)%0,0' . 5' *$),&,(,'/ 5$',. '-%' *&' '' /'$-%' 4$*. (+,%()',%' ('7,)2' 8, -+)' 4%' %.)%$;)', . %5

' #6' 5# Q' 0

)*' 0,8,/'$' -$*3)+0' %/0%3+%$%' *$')+%' /1.-' 8'2' 6$*51(%' ,.' (*..%B,*.' 3,)+')+%' /1.-0 ' +%' /1.-),001%0' 8'2' 8%$%/2'4%' 8*$%' *$ /%00' 5,06/'(%5' '.5' (*86$%00%5!' *$' ,.' (*1$0%' *&'),8%')+%2'4%(*8%' '40*$4%5' *$' ')$*6+,%5' ,.' 6$*6*$),*.' '0')+%' -$*3)+' 6$*-$%00%0 <' +%' 5,0)$,41),*.' *&' ,$' ,.')+%' /1.-0' 8'2' 4%' 8*5,&,%5'42'+%' 8%$%'6$%0%.(%' *&'"-$*3)+' 0*')+')' ,.' *.%' 6')$' ,)' ,0' ,.' %B(%00' '.5' ,.' '.*)+%$' 6')$' 5%&,(,%.)' 9' ,8,/'$/2')+%' %,$(1/'),*.' *&' 4/**5' 8'2'4%' 5,0)1$4%5'/%'5;,.-')*' (*.-%0),*.' ,.' *.%' 6')$' '.5' '.0%8,'' ,.' '.*)+%$' ' *$4,5' &*$8'),*.' 0' $%' 7%$2' /,'4/%')*' ('10%' /*('/',$$,)'),*.' %.(%')+%2' 8'2' ,.51(%' 4$*.(+,'/' (*.-%0),*.' ''.5' (';)'$$+'/*('/,0%5'(1)%'6.%18*.,''.5',)0'(*.; 0%E1%.(%0'*$'(+$*.,(',.)%$0),),'/'6.%18*.,' '3+,(+'8'2'/%'5')*')+%' &*$8'),*.' *&''&,4$*10' ('601/%''$*1.5'-$*3)+' F' %$)',.'&*$8';),*.0' '$%'/,'),/%')*'1.5%$-*'5%-%.%$'),7%'.5' 5%0)$1),7%'6$*(%00%0'3+,(+'3,'6$*4'4/2',.7*/7%')+%'61/8*.'$2'),001%0' .')+,0'3'2')+%2'*$,-,.')%'1/(%$0'*$'('7,),%0''.5'8'2' -,7%'$,0%')*'8*$4,5'6$*51()0'3+,(+''$%'.*)*./2',.>1$,*10')*')+%' /1.-0'41)'/0*',.&%()' 5,0)'.)'6')$0')*'3+,(+')+%2'8'2'4%'(*.7%2%5' &)%$'5%0)$1(),*.'$%6'$'),7%'6$*(%00%0'.*)',.; &$%E1%.)/2')'9%'6/'(%'3,)+'/*00'+*3%7%$'*&')+%',.7*/7%5'6*$),*.0'*&')+%'/1.-0)$1()1$%0')'8 10)'4%'$%8'$9%5'+%$%')+')'0*8%8*$4,5' -$*3)+0'0%%8')*'4%(*8%',.&,/)$')%5')+$*1-+')+%'61/8*.'$2')001%0'3,)+*1)'5%0)$*2,.')+%8H'.5'1.5%$''66$*6$,')%')$%')8%.)')+%' -$*3)+',0'40*$4%5'/%'7,.-')+%',.7*/7%5'6*$;),*.'*&')+%'/1.-',.)'()' +,0'66+%0%06%; (,'//2')*'0*8%'(' 0%0'*&'026+,/,),(',.&,/)$'),*. L' $*3)+0',.')+%'/1.-0'0*8%),8%0'%B)%.5' 4%2*.5')+%0%'*$-'.0'0*'('0')*',.)%$&%$%'3,)+' .%,-+4*1$,.-'0)$1()1$%0'('10,.-',$$,)'),*.' 6$%001$%'*$'5%0)$1(),7%'%&&%()0' +10'/*('/' 6/%1$,02'6$%001$%'*.'7%00%/0'*$' .%$7%0'5%; 0)$1(),*.'*&'4*.%0''.5'*)+%$'(*.0%E1%.(%0' 8'2'%.01%' .'0+*$)')+%'-$*3)+0'4%(*8%')+%.'6$'(),('//2',.)$')+*$'(,(')18*1$0''.5' 6$*51(%'0,8,/'$'%&&%()0

!(! G +')'+'0'4%%.'0)')%5'('0')*)+%' %&&%()0'*&'8*$4,5'-$*3)+0',.')+%'/1.-0' 3,'$%'5,/2'%B6/','.')+%'(/,.,('/'0,-.0 3+,(+'$%7%'/')+% 6$%0%.(%',)+%$'*&')+%'8*$4,5'&*$8'),*.')0%/&' G01(+''0'/)%$'),*.',.')+%'0+'6%&.5'0,C%'*&)+%'(+%0)'5%&,(,%.)'%B6'.0,*.'51/.%00'4$*.; (+,'/'*$*)+%$'4.*$8'/'4$%')+'0*1.50'8*5,; &,%5'7*('/'&$%8,)10'.5'$%0*.'.(%H'*&',)0' %&&%()0'*.')+%'/1.-0H'*&')+%'&*$8'),*.' *&' ('7,),%0H'*$'*&',)0',.)%$&%$%.(%'3,)+'.%,-+' 4*8$,.-'6'$)0' +%'6'$),(1/'$0'$%/'),.-')*)+%0%'6*,.)0''$%'5,0(100%5',.')+%$'$),(/%0' %&,..)%'-%.%$'/02 86)*80''$%'00*(,'%5' 3,)+'8'.2'&*$80'&*'8*$4,5'-$*3)+',')+% /1.-0H

! G +%'6$,.(,6%0'*&')$%')8%.)' *&'8*$4,5'-$*3)+0',.')+%'/1.-0'$%'&,$0)')* -%)'$,5'*&')+%8'(,&'6*00,4/%'42'8%5,%,.'/' 8%'.0''0',.')+%'('0%'*&'026+,/,0H 0%(*.5/2')*')$%')'+%,$'%&&%()0H'+,$5/2')*')$%')'/*('/ 02 86)*80'3+,(+'8'2''$,0%H'.5'&*1$)+/2')*)$%')'+%'-%.%$'/02 86)*80

5' '*

C 3 >' D -.)1' E 0" ' X *0 I ' '6 "H %$'S "0" & # G .&,/)$')*.'*&')+%'61+.*.',2'),001%'3,)+'0%$*10'&/1,5 +%' 0%$*10'&/1,5',0' %&&60%5'&,*8')+% 61/8*.'$2'('6,//'$,%0'.,)*')+%' 61/8*.'$2')%B)1$%0''.5',.)*')+%' '/7%*/'$'.5'4$*.(+,'/ 6'(%0 ,', G +%'('10%0'*&')+,0'%B15'),*.' '$%' 8'.,&*/5'41)'*&')3*'0*$)0'Y?, '6>' ' ' "'A R'(),7%'(*.-%0),*.' '))%.5'.)'16*.',.&/'88')*$2'(*.5,),*.0'*&)+%/1.-0'.5'4$*.(+,H A<R'6'00,7%'(*.-%0),*.H AGR'8%(+'.,('/'(*.-%0),*.G$,.'+%')$) 5,0%'0%'%86+20%8''*$'6$%001$%'16*.')+%'61/8*.'$2' 7%,.OH'A R'3'.)'*&')*.%'*&'7%00%/0'&)%$',.; &/'88')*$2'(*.5,),*.0''0'6.%18*.,''*$' 4$*.(+,),0'*'$'6$%001$%'16*.')+%'7'-10'.%.% '*$'61/8*.'$2'6/%B10HAFR'&&/1B'*&'4/**5')*)+%/1.-0',.('($*16''.5'51$,.-')+%'0)+8'),(' 6'$*B2080'5%)%$8,.%5'42')+%',.%&&%()1'/ %&&*$)0')',.06,$'),*.' AFR' " ' # ' # ',.''/418,.1$,''.5')*'/%00' 5%-$%%',.')*)+%$'5,0%'0%0',.'3+,(+')+%'(*.; 5,),*.'*&')+%'4/**5',0''/)%$%5'*$',86',$%5G&*$ %B'86/%'0(1$72'61$61$''.&&,8,''+25$,%8,'' G)+%/1.-0'6')'9,.-'*&')+%'-%.%$'/5,06*0,;),*.')*'5$*602

! ' G .' ('0%0'*& *%5%8'' 61/8*.18')+%' ..=0'$%' 101'//2' /'$-%'&,//,.-')+%')+*$'(,('('7,)2'.'5'0*8%;),8%0',.5%.)%5'42')+%'$,40' +%2'$%'+%'72H')+%,$'6/%1$'/01$&'(%0'$%'3%)H'.5')+%'6/%1$'/ ('7,),%0'(*.)','0'.'.'%B(%00'*&'0%$18' *)+

6+)+,0,0‘ ,0‘ ,. &, . ,)%/2‘)+%‘ 8 *0)‘ (* 8 8 *. ‘)‘ ,0‘)+%‘ $1/%‘ ,.‘ 6+)+,0,0‘ &*$‘ 6/%1$,),(‘ ‘5+%0,* .0‘)*‘ &*$8‘ ‘ ‘3 ,)+‘)+%‘ 61/8 * .‘$2‘ /%0,* .‘ ‘ .5‘)+%0%‘ ‘5+%0,* .0‘ ‘$%‘ 101‘ //2‘ 7%$2‘ &,$8‘ ‘ .5‘ 5,&&,(1/)‘)*‘ 4$%‘ +‘ 5*3 . ‘ .‘ .%,)+%$‘ $%; 06%()‘ +*3%7%$‘ 5*%0‘)+,0‘ $1/%‘ ‘/3‘ 20‘ +*/5‘ -**5‘ .‘ 0*8 %‘ $‘$%‘ *‘ 0%0‘ ,.‘)+%‘ %‘$/,%0)‘ 0)‘ -%‘ *&‘)+%‘ 5,0%‘ 0%‘ ‘‘ 0 8‘ /‘) 14%$(1/‘$. *51/%‘ 0,)1‘)%5‘ ,8 8 %5, ‘)%/2‘ 1. 5%$‘)+%‘ 6/%1$‘ ‘ 0*&)%. 0‘ ‘ . 5‘)+%‘ 6/%1$‘ ‘ -,7%0‘ 3‘ 2‘ -‘ ,. ‘ ‘)‘ ‘ . 2‘ 0)‘ -%‘ *&‘)+%‘ 5,0%‘ 0%‘ ‘ .‘ *1)/>. -‘)14%$(1; /‘$‘ 8‘ 00‘ 0,)1‘)%5‘ 4%/*3‘)+%‘ 6*,.)‘)*‘ 3+,(+‘)+%‘ 6/%1$‘ /‘ ‘5+%0,* .0‘ +‘ 7%‘ %B)%. 5%5‘ 8 ‘2‘ 0*&)%. ‘ ‘ . 5‘ $16)1$%‘ ,.)*‘)+%‘ 6/%1$‘ /‘ (‘ 7,)2 . ‘)+%‘ 8 *$%‘ ‘ (1)%‘ 6 . %1 8 *. ,(‘ 7‘ $,%), %0‘ *&‘ 6+)+,0,0‘)+%$%‘ ,0‘ *&)%. ‘ ‘‘ 0, . -1/‘$‘ ,. 5,06*0,), *. ‘)*‘)+%‘ &*$8 ‘), *. ‘ *&‘ 6/%1$‘ /‘ ‘5+%0,* .0‘ +%‘ 61/8 *. ‘$2‘ 6/%1$‘‘ , . ‘ 01(+‘ (‘ 0%0‘ 4%(* 8 %0‘ (*7%$%5‘ 3,)+‘ ‘‘)+, . ‘ 0 8 **)+‘)$‘ . 0/1(%.)‘ /‘ 2%$‘ *&‘ /2 8 6+‘ 0+, . , . -‘)+$*1-+‘ 3+, (+‘ (‘ . ‘ 4%‘ 0%%. ‘)‘ 0%7%$‘ /‘ 6*, .)0‘ *6‘ E1%2% *3‘ 06*)0‘ +%0%‘ 06*)0‘ ‘$%‘ &*1. 5‘)*‘ (*$%06*. 5‘ 3,)+‘ 1. 5%$/2, . -‘ 8 ‘ 00%0‘ *&‘ 0*&)%. %5‘ (+%%02‘ 8 ‘ ;)%$, ‘ /‘ 42‘ 3+, (+‘)+%‘ 6/%1$‘ ‘+‘ 0‘ 4%%. ‘ , 8 5%$‘ 8 , . %5‘ ‘ . 5‘ 5%6$,7%5‘ *&‘ ,)0‘ 7‘ 0(1/‘$ 0166/2‘ . %1 8 *)+‘ 8‘ B‘ +‘ 0‘ ,)0‘ 8 *0)‘ &,H%E1%.)‘ *$, -, . ‘ ,. ‘ $16)1$%‘ *&‘)+%‘ 6/%1$‘ ‘ ‘)‘ *. %‘ *&‘)+%0%‘ 2%//*3‘ 6*, .)0

, . ‘ 2‘ 0, . 10%0‘ ‘$%‘ 0* 8 %), 8 %0‘ &*B 8 5‘ /%‘ 5; . . -‘ &$* 8‘ */5‘ (‘ 7,), %0‘ ‘ 3,)+, . ‘)+%‘ /1. -‘)*‘)+%‘ 6/%1$‘ /‘ 01$&‘ (‘ %‘ ((‘ 0, *. ‘ //2‘)+%0%‘ 0, . 10%0‘)+%‘ 6/%1$‘‘ 4%, . -‘ ‘5+%$%.)‘ 6%. %)$‘)%‘)+$*1-+‘)+%‘)+*$‘ (, (‘ ‘ //‘ . 5‘ 6*, .)‘ %B)%$. ‘ //2‘ . ‘ *)+%$‘ (‘ 0%0‘ *&‘ 3+, (+‘)+%‘ 3$,)%$‘ +‘ 0‘ 0%%. ‘)3*‘ %B‘ 8 6/%0‘)+%2‘ 8 ‘2‘ *6%. ‘ , .)*‘)+%‘ *66*0,)%‘ 6/%1$$&‘ (‘ 7,)2

! ‘ $‘ ‘ G +%‘ ‘&&%()%5‘ /1. -‘ , 0‘ , . ‘ //‘ (‘ 0%0‘ (* ‘60%5‘ ‘ . 5‘ , . ‘ (‘ 0%0‘ *&‘ */5‘ 0)‘ . 5, . -‘ 8 ‘2‘ 4%‘ 0*‘ (* 8 6/%)%/2‘ 0*‘ ‘ . 5‘ (*7%$%5‘ 42‘ 01(+‘), (9‘ /‘ 2%$0‘ *&‘ /2 8 6+‘ (‘ 0‘)*‘ 4%&*1. 5‘ *./2‘ 3,)+‘ 5, &&, (1/)2‘ +%‘ *6%. , . -‘ 8 ‘2‘ +‘ 7%‘ (/*0%5‘)‘ , 0‘ 0* 8 %), 8 %0‘ 5, &&, (1/)‘)*‘ 5, 0(%$. ‘)‘ 8 ‘2‘ (* . 0, 0)‘ *&‘ ‘‘ 0 8‘ //‘ 0/,)‘ (* 8 8 1. , (‘), . -‘ 3,)+‘ ‘‘ (‘ 7,)2‘ 42‘ ‘‘ 0/‘ .), . -‘ 0, . 10‘ <‘ 0‘)*‘ &*$8‘ ‘‘ (* 8 6/%)%‘ 7‘ /7%H *$, . ; ‘ 8 ‘2‘ 4%‘ *&‘ (* . 0, 5%$‘ 4/%‘ 0, C%‘ ‘ . 5‘ (* 8 8 1. ; (‘)%‘ 3, 5%/2‘ 3,)+‘ ‘‘ (‘ 7,)2‘ *$‘ 4$*. (+10‘ //‘ 5%-$%%0‘ *&‘ 6‘)%. (2‘ 4%)3%%. ‘)+%0%‘)3*‘ %B;)$%8 %0‘ *((1$‘ +%‘ 6*0,), *. ‘ *&‘)+%‘ *6%. , . -‘ ,0‘ 7%$2‘ 7‘ $, ‘ 4/%H ,)‘ , 0‘ 8*0)‘ (* 8 8 *. /2‘ 0,)1; ‘)%5‘ 0* 8 %3+%$%‘ *. ‘)+%‘ /‘)%$‘ /‘ *$‘ (*. 7%B‘ 0,5%‘ *&‘)+%‘ /1. -‘ +%‘ $16)1$%‘ ,0‘ ‘/8 *0)‘ ‘/3‘ 20‘ , .)*‘)+%‘ 6/%1$‘ /‘ (‘ 7,)2‘ *. ‘)+%‘ 0‘ 8 %‘ 0,5%‘)‘ 8 ‘2‘ +*3%7%$‘)‘ 9%‘ 6/‘ (%‘ , .)*‘)+%‘ *66*0,)%‘ 6/%1$‘ /‘ (‘ 7,)2‘)+$*1-+‘)+%‘ 8 %5, ‘ 0), . ‘ /‘ &*/5‘ *&‘ 6/%1$‘ ‘ +%‘ 6/%1$‘‘ ,0‘ , . &/‘ 8 %5‘ ‘ . 5‘ (*7%$%5‘ 3,)+/2 8 6+‘ ‘ . 5‘ ,)0‘ (‘ 7,)2‘ (* .)‘ , . 0‘ ‘ ,$‘ ‘ . 5‘ ‘‘ -$%‘)%$‘ *$‘ /%00‘ E1‘ .),)2‘ *&‘ 61$1/%.)‘ &/1,5‘ +%‘ +$, ‘)‘ ,0‘ 5,06/‘ (%5‘ 1, , /%00‘ , . ‘ 0* 8 %‘ $‘$%‘ (‘ 0%‘ ,)‘ 4%‘ +%/5‘ 42‘ ‘‘ 0)$*. -‘ ‘5+%0, *‘ * 8 %‘ 2%‘ $0‘ ‘-*‘)+%‘ 3$,)%$‘)%0)%5‘)+%‘ 5%-$%%‘ *&‘ ‘, $ 6$%001$%‘ 6$%0%.)‘ , . ‘)%. ‘ (‘ 0%0‘ *&6. %1 8 *‘)+*$‘ B‘ 42‘ 8 %‘ . 0‘ *&‘ ‘‘ 3 ‘)%$ 6$%001$%‘ -‘ 1-%‘ . ‘)3*‘ (‘ 0%0‘ ,)‘ 3‘ 0‘ " H , . ‘ *. %‘ (‘ 0%‘ ,)‘ 3‘ 0‘ %E1‘ /‘)*‘ I@F, . (+H , . ‘)3*‘ (‘ 0%0‘ <‘ , . (+%0H , . ‘ *. %‘ (‘ 0%‘ F0“, . (+%0H ‘ . 5‘ , . ‘ ‘‘ 5*14/%‘ %‘ 0%‘ ,)‘ %E1‘ //%5‘ “F‘ , . (+%0‘ , . ‘ *. %‘ 6/%1$‘ ‘ ‘ . 5‘ @ M , . ‘)+%‘ *)+%$‘ +%‘ -‘ 0‘ %&&10%5‘ ‘66$*B, 8 ‘)%0‘ . ‘ (* 8 6*0,), *. ‘)*‘)+‘)‘ *&‘ %B6, $%5‘ ‘, $‘ (*. ;)‘ , . , . -‘ &$* 8‘ 9‘)*‘ D‘ 6%$‘ (%.)‘ *&‘ (‘ $4*. , (‘ (, 5‘ *8 %), 8 %0‘ 01/6+1$%))%5‘ +25$*-%. ‘ //0*, 0‘ &*1. 5‘ , . ‘ &*%), 5‘ (‘ 0%0

! (! ‘ ‘ " +%‘ 02 8 6)*8 0‘ ‘ . 5‘ 0, - . 0‘ *&‘ 6%$&*$‘), *. ‘ *&‘)+%‘ 6/%1$‘ ‘ ‘ $%‘)+*0%‘ *&‘ 6 . %1 8 *)+*$‘ B‘ &*//*3%5‘ 42‘ +25$*‘ *$‘ 62*; 6 . %1 8 *)+*$‘ B‘)‘)+%‘ 8 *8 %.)‘ *&‘ ‘))‘ (9‘ 0155%. ‘ ‘ (1)%‘ 6‘ , . ‘ , 0‘ &%)/‘ , . ‘)+%‘ (+%0)‘ ‘)‘)+%0%‘)‘ *&‘ $16)1$%‘ ‘ . 5‘ , 0‘ , 8 8 %, ‘)%/2‘ &*//*3%5‘ 42‘ -$%‘)‘ 5206. *%‘ ‘ . 5‘ 0+**9‘ . ‘ ‘‘ 3%//‘ 8 ‘$9%5‘ (‘ 0%‘)+%‘ %B6$%00, *. ‘ *&‘ &‘ (%‘ , 0‘ 6%(1; /, ‘ $/2‘ ‘ -*. , 0%5‘ ‘ . 5‘)%$$*$ 0)$, (9%. H‘)+%‘ %B;)$%8 ,), %0‘ ‘$%‘ (*/5H 5‘ 86‘ 03%)0‘ 4$%‘ 9‘ *1)H)+%‘ 61/0%‘ , 0‘ E1, (9‘ ‘ . 5‘ 0 8 ‘ //H ‘ ‘ . 5‘)+%‘ $%06, ; $‘), *. 0‘ ‘$%‘ %B(%%5, . -/2‘ $‘ 6, 5‘ +%‘ 6*0,), *. ‘ *&‘)+%‘ 6‘), %.)‘ , 0‘)+‘)‘ *&‘ *$)+*6. (%‘ ‘ 3,)+‘ ‘ . , . (/, . ‘), *. ‘ &*$3‘ $50‘ ‘ . 5‘)+%‘ 0*1. 5‘ 0, 5%H ,)‘ , 0‘ +*3%7%$‘ &, %E1%.)/2‘ (+‘ . -%5‘ , . ‘)+%‘ %. ; 5%‘ 7*1$‘)*‘ -‘ , . ‘ 4$%‘)+‘ +%‘ 7*, (%‘ , 0‘ &%%4/%‘ . 5‘ 3+, 06%$, . -‘ +%‘ 1$-%. (2‘ *&‘)+%‘ 0+*(9‘ . 5‘ 5206. *%‘ ‘ 5%6%. 50‘ 16*. ‘)+%‘ *8*1.)‘ *&‘ 10%&1/‘ /1. -‘ 0155%. /2‘ 5, 0‘ 4/%5‘ &‘)+%‘ 6‘ ;), %.)‘ 01$7, 7%‘)+%‘ ‘))‘ (9‘ ‘&)%$‘)3*‘ *$‘)+$%%$‘ 5‘ 20‘ &%7%$‘ *&‘ ‘ ‘ +%(), (‘ (+‘ $‘ ()%$‘ 3,)+/03%‘)0‘ 016%$7%. %0‘ ‘ .‘ 0*8 %‘ (‘ 0%0‘ +*3%7%$‘)+%‘ 02 8 6)*8 0‘ *&‘ 6. %1 8 *)+*$‘ B‘ (*8 %‘ *. ‘ 7%$2‘ , . 0, 5, *1 0/2

6# ‘ 0" G +%‘ 6+20, (‘ /‘ 0, -. 0‘ ‘$%‘ 7%$2‘ (+‘ $‘ ()%$, 0), (‘ +%$%‘ , 0‘ %. /‘ $-%8 %.)‘ *&‘)+%‘ 0, 5%‘ ‘&&%()%5‘ ‘ . 5‘ %&&‘ (%8 %.)‘ *$‘ 41/-; , . -‘ *&‘)+%‘ , .)%$(*0)‘ /‘ 06‘ (%0‘ +%‘ +%‘ $)‘ , 0‘ 5, 06/‘ (%5‘)*3‘ $50‘)+%‘ 0*)8 5‘ 0, 5%‘ +%‘ 6%$; (100, *. . *)%‘ , 0‘ +26%$ $%0*. ‘ .)‘ *$‘)2 8 6‘ . ,), (‘ *7%$‘)+%‘ 0, 5%‘ ‘&&%()%5‘ %B(%6)‘ 3+%$%‘ A‘)‘)+%‘ ‘6%BR‘)+%/1. -‘ 8 ‘2‘ 6%$+‘ 60‘ 4%‘ 0), ‘ ‘5+%$%.)H ‘ . 5‘ *. ‘ ‘10(1/)‘ , *. ‘ %,)+%$‘ . *‘ $%06, $‘), *. ‘)‘ ‘ //‘ , 0‘ ‘15, 4/%‘ *$‘ ‘ 86+*$, (‘ 4$%)+, . -‘ *&‘ ‘‘ 6%(1/, ‘$‘ (+‘ $‘ ()%$‘ 8 ‘2‘ 4%‘ +%‘ $5‘)‘ *. %‘ L$‘ 8 *$%‘ 6*, .)0‘ 0* 8 %), 8 %0‘ ‘((* 8 6‘ . , %5‘ 3,)+‘)+%‘ (+‘ $‘ ()%$, 0), (‘ 8 %)‘ //, (‘), . 9/%‘ ‘ 6%(1/, ‘$‘ 8 %)‘ //, (‘ %(+*‘ , 0‘ +%‘ $5‘ , &‘)+%‘ 6‘), %.)‘ (*1-+0‘ &‘ 3+, /0)‘ +%‘ %‘ $‘ , 0‘ ‘66/, %5‘ ‘‘ (*, ‘ 6/‘ (%5‘ .)+%‘ 5, 0%‘ ‘0%5‘ 0, 5%‘ , 0‘ 0)$1(9‘ 3,)+‘ ‘ . *)+%$‘ (*, . ‘ ‘‘ (+‘ $‘ ()%$, 0), (‘ 4% *)%‘ , 0‘ +%‘ $5‘ +%‘ 7*(‘ /&$%8 ,)10‘ , 0‘ 5, 8, . , 0+%5‘ *$‘ /*0)‘ ‘)‘ /‘)%$‘ 0)‘ -%‘ 3+%. ‘ 8 *$%‘ *$‘ /%00‘ %&&10, *. ‘ +‘ 0‘)‘ 9%. ‘ 6/‘ (%‘)+%‘ 0, -. 0‘ *&‘ ‘, $‘ . 5‘ &/1, 5‘ , . ‘)+%‘ 6/%1$‘ /‘ (‘ 7,)2‘ 6$%0%.)‘)+%8 0%/7%0‘ . ‘ 8 %/2‘ 51/. %00‘ 4%/*3‘ ‘ . 5‘ +26%$ $%0*. ‘ . %‘ ‘4*7%G, . ‘ 7‘ $2‘ , . -‘ 6$*6*$), *. 0‘ ‘ . 5‘ 0+, &), . -‘ , . ‘ $%/‘), 7%‘ 6*0,), *. ‘ 3,)+‘)+%‘ 6*0)1$%‘ *&‘)+%‘ 6‘), %.)‘ &‘)+%‘ 8 *1.)‘ *&‘ &/1, 5‘ 4%‘ 8 *5%$‘)%‘ ‘‘ 06/‘ 0+‘ *$‘ 01(‘ (100, *. ‘ 0*)8 5‘ 8 ‘2‘ 4%‘ %/, ()%5‘ +, 0‘ 0*1. 5‘ 8 ‘2‘ 4%‘ ‘15, 4/%‘)*‘)+%‘ %‘$‘ ‘66/, %5‘)*‘)+%‘ (+%0)‘ *$‘)*‘ 420)‘ . 5%$0‘ &‘)+%‘ &/1, 5‘ %&&, , 0, *. ‘ 4%‘ (*. 0, 5%$‘ 4/%‘ , .)%$(*0)‘ /‘ &/1(0‘ 1), *. ‘ 8 ‘2‘ 4%‘ &%/)H ‘ . 5‘)+, 0‘ &/1(0)‘ 1), *. ‘ -, 7%0‘)*‘)+%‘ &, . -%$‘ *. ‘ 6%$(100, *. ‘ ‘)‘)+%‘ /%7%/‘ *&‘ >1. (), *. ‘ *&‘ ‘, $‘ . 5‘ &/1, 5‘ ‘‘ 6%(1/, ‘$‘ 0%. 0‘), *. ‘ *&‘)+$, //‘ +%‘ 6*0,), *. ‘ 101‘ //2‘ ‘0018 %5‘ 42‘)+%‘ 6‘), %.)‘ . *3‘ , 0‘ 3,)+‘)+%‘ +%‘ 5‘ $‘ , 0%5‘ ‘ . 5‘ /%‘ . , . -‘)*3‘ $50‘)+%‘ 5, 0%‘ 0%5‘ 0, 5%

@!?' ' '

8*.'$2),0 %' 3+,(+ ,. ,)0 -%.%$'/ '.5 8,($*0(*6,(' (+'$'()%$0' (''..*)' 4% 5,0),.; -1,0+%5' +$*8' '' 0,8,/'$' (*.5,),*.' 51%)*' ,.)%$0),),'/6.%18*.,''&$*8'*)+%$'('10%0'+1)')+%'.%3'),001%',0'0',5')*'4% 8*$% 7'0(1/'$,.' ,)0'%'$/2'0)'-%0' +%''&&%()%5'6'$)0''$% 81(+' ,.51$')%5H''.5''.2'4$*.(+,'3+,(+' '$% ,8; 6/,(')%5')%.5')*'4%(*8% 8*$%'*$'/%00'5 ')%5' +%'8*$4,5'(*.5,),*.' 8'2'4% 5,0)$,41)%5',.' 7'$,*10'6')$0'*&')+%' /1.-0'41)' '66%'$0')*' +'7%' '' 6$%&%$%.(%'&*$')+%,$'$**)0')'&$%E1%.)/2'*$,-,; .')%0'')'+%' 01$&'(%''.5'6%.%)$')%0')+%.(%' ,.)*')+%',.)%$,*$'*&')+%')8-0',.')+%'&*$8'*& &,4$*10'4'.50')+%' 6/%1$''4%,.-'-%.%$'//2')+,(9%.%5''.5' '5+%$%.)' '.5' 016%$&,(,8' 61(9%$8-0' '.5' 5%6$%00,*.0'4%,..-' 7,0,4/%' .' *)+%$',.0)'.(%0')+%' .%3 -$*7$)+' (*8; 8%.(%0''$*1.5'-188')'H *$'&,K*8''' (+$*.,(' (*.)$'(),.-' 6%$, 4$*.(+,),0' '00*(,')%5'3,)+' 1/(%$'),7%' ,.&/'88'),*.' A 2% 8,)R ℞ $' $%%.'0)')%0')+')',)'*$,-,.')%0'8',./2''$*1.5')+%'08'//',.)%$/*41/'$'4/**5 7%00%/0' 26+,; /,),(' &,4$*,5',.&,/)$'),*.'+'0' .*')%.5%.(2')*' ('0%'),*.H 41)',)'8'2'4%(*8%')+%' 0%')'*& 1/(%$'),*.'.-$%.% .' (*..%B,*.' 3,)+' (*.-%.,)'/026+,/,0''' 6%(1/,'$' (*.5,),*.' +'0' 4%%.' 5%0($,4%5' '0' '&&%(),.-')+%'/1.-0',.'.%3 4*$.'*$'7%$2'2*1.-' ,.&'.)0'1.5%$'7'$,*10' .'8%0'01(+'0' ! " -' " 0 ' ' " ' ')'*0018%0''8*$%* *$'/%00'5,&&10%'*$,.&,/)$')%5''$$'.-%8%.)'41)' ,0'*&'7'$,'4/%'%B)%.)'' .5'8'2',.7*/7%'*.%'*$ 4*)+' *$-'.0' .%/1.-' 8+2'4%'&&%()%5')+$*1-+*1)'3+,/%')+%'*)+%$',0'E1,)%'&$%%&$,$*8' 5,0%'0%' +%' 8*$%'*47,*10'(+'$')()%$0''%% '0'&*//*30' +%'6/%1$''',0'101'//2'1.'&&%()%5' +%'/1.-',0'%./'$-%5''.5'8'2'4%',.''0)')%' *&'- '%B6'.0,*.'0*')+')',)0'01$&'(%',0'8'$9%5' 42')+%'$,40H ,)'&%%/0'$%8'$9'4/2'+%'72H''.5' ')')+%'0%')'*&)+%'5,0%'0%',0'5%.0%'&,$8'+'$5' '.5'101'//2'$%0,0)'.)' .*)'4$%'9,.-'5*3.' .5%$'6$%001$%' .'0%(),*.',)'6$%0%.)0''' 3+,)%'*$2%//*3,0+3+,)%'(*/*1$'4%,.-'8*$%* *$'/%00'4/**5/%00H,0'1.,&*$8'.5'08**)+H ''.5'/,))/%'*$'.*'&/1,5'('.'4%'%B6$%00%5'*$ 0($'6%5'&$*8')+%'(1)'01$&'(%' '$%&1/%B; '8,.'),*.'$%7%'/0'8,.1)%'4'.50'*&,4$*10'),001%'$1..,-'.''//5,$%(),*.0' ,($*0(*6,; ('//2')+%'(+'.-%0%%80')*' (*.0,0)'8',./2',.')+,(9%.,.-'*&')+%''/7%*/'$'3'//0''.5'8,.1)% 4$*.(+,'51%')*''.',86%$&%()/2'&,4$,//')%5''.5' .1(/%')%5'),001%'3+,(+'1.5%$-*%0'5%-%.%$';),7%'(+'.-%0' *0)'*40%$7%$0'&')+%$'5%0($,4% ''.',.($%'0%',.')+%'%6,)+%/,'/' (%//0'3+,(+'&,//')+%''$ 7%0,((/%0' '.5' 8,.1)%' ,$)14%0H 41)' '-.%$'5%.,%0')+,0' +%'7%00%/0''/0*'4%(*8%')+,(9%.%5''.5'1/),8')%/2'*4/,)%$')%5)' 8'2'4%'8'$9%5')+')')+%' 4$*.(+,'/)14%0''*$')+%,$'5,7,0,*.0'8'2'4%''&&%()%5'3,)+' 026+,/,),('5,0%'0%H)+%,$'014 81(*10',001%'*$ *(('0,*.''//2')+%,$'5%%6%$'0)$1()1$%0'4%(*8; ,.-',.&,/)$')%5'705)+''&,4$*.1(/%'$'-$*3)+' /(%$'),*.'.'0'/,9%/2')*')'9%'6/'(%'&*//*3%5' 42'(,(')$,0'),*.'/%'5,..-')*')+,(9%.,.-'*&)+%,$'3'//0'3,)+'.'$$*3,.-'*$%7%.'(*86/%)% (/*01$%'*&')+%,$'(+'.%/

!(! G .')+%'8'>*$,)2'*&'(' 0%0'026+,; /,),(''/%0,*.0',.')+%'/1.-0'+'7%'*.'/2'4%%.'5,0; (*7%$%5' '&)%$' 5%')+' .*' 0286)*80'+'7,.-' *((1$$%5'51$,.-'/,&%'6*,.),.-')*')+%0%'*$-'.0H *$')+%2'+'7,.-'4%%.'*40(1$%5'42'0286)*80' '&&%(),.-'*)+%$'6')$0' .''''(' 0%'*&'$%(*-.,0%5' (*.0),)1),*.'/'026+,/,0' '))%.),*.' 0+*1/5'4% 6','5')*')+%'/1.-0''0'3%//'0')*')+%$'*$-'.0' '.5',' 3*1/5'4% '57,0'4/%)*' %B'8,.%')+%8' &,$*8',)8%')*',)8%''0'6+20,('/'0,-.0'8,-+)' *((1$'3,)+*1)' '.2'*47,*10'0286)*80')*' '))$'(')'+%'6'),%.)<0')%.),*.' &'61/8*.'$2' 0286)*80'01(+'0'/*('/'6',.'0+*$).%00'*& 4$%')+'(*1-+'%B6%()*$'),*.'*'$%+0%8*6)20,0' 0+*1/5''$,0%',.''6%$0*.'1.5*14)%5/2'026+,; /,),(''*$3+*'+'5'+'5'026+,/,0')+%'6*00,4,/,)2' *&')+%'/1.-0'4%,.-'&&%()%5'0+*1/5'06%(,'//2' 4%'4*$.%,.'8,.5' '%8*6)20,0'')''.'%')/2' 6%$,*5',0'0',5')*'4%'*&'5,'.'+%'8*0)'0,-; .,&,('.)'0,-.0'+*3%7%$''$%')+50%',.5,('),.-' 8'$9%5',.51$'),*.'*&')+%'/1.-'&$*8'&,4$*,5' ,.&,/)$'),*.'%06%(,'//2',&'1.,/')%$'/''.5'(*.; &,.%5')*')+%'4'0%'*$ 8,55/%6*$),*.'*&')+%' *$-'.'.' (*1$0%'*&'),8%'0,-.0'*&'(' 7'),%0' 8,-+)'4%(*8%'%7,5%.)'51%')*'4$%'9,.-5*3.' *&'-188')'' *$')*' 5,/')%5' 4$*.(+,' +%' -%.%$'/0286)*80'$%')+0%'*&'(*.0),)1),*.'/ 026+,/,0' (*84.,.%5'3,)+')+*0%'*&'6+)+,0,0' +%$%',0'41)'/,))/%'*$.*'6J %B,'''((*86'.2; ,.-')+%'61/8*.'$2'/%0,*.0H''.5')+%'6$*-$%00' *&')+%'('0%',0'%00%.),''//2'(+$*.,(' +%'%&&%()0' *&)$%')8%.)'8'2'4%'*&'6%(1/,'$'0,-.,&,('.(%' ,.')+%'5,'-.*0,0'*&'026+,/,),('5,0%'0%'*&')+%' /,8-0' &'01(+'0286)*80''.5'6+20,('/0,-.0' (*..%()%5'3,)+')+%0%'*$-'.0''0'+'7%'4%%.' ,.5,(')%5''4*7%'0+*1/5'5,0'66%'$'1.5%$')+% 10%'*&'.),026+,)*'$%8%5,%0'*&'),$/2'4%'8'5%-'.*0,0' *&')+,0'5,0%'0%'8,-+)'&',$/2'4%'8'5%' +% '40%.(%'*&')14%$(/%'4'(,',0'(*.0,5%$%5''.' ,86*$)'.)'%/%8%.)'..'5,0),..-1,0+,.-'026+,; /,),('5,0%'0%'&,$*8')14%$(1/'$'6+)+,0,0 ! G &'026+,/>),*'5,0%'0%'*&')+%' /1.-0'4%'$%(*-.,0%5'*$'0106%()%5')+%''66$*; 6$,')%')$%')8%.)',.'8*0)'('0%0',0')*''58,.0;)%$',*5,5%'*&'6*)'00,18'&,$%%/2'.5'(*.),.1; *10/2'.'0*8%('0%0''8%$(1$,'/'(*'$0%'*&)$%')8%.)'.03%$0'4%0)H*$'6%$%+/*,5%'*& 8%$(1$2'8,-+)'4%(*84,.%5'3,)+')+%',*5,5%')'8'2'4%.%(%00'$2')*'%86/*2',.)%$./'$%; 8%5,%0'*$'/*('/'66/,(',),*.0'&*$')+%'$%/,%&'*& 61/8*.'$2'0286)*80' *5/,7%$'*,/'.5')*.,(0'8'2'4%'-,7%.'3,)+'57'.)'-%'&*$)+%' '8%/,*$'),*.'*&')+%'-%.%$'/(*.5),*.' ,.' (' 0%0'3+%$%'01(+'8%5,(.%0''$%.%%5%5' +% 101'/'8%'01$%0'&*$)+%')8%.)'*&'6+)+,0,(''/ ('0%0'0'$%-'$50'5,%)'+2-,%.%'(/,8')%'^(A 810)'&'(*1$0%4%5,52'$%(*-.,0%5''.5' '5*6)%5',.'01,)'4/%'('0%0

E' 4 '5' '*

)+%'0('$0' 3+,*/',)'/%'7%0G&*$'%B'86/%'%()$*;6,*.'0)$,()1$%'*&')+%'.'$0'''.5'5,0)*$),*.'*&'/1610'71/-'$,0''.5')+%''40%.(%'*&')+,(9'0('/,.%00'''.5',)(+,.-'3,/'-%.%$'//2'$%.5%$',)'%'02')*'5,0),.-1,0+')+,0'5,0%'0%'&$*8'(,$;(180($,4%5'&*$80'*&'60*$,'0,0''.5'%(C%8'H'&$_'.'%6,)+%/,*8'')+%$%'8'2'4%'5,&&,(1/)2',.'8,55/%'-%5''.5'*/5'6%*6/%'+%'-%'')'3+,(+')+%'5,0%'0%(*88%.(%5'6',.',.51$';),*.'6*0,),*.'''.5'0%(*.5'$2',.7*/7%8%.)'*&'-/'.50'+%/6')+%'5,'-.*0,0',.'*'0%0'*&'%6,)+%;/,*8''')',0'3,)+'026+,/,0')+')'/1610',0'8*0)'6)*'4%'(*.&*1.5%5H''.5')+%'5,'-.*0,0'4%;)3%.'/1610'%B%5%.0'*.'>*0%'.'.5''1/(%$'),..-'026+,/,5%',0'0*8%),8%0'%B)$%8%/2'5,&&,(1/)'*$''),&,$0)'0,-+)',86*00,4/%'.')+%0%'('0%0'&)%$'('$%H2'(*.0,5%$,.-')+%'+,0)*$2'3%'810)'%B'8,.%'*)+%$'6')0'*&')+%'4*52'&*$')$'(%0'*&'026+,/,0''.5'.',.06%(),*.'*&')+%'8*.)+''.5'6+'$2.B'3,/'*&)%.'8')%$,'//2''00,0)'10'H'.5'/'0)/2')+%'-$%')%$%+$*.,(,)2'.5'0/*3%$'%B)%.0,*.'*&'/1610''0'3%/'0',)0'$%0,0)'.(%')*'06%(,&,(')$%')8%.)'3,/'-%.%$'//2'/%'5')*''('+$'()%$'*&'06%(,'/'7'/1%',.':,5*/%.(%',0''('+$'()%$'*&'06%(,'/'7'/1%',.'5%(,5,.-'4%)3%%.'/1610''.5'026+,/,0'6')$,;(1/'$/2''0'&&%(),.-'8%'81(*10'8%84$'.%0'26+,/,0'+'0''/0*'8*$%')%.5%.(2')*'01661;$')',*.')+'.'/1610H'.5',0'/,'4/%')*''))'(9'4*.%'1610'+'0')*'4%'5,0),.-1,0+%5'&$*8'0($*&1/*5%$8''3+,(+'-%.%$'//2'(*88%.(%0',.'0*&)%.%5'-/'.5),001%''.5'+'0''')%.5%.(2')*'))'(9'+%014(1)'.%*10',001%'6$,8'$,/2G'+%.(%'6*(9%),.-''.5'&*$8,.-'0,.10%0

?G1610',0'.%7%$'&')'/6%$'0%'41)',)'('.'.%7%$'4%/'*9%5'*.',.''&'7*1$'4/%/,-+)'*3,.-')*',)0')%.5%.(2')*'$%/'60%'1.5%$')$%')8%.)''.5',)0',.7'$,'4/%')%$8,.'),*.',.''('(*.)$'(),.-'(,('()$,B

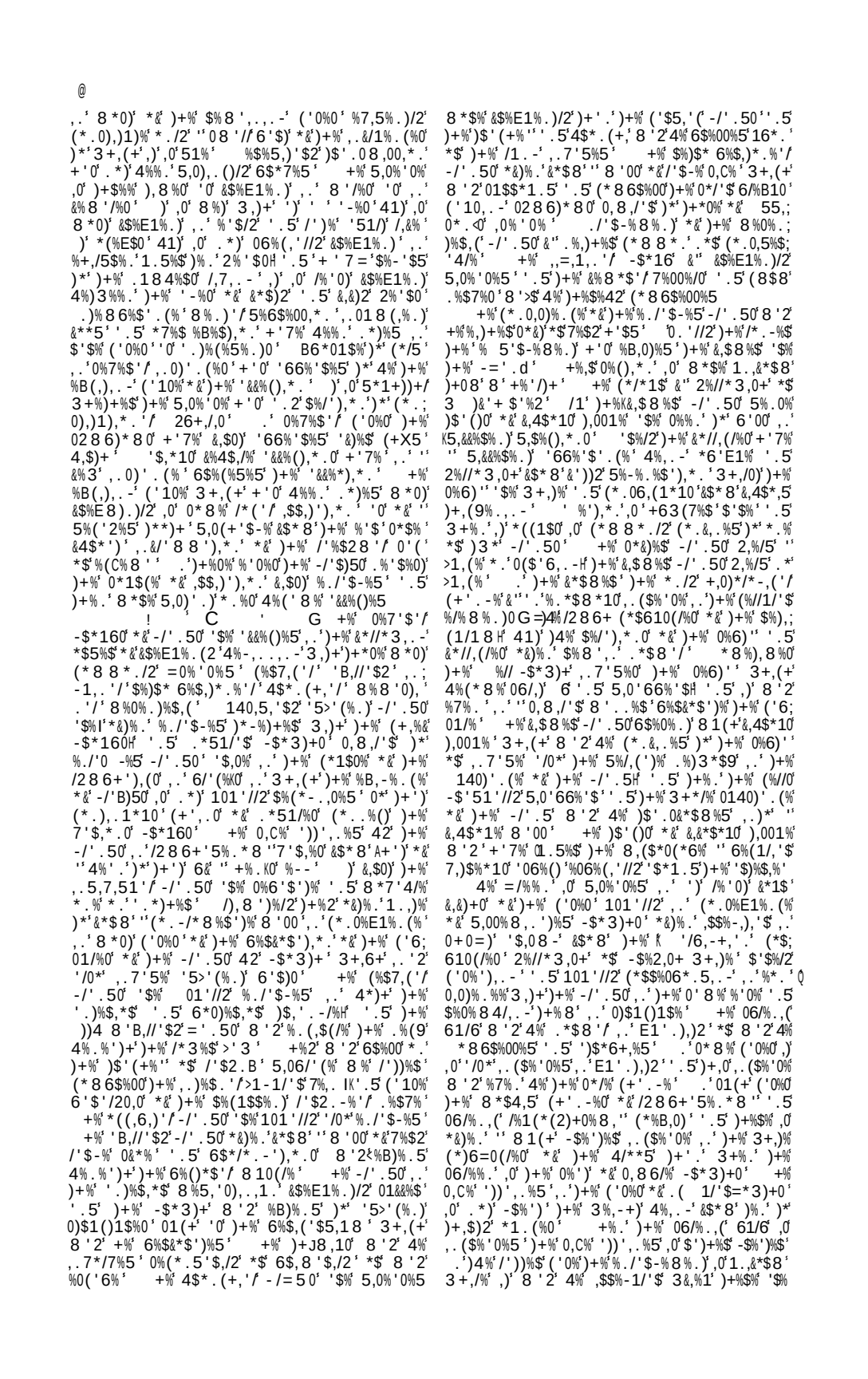
!'G5" "'G'+)%$.'/')$%');8%.)',0'*./2'*&'10%',.'/1610'71/-'$,0'3+%$%')+%'6'),%.)<0'-%.%$'/'+%')/)+',0'4'5'*$'3+%$%'3%// 8'$9%5'0286)*80'*&'0($*&1/''$%'6$%;0%.)'.')+%0%'('0%0'-$%')'4%.%&,)'8'2'4%'5%$,7%5'&$*8')*.,(0'%06%(,'//2')+%',*,5,5%'*&',$*.''.5'&$*8'(*5/,7%$'*,/',.''0'/'$-%'5*0%0'0'('.'4%')*/%$')%5'1),),*10'&**5'0+*1/5'4%&$%%/2'-,7%.H'.5')+%'6'),%.)'0+*&&,5')'9%6/%.)2'*'1)5**$%B%$(,0%'41)'4%'6$*)%()%5'&$*8'5'86'(*/5''.5'0155%.'(+'.-%0'*&(/,8')%

I(''G+%$%'/'(1$%'&*$''//&*$80'*&'/1610'810)''/3'20'(*.0,0)',.')+%'5%0)$1(),*.'*&'&+%'.%3',)001%'&*$8,.-',)'42'('10),('-%.)0'*&'7'$,*10'0)$%.-)+0'.184%$'*&'01(+'$%8%5,%0'+'7%'4%%.'6$*6*0%5'41)')+%'01((%00&1/'66/,(','.*'*&'%'(+'0%%8 0'*&)%.')*'5%6%.5'8*$%'*.',.5,7,51'/'%B6%$,%.(%'*&',)0

10%')+'.'*.')+%'016%$,*$,)2'*&'.2'*.%'('10),('*7%$')+%'$%0)'$'&%3'*&')+*0%'8*$%'-%.%$'//2'10%5'8'2'4%'8%.),*.%5'$0%.,('/'6'0)%A$0%.,*10''(,5'-$'8HH'$),&,(,'/'(,..'4'$'TOOH'$*0%'*,.)8%.)'A%4$'RR)*'4%06$%'5'*.'/,.%.''66/,%5'%7%./2''.5'4*1.5'*.')+%''&&%()%5'6')$'&*$)3%.)2&*1$'+*1$0H*.%'*$)3*''66/,(','*.0'8'2'4%'.%(%00'$2'+%5,0%'0%5'),001%'0'0%/%()%5''.5'5%0)$*2%5'42')+%'6')0%'41)'+%'6','0'0%7%$%'./2/,8,)%5''$%'0''$%')*'4%')$%')%5'+/*$,5%*&C,.('6')%''66/,%5'&*$)3%.)2&*1$'+*1$0',0'3%/'06*9%.'*&'E1'/'6')0'*&'(10),('6*):0+''.5'5,0),//%5'3')%$'8'2'4%'66/,%5'3,)+''),.2'6,%(%'*&06*.-%'0*'0')*'/,8,)')+%''(;),*.''0'81(+'0'6*00,4/%'+%'6','.3+,(+&*//*30',0'.*)'*&'/*.-'51$'),*.G''6*,.)'*&81(+',86*$)'.(%'3+%$%''('10),('810)'4%$%6%')%5/2'10%5'*/,5'.,)$')%'*&0,/7%$'8'24%'4*%5'&$%%/2',.)*''/'1/(%$')%5'6')0'*$0*&)'14%$(/%0'+%'/1610),001%'*&&%$0'41)'0/,-+)'$%0,0)'.(%')*',)'3+%$%'0',)'3,/'.*)'6%.%)$')%'*$',.>1$%'+%')+2'6')$0'+,0',0''0'&%'.5'+'$8/%00'8%)+*5'(,5'.,)$')%'*&8%$(1$2'8'2'4%'6',.)%5'*.'3,)+''-/'004$10+'+%'($10)0'3+,(+'&*$8'&'//'*&&,.')%.'5'20'*$''&*$),.-+)''.5',)'.*)'57,0'4/%')*'$%6%')+)%''66/,(','.'')'0+*$)%$',.)%$7/0'0''$1/%'.*'5$%00,.-'%B(%6)'C,.('*,.)8%.)',0'$%E1,$%5'*8%'1)+*$,),%0'6$%8%$')+%''(0)1'/*$%/0%')+%'-'/7'.,('(1)%$2'41)'4*)+')+%0%'8%'01$%0'+'7%')+%5,0'57'.)'-%'*&5,0&,-1$;,.-)+%'6')0'0*')+')',0'5,&&,(1/)')*'5%)%$;8,.%'3+%.'+%')+2',001%0''$%'$%'(+%5'.')+%')$%')8%.)'*&')+%'016%$&,(,'/'6')(+%0'*&/1610'.*.%B%5%.0')+%'$%6%')%5''66/,(','.*'*&'8%$(1$,'/'6/'0)%$'51$,..-'0%7%$'/'8*)+0'+'0'0*8%),8%0'4%%.'&*//*3%5'42'40*$6),*.'*&')+%'-$*3)+'2$*-'//,*''(,5'*,.)8%.)'A')*'!R'+'0'4%%.'10%5'42'%4$''.5'*)+%$0'3,)+'81(+'01((%00'+(2/,*''(,5'%.*1-+'))*'8'9%''6'0)%'3,)+'-/2(%$,.%')*''&&%()%5'6')0'5%0)$*20')+%'1/(%$'),*.''.5'.03%$0'3%//'+%$%.*'1/(%$'),*.'%B,0)05%8'.5,.-''(),7%',.)%$&%$%.(%'8,/5%$'%;8%5,%0'5%0%$7%''')$,'/'01(+''0'/%'5'*$'('/';8,.%'/*),*.0')',0'*&)%.'01$6$,0.-'+*3'81(+',86$*7%8%.)'8'2'4%'-*)'42'01(+'8%'01$%0'(*84,.%5'3,)+'01,)'4/%'+2-,%.%U+%'/*('/')$%')8%.)'*&'/1610'3+,(+'.*3'&,.50'8*0)'&'7*1$',0')+')',.7%.)%5'42'*/(9'8'..'9.*7$''0'0($'6,.-''.5'81/),6/%'61.('),&*$80('$,&,(',*.'"0'+'0'&*$',)0'*4>%()'&,$0)')+%$%8*7'/'*&'6$*51()0'*&'0%($%),*.'0('40'.5'($10)0H'.5'0%(*.5/2')+%$%8*7'/'*&'.%*;6/'080'&*$8%5',.'*$'*.')+%'09,.'*$')+,0'61$6*0%'0062*.0'<'*$'0(0($'6%$0'&'*&'7$,*10'0,C%0'$%'85%'42')+%',.0)$18%.)8'9%$0')',0'5,&&,(1/)')*'8'9%''.2',86$%00,*.'*.')+%0*1.5'09,.'7%,)+'01(+'4/1.)',.0)$18%.)0''.5*.')+,0'('()+%'0,86/,(,)2'.5'0'&%)2'*&0($'6,.-'8',./2'5%6%.5'0'&%)2'*&7'$,*10'0)$%.-)+0'.184%$'*&01(+'$%8%5,%0'+'7%'4%%.'6$*6*0%5'41)')+%'01((%00&1/'66/,(','.*'*&'%'(+'0%%8 0'*&)%.')*'5%6%.5'8*$%'*.',.5,7,51'/'%B6%$,%.(%'*&',)0

@ ' ' " ' "' ,0')+%' 0%(*.5' 8 %(+' .,('/' 8 %)+*5'%8 6/*2%5'42' */*98' . . ' 2')+,0')+%' *6%$')*$' 0%%90' &,$0)')*' 5%0)$*2' .%3/2'&*$8%5' 7%00%/0H ' .5' 0%(*.5/2')*' &'7*1$' '40*$6),*.' *&')+%' . %*; 6/'08' 42')$'18'),(' ,$$,)')',*.' *&')+%' 6')$')' ,0'6$'(),0%5' 42' 8'9,. -' +1.5$%50'*&'61.(;)1$%0' (/*0%')*-%)+%$' '4*1)')3*'/, .%0' , .'5%6)+' *$')+,0' 61$6*0%' '' .'$$*3 4/'5%5' 4,0)*1$2' 8'2'4%'10%5H *$')+%' 0'8%' %.5',0' -' .%5' , .' /%00'),8%' 42' %86/*2,. -' *.%' *&')+%' 7'$,*10' ,.0)$18%.)0' 8'5%'&*$')+%' 61$6*0%' (*86*0%5' *&')3*' *$' 8*$%' 9.,7%0' 0%)' (/*0%')*-%)+%$' +,0' 8%)+*5' *&')$%')8%.)',0' 8*$%' 66+*'4/%)*' .*. 1/(%$')%5'6'$)0'3+%$%')+%'(%// , .&,/)$';),*.' ,0' 5,&/10%' 1(+'),001%' 8 ,-+)' , .' 0*8%('0%0' 4%' 8'5%')*' 4$%'9' 5*3.' $85%$')+%' 06**. ' 41)' /%00' 0('$$,. -' *$' 5%&*$8 ,)2' $%01/)0' ,&')+%' .%*6/'08' (' .'4%' 8'5%')*' 5,0'66%'$' 42')+%' 8%)+*5' *&'61. ()1$% +%$%' ,0' (*.0,5%$'4/%' 4/%%5, . -' ')' &,$0)'&)%$' %,)+%$' 0($'6, . -' *$' 61. ()1$%' +,0' +*3%7%$',0' 0**.' (*.)$*//%5' 42')+%' '66/,(';),*.' *&' 06*. -%0' 0E1%%C%5' *1)' *&',(%5'3')%$' +%' 6')$' 8'2'4%' 5$%00%5' &)%$' *6%$')*.'3,)+' 0*8%'0,86/%' .),0%6),(' 5$%00,. - .*)+%$' 8%)+*5',0')+')'42' 8%'$'0('$,&,(';),*.' +,0' ,0' 8*$%' 01,)'4/%')*' %B)$%8%/2' 016%$&,(,'/'7'$,%),%0' ' .5' %06%(,''//2')*' /1610' %$=+%8')*010')' ,0' 6$'(),0%5' 42' 8'9,. -' ,.')+%'6'$)'.18%$*10'6'$'//%/',.(,0,*.0' '$%' 8'5%' ($*00,. -')+%0%'0*' '0')*' 8,. (%' 16')+%'09,. '0*')*' 06%'9' .5'42')+,0' 8%' .0' 5%0)$*2')+%' .%3 -$*3)+' '.5' *((/15%')+%'7%00%/0 # ' " ' ' # ' 'F # ' 7 " G +,0' 5%6%.50' *.')+%' 014(1)'.*%10',.>%(),*.'*&''')*B,.%'5%$,7%5'&$*8''4'(,//'$2' %B)$')'()'-,7,. -' $,0%')*' -%.%$'/' .5'/*('/' 6+%; .*8%.' ')+%' &*$8%$' '0' (*.0),)1),*.'/' 5,0;)1$4'.(%' &%7%$' (*.-%0),*.' *&' 7,0(%$' ^(')+%' /'))%$' '0' ,&/' 8 8 ').$2' .5' '40*$4%.)' %&&%()0' ')')+%' 0%')*&'/%0,*.' +%')$%')8%.)' 3'0' ('$$,%5' *1)' 020)%8'),('//2' ')')+%')' *1,0' *06,)'/' '$,0'0**.' '&)%$',)0',.)$*51(;),*.' .' './20,0' *&')+%')+,$)2%,-+)' ('0%0')$%')%5'3,/'4%&*1.5',.')+%' $ #'O " ' 'C 0' &*$' '$(+' ?P ')' 3'0' *40%$7%5')+')')+%' $%'(),*.' 7'$,%5',.' ,.5,; 7,51'/0' '0')*' ,.)%.0,)2' '.5' 51$'),*.' %7%.' 3+%.')+%'5*0%' 3'0'7%$2'08 '//' '0' (*86/,(';),*.0' 3%%7%' *'0%0')+%' $%01/)0' 3%$%' " ' ,.' %,-+)%%.')+%$%' 3'0'07%$2'0/,-+)',86$*7%8%.)' +%')$%')8%.)' +'0' 4%%.' -%.%$'//2' '4'.5*.%5' *.' '((*,8)'*&',)0'5'.-%$')*'/,&%' '.5',)0'5*14)&1/ %&/,('(2')',0'0)&,/' 4%/,%7%5',.'42'0*8%' 5%$; 8')*/*-,0)0''0'*&'10%',.'0166/%8%.),.-'*6%$';),*.' ' ,)' +%/60')*' -%)' $,5'*&' 5%%6 0%')%5'/1610),001%' *1)' *&'$%'(+' *&')+%' (1$%))%' *$' .),06'),(0' A $*(9%$R' +%$%' 0%%8 0' 0*8%' $%'0*.' &*$ 4%/,%7,. -')+')')+%'/*. - (*.),. 1%5'020)%8'),(' %86/*28%.)' *& 8,.1)%' 5*0%0' *&')14%$(1/,' D8' 8 - R' 8'2'(' 10%' '40*$6),*.' *&'/1610' *$' *& 0(' $),001%' 3,)+*1)' 6$*51(,. -' /*('/' ,.&/' 8; 8'),*.' *$ -%.%$'/' 5,0)1$4'.(%' A $,. -/%R * @ ' ' (5 ' $# ' ' .286+' 3')%$R G +20,*/*-,('//2' /286+' 0,-.,&,%0')+%' &/1,5' 3+,(+' (,$(1/')%0' ,.')+%' /286+'),(' 020)%8' ')+*/*-,('//2')+%')%8' ,0' '66+%5')*')+%' (*-1/'4/%' %B15'),*.' 3+,(+' %0('6%0' &$*8')+%' 7%00%/0' ,.' ,.&/'88')),*.' +%' .'8%07((,.%' /286+ *$' 0/286+ ,0' '/0*' -,7%.')*')+%'&/1,5'(*.)',.%5',.')+%'7'((,.%7%0,(/%' ' #$! ! 'H' .5'E ' ' ' # '/286+H ' .5' " ' ,.&/'88'),*.' *&' -/'.5R G' .&/'88'),*.' *&' /286+'),(' -/'.50' ' ! (' !)' ,0%'0%0' *& G g' *5-; 9,.<0' ,0%'0%H&" '$ # 'A ,/90RH $'& " 'A $*100%'1RH S # " 'A ' . ' 7,%$RH %$'6 # 'A 1.5%$/,(+R & # G-' 5,0%'0%' (+'$'()%$,0%5' 42' 8*%' *$'/%00'3,5%/2'06$%'5'%./'$-%8%.)'*&')+%' /286+'),(' -/'.50' '((*86'..%5' &$%E1%.)/2' 42' %/'$-%8%.)' *&')+%' 06/%%.' ' .5' 42' 6$*; -$%00,7%' '.'%8,' G '0%0'*&'(*,.(,5%.)'%./'$-%8%.)' *&')+%'/286+'),('-/'.50' '.5'06/%%.'3%$%'.*)%5' 42' '/6,-+,'A DDPR' '.5' *$-'-.,'A MF@R' +%' .')1$%'*&')+%'-/'.51/'$'(+'.-%'3'0'&,$0)'('$%; &1//2'5%0($,4%5'42' $',-,%' A ?@?RH' '.5')+%' -%.%$'/'(/,.,('/'+,0)*$2'*&')+%''&&%(),*.'3'0' 6*,.)%5'*1)'42' *5-9,.'A ?"@R' '.5'42' 90' A ?FDR' +%'8*0)',86*$)'.)'0140%E1%.)'*4; 0%$7')',*.0''$%')+*0%'*&' ,$(+*3'A ?D R' &,90' A ?DFR' $*100%'1'A ?DFR' 1.5%$+*+' A ?F?' '.5' ?DDR' 1$(+,0*.'A ?M!R' '.5' %,0.%$' A ?? R ; % G +%'%./'$-%8%.)'*&')+%' >8' 6+'),('-/'.50'3+,(+'(*.0,0)0''')'&,$0)'*&'8%$%' +26%$6/'0,''.5'0140%E1%.)/2'*&'&,4$*,5',.; 51$'),*.'7'$,%0'81(+'.,')0'%B)%.)' '&%3' -/'.50'*./2'8'2'01&&%$'*$'%7%$2'-/'.5',.')+%' 4*52'8'2'4%'%./'$-%5' +%'&*$8%$'('0%0' +'7%')+%'(+'$'()%$0'*&''/*('/'-$*3)+H)+%' /'))%$',0'5,0),.()/2''-%.%$'/' 5,0%'0%' &*$ 3+,(+')+%')%8' # " '0%%80')+%' 8*0)'%B'()' +%'-/'.50'7'$2',.'(*.0,0)%.(%' 3+%.'0*&)'+%$%'8'2'4%''(*.0,5%$'4/%%B(%00' *&'/%1(*(2)%0',.')+%'4/**5H 3+%.'+'$5')+%$%' 8'2'4%'0,86/%'.'08,'' +,0'5,&&%$%.(%'5*%0' .*)'&&*$5'01&&,(,%.)'-$*)85'&*$'0%6'$'),*.' +%'%./'$-%8%.)'*&')+%'06/%%.',0'101''//2' 51%')*'5,00%8,.')%5'-$*3)+0''$,0.-'.')+%' '/6,-+,''.'4*5,%0H 0*8%),8%0')+%$%',0'/0*' +26%$6/'0,''*&')+%'06/%..('61/6''0',.'06/%.,(' /%1***2)+,%8,' * $ G .')3*)+,$50'*&')+%' ('0%0'*& /286+'5%.*8''.*'('10%'('.'4%')$'(%5''.5')+%'0(%$)',.'4/%'.)%(%5%.)0'*&')+%'5,0%'0%

@



-$*3)+0' +%' 8%51//'' *&' 4*>,%0' +'0' 4%%.'
&*1.5',.' $'$%' ('0%0')*' 6$%0%.)' '' (+'.-%'
0,8,/'$')*')+')' 8%)' 3,)+' ,.' 06/%.,(' /%1%*'
(2)+'%8,'' '.5'6%$.,(,*10' '.'%8,'' */%(;
),*.0'*&'5%.*,5'),001%'%/0%3+%$%'*&)%.'1.5%$;
-*' (+'.-%'0,8,/'$')*')+')' *&')+%' /286+'),(
-/'.50' +%')*.0,/0')+%' 81(*10' 8%84$'.%'
*&'+%'6+'$2. ')+%' 80*6+'-10')+%'0)*8'(+'
'.5')+%' /'$-%' '.5'08''/' ,.)%0),.%0'8'2''//
4%')+%'0%')' *&' -$*3)+0' *$,-,.'),.-',.')+%'
&*//,(1/'$' -/'.50' '.5'0*8%),8%0'1/(%$'),.-'
+%'/,7%$',0'*&)%.')+%'0%')'*&'0(')%$%5'/28;
6+*,5' -$*3)+0' 101''//2' 8,.1)%'7'$2,..',,
0,C%'&$*8''6,.<0'+%'5')*''08''/'6%'' +%2'
*((162')+%',.)%$/*4'/'$'06'(%0 '$%/2'/'$-%$
.*575'$' -$*3)+0' '$%' &*1.5' .')+%$' '0%0'
)+%'/,7%$',0'0,86/2 *.-%0)%5'Q ,8,/'$'8,.1)%'
-$*3)+0''$%'*&)%.'&*1.5',+')+%'9,5.%20' +,%&/2'
,.')+%'(*$)%BH<' .5')+%0%'*$-'.0'8'2''/0*' 4%
)+%' 0%')' *&' 6'$%.(+28')*10' 5%-%.%$'),*.''
+%' 6%$,)*. 1.$' 8'2' 4%',.&/'8%5' *7%$' %.I'
/'$-%5'-/'.50'*$' 8'2' 4%')+%'0%')'*&-$*3)+0'
$*3)+0'+'7%'/0*'4%%.'&*1.5',.')+%')%0),%/%0H
'.5'd$%(m1%.)/2',.')+%'/1.-0'3+%$%')+%2'8'2'
4$%'9'5*3.'.5'&*$8'('7,),%0
7 0=+%8*0),8%*$)'.)'0286)*80'
*&'/286+'5%. 8''' '$%' 51%')*')+%' '/)%$%5'
4/**5 0)')%'.5')*')+%'%$5'$-%5'-/'.50' +%'
/')))%$'('10%')+%'%'$/,%0)'02 8 6)*80''.5')+%'
(%$7,('/ -/'.50''$%' **8 8*,,/2')+%'&,$0)')*'
%./'$-%'/' +%.')+%$.')%$.'/ -/'.50' '$%'
6$,8'$,/2' '&&%()%5'6',.'.5'6$%0 1$%0,-.0'
8'2'6$%(%5%*)+%$'0286)*80' (('0,*.''//2'
)+%' 0,-.0'*& '.0%8,'' 6$%(%5%')+*0%' *&')+%'
/*('/'(+'.-%H' .5',.' $')%' ,.0)'.(%0',$$%;
-1/'$' &%4$,/%' 5,0)1,4''('%' 8'2' *((1$' 4%&*$%'
)+%' -/'.51/'$' %./'$-%.,,%')' +%' '&&%()%5'
-/'.50' '$%' 08**)+'9.5'6$%0%.)' ')' &,$0)'' '
6%(1/,'$'8*4,/,)2'3+,(+'8'2'5,0'66%'$'3+%.'
)+%2' 4%('8%' '5+%$%.)' '.5'(*.0,%)1)%' '.'
,$$%-1+,$'/*41/'$')18*1$'*&'0*8%'0,C%' +%2'
'$%'101''//2'6',./%00'%B(%6)'58$&.-'6%$,*50'*&'
$'6,5'-$*3)+' 5,8,.1),*.' ,.' 0,C%' +'0'
4%%.' *40%$7%5' 4%&*$%' 5%')+' +%' %./'$-%;
8%.)'*&')+%($7,('/-/'.50'8'2'('10%')+%'
.%(9')*' %E1'/'*$' %7%.'%B(%%5')+%'+%'5',.'
(,$*.8&%$%.%%' +%' 6$%001$%'*.')+%'7%,.0'
8'2' ('10%' 0286)*80'*&' 6'00,7%' (%$%4$'/
(*.-%0),*.' +%'/'$2.B'8'2'4%'5,06/'(%5H
'.5')+%'8*7%8%.)0'*&')+%'/*3%$'>'3'8'2'
4%',.)%$&%$%5'3,)+' $%001$%'*.')+%')$'(+%''
42')+%'-/'.50,.')+%'.%(9'.5',.')+%'6*0)%$,*$
8%5,'0),.18'8'2'('10%'5206.*%''.5'%7.'
5%')+'42'01&*('),*.' +')' *.')+%'6+'$2.B'
'.5'*%0*6+'-10'8'2'*40)$1()'5%-/1),),*.''.5'
('10%'5%')+'42'0)'$7'),*.' +%'%./'$-%8%.)'
*&')+%' 'B,//'$2' '.5',.-1,.'/ -/'.50'8'2'
,.)%$&%$%' 3,)+')+%' 8*7%8%.)' *&')+%'/,840'
'.5',86%5%')+%'(,$(1/'),*.' '$,*10'.'.5'
0%$,*10'6$%001$%'%&&%()0'$%01/)'&$*8')+%'%.;
/'$-%8%.)' *&')+%')+*$'(,(' .5'45*8,.'/
-/'.50'*40)$1(),*.' ,.' 7%,.0'6$%001$%'*.'
.%$7%0' ^(' +%'%./'$-%8%.)' *&')+%'06/%%.'
('.' 101''//2'$%'5,/2'4%'&%/)'41)'5*%0'.*)'
(*88*./2'-,7%'$,0%')*'0286)*80'.0%8,''
,0'*.%'*&')+%'(*.0.,(1*10'0286)*80''.5

8'2'6$%(%5%'*$'01((%%5'*4)$10,7%''&&%(),*.'
&')+%'-/'.50' +%'$%5'($610(/%0'8'2'4%
$%51(%5')*'&,&)2')+,&)2''.5'%7%.)3%.)2&,7%
6%$'(%.)'*&')+%'.*$8'/' .'8*0)'('0%0'
)+%$%',0'.*'8'$9%5'%B(%00'*&'3+,)%'(*$610(/%0'
41)'k**('0,*.'//2')+%2''$%'81(+'8*$%'.18%$;
10')+'.'.$8'/' .'/8*0)'' ' ('0%0',.'
3+,(+')+%,$'%B(%00',0'(*86'$'4/%')*')+')'8%)'
3,)+',.'06/%.,(/%1(**2)+(%8,'')+%'06/%.,(
61/6',0',.($%'0%5',.'E1'.),)2''.5')+%'/%0,*.0'
&'06/%8(/%1(%2)+&&,8,'' '.5'*&/2./6+'5%'
.*8''')%'(*.>*..%5' +%'/,7%$'8'2'4%%.;
/'$-%5'&$*8')+%'5,00%8,.')%5'-$*3)+0''.5'
&$*8'(*.-%0),*.' '1.5,(%*.//2'*((1$0'&$*8'
)+%'=%00.$%'*&'%./'$-%5'6*$)'/ -/'.50'16*.'
)+%'4,/%51()0' 0(,)%0'8'2'+%'51%)*'0,.>,/'$
6$%001$%'*$')*')+%'4/**5 0)')%'4%,.-')+%.'
6')$'*&'-%.%$'/5$*602' +%'&$,.(),*.''*&')+%
9,5.%20',0'$'%/2''&&%()%5')*8')),)0'0*8%;
),8%0'1/(%$'),.-'$%01/)0'&$*8')+%'/286+*,5'
-$*3)+',.')+%'81(*10'8%84$'.%'+5'%7.''()1'/
01&&*('),*.'8'2'*((1$'&$*8')+%'6$%001$%'*&'
%./'$-%5'-/'.50'*.')+%')$'(+%''*$'4$*.(+,'
+%'&1.(),*.0'*&')+%' .%$7*10'020)%8'('$%
7'$,*10/2'5%$'.-%5'42')+%',// .*1$,0+%5'4/**5'
3'$50')+%'.5')+%$%8'2'+%'(.71/0,*.0'
5%+5,18''.5'(*8'' 2$%B,'',0''*&$%E1%.)'
+1)'.*)',.7'$,'4/%'02 8 6)*8')',0''/8*0)'
/'/3'20'6$%0%.)',.'%'$/2'/,&%'81(+'/%00'(*8;
8*.''5' '57'.(%5' '-%0' +%'%)%86%$')1$%
8'2'+%'(*.0,5%$'4/2'$',0%5'%7%.'3+%&,')+%'
-/'.5/&/'$' %./'$-%8%.)',0'0/,-+)H)+%'%/%7';
),*.'7'$,%0'&$*8')3*')*'0,B'5%-$%%0''.5'8'2'
4%'(*.),.1*10'*$' ,)+'5',/2'$%8,00,*.0'*$'
6%$,*50'*&'(*.0,5%$'4/%'%/%7'),*.'8'2'/)%$;
.')%'3,)+'6%$,*50,.' +,(+',)',0'*./2'0/,-+)/2'
$',0%5'Ib 'W ' K Q
, , 0/G +%'6$%001$% %&&%()0'&'
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0*8%),8%0'0*'(*.0,5%$'4/%' '0'>*' -,7%'$,0%'
)*K(*86/,(',*.0'01(+' '0')+$*84*0,0',.'7%0;
0%/0' 6/%1$'/' .5'6%$,('$5,'/ %&&10,*.0<'.5'
4$*.C,.-'*&')+%'09,.'&$*8'5,0%'0%'*&')+%'0*/'$
6/%B10' .)%$(1$$%.)' '&&%(),*.0'*((''0,*.'//2'
8%)' 3,)+' '$% $,-+)<0' 5,0%'0%' 6.%18*.,''
&')))2'5%-%.%$'),*.' *&')+%')$)' .5' /,7%$'
%$20,6%/'0'6%86+,-10'4* 0'.5'*)+%$'%&&%()0
% 5'&% G 286+'5%. 8''
8'2'$%8',.'/*('/'&*$''/*.-'),8%'%7%.'2%'$0'
'&&%(),.-'*.%'-$*16'&'-/'.50'*./2''.5'014;
0%E1%.)/2'0/*3/2'4%(*8,.-'-%.%$'/' +%.'
)+%'-%.%$'/'%./'$-%8%.)'*&'-/'.50',0'%0)'4;
/,0+%5')+%'5,0%'0%'$'$%/2'/'0)0'8*$%')+'.'
)3*'2%'$0')'101''//2')%$8,.')%0'&')'//2'42'
'0)+%.,'H41)'.*)'$'$%/2'42'0*8%'0%(*.5'$2'
%&&%()'*&')+%'8*$4,5'6$*(%00''0''06+2B,''
0)'$7'),*.'*$5,'$$+*%'H*$42''(*86/,(',*.'
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)%.5' '0' +'0' 4%%.' 0%%. ')+%' &,$0)' %./' $-%8%.)' *&)%.' '66%'$0')*' 4%' %B(,)%5'42' /*(' /',$$,)'),*. '
/,. ,(' //2' +*3%7%$')+%' 5,0%'0%' +'0' '' 0%8, '
8 '/,-. ' .)' '06%()' $' ,/90')+%$%&*$%' '0;
0,-.%5')*' ,)' '' 6*0,),*.' 4%)3%%.' (' .(%$' '.5'
)14%$(/%')0' +,0)*$2' 01--%0)0')+')' ,)' ,0'
51%')*' 4*)+' (*.0),)1),*. '/' '.5'/*(' /' ('10%0'
'.5')+')')+%' %B)%.)' *&')+%0%')3*' %/%8%.)0'
'$,%0',.' 5,&&%$%.)' ('0%0' +%' (*.0),)1),*. '/
6$%5,06*0,),*.' '66'$%.)/2' '&&%()0' (+,%&/2')+%'
/2 8 6+'),(' 0)$1()1$%0' +%' '00186),*.' *&'
01(+' '' 6$%5,06*0,),*.' ,0' .%(%00'$2')*' %B6/',.'
)+%' -%.%$'/' '&&%(),*.' *&')+%' -/'.50' 3+,(+'
(+'$' ()%$,0%0' 0*8%' ('0%0',.')+%' 4%-,..,.-'
'.5'/0*')+%' 6%$0,0)%.(%'*&')+%' '&&%(),*.'3+%.'
,)' 4%-,.0' /*(''//2''0' 3%/' '0',)0' 0140%E1%.)'
%B)%.0,*. ' .')+%' /')))%$' ('0%' +*3%7%$' ''
6$*(%00' *&' 0%(*.5'$2',.&%(),*.' 8'2' 4%' ')'
3*$9')+%' /2 8 6+'),('),001%0' '/$%'52' 6$%;
5,06*0%5' 4%(*8,.-' '&&%()%5' 42')+%' (,$(1/';
),*.',.')+%' 4/*65'*&' '' ' #'5%$,7%5'
&$*.'')+%' 0)$1()1$%0' &,$0)' 5,0%'0%5' +%' %B;
,0)%.(%' &' .' %B(%00' *&' 3+,)%' (*$610(/%0' ..'
)+%' 4/**5' 5*%0' .*)' 6$%0%.)'7'/,5'-$*1.5'&*$
%6'$'),.-' (%$)',.' ('0%0'&$*8')+%' $%0)' '.5'
('//,.-')+%8' 0/2 8 6+'),(' /%1%**2)+0%8,'
+0)' *&' 01(+' ('0%0' '$%' '0' +'0' 4%%.' 0',5'
&*$8 0' *&' 8,B%5'5,0%'0%' .'0,86/%' /2 8 6+';
5%.*0,0')+%' '/6,-+,'.'&*/+(/%0' *&')+%' 06/%%.'
'$%' 5,0%'0%5H .5'3+%.')+%$%',0' '(*.0,5%$;
'4/%' %B(%00' *&' /%1(*(2)%0',.')+%' 4/**5')+%'
06/%.,(' 61/6',0' 101'//2' '/0*',.($%'0%5' .'
E1'.),)2' +%' '.')*8,('/'/%0,*.0' *&' 06/%.,(
%1**(%)+9%8,'' '.5' /2 8 6+'5%.*0,0' '$%' (*.;
>*,.%5' '.5')*')+%',.($%'0%' ,.')+%' 61/6')+%'
/%1(*(2)'/'%B(%00',0'51%' ((' 0,*.'//2'+*3;
%7%$' 3+%.')+%' 5,0%'0%5' -/'.50' '$%' 0*&)'
/2 8 6+*,5' (*$610(/%0'(+'.-%5',.' (+'$')()%$'
6'00' ^ 8')+%8',.)*')+%' 4/**5''.5' 6%$0,0)'
)+%$%'/%'5,.-')*' '.' %B(%00'*&')+%' 6'/%' (%//0'
+%.')+%' -/'.50' $%'+'$5')+%' 6$*51(),*.'*&'
/2 8 6+*,5' (% 0a' .5')+%,$' 6'00'-%',.)*')+%'
4/**5'0%%8',.)%$&%$%5' 3,)+' '.5')+10'0,86/%'
'.0%8,''$%0)5)0

& %5 G=*('/'-/'.51/'$'-$*3)+0'('.;
.*)' 4%'0+',,6/2'0%6'$')%5'&$*8'('0%0'*&'-%.%;
$'/,0%5'/2 8 6+'5%.*8''')/)+*1-+')+%2'8'2'
4%'*/,$1('//2'5,0),.-1,0+%5' %.%$'/,0'),*.'
8'2' 1/),8')%/2'*((1$'%7%.')+*1-+'*.%'
-$*16'*&'-/'.50'+'0''/*.%'4%%.'5,0%'0%5'&*$
8'.2'2%'50' .'06/%.,(' /%1(*(2)+%8,'')+%'
-/'.50'$%'*./2''&&%()%5'/')%',.')+%' 5,0%'0%'
'&)%$'(*.0,5%$'4/%'%./'$-%8%.)'*&')+%' 06/%%.'
+'0' %B,0)%5''/*.%'&*$''/*.-',),8%' +%.'
)+%' 06/%%.'6$%0%.)0' -$%')'%8'$-%8%.)''.5'
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101' 2'*&')+%' 8,B%5'&*$8' '4*7%'5%0($,4%5'
4*)+'06/%.,('61/6''.5'&* ,(/%0'4%,.-'5,0%'0%5'
.'0)$18*10'%./'$-%8%.)'*&')+%' -/'.50')+%'
5,0%'0%' ,0' (*8 8*./2' (*.&,.%5')*' '' 0,.-/%'
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)*'/*('/',$$,)'),*.H 0*8%'*&')+%' -/'.50'*&)%.'
0*&)%.'.5'01661$')%H)+%' '&&%(),*.'*((1$0'
(+,=2',.'%'$/2' &%H '.5')+%$' (*.0),)1),*.'/'
0,-.0'*&')14%$(1/'$'('(+%B,'' 8'2'4%'6$%0%.)'
'.(%$'*&')+%' -/'.50'5,&&%$0'3,5%/2',.' ,)0
8,($*0(*6,('/' (+'$')(%$0'&$*8'/2 8 6+'5%;
.*8''41)'(/,.,('//2')+%' 5,0),.(),*.'&$*8''
/*('/'/2 8 6+*8'' 8'2'4%'5,&&,(1/)''.5')1$.0'
(+,%&/2'*.')+%' 0/*3'%B)%.0,*.'*&'(' .(%$')*'
.%,-+4*1$,.-' -/'.50'' .5' ,)0' 0140%E1%.)'
/*(' 0'),*.',.'*$-'.0'$')+%$')+'.',.'/2 8 6+;
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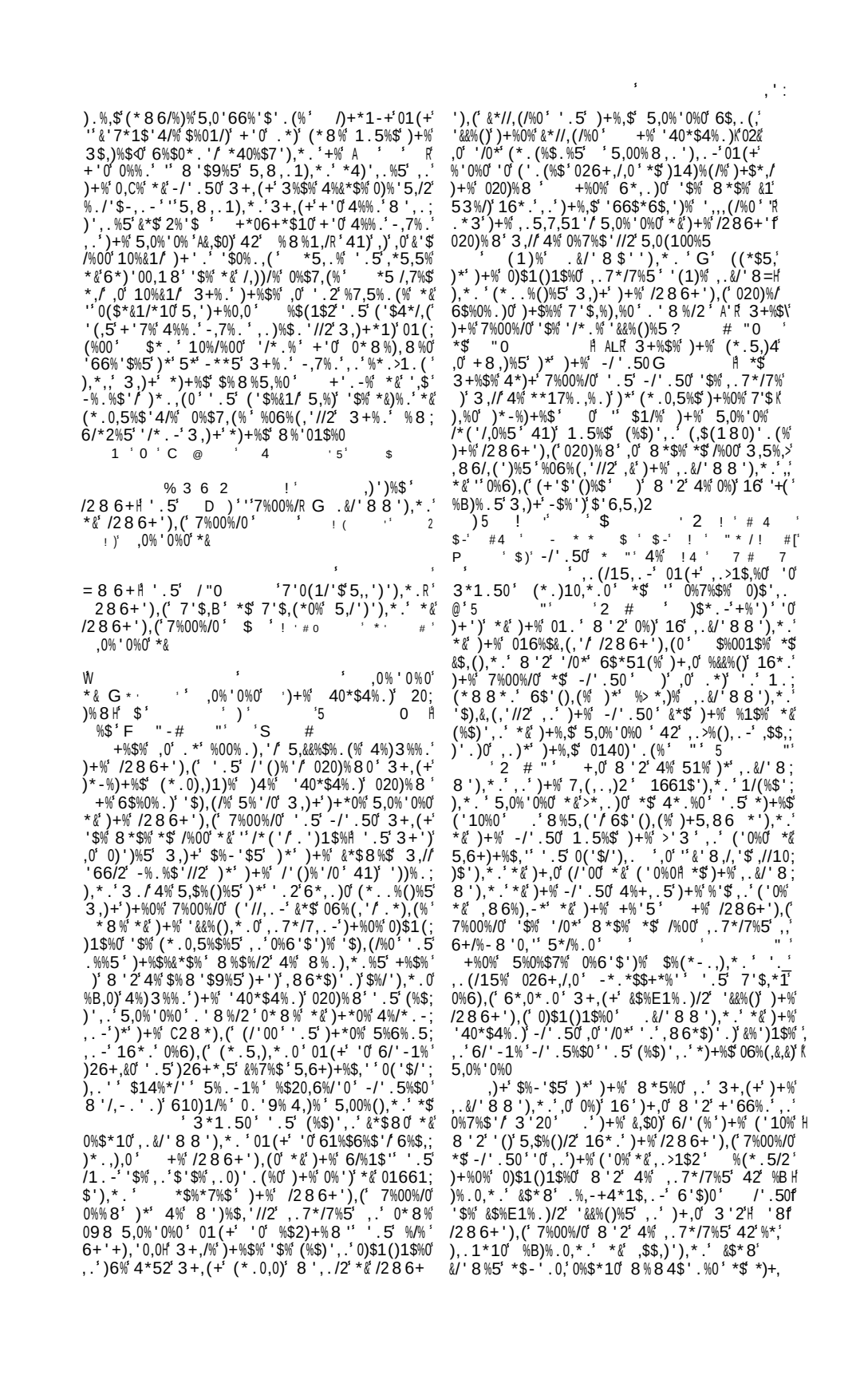
' G' +%.' /2 8 6+'5%.*8''' ,0'
3,5%/2'06$%'5'*$')+%'/*('/'-$*3)+0''$%(*.;
0,5%$'4/%',.'0,C%''&')'/')%$8,.'),*.',0'/8*0)'
(%$)',.' +%' 51$'),*.',.'+*3%7%$',.' %'(+'
('0%'7'$,%0'81(+' +%'2*$8-%$')+%'6'),%.)'
.5')+%'4%))%$')+%'6$%(%5,.-'+%'/)+')+%/*.-%$
,0')+%' 51$'),*.'*&')+%' 5,0%'0%' +%'(*.0,0);
%.(%'*&')+%'-/'.50'+'0'/,))/%'6$*-.*0),('7'/1%'
+%'0*&)%$')+%2'$%')+%'8*$%'$'6,5',0')+%
(*1$0%'*&')+%' 5,0%'0%H 41)'*.')+%'*)+%$
+'.5',&',)'.0',.&/1%.(%5'42'$%8%5,'/'-%.)0'
)+%'0*&)'-/'.50'('.'4%'$%0)*$%5')*' '' 4%))%$
&1.(),*.'/' (*.5,),*.')+'.')+%' +'$5' +%
6$*-.*0,0',0'3*$0%')+%' 8*$%'6$*&1.5')+%'
'.'%8,'' /%7'),*.'*&')%86%$')1$%''0'''$1/%
,.5,(')%0'' $'6,5'(*1$0%'41)'*')+,0')+%$%
'$%'0*8%0)$,9,.-'%B(%6),*.0''0',.'*.%'('0%
1.5%$')+%'3$,)%$<0' ' ' ℞ ('$%',.'3+,(+'
)+%'-/'.51/'$'%./'$-%8%.)'(*.),.1%5'0/,-+)'
'/)+*1-+')+%')86%$')1$%&*$)3%/7%'8*.)+0'
3'0''/3'20'4*7%')+%'.*$8'/

! G +%'6*00,4/2',.&%(),.-',.'
&/1%.%%'*&')+%'6$,8'$2'-/'.51/'$'%./'$-%;
8%.)0'+'0'/%5')*')+%,$'%B),$6'),*.' +%$%%
*)+%$'-/'.50'+'7%'4%%.',.7*/7%5'*$')+%'
06/%%.'+'0'4%%.'%./'$-%5')+%'*6%$'),*.'+'0'
5*.%'.*'-**5H '.5',.'01(+'('0%0'01$-,('/
,.)%&%$%.(%',0'*./2'>10),&,%5'42',86%.5,.-'
5%')+'&$*8')+%/*('/'6$%001$%' 1)'3+%$%')+%
'&&%(),*.'+'0'4%%.'(*.&,.%5')*'*.%-$*16'*&'
-/'.50')+%'6$*-$%00'*&')+%'5,0%'0%+'0'4%%.'
$%)'$5%5'42')+%,$'$%8*7'/''.5',.'0*8%'('0%0'
)+%'8'/'52'+'0'%7%.'4%%.'(1$%5' +%'5%-$%%'
&'.0%8,''',0'&'-$%')',86*$)'.(%'0',.&/1%.(;
,.-')+%'6$*06%()'*&'4%.%&,)'.5'%7%.'*&'01$;
7,7'/'&$*8')+%'*6%$')*.'''.5')+%'(),$'/
6$*6*$),*.'*&'(*$610(/%0'+*1/5',.'//'('0%0'
4%'%0),8')%5'42')+%'+[8'(2)*8%)%$'.'
*6%$'),*.'0+*1/5'.%7%$'4%'6%$&*8%5',&')+%
6$*6*$),*.(*'&'$%5'(*$610(/%0',0'/%0')+'.'D!'
6%$'(%.)''*&')+%'.*$8'/' 0/,-+)'%B(%00'*&'
3+,)%'(*$610(/%0'5*%0'.*)'8,/,)')%''-',.0)'
)+%'01((%00'*&''.'*6%$'),*.')+%$'8%)+*50'
&'/('/')%')8%.)'+'7%'4%%.'%86/*2%5'3,)+'
0*8%'4%.%&,)'%06%(,'//2'$144,.-''.5'0+'8;
6**,.-')+%'/)%$.')%''66/,(''),*.''*&'+%')'.5
(*/5'(*86$%00,*.''.5'4/,0)%$,.-' '/7'.*'
61.()1$%',0'10%/%00' '$,*10'0140)'.(%0
+'7%'4%%.'.>%()%5',.)*')+%' -/'.50G,*5,.%'
.,)$')%''*&'0,/7%$'('$4*+%''(,5''$0%.,(' +%
/'0)'+'0''/*.%''66%'$%5'10%&1/A ,..,3')%$R'
41)',)'3'0',.''//'('0%0'-,7%.',.)%$.''//2'')
)+%'0'8%),8%' &',.)%$.'/'$%8%5,%0''$0%.,(
,0',.(*86'$'4/2')+%'8*0)'6*%.)'()'0+*1/5'
4%'610+%5')*')+%'/'$-%0)'5*0%0')+%'6'),%.)'
('.'4%'$'01(+''0',EB7''&'/,E1*$''$0%.,('/,0'
)+$%%'),8%0'5',/2')'*&)%.''('10%0'0*8%'6',.'
,.')+%' -/'.50'&*//*3%5'42')+%,$'5,8,.1),*.'
,.'0,C%''.5'%7%.',.'''&%3'$%(*$5%5'('0%0'42



)1$D0 3,)+' 3+,(+')+%2' '$% (*. .%()%5 ' 5/2')+%' ('10% *&')+% ,.&/' 8 8'),*.' ,0' 8' 8*$% *$' /%00' $% 8*)% &$* 8')+%' 0,)1' ' .' ,.' 3+,(+',)' '66%'$0' %06%(,''//2' ,.')+% /% *&')+%' -/'.50' +,0' 8'2' '$,0%' &$* 8' /% ,.&/' 8 8')*$2' (+'.-% 6'00,.-' (*.' < '" '/*.-')+% 7%00%/0' &$* 8' 0* 8 % 0%')' ,$$,)'),*.')*')+%' -/'.50',.')+%,$' (*1$0%H' m$ 8*$4,5' 6$*51()0' 8'2' 4%' ('$$,%5' 42')+%' ,$$$%.)' *&'/2 8 6+')*')+%' -/'.50')+% 7%00%/0' /% 8 0%/7%0' 4%,.-' 1.'&&%()%5' 3+%.')+%' ,. ' 8 8'),*.')+10' 0%)' 16',0' 0',5')*' 4%' ") .' *)+%$' ,.0)'.(%0' 610' +'0' 4%%.' 1.5' 3,)+,.')+%' /2 8 6+'),(' 7%00%/0' +'7,.-' '5%',)0' 3'2' &$* 8'0* 8 %' 0%')' *&'01661$'),*.' ,)' 0+*1/5' '/0*' 4%' 8%.),*.%5')+')'/2 8 6+',(' ,&,' 8 8'),*.' (' .' *$,-,.')%' '5 0,8 ,/'$' (*.' ,*.',.'*)+%$' 0)$1()1$%0'01(+''0')+%'>*,.)0' .5')+,0' 8'2' 4%' &' '61$1/%.)' (+'$')()%$.&/' 8 8'),*.' ,0' 8 1(+' 8*$% $%'5,/2' %B; ,)%5',.')+%' /2 8 6+'),(' 0)%1()1$%0' 8' 0* 8 % m6%$0*.0')+'.' ,.' *)+%$0' '.5' %06%(,''//2' ,.')+*0%' 3+*' $% 0)$1 8*10' *$')14%$(1/'$' +% -/'.50' $% 8*$%' /,'4/%')*' 4%' &&%()%5',.')+% %'$/2' 6%$,*50' *&' /,&% ' /*3' 0)')% *&')+% -%.%$'/'+%'/)+' 8'2' 6)%5,06*0%')*',.&/' 8 8';),*.' *&')+%0%' 0)$1()1$%0' &$* 8' 0/,-+)' ('10%0' /'.50' 3+,(+' '$% (+$*.,(''//2',.&/' 8 %5' '$% 7%$2' /,'4/%')*' 4%(* 8 %')+% 0%')' *&' '(1)% ,.&/' 8 8'),*.'&$* 8' 0/,-+)' ('10%0 ! ' $' < ;G .&/' 8 8'),*.' '&&%(),.-')+%' /2 8 6+'),(' 7%00%/0' 6$%0%.)0')3*' &*$8 0'41)')+%2' 8'2' 4%' 8 %)' 3,)+')*-%)+%$' +%.')+%' 8,.1)%' ('6,//'$2' .%)3*$9',0' ,.; 7*/7%5')+%' (*.5,),*.' ,0')%$8 %5' # "0 9')+%' 09,.' '.5',)0' '6,//'$,%0' '$%' -%.%$'//2' '&&%()%5')')+%' 0' 8 %',8 %'0*')+')'+)+%$%' ,0' 8 8 %' *$' /%00' 5,&&10%5' $%5.%00' 41)' ,)' 8'2' 6$%0%.)' '' $%),(1/')%5' '$$'.-%; 8 %.)' ' # /"0 '0,-.,&,%0')+')')+%' 8 ,.' 7%00%/0' '$%' ,8 6/,(')%5' +%2' '$% 7,0,4/%' *.')+%' 01$&'(%' '0' $%5'/,.%]'0)$',-+)' *$' 3'72'6'00,.-')*')+%' -/'.50' +%2' 4%; (*8%' 5,/')%5' '.5')+%,$' 3'//0')+,(9%.%5' +%,$' ,.)%$.'/' (*')' ,0' *6'E1%' .5' 1.%7%.' '.5')+%' %.5*)+%/,18' *&)%.' 5,0'66%'$0' *'-1/'),*.'*&')+%'/2 8 6+' 3,)+,.')+%'7%00%/0')'9%0' 6/'(%'(/*0,.-' 16')+%,$' (+'..%/' +% *'-1/18' .,'2' 4%(* 8 %' *$-'.,0%5' 0*')+')' .+%2' '$% 6%$8'.%.)/2' *4/,)%$')%5H *$',$' 8'2' 0*&)%.'.5'%7%.'01661$')%' ')+%' (%.)$%'.5')+%' 6$*51()0' 8'2' %.)%$',.)*' -%.%$'/ ($(1/'),*.')+10' (910,.-' 0%6),('%8,'' *$ 62'%8,'' +%' ,.&/' 8 8'),*.',0' /,'4/%')*' %B)%.5') +%' 01$$*1.5,.-' (%//1/'$'),001%' /%'5,.-')*' %B15'),*.' +J&6%$6/'0,'' *&' (%//0' '.5'(.0%E1%.)'03%//,.-'.5')+,(9%.,.- .&/' 8 8'),*.' *&' /2 8 6+'),(' -/'.50',0' (+'$')()%$,0%5',.')+%' %'$/2' 0)'-%' 42' 03%//; ,.-' (*.-%0),*.' '.5',.(%'0%5'&,$8.%00' +%' /2 8 6+' ''((18 1/')%0' %B15'),*.')'9%0' 6/'(%''.5'41.5'.)' (%//0' '$%' 6$%0%.)' +%' 8&/' 8 8')*$2' 6$*(%00' 8'2' 0**.' 0140,5%' ='$8,.'),.-',.'$%0*/1),*.' .' 8'.2' ('0%0' *3%7%$' 01661$'),*.' %.01%0' %06%(,''//2',.' ',.'&*$8 0' *&',.&/' 8 8'),*.')+,0' (+'.-% (*8 8%.(,.-',.')+%' (%.)$%' *&')+%' -/'.50')+%' ('7,),%0' *&' 3+,(+'4%(*8%' 8*$%' *$' /%00' 06%%5,/2'&,//%5' 3,)+' 610' +% ,.&/' 8 8';),*.' 06$%'50')*')+%' 0.$$*..5,'-'(%//1/'$),001%' '.5' '.' '40(%00' 4%,.-'&*$8%5')+% 610' 8'9%0',)0' 3'2')*')+%' 01$&'(%' &')+% -/'.50' '$%' 0,)1')%5' 3,)+,.')+%' 4*52')+%2' 8'2' 41$0)' ,.)%$.'//2'*$' ,$$,)')%' '5>'(%.)' 0)$1()1$%0''.5')+10' /%'5')(' 0%$,*10'(*.0%; E1%.(%0' *8%),8%0')+%' -/'.50' $%8',.' 6%$8'.%./2' %./'$-%5' '.5' .51$')%5' %0; 6%(,''//2'&)%$' $%6%')%5' '))'(90'*&',.&/' 8 8');),*.H' '.5')+%2' 8'2' 4%(*8%' '5+%$%.)')*)+%'6')0' '$*1.5' '0,.-/%/2 8 6+'),(' -/'.5 8'2' 4%',.&/' 8 %5' 41)',)' ,0' (*8 8*.' &*$' '(/10)%$' *$' (+',.' *&')+%0%' 0)$1()1$%0')*' 4% ,.7*/7%5' .' 0*8%' ('0%0')+%' ,.&/' 8 8'),*.' '001 8 %0' '' 8*$%' *$' /%00' 014 '(1)%' (+'$')()%$' '.5')+%' 6$*-$%00' *&'%7%.)0' ,0' 0/*3%$! (! G +%0%' '$% ' '.5'0 " +% ' 6+%.*8%.'' (*.0,0)' *& 014>%(),7% 0%.0',* .0' '.5' *>%(),7% 0,-.0' '.',0' &/')')+%' 0%')' *&',.&/' 8 8'),*.' 3+,(+' 8'2' 4% 7%$2' 0%7%$%' *&)%.' '((*86'.,%5'3,)+' '' 0%.0% *&'+%')' *$' 41$.,.-''.5'0),&&,,%00' *$')%.0,*.' +%$%',0' 101''//2' 8'$9%5')%.5%$.%00' '.5')+,0' 8'2'4%' 6$%0%.)' 3+%.')/))%' *$'.*'06*.)' .%*10' 6',.',0' (*86/',.%5' *&' 3+,/%',)' ,0' *&)%.' $%' 8'$9'4/2'/,8,)%5')*')+%' /,.%' *&' .' '&&%()%5' /J 6+')/(' 7%00%/' *7%8%.)' '/0*' ,.($%'0%0')+%' 6',.' +%' 014>%(),7%' 0%.0'),*.0' '$% 8*$%' 0%7%$%' '0' '' $1/%' 3+%.')+%' -/'.50' '$% ,.7*/7%5' +%.'01661$'),*.')'9%0'6/'(%')+% 6',.')%.50')*' '001 8 %' '' 0+**),.-'.5')+$*4; 4,.-'(+'$')()%$' 0' $%-'$50'*4>%(),7%' 0,-.0' ,.&/' 8 %5'/2 8 6+'),(' 7%00%/0',&'016%$&,(,''/' $% 101''//2'7,0,4/%' '0' $%5'/,.%0',)+%$0)$',-+)' *$ 3'72'$1..,.-',.')+%' 5,$%(),*.'*&')+%' -/'.50H *$')+%$%' 8'2'4%' 0%6'$')%$%5'6')(+%0' +*1/5')+%2' 4%' 5%%6/2'0,)1')%5'+*3%7%$')+%' 7%00%/0' (''.*)' 4%' 0%%.' +%' /'$-%$')$1.90' 8'2' 4% &%/)' 42')+%' &,.-%$0' 4%,.-' (*5',9%'&,$8''.5' 9.*))%5' +%' 01$$*1.5,.-',001%0' '$% 0%%.' '.5' &%/)')*' 4% 8*$% *$' /%00' 03*//%.'.5',.; 51$')%5' &')+% ,($(1/'),*.'*&')+%'/2 8 6+',0' 8 1(+',.)%$&%$%5' W3,)+' '/,84' 8'2' 4% (*.; 0,5%$'4/2'%./'$-%5''.5'6$%0%.)0' '' &%%/.-'*& &,$8.%00''.5'0*/,5,)2'*3,.-')*')+%*((1$$%.(% *&')8 6+'),(' *%5%8' K =%.'016%$&,(,''/'/2 8 6+'),(' -/'.50'4%(* 8 %.&/' 8 %5')+%,$'%./'$-%8%.)'(''.'4%' 8'5% *1)*.'%B'8,+'),*.''.5')+%' 01$$*1.5,.-'),001%0' 8'2' '/0*'4% 03*//%.')'&,$0)'+%2'&%%/'&,$8' 41)',&'01661$'),*.')'9%0' 6/'(%)+%2'4%(* 8 %' 8*$%' '.5' 8*$%' 0*&)' '.5' ')' /'0)' 6$%0%.)' '' 0%.0'),*.''*&/1()1'),*.' +% *7%$/2,.-'9,.' 8'$9%5/2' &%5' '.5')+%$%' ,0' *&)%.' 014(1;)'.%*10' *%5%8'' 1661$'),7%' ,.&/' 8 8'),*.' *&'/2 8 6+'),(' -/'.50' (*.0),)1)%0')+%' (*.5,),*.' 9.*3.'' 0' 0414*' &'.*)'*6%.%5''$),&,(,''//2')+%' '40(%00' 1/),8')%/2'41$0)0' %B)%$.''//2'41)' ,)' 8'2' 41$$*3'(*.0,5%$'4/2' 4%&*$% 5*,.-'0*' '.5' ^ %' *6%.,.-',0' *&)%.',86%$&%()' &&%% 0% +%' 0 " '02 8 6)*8 0' '((*86'.2,.-H,.; &/' 8 8'),*.' *&')+%' /2 8 6+'),(' 0)$1()1$%0' 7'$2

,.')+%,$',.)%.0,)2',.'5,&&%$%.)'('0%0''((*$5,.-')*',)0'0%7%$,)2'%B)%.)''.5'$%01/)0' .')+%' 0/,-+)%$'('0%0')+%$%' ,0'.*'*47,*10'(*.0),)1;),*.'/5,0)1$4'.(%' 0\'1/%'+*3%7%$'8*$%' *$'/%00'&%7%$'3,)+',)0''((*86'.2,.-'0286;)*80'0%)0',.'6$%(%5%5'*&)%.'42'0+,7%$,.-'*$' %7%.'5,0),.()'$,-*$0' &'01661$'),*.'*((1$0')+%$,-*$0'8'2'4%'$%6%')%5\+)+%'6J$$%B,'',.; ($%'0%0'\'.5'8*$%'*)'/%00'3'0),.-'.'5'3%'9; .%00'&*//*3'0+*1/5')+%$%'4%'6$*/*.-%5'5,0; (+'$-%'*&'610'b+%$%)+%',.&/'88'),*.'.',0' *&''0%6),(''(+'$'()%$'&$*8')+%'&,$0)'*$'3+%.' 0%6),('8')))%$0''$%'(*.7%2%5',.)*')+%'(,$(1/';),*.')+%'-%.%$'/'02886)*80'3%'9'.5,(''),7%'*&' 0%6),('%8,''01(+''0'$%6%')%5'$,-*$0'+,-+''.5' %$$')),('&%7%$'-$%')'3%'9.%00'.5'6$*0)$'),*.' /*3'.%$7*10'02886)*80'3%'9'.5'$'6,5'('$' 5,'('')(),*.''.5'61/0%''.5'*)+%$')26+*,5'6+%; .*8%.''+%')%$8,.'),*.',0')+%.'101'//2' &')'/

/ ! .')+%'8'.'-%8%.)'*&''.2' '(1)%',.&/'88'),*.''&&%(),.-')+%'/286+'),(' 7%00%/0'*$'-/'.50')+%'&,$0)',.5,(''),*.',0')*' -%)'$,5'*&',0'('10%',&')+,0'4%6$'(),('4/%' .')+%'.%B)'6/'(%'$%0)',0'*&'%00%.),'/',86*$); '.(%''.5')+%''&&%()%5'6')0+*1/5'4%'0*' 6/'(%5''0')*''7*,5''//'6$%001$%'*$')%.0,*.' 0'$%'5'0')$%')8%.)'+)+%'66/,(',),*.' *&'+%')'.5'8*,0)),$%'42'8%'.0'*&&*8%.)';),*.0''.5'6*1/),(%0'101'//2'.03%$0'4%0)' *')+%0%''.*52.%0'8'2'4%'55%5',&'.%(%0; 0'$2'%06%(,'//2'4%//'5*..'\''.5')+%'/'))%$' 8'2'4%*&%).''66/,%5'3,)+''57'.)-%'.')+% &*$8'*&'%B)$'()'8,B%5'3,)+'-/2(%$,.%'')',0' .*)'1.(*88*./2''57,0'4/%')*')'9%''3'2' 4/*5'/*('//2'&$*8')+%'.%,-+4*1$+**5'*&',.; &/'8%5'-/'.50'42'8%''.0'*&'/%%(+%0''*8% '1)+*$,),%0'8','..)',.')+')'01661$'),*.'8'2' 0*8%),8%0'4%'6$%7%.)%5'42'(*1.)%$,$$,)'),*.' '$*1.5')+%'-/'.50'%&&%()%5'42''66/2,.-'4/,0;)%$,.-&/1,5'*&'0)$*.-',*5,.%' &'01661$'),*.')'9%'6/'(%')+%'6$*-$%0'*&')+%'610')*3'$50')+%'01$&'(%'810)'4%%.(*1$'-%5'42')+%'101'/ 8%'.0''.5')+%'40(%0'*6%.%5''0'0**.''0' 6$'(),('4/%'+*1/5'0" ')$%')8%.)'4%' $%E1,$%5''')'&,$0)',)',0'101'//2'.%(%00'$2')*' 9%%6'+%'6'),%.)'*.'/*3'5,%)'*'*6%.')+%' 4*3%0'3%//''.5'6%$+'60')*'58,.,0)%$'0*8%' 0,86/%'0'/,.%'8,B)1$%'K+%))'01661$'),*.' *((.$0''8*$%'*$'/%00'0166*$),.-')*.,('.5' 0),81/.')$%')8%.)',0'(05/%5'&*$'%6),' (0%8,''5%8'.50')+%'&$%%'10%'*&'/(*+*/,(' 0),81/.)0')+%'58,.,0)$'),*.'*&'&1/'5*0%0' *&'E1,.,.%''.5'*)+%$'66$*6$,')%'$%8%; 5,%0

@' +$*.,(' .&/'88')*'GD./2')+%%$%5,)'$,/2'6$%5,06*0%5\f41)')+,0'0'42'.*' 8%'.0'/3'20')+%'(0%'&*$')+%'014>%()0'*&' ,0'-/'.51/'$''&&%(),*.'8'2'4%''66'$%.)/2' 0)$*.-''.5'+%')/+2'+,/5$%.''.5'2*1.-' 6%$0*.0''$%'42'&%$'8*0)'&$%E1%.)/2''&&%()%5' +%'(+'.-%',0'*&)%.'*$,-,.''//2'0%)'16'42'0*8%' /*('/',$$,)'),*.'41)',.'8'.'2',.0)'.(%0')+%$%' ,0'.*'01(+'*47,*10'('10%''.5',)'66%'$0.)/2' (*88%.(%'06*.)'.%*10/2'.(%''.'40*$4%.)' -/'.5'4%(58%0')+%'0%')'*&'0($*&1/*10'/%0,*.0' *)+%$0',.'(*.%B,*.'3,)+',)'*$'%7%.''')''

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on 28 December, 2018